GREGARIOUS SPACE, UNCERTAIN GROUNDS, UNDISCIPLINED BODIES
The Soviet Avant-Garde and the 'Crowd' Design Problem

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By

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"… space and not masonry is the actual material of architecture."

Nicolai Ladovski

[O]nly when the actual, individual man has taken back into himself the abstract citizen and in his everyday life, his individual work, and his individual relationships has become a species-being, only when he has recognized and organized his own powers as social powers so that social force is no longer separated from him as political power, only then is human emancipation complete.

Karl Marx, *Writings of the Young Marx on Philosophy and Society*

To my mother, Soad Helmy,
who did not live to see the final document but whose moral inspiration shines through it.

To my wife Elizabeth Corrie,
who endured the tribulations of dissertation-writing with a patient smile.

To the revolutionaries of Tahrir Square (January 25-present),
who demonstrated that *crowds do matter*.

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A dissertation emerges within a knowledge community. I worked around many colleagues throughout its years. Although I wish we all enjoyed more involvement in each other's research, what moral support we

offered one other helped navigate what is essentially a very lonely journey. My thanks go out to the first group to welcome me upon my arrival in Atlanta: Aarati Kanaker, Manu Sobti, Samiran Chanchani, Weiling He, Ermal Shpuza and Sonit Bafna (then finishing his own dissertation). My gratitude also extends to later arrivals, especially: Pegah Zamani, Deborah Middleton and Alice Vaillard. Sincere thanks also go out to all the support provided by Mercedes Saghini, the amazing Robin Tucker, and the IT team at Georgia Tech's College of Architecture. I researve my special appreciation to Emory University Libraries for the wealth of books and databases they provide, as well as the indulgence with which they treat non-Emory students.

A dissertation is a project which absorbs one's energies sometimes threatening to drain one's personal life. My wife, Dr. Elizabeth Corrie, endured most of the firsthand yokes of accompanying someone through such an undertaking. She has bravely met all my absentmindedness, grumpiness, and messiness with a capacious patience and reticent smile; indeed, the very basics of non-violence. To her, my deepest love and sincerest gratitude. My immediate family back in Cairo (Egypt) suffered the burdens of my absence in the course of fulfilling this project. While away, my sisters, Mona and Nanice, with my brother-in-law Khaled El-Sharqawy, bravely nursed my mother through a long terminal illness, lately through a major political upheaval in Egypt. I wonder if I can ever forgive myself for not being there to assist and support.

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SUMMARY

This thesis proposes a theoretical framework for spatial inquiry into radical gregariousness through probing the *Crowd Design Problem* in the work of the Soviet Rationalist architects (1920s-30s).

Posed as situated forms of coalescence, the *crowd* construct renders possible spatial questions about Architecture's political import. Legitimizing *crowd* as an index of collective consciousness, and examining the early-modern revolutionary crowd's historical struggles for spatially evoking and proclaiming its self-consciousness, this thesis investigates the interwar political phenomenon of amassing large crowds within the 'building' artifact as the medium for constructing mass social relations. The *Crowd Design Problem* is exemplified by the *Palace of Soviets* competition (Moscow 1931-3), where revolutionary politics closely attended radical architectural questioning.

The research project is divided into two main parts. The first problematizes the nature of an architectural problem. Arguing the competition brief inadequate to indepth formulation, the thesis posed three primary sources for the crowd design problem: revolutionary mass events, theatre and art. *Spatial-construct* provided a necessary scaffold for describing the design problem *spatially*, based on which the *Crowd Design Problem* was formulated in terms of four components each seeking legitimacy in the mass of crowd-bodies: i) *Crowd organization* sought configurations of classless collectivity within the crowd's mass events, formulating the *Conviviality Matrix* (comprising categories of co-presence, co-awareness, equivalence and others, based on Space-Syntax Theory's' generic functions and E. Goffman's Interaction Order), ii) the

kinesthetic space conception (after theatrical director V.E. Meyerhold's Biomechanics, and complemented by R. Laban's Effort-Shape Theory) drew on the rhythmic choreographies of mass acting; iii) complementing this *crowds morphology,* the *problem of the object* within a spatial-field of crowd-bodies was posed in terms of legitimacy and evoked consciousness; and iv) *frameworks for 'seeing' crowds* from immersive viewpoints sought to counteract pre-revolutionary representational filters of antagonistic class privilege.

Part-II articulates the logic of the Soviet avant-garde architects' response to such problematics. What this thesis has unearthed, particularly in the Soviet Rationalists' work, is a logic of space-making founded in the construction of intersubjective states of gregarious consciousness radically different from (then as now) prevailing individualistic conceptions of social space. Additionally, arguments evolved methodological tools and conceptual structures decisively partial to gregariousness. Thus, as the primary finding of this research project, I propose *Gregarious Space*: a theoretical framework of spatial inquiry into what Marx called "species-being", taking radical gregariousness, or gregariousness as the primary condition of society, as its generative principle, and which proffers spatial methodological tools for the description, explanation and interpretation of collectives. Besides drawing on morphological principles, social theory, historical analyses and philosophical reflections, it is particularly amenable to design propositions.

In this theoretical framework, the Rationalists' design-proposition of curved-grounds, textured co-visibilities, dense notations, body choreographies, and empathetic graphic conventions - all comprise a founding spatial-principle trafficking in rhythmic fields between subjects and non-commodified objects: which precedes the material domain of Productivist Constructivism and which challenges Historical Materialist constructs of alienation. It advances the logic of an aleatory gregarious space which subverts prevailing modernist disciplinary techniques of Panopticon inspection, but such that its uncertain kinesthetics sustain dynamic states of collective consciousness. Armed with principles, constructs and parameters developed in this thesis, the *Gregarious Space Framework* structures its future inquiry.

INTRODUCTION

The Soviet Avant-Garde: Spatial Anomalies, Political Explanations

To the attentive eye, Soviet Rationalist entries to the *Palace of Soviets* architectural competition (Moscow, 1931-3; figures 1.1 and 1.2) register a number of anomalies. Implanted in ARU's (Union of Architects and Planners) submission is a series of ramps which transport marchers from a parade ground into a mass assembly hall [see plan and three-dimensional drawing, figure 1.3]. What is remarkable about such ramps is their seemingly total redundancy. From the parade ground at grade-level, the crowd marches down in columns of five or six persons-wide and reaching over one full body in height, only to march upwards again to grade-level at the other end along an identical, symmetrical incline. The ramps do not lead downwards to any spaces, nor do they reach any climax or significant loci within their own confines. Apparently nothing but depressions carved into what is otherwise a continuous flat surface, the ramps seem much like an architect's whimsical gesture, posing a gratuitous inconvenience to the task of marshaling large numbers of people (some 17,000 marchers in total, including audience members and performers of the mass hall, as specified by the first phase of the competition program).

What prompted such a design feature, located at the crucial threshold to the main assembly hall? Adding to the intrigue are the ramps' curved profiles; the crowd is designed to march down, then climb up, curved inclines rather than rectilinear ones. An analogous morphology characterizes the leading Soviet Rationalist architect Nicolai Ladovski's design for his mass assembly hall, in context of the same competition to design

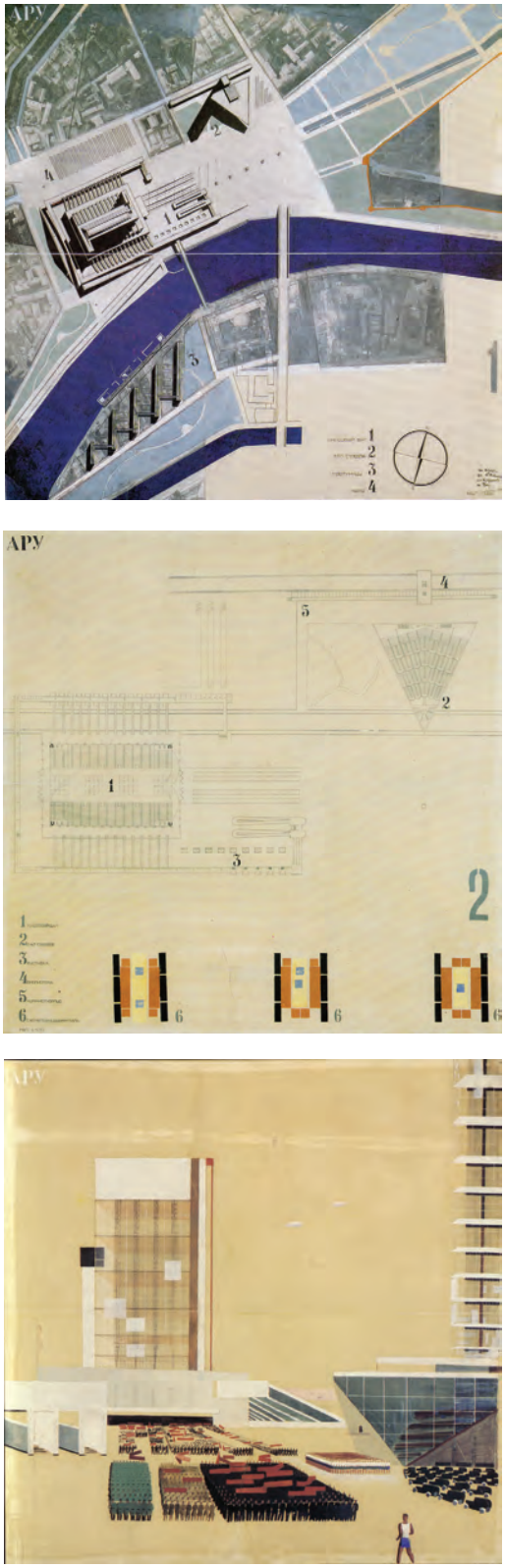


Figure 1.1 ARU (Union of Architects and Planners), *Palace of Soviets* Competition Entry (1931), Phase I; *top to bottom* Layout, Ground Floor Plan and Three-dimensional Drawing. (source: Cooke, *Soviet Architectural Competitions 1920s-1930s*, 1992).

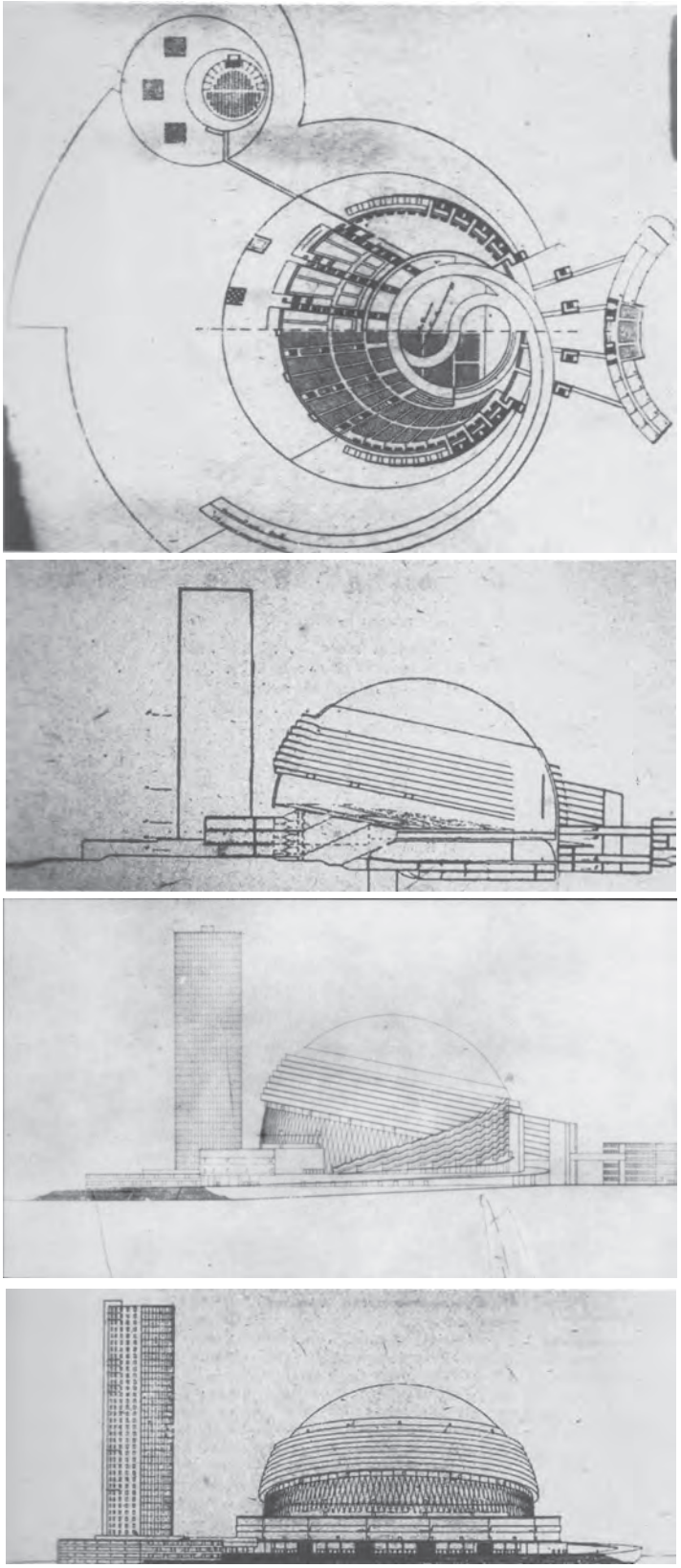


Figure 1.2 Nicolai Ladovski, *Palace of Soviets* Competition Entry (1931), Phase I;
top to bottom Floor Plan, Section, Side-Elevation and Elevation (source: Khan-Magomedov, *Pioneers of Soviet Architecture*, 1987)

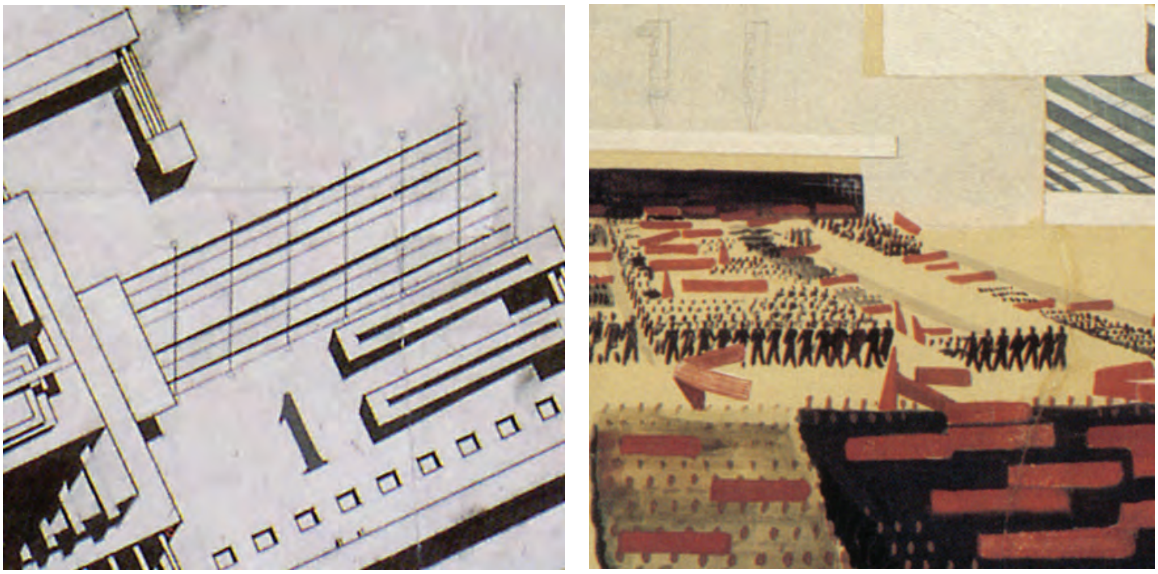


Figure 1.3 ARU, *Palace of Soviets* Competition (1931);
Closeups onto the curvilinear ramps in (*left*) Layout, and (*right*) Three-dimensional Drawing.

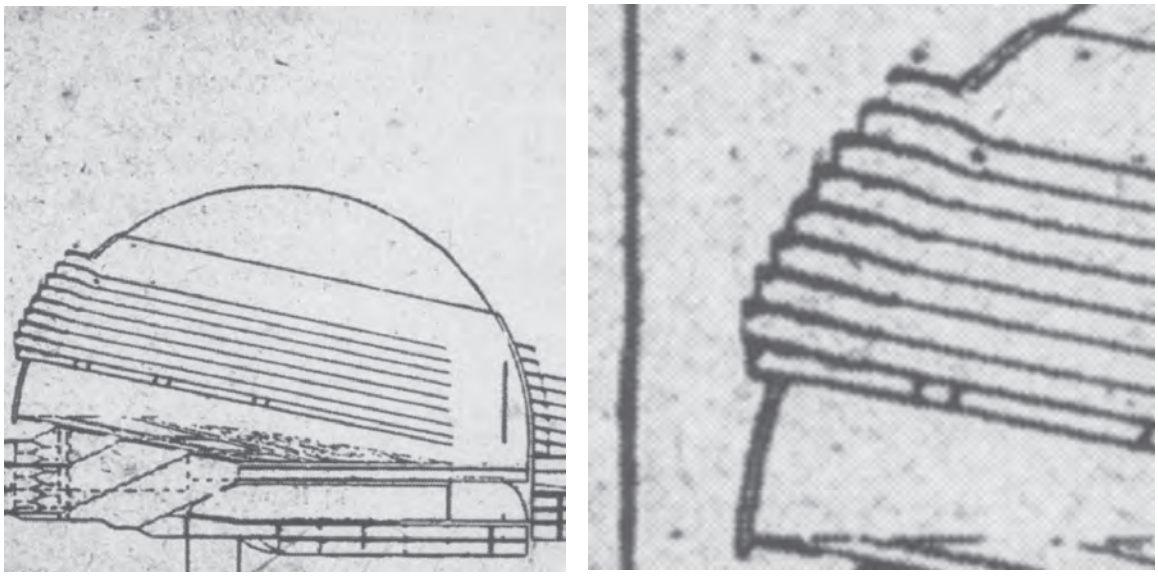


Figure 1.4 N. Ladovski, *Palace of Soviets* Competition (1931);
Closeups onto the curvilinear ramps in (*left*) Mass Hall Section, and (*right*) back ramps in Mass Hall, Section.

the *Palace of Soviets*. Ramps coiled inside the shell constituting the main dome do not only follow the dome's tilt, but also arch in cross-section [figures 1.2 and 1.4]. Each floor ramp crests nearly halfway through before sloping down to the sides. From one floor to another, the ramp curvature gradually changes, climaxing atop and flattening with the hall floor below.

Such sustained crafting of the schemes' minutiae abates explanations that the architects acted out of wanton whim, at the same time as it begins to pose Rationalist schemes in a diametrically opposing light: as a stern craft of control. Architectural devices prescribing movement impress upon us today a lurking premeditation not only for directing flows, but also for controlling social interaction and perhaps even further: imposing mores and values. To our minds – deeply influenced by individualistic currents in Western thought, as well as by post-structuralist discourses on power - manipulating body movements readily recall the much-debated Benthamaian inspection regimes and disciplinary techniques (popularized in academic circles by Michel Foucault's 1975 book *Surveiller et Punir : Naissance de la Prison*). They also readily evoke our collective memory of dystopian literature and film, to which Soviet prose itself paid a fair contribution and played a vanguard role (foremost among which was Evgenii I. Zam´i`atin's 1921 novel *My)*.

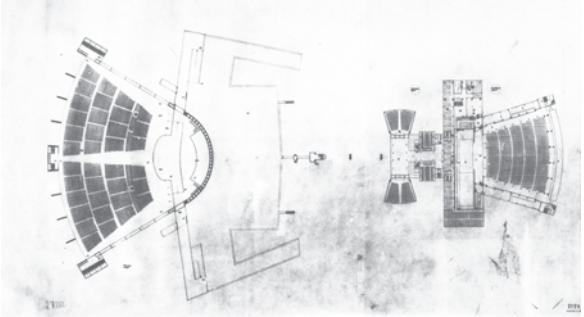
Hence, even in its avant-garde variations, Soviet architecture is not uncommonly conceived as an artifact of domination – as a demagogy of sameness, and as a prescription for conformity and mechanical solidarities[1]. This resolution may be furthered, in the case of the Soviet Rationalists, if one also misreads what constitutes the rationalism for which this movement adopted their name. Far from the technical-rationalism of the better-known fellow Soviet avant-garde, the Constructivists and Productivists, this rationalism devoted its attention to the question of emotions in spatial design. As inquiries into the spatial construction of an emotional economy, the Soviet Rationalists' œuvre and research may strike some as strategies of

[1] I refer here to Emile Durkheim's notion of *mechanical solidarity* which describes certain (mostly pre-modern in Durkheim's analysis) forms of group or societal association based on similarities in creed, professional occupation and/or other types of social attributes. Unlike associations of *organic solidarity*, individuals in *mechanical solidarity* do not complement each other's' differences, but rather repeat each other's attributes; their sameness is the bond of allegiance which also reproduces the association. See E. Durkheim, *The Division of Labor in Society*, (translated by George Simpson, Glencoe, IL.: Free Press, 1947): see Book 1, Chapter II.

subliminal manipulation. The impression is further entrenched by hurried comparisons to concurrent Western architecture, especially by architects who undertook projects similar to those explored by the Soviets. Among many Western architects invited to the *Palace of Soviets* competition, Le Corbusier's submission exemplifies this typical model of judgment [figure 1.5]. With diffuse flows and open fields of modulated *pilotis* spaces, Le Corbusier's scheme seems to enunciate a 'grassroots' society of everyday informality and distributed authority. In fact, his scheme carries several genetic traits which would later resurface in his Chandigarh's Legislative Assembly building (1953), catering for the familiar practices of representative democracy. The large columned expanse of the Legislative Assembly foyer, where Chandigarh's representatives were to engage their regional constituencies, recalls the spatial formula which Le Corbusier proposed for the *Palace of Soviets*' Mass Hall foyer twenty years earlier: a space of chance encounters and unstructured flows. As different as the political system of soviet collectives was, it could only be seen to conform to the same spatial schema.

Thesis Motivation and Case Study

This thesis argues a different reading for the Rationalist submissions (ARU's and Nicolai Ladovski's) – a reading that not only addresses their apparent anomalies and disputes their ostensible disciplinary nature, but that simultaneously extracts the vision of society that they tender. Indeed, of central significance to this research project is qualifying the relationship between architectural design strategies and social program, which the Rationalists' work exemplifies. Soviet Rationalists' entries to the *Palace of Soviets* competition bear an unmistakable dissimilarity to several other entries – including Le Corbusier's as well as others' to which comparisons will be drawn. What they propose are not merely variant spatial arrangements and formal treatments with some incidental social impact, but rather substantively distinct views of social collectives, spatial systems and how spatial systems generate social collectives. Indeed, probing the political import of Architecture represents the core motivation of this thesis research project. Throughout this



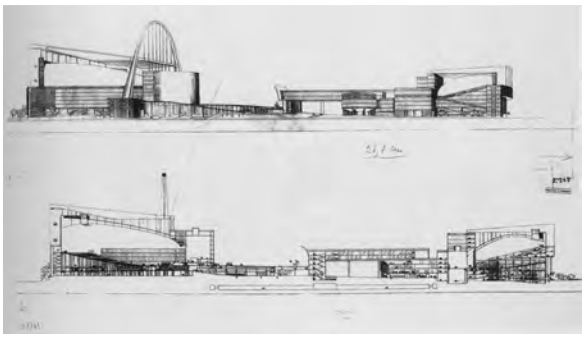


Figure 1.5 Le Corbusier, *Palace of Soviets* Competition Entry (1931) Phase II;
top to bottom Layout [source: Cohen, *Le Corbusier and the Mystique of the USSR*, 1992],
Upper Floor Plan, Elevation and Section, Perspective in Main Foyer and Model [source: Fondation Le Corbusier, *Le Corbusier Archive*, 1982]

work, an underlying meta-question remains: *what political propositions (if any) may Architecture posit?* If one regards Architecture as an active agent in the making and transformation of political practice and thought, rather than a mere medium for their implementation or a reflection of their ideology – if so, how may one describe Architecture's contributions? As architects set pen to paper, or mouse to pixel, they initiate long threads of spatial manipulations which inevitably mold social fabric in some way. This thesis traces one horde of such threads: from scrutinizing architectural drawings to extrapolating an interpretation of the social collective such architecture generates.

Hence, the investigated historical period was carefully chosen to happen on an instance when fundamental political change corresponded with a period of radical transformation in architectural design philosophy, questioning not only spatial configurations and perception of form, but also the very graphic conventions and the attendant act of 'seeing' with which design is conceived.[2] Throughout this study, focus will remain on the Soviet Revolutionary upheaval and the attendant Soviet avant-garde art and architecture of the early twentieth century. The concurrent but independent Soviet revolutions in the political and the architectural domains proved to be an opportune occasion to question the impact of Architecture; indeed, to ask: does architecture, *qua* Architecture – as a manipulation of form and space - proffer a political program *distinct from* the one already professed by the political doctrine? Furthermore, the propitious coincidence of political, architectural and graphic change allows one to proceed from a reasonable hypothesis: that, for this specific case, such transformations in architectural thought and graphic conventions were deliberate and logically coupled with concurrent political changes. More specifically, if intentionality is construed, not as pre-conceived ideas in the artist's mind, but - following Michael Baxandall - as the author's engagement throughout the creative process (as both thought and practice) with the extended sphere of ideas charged by client and society, as well as those filtered by the artist him/herself from the history of an artistic tradition

[2] That pictorial change, of some sort and some measure, consistently and causally attends political transformations remains to be proven; the selected case is where such happenstance is unmistakable.

and its debates[3] - then a contextual sphere of intentionality may be confidently taken for granted here. This will prove to be instrumental in establishing connections among architects, events and concepts, as well as in building a circumstantial case for the seemingly divergent strands of ideas manifest in the Soviet architectural projects. In particular, this permits the postulation of the shared sphere of concerns that this thesis will take as its central investigation: the *crowd design problem* or designing for large gatherings, particularly for political purposes, within building environs. As following chapters will elaborate, the crowd design problem transcended instrumental objectives of safety, flow and communication to engage the more profound issues of constructing political subjectivity.

The selected historical terrain of Soviet avant-garde architecture in the 1920s and early 1930s was further structured for probing through a central, indepth case study – particularly, a design competition. Through their handling of spatial content and pictorial description, design competitions provide a good record of the variegated polemics which executed buildings may occlude. Thus, this thesis takes as its focus the design drawings from one major Soviet competition: the *Palace of Soviets* (Moscow 1931-3). This competition epitomized the main trends in design thought and design drawings among Soviet avant-garde movements, from the early revolutionary days in 1917 and into the endgame that Stalinization represented in the early 1930s. In other words, the *Palace of Soviets* Competition (1931-3) came as a climactic nexus of Soviet political polemics and design contests.

Throughout the course of my early observations and analyses, works by the Soviet Rationalists presented particularly insightful revelations about the crowd design problem and its various connotations. Hence, the Rationalists' architectural submissions to the *Palace of Soviets* Competition (1931-3) constitute the central research data and material of this investigation. This is an opportune moment to introduce this movement and further account for its selection as a focus for this study. Prominent Rationalists include figures such as

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[3] Michael Baxandall, *Patterns of Intention: On the Historical Explanation of Pictures* (New Haven: Yale University Press, 1985): see the introductory chapter for a framework of this notion of intentionality.

their founder and leader Nicolai Ladovski, his colleagues Vladimir Krinsky and Nikolai Dokuchaev and numerous others in their Basic Course studios at VKhUTEMAS (the *Higher Technical-Artistic Studios*)[4]. The movement's activities began soon after the revolution in close fusion with most other Soviet avant-garde groups. It was only towards the mid-1920s, as ideas matured and trajectories diverged, that ambiguous boundary lines hardened into distinct movements and declared sub-groups each with its publications, academic coalitions and competition entries. The Rationalists operated through sub-groups which negotiated their own internal differences and shifting emphases - namely: ASNOVA (Association of New Architects) established by Ladovski, Krinsky and Dokuchaev in 1923; and ARU (Union of Architects and Planners) established in 1928 by Ladovski as he broke away from ASNOVA to reflect his growing interest in urban issues. Joseph Stalin's 1932 command to reorganize all artistic and professional organizations disbanded ASNOVA, ARU as well as many other groups and effectively the movements fueling their explorations.

Throughout this study, one recurrent topic that will be repeatedly discussed is the particular kind of rationalism by which the Soviet Rationalists acquired their name. As mentioned above, the Rationalists distinguished their line of thought from the technical-rationalism of the Constructivists and Productivists to advocate for an *emotional economy* – and it is precisely for this core notion that the Rationalists' work came to occupy a prominent position in my research project into crowd morphology and collective consciousness. As documented by Catherine Cooke and Anatole Senkevitch, and alluded to by S.O. Khan-Magomedov,[5] the Soviet Rationalists' design œuvre and design-research sought to capture, using rigorous repeatable

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[4] This school was established in 1918 by order of Vladimir Lenin under the name SVOMAS (*Svobodniye gosudarstvenniye khudozhestvenniye masterskiye*) or the Free State Art Studios, as a fusion of two pre-revolutionary schools: the former School of Painting, Sculpture, and Architecture and the Stroganov Art School. It was renamed VKhUTEMAS (*Vysshie Khudozhestvenno-Tekhnicheskiye Masterskiye)* or the Higher Technical-Artistic Studios in 1920 under the control of INKHUK, the Institute of Artistic Culture - only to be reorganized as an institute named VKhUTEIN, the Higher Technical Institute, in 1926. OBMAS was the Basic Course taught by and under the supervision of Nicolai Ladovski to all beginning students in this influential institution, whose impact is comparable to the Bauhaus.

[5] See: Catherine Cooke, *Russian Avant-Garde,* 1995; Catherine Cooke, Encyclopedia entry: "Ladovski, Nikolay (Aleksandrovich)", *Grove Art Online*. Oxford University Press, *http://www.groveart.com/* (accessed May 16, 2006); Anatole Senkevitch's, "Aspects of Spatial Form and Perceptual Psychology in the Doctrine of the Rationalist Movement in Soviet Architecture in the 1920's" (*Via*, n.6 1983), also furnishes a detailed account of the workings of the Rationalist laboratorios and their design exercises; Khan-Magomedov, *Pioneers of Soviet Architecture* (1987); Khan-Magomedov, *Psikhoanaliticheskii metod* (1993).

procedures, the effects and traces of collective human emotions on the construction of space and form. Nicolai Ladovski asserted,

> Architectural rationality is founded on the same principle of economy just as technical rationality is. The difference lies in the fact that technical rationality is an economy of labor and material in the creation of a suitable and convenient building, but architectural rationality is the economy of psychic energy in the perception of the spatial and functional properties of the building.[6]

The Rationalists built on the work of practical psychologist Hugo Munsterberg before World War I. But instead of indexing the impact of emotion through statistically-compiled fluctuations in blood pressure or urine composition in response to emotional stimuli, as Munsterberg did in his own laboratories, the Rationalists compiled their data set from responses to the perception and cognition of spatial and formal properties. To this end, Nicolai Ladovski constructed the "psycho-technical" laboratory at the VKhUTEMAS school in 1927. There, using a number of laboratory apparatuses (such as the Liglazometr and Ploglazometr, Oglazometr, Uglazometr, Prostrometr; see figure 9.17a), the Rationalists conducted psycho-technical experiments to gauge responses to environmental conditions ranging from elemental design categories, such as linear and planar dimensions, volume, shape and angles, weight, to more complex assemblages.[7] In experiments, subjects were frequently shown drawn images of objects or compositions and asked to articulate their responses.

Aside from compiling this ambitious data set and the quantitative analyses it may afford, the Rationalists also pursued qualitative strategies. Ladovski's students of the Basic Course at VKhUTEMAS negotiated similar provocations through the medium of design graphics in a number of exercises, and rigorous step-by-step processes.[8] Drawings – Rationalist drawings as well as the act of drawing as device aiding in the conception of collectives – will occupy a prominent spot in my investigations. Furthermore, the Rationalists

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6 Catherine Cooke, *Russian Avant-Garde,* 1995; p.178.
7 Ibid: pp.184-5.
8 Ibid: pp.178-9.

explored the dynamics of human movement and its rhythm as the primary state of apprehending the emotional charge of forms in space, and arguably the medium of exchanging such an emotional economy between moving bodies. Hence, Ladovski's interest in dance choreography, which also emerged as a vital theoretical concern in this thesis, albeit independently. And hence also Ladovski's peculiar notion of space as constructed from such exchanges, and which will also occupy a central focus of inquiry here. What adds to the significance of the Rationalist œuvre for this dissertation is the philosophical incongruity with Marxist thought that their work implies. The Rationalists' focus on emotion and consciousness departs not only from their fellow Constructivists - seeking collectivity in the material construction of artifacts - but more radically interrogates the coherence of Historical Materialism itself.

While Rationalist submissions to the *Palace of Soviets* Competition (1931-3) remain the central focus, other works serve as informative comparisons. My focus on the Rationalists evolved in context of examining the broader pool of the Soviet avant-garde. This included: the Constructivist Vesnin Brothers' response to the *Palace of Labor* Competition (Moscow, 1922), the Suprematist Ivan Leonidov's submission to the *Commissariat of Heavy Industry Competition* (Narkomtiazhprom; Moscow 1934), several theatre and assembly building projects in the Soviet Union (1920s through 1930s), as well as academic works explored in the laboratories of design studios of various Soviet architectural schools of the time. All served as support material clarifying the intentions and logic of the Rationalists' submissions, while exemplifying different phases of confronting this architecture's political challenge. In addition, Le Corbusier's entry to the *Palace of Soviets* Competition (phase II, Moscow 1931-2) proved to be an indispensable foil to the Rationalists' work. Not only was this due to the relative abundance of research materials available on Le Corbusier's *Palace of Soviets* submission and his œuvre in general, but also the contrasting nature of his political position from the Soviet Rationalists' – a distinctness which greatly assisted in providing insights into the latter's' more obscure works.

Seen in a long historical view, the sequence of competitions, projects and built works inspected for this research project traces the trajectory of a grand, if illusive, building type – the 'Supreme Building'. Since the early post- revolutionary days, the Soviet people and the Soviet authorities were keen on erecting a building that is simultaneously a monument for the triumph of Communism, a message from the "semi-Asiatics" that they can construct structures as glorious as in any Western culture, and – perhaps more significantly - a place where workers may amass in large numbers as a practice fundamental to the new collectivity.[9] The first official iteration to design such a 'Supreme Building' assembling the Soviet masses into one classless collective was the *Palace of Labor* Competition (1922). Another milestone of this endeavor came a decade later; the *Palace of Soviets* presented a peculiar formulation of this architectural problem as well as responses to it. Not only was the *Palace of Soviets* the *Palace of Labor* writ large (much larger, in fact), but also the Supreme Building as the *Palace of Soviets* was to be located overlooking the Moscow River, adjacent to the Kremlin and umbilically connected to Red Square via a processional street. In other words, it was to reside closer to the gravitational nexus of Russian symbolism. Furthermore, following the reorganization of Soviet government, the *Palace of Soviets* was meant to house the Soviet people's highest representatives or what came to be called the All-Soviet Assembly: the upper echelons of delegates representing all professional occupations and geographical regions throughout Soviet territories. [See Appendices I and II for more details on the two competition briefs].

Thus, the *Palace of Soviets* Competition condenses the official historical quest for what I will present as the crowd design problem. Moreover, it also epitomizes the unofficial quest of the Soviet people for some form of social coalescence and collective consciousness. The pulse of such an informal quest may be detected in

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[9] Khan-Magomedov uses the term 'Supreme Building' to describe Soviet aspirations for "a grandiose monument to the Great Revolution …… a focus for social life and …. a landmark for international significance." These aspirations brewed as early as the autumn of 1918, with laying the foundation stone for Moscow's Palace of Nations, and Vesenkha's design competition for the Supreme Council for the National Economy. Meeting in December, 1922, the First Congress of Soviets of the Union of Soviet Socialist Republics, delegates adopted Sergei Kirov's famous resolution to erect a "monument" or "palace of workers and laboring peasants". See Khan-Magomedov, *Pioneers of Soviet Architecture* (New York: Rizzoli, 1987)1987): pp.401-2. Aspects of the widespread aspiration for such a Supreme Building, whether desired as dispersed qualities in different buildings or coalesced in one main edifice - particularly its gigantism in scale – are also discussed by Anatole Kopp in *Town and Revolution*: *Soviet Architecture and City Planning 1917-1935*, translated by Thomas Burton (New York, George Brazillier, 1970): see, in particular, chapters four and seven.

some currents of contemporary Soviet popular fiction[10]; yet perhaps its strongest popular voice emerged among aspiring artists of the period. In the fervor of the early post-revolutionary years, *Proletkult* (or "Proletarian Culture") was set up as an organization independent of central governmental authority, which was deemed too contaminated with non-proletariat influence, immersed as it was in the New Economic Policy as well as in wars and alliances with counter-revolutionaries. Proletkult held the self-appointed responsibility of spreading the new socialist doctrine among the workers' masses. Heavily influenced by the revisionist neo-Kantian strain of Marxism championed by Aleksandr Bogdanov and his disciples, Proletkult forwarded the primacy of all affairs cultural in the struggle for a truly classless society to emerge – on par with Marx' economic and productive infrastructure. To such an end, agitational trains and boats, urban festivities, lectures, theatrical plays were mobilized by Proletkult throughout the vast Soviet territories. Initially, indoor activities among such agitations were accommodated in workers' clubs, from whence emerged the need and program for various palaces of labor. The *Palace of Labor* competition (1922) grew organically out of such needs and their associated ideologies - as an admixture of uses centered on mass workers' assemblies and performances.[11] I will draw on this antecedence as an important tributary when clarifying the undercurrents of the crowd design problem.

In sum, this thesis is motivated by discerning the political import of Architecture. For a historical context of investigation, the thesis selected the Soviet post-revolutionary period (1917- early 1930s) for its unique confluence of questioning fundamentals in politics, architecture and graphics. Specifically, the research project centers on the *Palace of Soviet* Competition (1931-3) as the height of Soviet polemics on architecture's political role, as well as being the final chapter in the saga of the Supreme Building – a

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[10] See, for example, Soviet works of fiction such as: A Serafimovich's *The Iron Flood* (translated by Zheleznyi Potok and edited by Ovid Gorchakov. Moscow: Foreign Languages Pub House, 1956); Sholokhov, *And Quiet Flows the Don* (translated from the Russian by Stephen Garry. New York: Vintage Books, 1966); and Mikhail A.Sholokhov, *Tales from the Don* (translated from the Russian by H.C. Stevens. London: Putnam, 1961); Nikolai Ognev, *The Diary of a Communist Undergraduate*, translated from Russian by Alexander Werth (Westport, Connecticut, Hyperion Press 1929/1973). Evidence of such popular sentiment can also be inferred from the period photography chronologically organized and presented in Catherine Cooke's *Street Art of the Revolution.* London: Thames and Hudson, 1990.

[11] Khan-Magomedov suggests this emergence in *Pioneers of Soviet Architecture* (1987)1987): p.39

uniquely Soviet edifice for the masses. The anomalies presented by the Soviet Rationalists' entries to the *Palace of Soviets* Competition augur to disclose an alternative political logic for Architecture.

The Research Questions

At this turn, I would like to account for the central construct of the crowd as employed in this thesis: how it came about, its associated conceptions, its utility in delimiting the terrain of investigation, and the main thesis questions posed through its filter - questions which egged the investigation onwards, and which structure the flow of the research project. Two distinct dimensions of the questions will be presented; first: as they inform the case of Soviet avant-garde architecture and the crowd design problem, and second: as they pertain to the deeper problems of architecture, politics and knowledge they inevitably broach. Accompanying this exposé is an attendant quest: to identify other generative *constructs* which proved to be necessary devices for negotiating the conflicts and paradoxes implied by the various research questions.

In this thesis, focusing on the historical and morphological phenomena of the crowd as the primary generative construct emerged from the struggles to unpack the motivating, yet overwhelming, question on the political role of Architecture: *what political propositions (if any) may Architecture posit?* Indeed, the crowd is seen to mediate between the two seemingly incommensurate disciplines of politics and architecture - and without lapsing into thin metaphorical allusions rendering Architecture a passive reflection of ideology. Understood broadly as situated forms and practices of coalescence, the crowd is native to both architecture and politics. As epistemologies as well as practices, both disciplines seek to describe crowd formations, to organize its dynamics and to influence its groupings. Furthermore, the crowd is a phenomenon which exemplifies the body politic as a whole, as argued in Chapter-2: "The Modern Urban Crowd". The crowd was no exceptional anomaly of the collective, but rather its intense paradigmatic moment; crowd spatializes 'polity'. In the Soviet case, living one's everydaylife from one crowd to the next was pursued as a model

practice for all "New Soviet Citizens" to follow. Generative of indicative political categories, the crowd is also amenable to morphological analyses and thus to design thinking. Later chapters in Part-I: "The Charge", discussing Soviet theatre and art will also demonstrate that the crowd, for the Soviet avant-garde, was the initiation point for ideas of form, space and graphic visualization – as well as a yardstick for their effectiveness.

In short, the construct of crowd renders possible asking spatial questions about politics. Seen historically, the modern urban crowd mediates such questions in ways relevant to the building artifact, rather than only to urban spaces, large-scale landscapes or geographies. As a design problem, this thesis examines the political phenomenon of amassing large crowds within building environs, especially as the problem presented itself during and after World War I. Street insurgencies, popular demonstrations and mass parades were a frequent occurrence of the nineteenth century political scene in Europe – yet predominantly at the urban level[12]. Between the two world wars, the demand for mass events to be housed within building space (rather than urban space) increased significantly. Thus, what marked the period of early modernism across Europe was the implication of architecture's primary artifact - the 'building' - as both frame to, and medium for negotiation of, mass social relations with the aim of evoking rich variations on the forms of social collectivity. A momentous political development, this was also an exceptional architectural problem as it sought to redefine the very nature of a building and its relation to the city.

Formulating the crowd design problem in the selected Soviet context begs a number of concomitant logical and methodological questions. How did the different Soviet agents - the authorities, the people, the artists

[12] A more detailed exposition of the problem, and the modern history of crowds, follows below in Part-I: The Charge. A comprehensive picture of the revolutions, insurgencies as well as street demonstrations and festive parades in nineteenth century European cities emerges from comparing multiple sources. Mona Ozouf's detailed accounts of French festivals' urban routes, found in *Festivals and the French Revolution* (Translated by Alan Sheridan, Cambridge, Mass: Harvard University Press, 1988), complements by Victor Hugo's dramatized eye witness account of the 1932 Paris insurgency in *Les Miserables (*Translated by Charles E. Wilbour, London: Dent, 1968). Glimpses of such festivals in nineteenth century Russia can be caught in James von Geldern's "Chapter One: The Precursors – Tsars, Socialists and Poets" in *Bolshevik Festivals, 1917-1920* (University of California Press, 1993). For a broader view, Jonathan Sperber's *The European Revolutions, 1848-1851* (Cambridge University Press, 1994) offers a cross-national anatomy of the 1848 revolutions in Europe.

and the architects - formulate the crowd design problem for themselves? How does one define the crowd design problem *architecturally*; in fact, how does one define any problem in architectural terms? Hence the device of the *spatial-construct* – introduced in Chapter-3: "Spatial-Construct: Unpacking Design Problems Spatially". In that chapter, I argue that the building programs are usually (if not fundamentally) inadequate to inferring clear or comprehensive formulations for design problems. Social agents formulate – or, more accurately, live, practice and negotiate – the tribulations of a design problem around the architects, and beyond the limited confines of a given brief document; architects imbibe such unavoidable cultural messages surrounding them. Spatial-construct renders explicit such tacit practices and helps map the social processes of design coherently. Specifically, it connects the competition program to the practices and discourses which surrounded the Soviet architects in contemporary revolutionary art, in street parades and festivities, in graphic representations of crowds in the print media and in the choreography of crowds in revolutionary theatre. Foregrounding space as a malleable medium for the intricate practice and negotiation of social relations among its different agents, spatial-construct accounts for agency in ways ignored by Michael Baxandall's Charge-Brief model as well as Paul Frankl's concept of spatial-form. As such, it not only helps articulate the crowd-design-problem, but in later chapters, also serves to discern the logical import of the Rationalists' proposals.

Methodologically, such a construct presents space as a non-derivative medium; it prioritizes spatial and graphic material over and against textual archives and reported pronouncements. Hence analysis and interpretation in this dissertation center primarily, and almost exclusively, on graphic representations of designed space (since nearly all projects under scrutiny were never built), relegating textual material to secondary importance, and in some cases challenging texts using evidence from graphics. From this distinction follow others; interpreting graphic material demands different tools and generates different kinds of findings. In particular, reading drawings for their socio-political import urges a different approach to understanding "marks on surfaces". Chapter-6: "Premise" will articulate such an approach and its attendant tools.

Even more fundamental logical questions persist. Is the crowd-design-problem in question that which the Soviets (as social groups, artists and architects) actually formulated? Or is what of real issue here the *logic of the problem* extended to its limits, and not only as posed by the Soviets? Similarly: is the argument to later pursue centered on the architects' responses as they framed them? Or, rather, is it more concerned with the logical framework foretold or initiated by their design moves? In other words: is this research project an historical one probing historical intentionality, agency and contingency; or a theoretical one - in search of the wide-ranging logic of events? Since the motivating interest of this research project is to discern the political implications of architectural design moves – a morphology of the political - I have adopted the position that this research project is more concerned with the logical implications of the different players' historically-situated decisions and contingent acts. The employed methods of inquiry do pursue historical inquiry - as the reconstruction of intentions or the discernment of agency - but are more concerned with constructing the logical space of the problem for its own internal consistencies, and its own possible variations beyond what the architects actually elected to think or do.

It is in light of this distinction that the two-sided nature of the main question in this research project is best stated. On one hand, the question is pursued in the following terms: *what intentions underlie the spatial practices of Soviet revolutionary theatre, festival gatherings and revolutionary art in articulating the crowd-design-problem and as its primary sources; and what intentions underpin the architects' design moves in response? Specifically: what crowd arrangements and representations were sought and imagined; and why so: what political intentions were at work?* This is the historical side of the inquiry – even if the question was not actually voiced or stated *as such* in the period stretching from 1917 through the early 1930s, but was largely an implicit, non-discursive pursuit. It wonders what revolutionary Soviet society implicitly asked itself - its artists, its choreographers, its literary authors, as well as its political leaders and commissars - to accomplish. On the other hand, the question will be more strongly pursued in its theoretical format - as such: *What crowd morphologies (logics of arrangements and representations; as well as conceptual categories and measures) can be discerned from the propositions forwarded by Soviet revolutionary theatre, festival*

gatherings and revolutionary art in formulating the crowd-design-problem, as well as by the Soviet Rationalist architects in responding to it? What spatial logic and conceptions emerge from such morphologies? And what socio-political agenda and forms of collectivity are possibly evoked - not as a mere reflection of the professed Marxist doctrine (architecture and space never merely reflect), but as a medium of political formulation in its own right. This formulation supports the exploratory, even daring, speculation that we *make and know differently* if we rethink society through the prism of Architecture and its categories (form, space, surface, order, …etc). What political science forwards as categories of class, race, authority, and collective-behaviors… etc. may now be approached through the prism of a morphology of crowds. One may even venture to wonder: would Karl Marx and Friedrich Engels have given us a different ideology, had they infused relations of production with form and space as integral formative axioms? As the thesis assertions will contend, this is precisely what the architectural logic of the Rationalists - through its inherent spatial morphologies – tenders: a vision of society distinct from the prevailing Marxist canon.

In sum: This section circumscribed the main questions and constructs streaming throughout the research project. It identified the crowd phenomenon as a meeting ground for political and architectural inquiry; it pointed to the modern crowd's historical threshold into building environs post WWI as an opportune juncture to ask an architectural question of politics; and it positioned the crowd-design-problem as the crux of investigation in this thesis. Spatial-construct was introduced as a device to articulate such an architectural question. Moreover, this section also identified the entwined historical and the logical levels at which the research questions are posed, emphasizing the latter as the main thrust of the inquiry.

The following section breaks down the flow of the dissertation document into its constituent parts and chapters, contextualizing the questions and constructs and positing the main assertions.

Itinerary: Breakdown of the Thesis Document

A fundamental differentiation between design problem and architects' responses broadly structures the parts and chapters of this work. Soviet society's formulation of the crowd design problem in spatial terms occupies "Part-I: The Charge" (chapters two through five), while "Part- II: The Architects Respond" (chapters six through eleven), explores the Rationalist architects' responses to such problems, through close examination of their submissions to the *Palace of Soviets* Competition (Moscow 1931-3).

"Part-I: The Charge" begins by tracing the history of the modern urban crowd and its emergent significance for architecture after the First World War. Chapter-2: "The Modern Urban Crowd" also unpacks the crowd as one category of the field of Collective Behavior, locating it among connotative constructs such as mob, collectivity and polity - and arguing that the crowd exemplifies and spatializes such constructs. The chapter offers the first diagnosis for the dearth of conventional representations by crowd members, thus anticipating an important component of the crowd-design-problem.

As discussed above, Chapter-3: "Spatial-Construct: Unpacking Design Problems Spatially" proposes the theoretical device, *spatial-construct*, as means to define an architectural design problem while accounting for the agency of transforming space. Developed through critiquing Baxandall's Charge-Brief model and his concept of 'period-eye',[13] as well as Frankl's concept of spatial-form, spatial-construct conjoins spatial morphology with authority (the right to space) and the contradictions and contestations which attend any such authority. This, I will argue, also implies that spatial practice, possessed of its own internal rationale, competes with political ideology in the making of political space. One may not regard the revolutionary crowds of the early Soviet years as mere implementations of the established Marxist-Leninist canon. Rather,

[13] Baxandall, Patterns of Intention, 1985. See also Baxandall's *Painting and Experience in Fifteenth Century Italy: A Primer in the Social History of Pictorial Style* (Oxford: Clarendon Press, 1972).

they should be probed for what political propositions their own spatial practices posit. Hence the search for alternative spatial origins in Chapter-4: “The Crowd Design Problem: Primary and Secondary Sources”. Critiquing building programs and competition briefs (throughout the 1920s-early 1930s, with a focus on the *Palace of Labor* and the *Palace of Soviets* competitions) as indifferent to the spatial formulations of concurrent social agents, this chapter argues for three fields of spatial practices, which draw on the morphology on the mass of bodies constitutive of a crowd, as alternative sources: Soviet mass events; Soviet revolutionary theatre; and Soviet revolutionary art.

Based on the analyses of such sources, the crowd-design-problem’s four components are articulated in Chapter-5: “The Crowd Design Problem: Formulation”. First: the problem of Crowd Sorting and Organization probes how, at the fundamental level of configuration, crowd gregariousness professes distinct spatial properties. Thus, the *Conviviality Matrix* (including measures of co-presence, co-awareness, equivalence and interdependence – based on Bill Hillier’s and Julienne Hanson’s ideas of the generic functions of space and Erving Goffman’s Interaction Order) is proposed as a theoretical armature to unpack crowd configurations in design submissions. Second, the problem of the Kinesthetic Conception of Space seeks to describe how, beyond configuration, the visceral experience of the rhythmic choreographies of body-formations evokes spatial conceptions and social cohesiveness, and thus demands architectural response. Here, the contention is that Soviet architects were challenged with particular conceptions of such kinesthetic space, received primarily from V.E. Meyerhold’s Biomechanics but also from the mass festivities of the day. Distilling the logic of Meyerhold’s choreographies, and complemented by Rudolph Laban’s Effort-Shape Theory, the argument articulates the challenge to architecture (absent the choreographic control exercised by a theatrical director): to generate comparable bodily rhythms through shaping building surfaces. But if the determinant in space-construction is primarily the mass of bodies, what then becomes of building shells and volumetric enclosures – what ordering devices and formal logic do they draw on for formal legitimacy? Hence questions of the place of the built artifact in the crowd’s space, or the third problem: Legitimacy, Consciousness and the Problem of the Object - arguably the most profound problem facing Architecture

here. Finally, the fourth problem addresses the visual and graphic representation of crowds - Seeing Crowds: The Challenge of Immersion. Pre-revolutionary architectural graphic representations, such as the Panoramic Tradition, have long been deeply infused with conventions developed by ruling classes to view the mass crowd from privileged, antagonistic viewpoints. Hence a new framework for 'seeing' the crowd is discussed, drawing on Jeffrey Schnapp's observations on the Panoramic Tradition, and complemented by Bill Hillier and Julienne Hanson's notions of co-visibility and attention, to understand the artists' and architects' graphic experiments of the time, particularly the avant-garde's distortions of perspective. Yet beyond being merely a reaction to imposed scopic regimes, this new framework is seen as an attempt to discover the crowd's own modes of self-representation and logic of self-consciousness.

Architects' responses to these four ingredients of the crowd design problem constitute the second half of this research document, Part-II: The Architects Respond. Responses do not only mean 'design solutions'. Ill-defined' by nature, a design problem shape-shifts once design commences. One gauges the achievement of a design scheme, not merely in correspondence to initial challenges, but by understanding the architects' reinterpretation of the design problem, and reflecting on the new political implications. More specifically: throughout Part-II: The Architects Respond, what the arguments pursue are the *spatial logic* and the *political implications* of ARU's work as underscored by the spatial-construct discussed in Chapter-3: "Spatial-Construct: Unpacking Design Problems Spatially". If the crowd design problem, as articulated throughout Part-I: The Charge, revolved around questions of what spatial formulations may the native substance of the crowd (as the legitimate fount of revolutionary political forms) generate – if so, then questions in Part-II become dominated, not only by the architects' intentions in pursuing the different ingredients, but by what logic the design schemes construct.

With a focus on ARU's submission to the *Palace of Soviets* contest, but with frequent comparisons to Le Corbusier's, Boris Iofan's and others' submissions, the four problems are carefully addressed in distinct chapters - albeit following a different sequence. Because architectural drawings are, simultaneously, the first

site in the design process for negotiating crowd representation as well as the first medium through which design ideas are negotiated, discussions of pictorial intelligence and conventions fronts Part-II. Chapter-6: "Premise" probes the methodological questions involved in taking graphics as the primary data and evidence, while arguing for the social ontology of marked surfaces in general, design graphics in particular. Chapter-7: "To See a Crowd, To See Like a Crowd" articulates how ARU's drawing conventions proffer a new logic of seeing crowds: one that takes as its initiating principle a viewpoint of immersion within the crowd mass. Simultaneously, this logic also redefines how an architectural drawing addresses space beyond the limits of representation; instead, it *emulates* the space's desired presences. Chapter-8: "Dynamic Crowds, Abstract Machine", extends this thread of the *politics of presence* into examining the configurational foundations of space. It contends that ARU's scheme for the *Palace of Soviets* implies a gregarious spatial logic which radically departs from the individualistic conceptions prevalent in European modernism. Moreover, the argument will demonstrate how ARU's crowd-sorting ramps would manage the crowd's generic tensions between informality and organization in a mutually generative relationship. Beyond configuration, the following chapter, Chapter-9: "Kinesthetic Space: Intersubjectivity and the Problem of Other Bodies", confronts the very flesh of this gregarious space: the mass of bodies making up a crowd. It identifies how constellations of bodies are maneuvered using architectural devices of the ground plane - as a response to V.E. Meyerhold's theatrical choreographies; it gleans what constellations of bodies *mean* in ARU's crowd as constructions of intersubjectivity. Thus, ARU's space, conceived through novel drawing conventions, and configured to the beat of a radical gregarious logic, is one experienced (and experientially defined) through the emotional, non-discursive exchange between bodies in a mass encounter, mediated by the architectural ground. This architectural ground play, connecting bodies through kinesthetic rhythms, sets the space's quasi-conscious emotional throb. The next chapter, Chapter-10: "The Problem of the Object, The Materiality of Architecture", addresses the problem of objects within this space of bodies. To become generative rather than redundant, objects (building walls, furniture, and all 'things' material) partake in a reinforcement of this field of mutual emotional exchange between kinesthetically-alert bodies. Grounded bodies are complemented by 'ungrounded' objects: hovering, projecting and transforming vertically. These

non-commodities do not usurp the mediation of social relations, but complement it and introduce instability within it.

Together: the architectural ground, the mass of bodies, the field of kinesthetic rhythms and the non-commodified objects circumscribe a space - or rather the principle of a space - of privileged intersubjectivity. This spatial principle carries a specific charge, as the concluding chapter of the dissertation, Chapter 11: "Gregarious Space: A Theoretical Framework for the Aleatory States of Collective Consciousness", will argue. This chapter reflects back on the entire research project, threading its contributions and its main thesis assertions. There, the argument contends that, as a space of intersubjectivity, it acts as a foundation to the material domain of Constructivism. As such, this space of emotional discourse challenges the established construct of alienation in Marxist theory; indeed, and in a spatial-political statement, it dares to speculate how space or spatial-thinking would transform the Marxist canon itself. Furthermore, the concluding chapter presents as the thesis' primary finding a nascent theoretical framework which takes gregariousness as the primary state of social being. Armed with constructs, categories and measures developed in this research project, the *Gregarious Space Framework* structures a field of future inquiry.

Appendix II: "Competition Program for the Palace of Soviets, Moscow 1931-1934", furnishes the background information on the *Palace of Soviets* Competition including site, participants, invitees, programmatic requirements for the four different phases, as well as the jury decisions and a list of winners per phase. Appendix I: "Competition Program for the Palace of Labor in Moscow, 1922" provides a similar framework for the *Palace of Labor* Competition in an attempt to clarify the historical antecedence of ideas underlying the *Palace of Soviets* Competition and its brief. No single source concisely translates into English either competition program submitted by the authorities and juries to the entering design teams. Information listed in both appendices is culled and consolidated from a number of sources by this author. Following the exposé of the *Palace of Soviets'* competition program is a short reflection, particularly focusing on the assumptions implied in the program components: user groups, functional requirements, as well as spatial

relations and qualities. This includes some generic analysis of the program, conducted with the objective of understanding the underlying charge. Appendix III: "Soviet Political Practices: Period Reports from Western Correspondents" excerpts a number of articles by Western journalists reporting from the Soviet Union in the 1920s and 1930s. Such excerpts, primarily firsthand eye-witness reports, were employed to more vividly spatialize the period's assemblies and political system.

Note on Literature Review

This research project negotiates the intersecting terrains of multiple knowledge disciplines. As it poses its main question on the morphology of crowds, thrust somewhere in the liminal space between Architecture and Politics, it also tackles issues of representation, body choreography and the anthropology of dance; simultaneously, it plumbs the depths of texts on political philosophy, and the sociology of Collective Behavior. It wrestles with theories of space as well as conceptions of intersubjectivity. Moreover, methodologically, the research arguments walk a fine line between historical explanation and morphological inference. Thus, reviewing the relevant literature from all such interests will accompany the flow of specific arguments, and in context of the situated case study of revolutionary crowds and the Soviet avant-garde. However, the rationale for such a move does not issue merely from the pragmatics of reasoning and the flow of logic as outlined above. Not infrequently, existing literature regards architecture and space as reflections or applications of ideas of a higher order: philosophical, theoretical, historical …etc. This thesis subscribes to the obverse judgment; it seeks to recover the theoretical implications and the philosophical thickness of space and architecture. While the literature usually argues its way from philosophy towards architecture, this thesis undertakes the journey in reverse – it seeks to probe the intelligence generated by architecture itself. Hence, an overarching literature overview is incommensurate with the fundamental logic of this thesis. Consequently, and as the reader will find, literature reviews will proceed, almost "naturally", in

an interdisciplinary manner. In each case, a review will be conducted around a specific multifaceted question, and will be examined through multiple disciplinary lenses.

PART I: THE CHARGE

CHAPTER 2

The Modern Urban Crowd

Preface

As outlined above, this thesis examines Soviet avant-garde competition submissions from the 1920s and early 1930s. It seeks to clarify the logic of architectural responses to then novel and Soviet-specific variation of the design problem to house modern, urban and revolutionary crowds in building environs – with its attendant issues of evoking collective consciousness and formulating socio-political program.

Before plunging into articulations of the crowd as a design problem in coming chapters, this one furnishes a necessary framing for the topic. It establishes several fundamental points. First, it outlines the socio-political and historical contexts wherein emerged the architectural challenge of accommodating the crowd from its urban antecedent. Second comes a clarification for a pivotal point of many arguments throughout this thesis: how the distinct concepts of 'crowd' and 'collectivity' are, generally-speaking, bound by a seamless continuity of categories and ideas; the crowd is but an intense social moment rather than an exceptional aberration. However, and thirdly, the argument in this chapter also points out the anomaly specific to the modern urban crowd, to which customary tools of cultural representation remained external and alien. This anticipates discussions of pre-revolutionary traditions of visualizing crowds, and the persistent need for alternative frameworks of 'seeing' as an integral dimension of the design problem.

In the course of demonstrating such fundamental points, the chapter also attempts to explain why the revolutionary crowd qualifies for a focus for this project and why this is particularly opportune to study in the case of the Soviet revolutionary developments. Finally, the chapter presents an initial framing of the architectural problem in three points: a) as the building – rather than the city - became the artifact of choice, a novel demand was placed on architecture as a social medium; b) the modern crowd's historically insular condition and detachment from customary conventions of representation demanded new graphic apparatus by contemporary artists and designers (and consequently researchers, then and now) to apprehend the crowd's self-representations and evolving self-consciousness; and c) the evolution of the modern revolutionary crowd was seen by prevailing Soviet ideology as a determinant of social collectivity in general.

The Modern Urban Crowd: A Brief History

A term commonly used in this thesis is the *crowd*. It is taken to mean a gathering where substantial numbers of participants (enough to challenge a participant's sense of individuality) partake of co-presence in one large space or a set of contiguous spaces. More specifically, a crowd is where a perception of synchronicity, of sharing the 'here and now' - whether weak or strong - is invoked. In this thesis, such a spatial definition issues from an incentive – methodological in nature - to conceptualize primarily from an architectural viewpoint, and to preclude unnecessary confusions with established sociological categories classifying *crowd* within the field of Collective Behavior.[14] The immediate space of experience is structurally involved in the definition of such a gathering, while leaving open-ended what variants of forms of coalescence evolve within that space. Thus, the above definition of *crowd* here departs from Herbert Blumer's and Robert E. Parks' interrelated designations of a *crowd* as unified by 'common emotion',[15] and conflates it with Blumer's

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[14] Herbert Blumer, "Collective Behavior", in *New Outline of the Principles of Sociology*, edited by Alfred McClung Lee (New York, Barnes & Noble 1951).

[15] Ibid: pp. 170-7. Note Blumer's all too frequent comparison of the crowd's use of the analogy of "cattle" to explain crowd dynamics, especially in what he calls the crowd's elementary collective behaviors; being elementary denotes, in his framework,

notions of *public* (focused on a single issue or happening),[16] and *mass* (an audience addressed by a mass medium, such as radio or television, or rumor in pre-industrial societies).[17] Similarly, articulations of crowd as conventional, acting (aggressive) or expressive (dancing),[18] of crowd formation as milling in circular reaction versus reticent,[19] or any other similar variations (such as Erving Goffman's focused and unfocused (diffuse) categories,[20] are to be determined from arguments constructed based on the spatial premise. However, following arguments do not entirely depart from categorizations of crowd in the discipline of sociology. On a gradient scale differentiating the emergent from the institutionalized, sociologists classify the social norms and relationships of instances of collective behavior [see graph, **figure 2.1**].[21] On such a scale, crowds are defined as consistently possessed of an emergent component, whether in terms of norms, relationships or both. This locates crowds as *productive* of social-form and, consequently, of spatial relations – a distinct focus of this investigation. As will be demonstrated, this view also happens to coincide with the Soviet architects' desired re-conceptualization of *crowd* and *collective* as, essentially, spatial entities strongly evocative of co-presence.

Massive revolutionary crowds are no new arrival on the historical stage, yet the modern crowd lays claim to a number of distinctions. The modern crowd was predominantly urban – amassed in the evolving industrial city from the late eighteenth century onwards, including the period under study, the early twentieth century. While the Industrial Revolution was born in rural settings, it soon relocated its manufactures within urban and suburban environs to make use of the large masses of cheap labor made available as a consequence

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being spontaneous, primeval, and by inference without history. See also Robert E. Park, "The City: Suggestions for the Investigation of Human Behavior in the City Environment", *The American Journal of Sociology*, Vol. 20, No. 5 (Mar., 1915): pp. 591-3.

16 Blumer, "Collective Behavior", 1951: p. 189-93

17 See Blumer's elaboration of the Mass in "Collective Behavior", 1951: p. 185-9. Robert E. Park also addresses the 'mass' in "News as a Form of Knowledge: A Chapter in the Sociology of Knowledge". *The American Journal of Sociology*, Vol. 45, No. 5 (Mar., 1940): pp. 669-686.

18 Ibid.: pp.178-85.

19 Ibid.: pp.170-2.

20 Erving Goffman*, Behavior in Public Places: Notes on the Social Organization of Gatherings* (New York: Free Press of Glencoe, 1963). See introductory chapter on definitions; see also "Part II: Unfocused Interaction" and "Part III: Focused Interaction".

21 J.M. Weller & E.L. Quarantelli, "Neglected Characteristics of Collective Behavior", *The American Journal of Sociology*, vol.79 no.3 (Nov. 1973): pp. 665-685.

of property alienation and rampant migration. In other words, industrial capitalism – with its embedded contentions over labor issues - moved to where it met the raw material of massive crowds. The confrontation was inevitable, as attested by recurring revolutions and insurrections throughout the nineteenth century [figure 2.2]. Capital - labor inequities made for a recipe of volatile, chronic contentions which amassed the available large numbers of workers of similar grievances into dense crowds. Fueling revolutionary ideas as it erupted in intense outbursts, the modern crowd can be claimed as impetus to many of the political ideals definitive of modern political thought. After all, it is in the wake of the 1848 massive uprisings across Europe that Marx and Engels issued the Communist Manifesto. Even in its 'quieter' moments, the mass crowd inspired Fourier's arcades, and Baudelaire's *flaneur*.

In terms of its social constitution, the modern urban crowd was diverse at the same time as it was exclusive. Workers dominated its nineteenth century numbers, yet many such workers themselves came from various backgrounds of immigrants, alienated peasantry, multiple ethnicities and endemic vagrancy. To no small measure, this medley, impoverished, disempowered and socially-circumscribed, helped stigmatize the modern crowd – more than its pre-modern antecedents – as irrational, unpredictable and downright hallucinatory; *une foulle*, in fact.[22] It also retarded its capacity for developing its own self-consciousness as an ingredient in a 'class'.[23] Between its clearly emancipatory role and its unpredictable internal dynamics (compare the ostensibly first modern crowd of July 12 1789 to that of the 1792 Terror), the modern crowd assumed the quality of a riddle which was to accompany it to the present day. What added to this dilemma was the sharp class distinction that marked its admixture of the exploited and the underprivileged from its privileged exploiters of proprietary classes (the bourgeoisie and the nobility) - a distinction creative of self-consciousness inasmuch as it was creative of the distance of distinction itself.

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[22] The term comes from the title of one of the early major works on crowd psychology by the Frenchman Gustave Le Bon: *Psychologie Des Foules* (1895), which is 'politely' translated into the more neutralized *The Crowd: A Study of the Popular Mind*, London: T. F. Unwin, 1896 (5). Note also the feminine gender association with its nineteenth century derogatory connotations.

[23] William G. Rosenberg, "Identities, Power and Social Interactions in Revolutionary Russia", in Slavic *Review*, vol. 47, no. 1 (Spring 1988).

Figure 2.1 A comparison between Emergent and Institutionalized Collective Behavior and norms.
(source: Weller & Quarantelli, "Neglected Characteristics of Collective Behavior", 1973)

Paris, July 12, 1789 - the "first modern crowd"
[source: *Life Magazine onlien archive*]

Paris, 1848 - presidential elections [source: *Life Magazine onlien archive*]

Palermo, 1848 - revolution spreads across Europe [source: *L'Illustration Archives*]

St. Petersburg - Russian 1905 Revolution [source: *Life Magazine online archive*]

Figure 2.2 Significant moments of ferment in modern pre-Soviet urban crowd history, 1789 - 1905 CE
[sources: *Life Magazine onlive archives*; *L'Illustration Archives*]

This defines one fundamental property of the modern urban crowd that will have significant impact on the definition of its architectural problem for the Soviet revolutionary architects: it is a mass perceived as well as conceived from an 'alienating distance'. Customary tools of cultural representation (including those analyzed in this thesis, I should note) were largely 'external' to the mostly illiterate crowd, if not altogether alien to it. In the course of writing the history of the English working class, E.P. Thompson has noted the difficulty of accounting for this assortment of peoples' self-consciousness as a distinct class.[24] Workers left little recorded documentation (written, drawn, …etc) through which to understand their development, let alone to articulate adequate measures of self-awareness as one coherent class, defined positively through common interests rather than merely against the otherness of the bourgeoisie. T.J Clark has attempted a similar clarification of the mid-nineteenth century French peasantry through analyzing Gustave Courbet's paintings; yet even this remained the account of an internal member (Courbet) using the tools of expression of the middle class – the French *salon* – albeit with subversive twists [see figure 2.3].[25] If social classes and movements, institutionalized as they are in time and space, disburse such scant clues of self-envisioning, the ephemeral crowd is bound to prove more intractable.

In fact, throughout the nineteenth and early twentieth centuries, formalized descriptions of the modern crowd in historiography, sociology, psychology and literature were dominated by accounts from 'without'. Sigmund Freud's ideas on the Super-Ego (1921) emerged from observations of mass events during and post WWI.[26] He diagnosed crowd dynamics as primarily a competition between crowd-participants for the attentions of a paternalistic, charismatic figure rather than a lateral exchange between equal players. In the late nineteenth and early twentieth centuries, Gustave Le Bon, Ellsworth Faris (following Gabriel Tarde) and others worked within the isolated confines of the academy – away from the crowds and the streets they inhabited - to advance the concept of *imitation*, diagnosing communication within the crowd as a pathological pseudo-

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24 E. P. Thompson, *The Making of the English Working Class* (London: Gollancz, 1964).
25 T. J. Clark, *Image of the People: Gustave Courbet and the 1848 Revolution* (University of California Press, 1999).
26 Sigmund Freud, *Group Psychology and the Analysis of the Ego* (New York: Bantam Books, 1960[21]).

hypnotic process. Such concepts have since dominated the discourse on crowd dynamics.[27] In another version but to the same effect, Herbert Blumer articulated the dynamics of such communication in terms of *circular-reaction* and *milling* as the "elementary" collective behaviors of cattle-like crowds. Circular-reaction is "a type of interstimulation wherein the response of one individual reproduces the stimulation … from another individual, and in being reflected back to this individual reinforces the stimulation."[28] Milling, a "pure instance of circular reaction", involves individuals moving "around amongst one another in an aimless and random fashion" which renders individuals "more sensitive and responsive to one another".[29] A form of hypnosis ensues from such behaviors, Blumer claimed. Modern scholarship, from the French Revolution's historian Hyppolyte Taine through the late 1900s Gustave Le Bon[30] to Sigmund Freud's 1920s psychoanalysis of the Super-Ego, has usually connoted the crowd with intense, sudden events: insurrections, riots, pogroms, revolutions, …etc., rather than slow-diffusing social mechanisms. Demystifying accounts remained the exception (e.g. Hugo's 1848 *Les Miserables*), and, as a consistent body of thought, came much later in the 1950s and 1960s, when activists affiliated with the Civil Rights and the Vietnam anti-War movements entered the academy as scholars and attempted to account for the dynamics they engaged in [see figure 2.4].[31] Prior to that, what happened within crowds was cast as mysterious, emotional and irrational. One lost one's humanity when part of a crowd, according to Le Bon; one became "a barbarian – that is, a creature acting by instinct".[32]

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[27] See: Le Bon, *Psychologie Des Foules* (1895); and E. Faris' "The Concept of Imitation", *American Journal of Sociology*, 32(3) (1926): p. 367-378. Imitation originates with Gabriel Tarde's *The Laws of Imitation,* translated from French by Elsie Clews Parson (New York: H. Holt and company, 1890-1903). Counter positions rationalizing internal crowd dynamics surfaced much later in the 1960s and afterwards; see James B. Rule, "Rationality and Non-Rationality in Militant Collective Action", *Sociological Theory*, vol. 7(2) (1989): pp. 147-9.

[28] Blumer, "Collective Behavior", 1951: p. 170.

[29] Ibid: p.174.

[30] Other turn of the century scholars also contributed to image of the crowd as irrational, such as Scipio Sighele and Gabriel Tarde. In fact, the work of Gustave Le Bon is considered among some to be far less original than previously assumed. Later descendants of this school of crowd-irrationality include Elias Canetti (1930s) who had profound influence on empirical sociology. Irrationality continued its influence – albeit gradually diminished – through two strands of modern sociology: collective behavior theory and mass society theory.

[31] An informative overview of the literature on crowds psychology and Collective Behavior, from the nineteenth century irrationalists to the post-Civil-Rights era may be found in Rule's "Rationality and Non-Rationality in Militant Collective Action" (1989): p. 146.

[32] Le Bon, quoted in Rule, "Rationality and Non-Rationality in Militant Collective Action" (1989): pp. 145-60.

Figure 2.3 The crowd's problems of self-representation and co-visibility
above Gustave Courbet, *The Stone Breakers*, 1850 [source: *Gustave Courbet* (Exhibition Catalogue), c 2008]
below Russian Revolution, St. Petersburg May 1 1917; peaceful demonstration [source: *L'Illustration Archives*]

Figure 2.4 The perception of crowds begins to change with the Civil Rights Movement (1950s onwards).
left St. Petersburg - Russian 1905 Revolution; destruction of property [source: *Life Magazine online archive*]
right March on Washington, August 1963; a meticulously organized crowd [source: *National Archives Special Media Division*]

As will be demonstrated in later chapters, this was one perception of the crowd that the Soviets attempted to transform and transcend: to make one's existence within a crowd a continuous, recurring experience integral to the fabric of everyday life. It is also within such a framework of mystification, objectification and irrationality that the Panoramic Tradition of framing crowd-visualization came into its own in the nineteenth century (see Chapter-5, *'Seeing' Crowds: The Challenge of Immersion*). Thus, an essential ingredient of the problem was already engrained as a need to generate new graphic and pictorial conventions of 'seeing'. To find a visual leverage from within the crowd was a fundamental challenge.

The Modern Crowd: From an Urban into an Architectural Design Problem

Urban by nature of the social conditions spurring its development, the modern crowd evolved in the course of responding to the modern city, and to shape it in return. It is therefore no small matter to affix the qualification 'urban' to crowd. Even in its spontaneous revolutionary variation, the crowd was highly sensitive to qualities of the spatial setting it acted within.[33] Victor Hugo's 1832 Paris insurgents intimately knew the peculiarities of their tight street network, where and how to construct a barricade and how to persist in defending it. It was partially as a reaction to such uprisings (from the 1830s, 1848 and onwards) that Baron Haussmann's boulevards were introduced to disadvantage insurgents. Wider and linear in proportion, they were more difficult to barricade while easier for troops to march through. Yet in response, crowds fashioned the demonstration as a non-violent variation on insurgent collective behaviors. Even in its organized formations, the modern crowd spawned its forms of action to respond to such interventions in its urban

[33] The underlying assertion that a crowd is sensitive to its spatial setting can be garnered from diverse arguments. John Dixon in his article, "Contact and Boundaries: 'Locating' the Social Psychology of Intergroup Relations", Theory & Psychology vol. 11(5) (2001): 587–608, discusses the "contact hypothesis" as justification for redeeming social space from preconceptions of an "inert background" to a more engaged productive agent. In his field studies on spontaneous crowds during the Vietnam anti-war protests, Richard A Berk observes how rational decisions are taken partly in reaction to surrounding spatial clues; see Richard A. Berk, "A Gaming Approach to Crowd Behavior", *American Sociological Review,* vol. 39, # 3 (June 1974): pp. 367, 370-1. In a more historical approach, Mona Ozouf's *Festivals and the French Revolution* (translated by Alan Sheridan, Cambridge, Mass: Harvard University Press, 1988): accounts of festival crowds along different routes in Paris and other French cities, illustrates such sensitivity to context.

setting. In her 1975 book *Festivals and the French Revolution*, Mona Ozouf demonstrates how post-revolutionary French celebratory parades and festivals evolved to complement as well as redefine the symbolic structures of the city.[34]

Indeed, the modern urban crowd and the modern urban street-network evolved conjointly – and mutually-defining. What underlies this historical co-evolution is a deeper socio-psychological connection. Insurrection heightens our otherwise latent sensation of co-presence; it brings to attention the synchronous and active presence of others in ways that everyday-life manages to conceal or muffle. A crowd in urban revolt reveals, but also heightens, our embedded anxieties and fears about sharing such a large urban space with such an unfathomable number of individual agents with an exponential number of distinct wills; willful agents with access to various resources to act on such wills in and on space; agents engaged in an unpredictable number of possible encounters, and who in the process of undergoing the dynamics of such reciprocal 'witnessing' develop a collective engagement (described variously as either mimetic or mob behavior or as an "explosion of consciousness", as will be discussed below).

Insurrection highlights how unpredictable the city could be and indeed is – enough to acquire, for Hugo, the quality of impetuousness. It also reveals how artificial a city is; it is an outcome of the incessant acts of other agents: their continuous labors to build and to demolish, to raise and to lower, to close and to open. The site, container and framework for this agency and such witnessing – what also allows them to disseminate - is the network of urban streets: with its requisite contiguity, its indispensable reach to the farthest ends of the urban complex, its being one (or maximum two) configurational steps from all agents' private abodes, and its propensity to be appropriated and changed by all such actors in any number of ways simultaneously and exponentially. My point here is that such a network of streets is a prerequisite for the insurrection (indeed for political action in the city) – a foundation which undergirds such action. It is a *spatial polity*, in a

[34] Ozouf, *Festivals and the French Revolution*, transl. by Alan Sheridan (1988). Evidence for such urban crowd may also be gleaned from James Von Geldern's *Bolshevik festivals, 1917-1920* (Berkeley CA: University of California Press, c1993).

sense similar to how Bill Hillier defines the *virtual community*: as the potential for a range of actions, encounters and behaviors inscribed in space. It is also a spatial polity in that it becomes internalized by the relevant constituency as this large, interconnected but highly unpredictable framework which, while the necessary site of everyday practices, also possesses the potential to instantiate and propagate a full-fledged revolution in a flash,[35] as Hugo insistently reminds us.[36]

Significantly, the conjoined fates of the urban crowd and the urban street-network was a condition that all parties to the 1830s, 1848 and 1871 Paris riots *cum* insurrections *cum* revolutions had to contend with, and factor into their political practices. It is noteworthy that the 1871 Commune stopped powerless at the walls of Paris. It remained unable to influence the countryside and to recruit the provinces against Theiles' government in Versailles. In fact, the ensuing conflict of seventy one days, framed as a confrontation between the conservatism of traditional country values and the libertarian outburst of selfish Parisians, may also be posited as the opposition of two spatial frameworks[37]: open country roads and fields versus tight street network.[38]

Over an extended period of time (well over a century), the modern crowd indulged in a dialogue with its 'indigenous' urban setting and those in charge of it. Designers' and authorities' efforts wavered between encouragement and containment in an increasingly intricate relationship that yielded various typologies of

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[35] This echoes Georg Simmel's work on the intense pathological anxieties engendered in dense urban settings; see Simmel, "The Metropolis and Mental Life", *The Sociology of Georg Simmel*, translated, and edited by Kurt H. Wolff (Glencoe, Ill.: Free Press 1950). Additionally, this may compare to the curiously modern concept of shock - or *choque* – as discussed by Wolfgang Schivelbusch in *The Railway Journey,* Berkeley, Calif.: University of California Press, 1986.

[36] Hugo communicates this near-synchronous quality of urban revolt with characteristic perspicuity. In particular, "... a number of lightening flashes in a single peal of thunder" is an extremely potent metaphor. It maintains distance of representation in the lightening, yet achieves an enveloping surround with the thundering; it betrays a sublime fascination mixed with a deep-seated fear; it communicates multiple eruptions but yet an indissolute unity. It is also significant that the initial flash of the insurrection's multiple ignitions is one moment when Hugo's narrative skill approximates the projective quality of a plan. Only a plan view can begin to deal with such simultaneity. It is only a plan that can capture the framework underpinning the act of insurrection: its conduit, container, theatre and material (the barricades – built by both sides – were literally street cobblestones piled vertically rather than laid out horizontally) all in one.

[37] What may also be concluded from this argument is that different spatial frameworks afford various shades of very different spatial polities. An urban network would produce polities different from a jungle …etc.

[38] It would be interesting to compare the 1789-93 revolution to the 1871 Commune; while the latter failed to spread beyond urban street networks, the former sprang up in town and country in parallel. Yet what kind of spatial polity supported or resisted each remains to be clarified.

urban spaces and buildings – and the demand for more types and further nuances. Increasingly throughout the second half of the nineteenth century and the first half of the twentieth century, the social phenomenon of the crowd spawned regulative controls, policies and urban as well as architectural design problems: controlling the amorphous, spontaneous crowd through converting it into assemblies with predictable visual order and explicit spatial configuration. The crowd needed to be moved seamlessly and continuously; entertained and amused but also watched and exposed; its attention focused and/or dispersed; its amassing encouraged but also constrained and regulated. Hence the international fairs, Fourier's arcades for entertainment, and Haussman's boulevards among various other urban design moves.

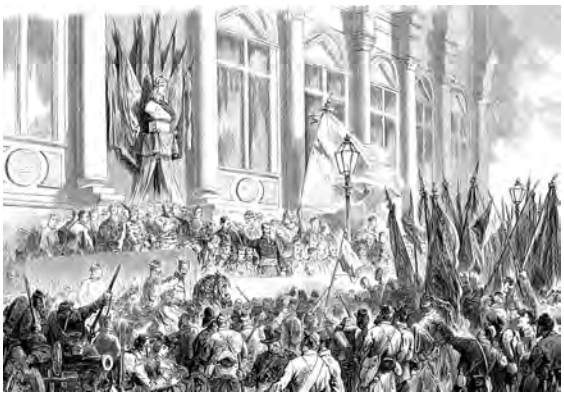
A significant development occurred when the political functions of a crowd assembly crossed the threshold from exterior urban spaces, to the environs of buildings[39] with the turn of the twentieth century [figure 2.5].[40] Obviously, this does not imply that no crowds convened in enclosures before that time, or that crowd assemblies in urban spaces ceased to occur afterwards; but that emphasis on buildings as crowd spaces dramatically escalated from thereon. This shift is illustrated quantitatively by the sheer number of mass buildings on demand; and qualitatively, by what seemed to be demanded of buildings as social laboratories. Thematics of display and voyeurism in nineteenth century exhibitions and opera houses, as one finds in Charles Garnier's Paris Opera House (1857-18740), suddenly assumed a more explicitly charged social role. As early as 1896, Victor Horta's *Maison du Peuple* in Brussels (completed 1899), heralded such emergent spatial configurations with attendant socialist connotations: large gathering spaces with minimal, if any, of the expressions of hierarchy which adorned neoclassical theaters and assembly halls of the

[39] In all arguments that follow, "building-space" is not to be exclusively construed as enclosed, interior space. What "building space" denotes are spaces within, of and around buildings - in their domain of influence, and heavily informed by their presence. The complexity and layering of such a category would allow one to address the intricacy of spatial phenomena particularly related to crowds.

[40] The Paris Commune of 1871 is probably an exceptional moment in this trajectory – an exception that confirms the trend. For about seventy days, the Communards put building environs to creatively subversive uses. As such, the prematurely aborted experiment anticipated what occurred some 40 years later across Europe, especially in revolutionary Russia – an echo that was not lost on the Soviet communards.

Street scene, the French Revolution, Aug1789 [source: *Life Magazine online archives*].

Post-1789 French Revolution, National Assemby [source: *Life Magazine online archives*].



Declaring the Paris Commune 1871, outside the Hotel de Ville [source: *L'Illustration Archives*]

The Paris Commune 1871, assembly in St. Nicolas des Champs [source: *L'Illustration Archives*]

Russian Revolution, March 14 1917 by the Tauride Palace [source: *L'Illustration Archives*]

Assembly of Soviet Delegates (over 3,000), the Duma, Tauride Palace 1917 [source: *L'Illustration Archives*]

Kerensky addressing soldiers, Semenovsky 1917 [source: *L'Illustration Archives*]

General Congress of Peasants, 1917(8) [source: *L'Illustration Archives*]

Figure 2.5 Scenes from the French Revolution (1789) through the Soviet Revolution (1917). Increasingly, revolutionary crowds inhabit building confines (*right column*) with larger assemblies and diverse activities.

[sources: *Life Magazine onlive archives*; *L'Illustration Archives*]

nineteenth century. As part of this emerging building type, several *Maisons du Peuple* were thereafter built including Emiel Van Averbeke's *Maison du Peuple* in Antwerp (1899-1903), and Jean Prouvé's *Maison du Peuple* in Clichy (1937) [see figure 2.6]. Yet it is theatre – as a building type – which witnessed more of the design-problem variations that the modern revolutionary crowd presented. Designers were called upon to formulate spatial configurations for 'spectacles' of various political ideologies. In 1927, Walter Gropius designed the 2,000 seats *TotalTheatre* for the progressive communist Erwin Piscator as a new type of mobile theatre with film projection [figure 2.7].[41] Here one finds one of the early attempts to blur distinctions between audience and performers, using an elliptical geometry where stalls 'hug' the stage. The stage is also set on a revolving mechanical system which allows additional configurations, including engulfing the stage by the audience on all sides. Similar problems were addressed very differently in Fascist Italy. In the early 1930s, the *Theatre for the Masses* was a direct charge by Benito Mussolini, to which architects alike the inventor-designer Gaetano Ciocca responded arduously.[42] Among other features, Ciocca's designs for fifteen thousand spectators issued from highly elaborate crowd-flow studies, resulting in peculiarly designed circulation corridors that allow the passage of one person at a time, to "[ensure] the rapid but disciplined inflow and outflow of spectators".[43] His designs also enlarged the stage and brought it into a more immediate relation with the audience hall to allow for a more three-dimensional visual relationship. Moreover, this visual structure was meant to be reciprocal: alike ancient Greek dramas, the stage itself was meant to house crowds of actors parading infront of crowd audiences in a pseudo-narcissistic relationship.[44]

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[41] See Beate Elisabeth Tharandt, "Walter Gropius' Totaltheatre Revisited: A Phenomenological Study of the Theatre of the Future" (PhD. Dissertation, Carbondale: Southern Illinois University 1991.

[42] See Jeffrey Schnapp's "Between Fascism and Democracy: Gaetano Ciocca--Builder, Inventor, Farmer, Engineer", *Modernism/Modernity* 2.3 (1995): p.126.

[43] Ibid: p.129.

[44] Interest in theatre related to massive crowds is attested by the large number of theatre conferences convened in the early 1930s. In 1934, one such major theatre conference was the Volta Congress on theater. "Presided over by Luigi Pirandello and sponsored by the Italian Royal Academy, the Volta Congress brought together men such as Edward Gordon Craig, William Butler Yeats, Walter Gropius, …, Maurice Maeterlinck, …and Alexander Tairoff [among others] for a five-day discussion of the dramatic theater's past, present, and future. ..the topic for the second day: "Theatre Architecture: Mass Theaters and Little Theaters…." Gropius' talk was "…concerned with the Total Theatre that he had designed for Erwin Piscator...". (See Schnapp, "Between Fascism and Democracy" (1995): p.130). Interest in theatre also came from high political circles. In an earlier assembly (April 1933), Mussolini urged members of the Italian Society of Authors and Publishers (SIAE) to revisit the "crisis of the theater", and to create a theatre for the Masses which would "arouse the great collective passions". (Source: Schnapp, "Between Fascism and Democracy" (1995): p.127)

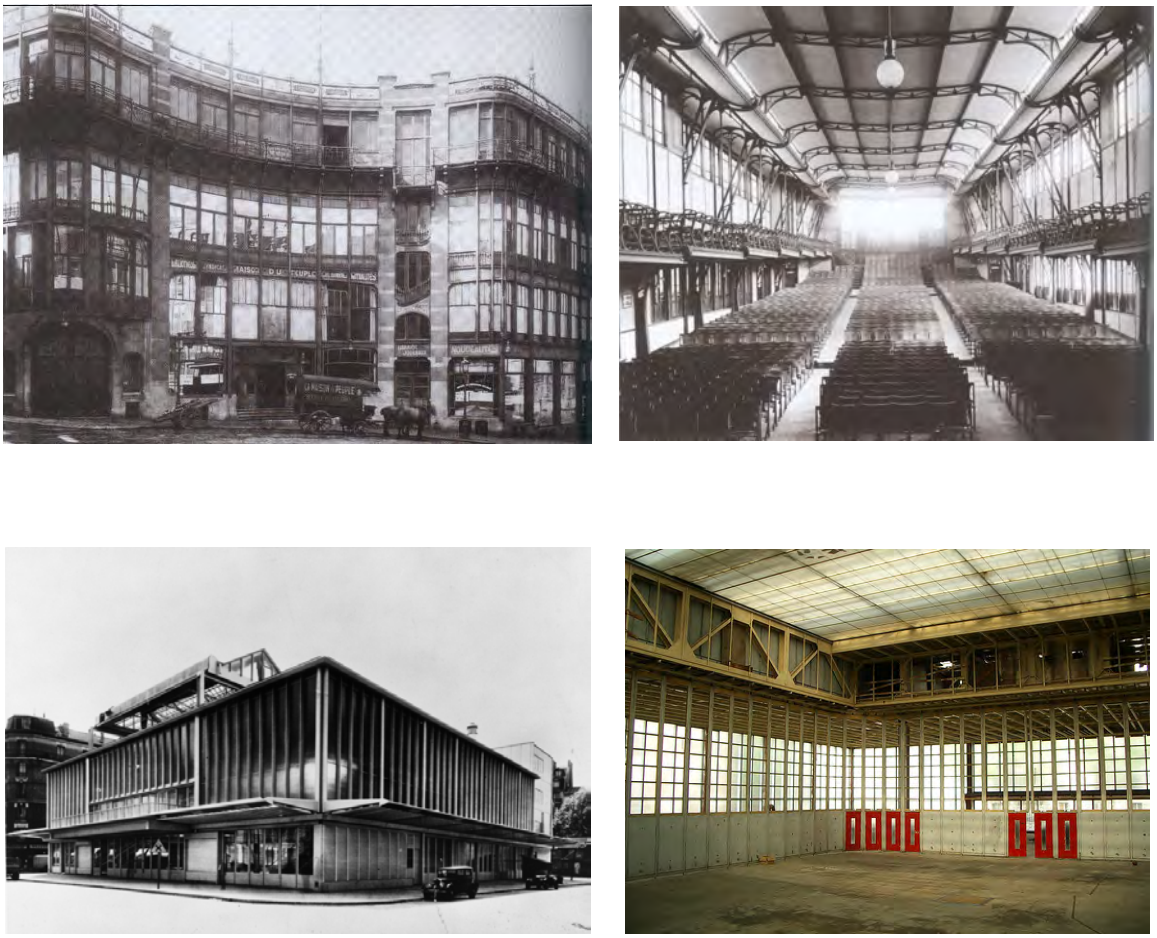
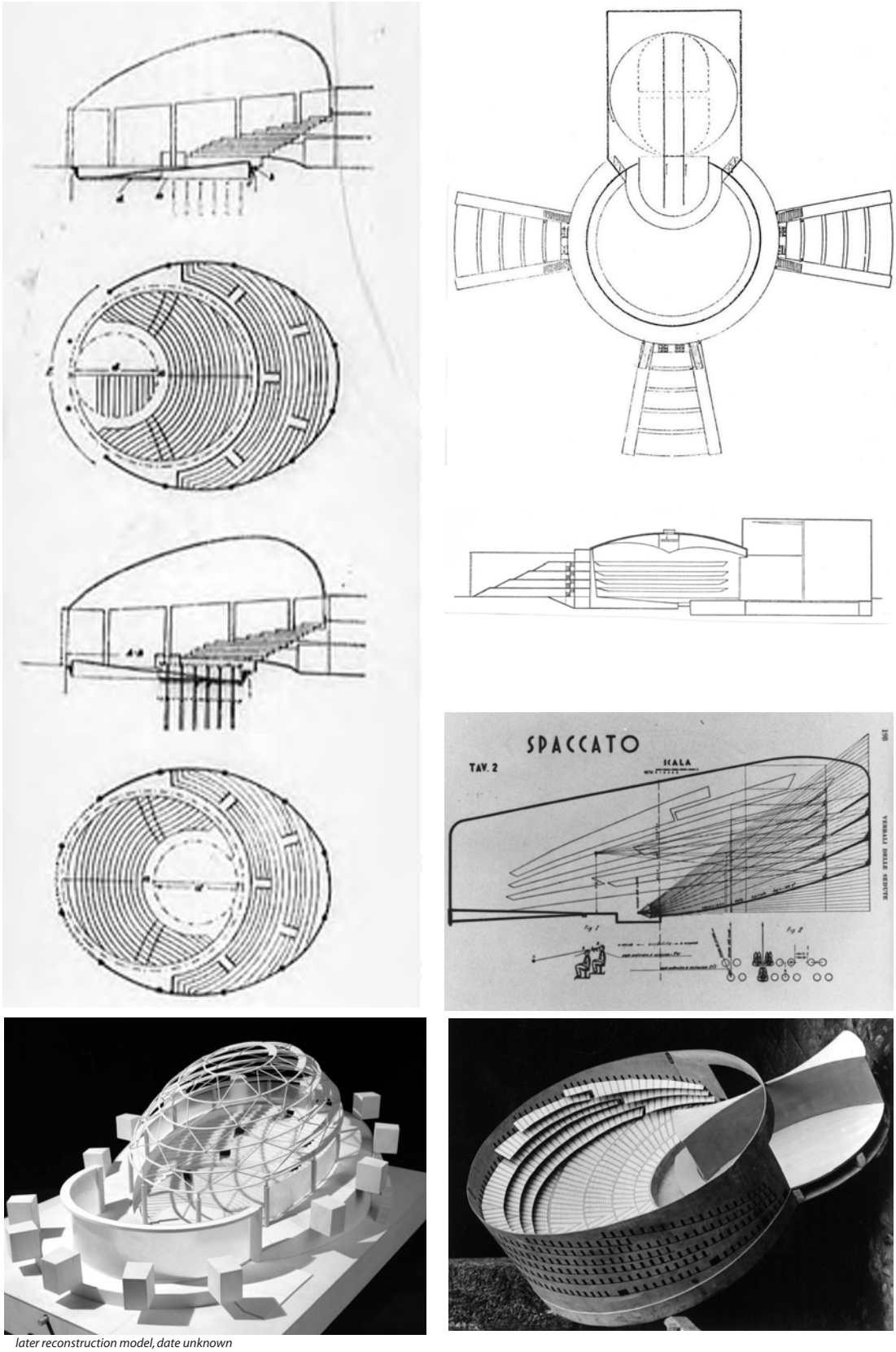


Figure 2.6 *above* Victor Horta, *Maison de Peuple*, Brussels 1896-99 [source: Delevoy, *Pionniers du XX Siécle*, 1971]
below Jean Prouvé's *Maison de Peuple*, Clichy, 1937 (source: Prouvé, Sulzer, & Sulzer-Kleinemeier, *Jean Prouvé: Oeuvre Complète* , 1995)



later reconstruction model, date unknown

Figure 2.7 *left* Walter Gropius, *Total Theater* for Erwin Piscator, 1927 [source: Busch-Reisinger Museum. *The Walter Gropius Archive*, 1990-1]
right Gaetano Ciocca, *Mass Theater*, 1933-5 [source: Schanpp, "Between Fascism & Democracy", 1995]

At a fundamental level this shift from city to building probes the nature of the building as an artifact of social organization, and how it relates to the larger artifact of the city. Transposing large scale events and mass meetings from the open space of the egalitarian outdoors of the city, with its extended network of publicly accessible streets, far-reaching inclusiveness and wide-ranging symbolism, and where modern crowd activity had resided at least since the French Revolution and developed as a tradition throughout the nineteenth century – transposing all such into the environment of building-space signaled a significant departure in crowd management practices and conceptualization. What did ceremonial organizers hope to achieve: to augment the crowd momentum; to qualify its ceremonies differently? What about the building as an artifact was more conducive to that than the city?

The answer may lie in the social nature of building space. A fundamental distinction between urban and building space is that the latter affords: a) an increased *intensity* and *specificity* of social relations, and b) it permits an increased capacity for *control*. In other words, such close-knit sets of environmental influences as make up a building permit, by default, closer and heightened choreographies of interaction between individuals and among groups. Social relations in buildings are more sustained – more habitual or repeatable over time and thus evolve into more specific, refined versions. As such, buildings usually possess explicit and stable programmatic identity, a quality which fosters common emotion, and focuses attention onto a central event (to recall Blumer's notion of *crowd* and Park's *public* discussed earlier in this chapter). Exercising more direction over circulation, views and backgrounds, light and shadow, sound as well as other environmental factors, building space is better placed to cradle new solidarities and foster social relations into maturity. In contrast, urban space, being an interconnected network of spaces that reach far and deep into the city, can bring anyone from anywhere to everywhere else, and possesses far more unpredictability built into it. I want to emphasize a distinction here between a building's affordance for intensity and specificity on one hand, and its undeniable affordance for control and manipulation. Social relations in the confines of a building – even that of the weakest program building – can be manipulated and directed far more efficaciously than in the open street network of a city. I do not doubt that historically both

aspects were salient; yet what is at issue here is not the power to *control* exercised by ideology, but more importantly the building's innate spatial capacity to *articulate* social relations.[45]

Thus, regarding the primary, generic function of buildings as social sorters and shufflers, one is inclined to assert that the move to emphasize building space in the festive and ritualistic life of crowds was twofold, co-extant but simultaneously paradoxical. For some (the Bolshevik Party, particularly towards the late 1920s), it was to control the unpredictability of crowds; for others (especially the Proletkult, critical social philosophers and the avant-garde artists and architects), it was actually to experiment with, and refine the new social relations with the aim of forging and developing them in an open-ended way. The 'building' was a laboratory for social relations - a field of experimentation. Both building and city were such experimental milieu, yet obvious resource limitations and difficulties in city construction limited the latter. It is in context of this framework that one may locate the period notion of buildings as 'social-condensers'. Two intricately interrelated questions arise here, and which this dissertation will address: to what extent may a 'building' actually achieve such goals? And how far have the Soviets stretched the very notion of a 'building' in their process of experimentation?

Another set of questions arise concerning the city in which this new species of building evolved. How did this expanding conception of a 'building' transform conceptions of the 'city', and vice versa? Conventionally, the building related in almost a hierarchic or concentric manner to the city; it sat within urban property lines (as part of the overall framework of ownership) and/or the city block (derived from the pattern of movement). Exceptionally, significant buildings transcended such a framework, and usually primarily in size. Hence, the Kremlin sits on a bigger block, composed of numerous plots. With private property diminished or even abolished after the Russian Revolution (except during the period of the New Economic Policy 1921-8), the city's framework of ownership lines was rendered meaningless. City blocks were more like fields than

[45] Although the reasons for the 'move' – or for employing building spaces to accommodate mass events – as contemplated by the protagonists themselves has not yet been unearthed in the literature, the explanation cited above is consistent with the design moves and decisions in the works to be examined themselves.

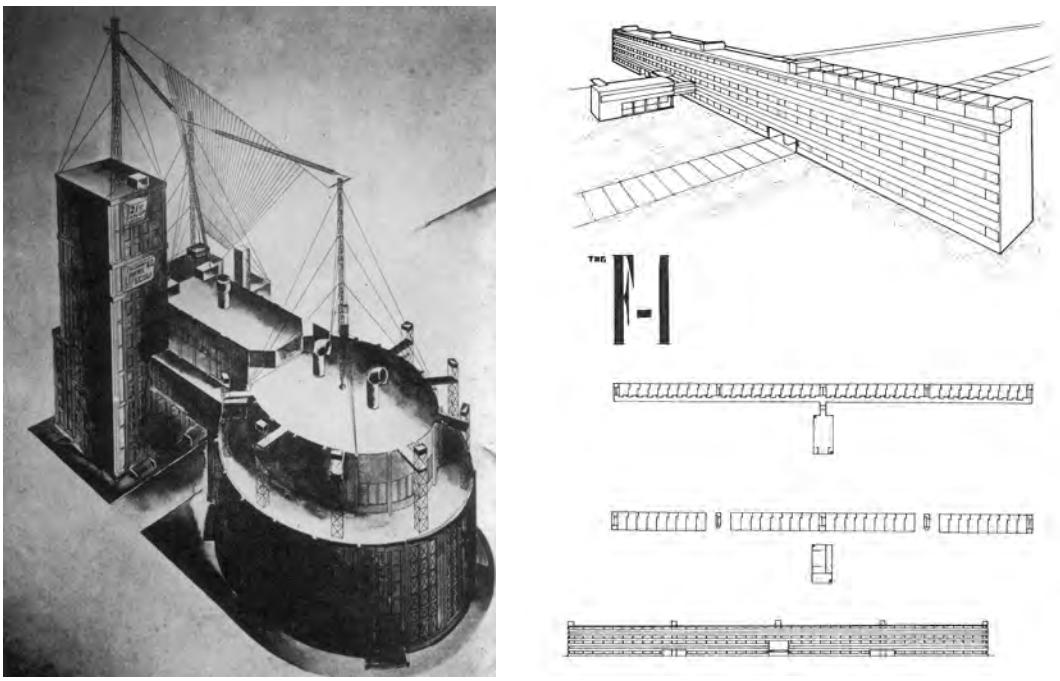


Figure 2.8 Note how the colossal Soviet building bestrides the urban street
left Vesnin Brothers, *Palace of Labor* Competition Entry, 1922, Axonometric: [source: Cooke, *Soviet Architectural Competitions*, 1992].
right M. Ginzburg, *Communal Housing Research Project for R.S.F.S.R.* [source: Kopp, *Town and Revolution*, 1970].

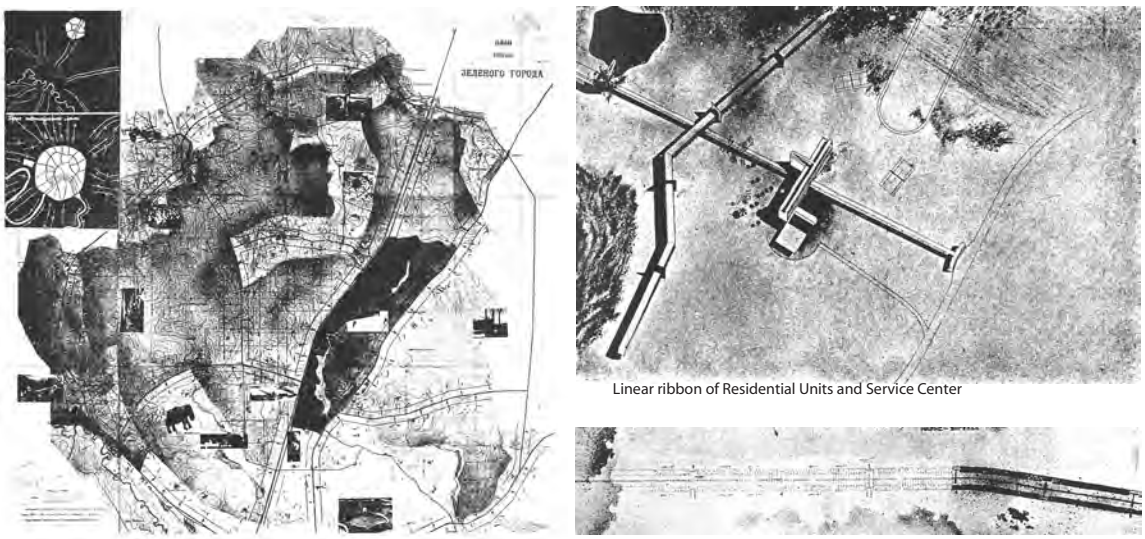


Figure 2.9 M. Barshch & M. Ginzburg, *Green City - A plan for the Socialist Reconstruction of Moscow*, 1930.
[source: Kopp, *Town and Revolution*, 1970].

aggregates of plots. Moreover, given the gigantism characteristic of the period's buildings dictated by a desire to accommodate mass-events, their requirements, and the collage of numerous functions within their confines, buildings only naturally transcended the smaller property framework, and came to treat the block itself as the field of their *parti*. Put differently, the 'building' came to compete with the city block in determining spatial relations in the city. This is more emphasized in urban proposals of the Soviet Urbanist school of thought on city planning. An Urbanist building negotiated the limits of the large city block through compartments of mass and open space of complementary use to the enclosed spaces. Not infrequently, the building also sought to 'transcend' the block, by crossing over its confining streets and extending into neighboring blocks, or through reconfiguring streets and open spaces in its immediate context (e.g. the 1922 *Palace of Labor* entry by the Vesnin Brothers, and Mosei Ginzburg's research project schematics for Communal Housing with collective services, c.1927 – figure 2.8). For the opposing camp, the Disurbanists (or the Deurbanists as Anatole Kopp calls them), the extensive linear building traversed a larger landscape, effectively decomposing urban density altogether (such as M. Barshch and M. Ginzburg's *Green City* scheme for the reconstruction of Moscow; see figure 2.9 for a partial plan for an area outside Moscow). To focus the inquiry, this thesis will only secondarily address the transformation of the urban in this dialectic between city and building; the latter remains in the cross-hairs of its researches. Having to contend with the big city block (to assert itself against its immensity), as well as to 'rationally' structure its field into spaces, the building begins to acquire features and functions hitherto not its own, taking on certain urban qualities. Both the *Palace of Labor* and the *Palace of Soviets* competitions indulged in such explorations.

Crowd and Collective

Yet unanswered is the question of how the phenomenon of the crowd relates to concepts and constructions of larger social collectivity. How do crowd properties invoke qualities of the collective? And what clues does

"crowd" lend about the collective? Confronting this set of questions is predicated on addressing two underlying, interrelated problematics. One concerns the measure of rationality, if any, which a crowd exercises in its internal communications and decision-making. If the crowd partakes in rational communication alike that practiced in social collectives, then its influence on such collectives is logically plausible. The second problem revolves around what forms of collective consciousness the crowd evokes for itself, variously termed: like-mindedness (by nominalists alike F. Giddings, following Le Bon and Tarde), corporate action, and group consciousness (by realists following Emile Durkheim, and later post-1960s sociologists).[46] Resolving this problem qualifies the generative nature of the crowd. Together, tackling the two problematics establishes grounds for explaining the historical Soviet case of presenting the crowd as a model for society.

On the question of rationality, sociological literature seems split across the afore-mentioned historical divide of the 1960s. Before the Civil Rights and anti-Vietnam War Movements, the crowd was predominantly (albeit not exclusively) characterized as an irrational *foulé*, and a departure from normative social conditions. Heeding Blumer's 1951 classification (crowd, public, mass and social movement) for a moment, one would reach the conclusion that a crowd is an isolated phenomenon fueled and defined by, above all, its emotional excesses – and one which, at best, experiences a temporary explosion of consciousness.[47] Even Robert E. Park's more sober augments on social organization and social control, from the 1920s through the early 1940s, pronounces a leaning towards negating self-consciousness from collectives and associations. In the period post the Civil Rights movement, sociological literature registers more fluid continuities between the two conditions of crowd and collective.[48] Conducting field studies on spontaneous crowds during the Vietnam anti-war protests, Richard Berk concludes that crowds are driven by forms of rational decision-

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[46] See Robert E. Park, "Sociology and the Social Sciences: The Social Organism and the Collective Mind", in *The American Journal of Sociology,* Vol. 27, No. 1 (Jul., 1921): pp. 6-12.

[47] See Blumer, "Collective Behavior", 1951: pp. 178-96, but particularly pp. 195-6.

[48] See Jesse Steiner's "Community Organization and the Crowd Spirit", *Journal of Social Forces* vol. 1 (3) (March 1923): pp.221-6.

making, as well as free individual agency (rather than hypnotic imitation of others).[49] Furthermore, Carl Couch offers a conceptual framework for relating forms of collective behavior (including crowd activity) to general sociological theory and normative social actions. His seven "dimensions of association" provide a "framework that can be applied to all instances of concerted behavior".[50] Couch thereby articulates Emile Durkheim's earlier hypothesis regarding "*l'autre chose"* which emerges from the fermentations of collective association – the "common purpose" which "imposes itself upon individual members of society at the same time as an ideal, a wish and an obligation."[51]

If it is conceptually and methodologically possible (following Couch) to conceive of crowds and collectives using the same theoretical categories, it is no stretch to conjure one to inflect the other in practice. And this, one may legitimately interpret, was what the influx of post-revolutionary meetings, assemblies, parades, festivals, and demonstrations which the Soviet Proletkult organized, was meant for.[52] Collective behaviors, especially the mass crowd, was posed as a *model* to other social formations. The impetus for such a move harkens back to the revolution's earliest defining moments in February 1917, as well as the ensuing months. For the Soviets, crowds were not only central in executing the events of the revolutionary year, but also emerged as (at least) an equal pole in the power relations within the emerging Russian society, as well as an arbiter in determining legitimate authority, on par with government, unions and representative soviets.[53] As consciousness of the self-heightened within "larger aggregates", namely the category 'proletariat' (rather than within individual unions or geographical regions), the crowd, as that entity's most (if not only)

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49 Berk, "A Gaming Approach to Crowd Behavior" (June 1974): pp. 367, 370-1.

50 Carl J. Couch, 'Dimensions of Association in Collective Behavior Episodes', *Sociometry*, vol. 33, No. 4. (Dec., 1970): pp. 458. Couch's seven dimensions of association include: "1) monitoring; 2) acknowledgement; 3) parallel and reciprocal alignment; 4) parallel and reciprocal roletaking; 5) identifying; 6) directing; and 7) evaluating" – see p. 458 for a summary of the seven associations; their articulation covers the rest of the article.

51 Park, "Sociology and the Social Sciences: The Social Organism and the Collective Mind" (Jul. 1921), pp. 11-12.

52 I have to remind the reader here that the review of sociological literature conducted above strictly reviewed Western literature on crowds and collective behavior. Soviet literature, most of which is not available in English translation, may well have transcended the Western schism bridged only in the 1960s and early 1970s – just as, I argue, Soviet crowd behavior and practices in the post-revolutionary era did in fact assign measures of rationality and collective consciousness to crowds as models of collectives.

53 William G. Rosenberg, "Identities, Power and Social Interactions in Revolutionary Russia", in Slavic *Review*, vol. 47, no. 1 (Spring 1988): pp.25. I need to clarify here that Rosenberg views this development in unfavorable light – as an instant when the evolving revolutionary associations lost the ability to resolve fundamental grievances or relieve perceived injustices…" – see Rosenberg, "Identities, Power and Social Interactions in Revolutionary Russia" (Spring 1988): p.26. Nevertheless, what concerns me here is the historical transformation in identifying with different forms of Soviet collectives.

experience increased in significance. With the revolution's development into the 1920s, the crowd – and associated 'mass activities' – evolved into a mode of ongoing 'revolutionary being'. "The individual was seen as a member of a team, in constant motion – in processions, at meetings or marching in the ranks".[54] Major building programs in the 1920s and 1930s included (occasionally as their chief components) spaces for massive assemblies, parades and/or audience theatres. Indeed, the afore-mentioned Italian designer Gaetano Ciocca's imagination about mass theatre was initially fueled by the mass workers' theatres he observed in the Soviet Union during his two-year residency in Russia in the early 1930s. Ciocca's commentary on Soviet mass theaters is a useful 'expert witness report' to post-revolutionary crowd events in Russia:

> Among the thousand Soviet contrasts, the most telling is that between the gloomy monotony that oppresses the average citizen in his family life and the mirthful excitement of collective events. In cinemas and theaters, the audience, always unbelievably overflowing, constitutes a spectacle unto itself. It enraptures the performers and is enraptured by them.[55]

What the Soviets sought to create was a *public* impregnated by frequent instances of the active crowd - forged out of frequent crowd gatherings and encounters. Public(s), social movements and society at large were meant to emerge as the cumulative function of such overlapping layers of crowd activity. A constantly agitated population forged out of the recurrent instances of the organized (and spontaneous) crowds became the vehicle for shaping a collective consciousness among a largely uneducated and geographically-dispersed population. Gregariousness became a mode of revolutionary being, a medium for redefining subjectivity (individuality and representations of the self) within the new regime that, for better or for worse, sought to entangle the individual incessantly and persistently in a larger *Kollektiv*. Instead of the autonomous liberal 'self' prevailing in the West, the Soviet subject was seen as an individualized "social

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[54] Khan-Magomedov, Selim O. *Pioneers of Soviet Architecture: The Search for new Solutions in the 1920s and 1930s*, translated from Russian by Alexander Lieven, edited by Catherine Cooke (New York, Rizzoli 1983): p. 399.

[55] Excerpt from *Giudizio sul Bolscevismo* by Gaetano Ciocca, quoted in Schnapp, "Between Fascism and Democracy" (1995): p.128.

body".[56] To further illustrate this, the following is an excerpt from a lament by Kostya Riabtsov, the first-person character in Nikolai Ognev's 1929 novel *Diary of a Communist Undergraduate*, about his lifestyle as a marginalized individual in a society marching to a collective beat:

> I have drifted away from the masses. This is quite clear to me – for I have no intimate friends, and any of the social work I do is done in a bureaucratic spirit. At school, I was the child and product of my environment, but what am I now? I haven't had time yet to enter into the collective life of the University. All this crowd of twelve thousand people seems to have fallen on top of me and squashed me. I haven't been absorbed by it, and don't fully belong to it yet. There is a certain amount of individualism in this, and I'll have to watch it carefully. I believe that for this reason even Sylva has come to be a bit of a stranger; for she is a clear representative of the collective body – there is no doubt about it. … she moves and develops on collective lines …[57]

Significantly, Ognev's Riabtsov recounts his diary's events as occurring, predominantly, inside building interiors where crowds of various sizes mingle and exchange. In this light, it becomes clearer why, as discussed in the previous section, crowds in larger numbers and greater frequency moved to occupy and harness architecture's principal artifact, the building. To hold up the crowd-gathering as a practice of everyday-life and as a model for social-being, it was necessary to allow it to morph itself into its own indigenous social forms as it re-negotiated its different institutions: from domesticity to education and production. Hence the building's role as the device for fine-tuning such new social forms; and hence it was equally necessary to overcome the pre-revolutionary roles of the building in the urban fabric as a private sanctuary, a final destination and a point for social dispersal.

Yet it has to be noted that accounting for how the imminently spatial forms of collective behavior which the Soviets adopted (from street protest and festivals to collective housing and workers' clubs) fit within the Marxist canon is not easy. Whether in its analysis of bourgeois social structures or its advocated workers' revolution, Marx' philosophical system ironically assumes an irrational crowd and proposes hyper-spatial

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[56] Kenneth M. Pinnow, "Violence against the Collective Self and the Problem of Social Integration in Early Bolshevik Russia", *Kritika: Explorations in Russian and Eurasian History* 4(3) (Summer 2003): p.654.

[57] Nikolai Ognev, *The Diary of a Communist Undergraduate*, translated from Russian by Alexander Werth (Westport, Connecticut, Hyperion Press 1929/1973): pp. 211-2.

relations as constructive of the new proletariat class consciousness.[58] This observation underscores that neither the formulation of the crowd-design-problem nor the architects' response to it may be construed as a mere application of a political philosophy – even one as dearly held by the crowds in question. Instead, one needs to interpret the crowds' spatial practices themselves for what political agenda they posited and the social forms they engendered.

In sum, what emerges by the end of WWI is an evolved modern crowd, one that demanded visualization from within, and one that became a pervasive mode of social being (especially in the Soviet case, but similarities may also be glimpsed in Germany, Hungary, the Netherlands and even in non-European contexts such as India and Egypt). Simultaneously, the crowd changed setting: moving from its indigenous setting of the city and into the building. Furthermore, to some Soviet minds the crowd, spatial in definition and pervasive as a condition, came to presage social collectivity – to demand its redefinition on its own terms.

[58] E. Weede & E.N. Muller, "Rebellion, Violence and Revolution: A Rational Choice Perspective", in *The Journal of Peace Research*, vol.35 , no.1 (1998): pp. 43-59. One also infers crowd irrationality as one reflects on Karl Marx' own thoughts regarding "the consciousness of men" in the "Preface" to *A Contribution to the Critique of Political Economy (*Progress Publishers, Moscow (1977: 1859), online at http://www.marxists.org/archive/marx/works/1859/critique-pol-economy/preface.htm (accessed since May 2007). I will return to Marx' remarks on consciousness in later chapters; I will argue that this, in fact, constituted the fundamental problem at hand.

CHAPTER 3

Spatial-Construct: Unpacking Design Problems Spatially

Preface

Three significant features of the urban crowd phenomenon of early modernity emerged from the previous chapter: its evolving bias towards the building as setting and as an accommodating artifact; its quest for self-representation and formal impetus from within its own dynamic; and its pervasiveness as a model among other forms of collective behavior – indeed among social relations in general, and emerging as an arbiter in early Soviet power relations. Yet concerned, above all else, with focusing the investigation, arguments in the preceding chapter have left the investigative terrain inadequately staked. Posed as the historical and socio-political problem it was, the phenomenon of the crowd does not yet lend itself to rigorous architectural scrutiny. Discerning the historical shift from city network to building environs does not yet furnish analytical spatial categories for comparing 'urban-crowd' to 'building-crowd'; nor does it yet identify with what spatial patterns the crowd engages the building artifact, and vice versa. Identifying the crowd's aspirations for self-representation leaves largely unarticulated the specific visual and graphic devices imposed on the crowd, and leaves yet totally unscathed this enigma of its internal dynamics. Discovering the increased role of crowd formations in collective social formations reveals little about the spatiality of the urban crowd and far less about how the phenomenon of 'togetherness in the here-and-now' which defines a crowd may inform the trans-spatiality of the larger collective.

If defining the crowd design problem is the overarching concern of Part-I: The Charge (chapters two through five), defining such a problem *in spatial and architectural terms* is its specific mandate. But what does it mean to define a problem, particularly a socio-political problem, in spatial and architectural terms? How and what constitutes such a spatial definition? What ingredients obtain? The argument is challenged at this point, in this chapter, and before initiating its examination of the competition briefs and other sources of the problem-definition, to generate workable conceptual categories that facilitate description from a spatial viewpoint.

In this chapter, I propose the notion of *spatial-construct* with which to anchor such a spatial definition of the crowd problem. What constitutes a spatial-construct will be articulated below in the chapter's main argument, but here I wish to foreground two key component ideas. Besides identifying spatial patterns of unresolved tensions, desired spatial and visual (or sensory) relations and conceptions of body and objects, defining a problem spatially using a spatial-construct involves determining: a) the intentionality of spatial transformations or the agency of inscription and b) the innate, underlying logic of spatial transformations – the logic of the medium. I foreground issues of intentionality and agency from the onset, partly because they are inadequately considered in current discourses on space, but mainly because agency is central to crowd problematics. Making its own space is a direct corollary of the crowd's quest for self-representation and self-awareness. Intentions are cognitive acts - whether conscious or sub-conscious; hence the attendant need to discern how intentionality gets *inscribed* in space. Inscription denotes marking or stamping space with a group's collective aspirations and resultant wills. This may occur in two states: marking onto physical or 'hard' space (as configuration, order, and even phenomenal qualities such as light), and/or in the more ephemeral habitual practices of peoples (as choreographies of movement and stasis). Although coinciding and mutually-constructive, the two states are irreducible to each other, as Bernard Tschumi cautions us.[59] Both states of inscription involve intentionality but also authority and hence agency - the right to transform space (after Henri Lefebvre and David Harvey). But it is the first state of inscription, hard space, which

[59] Bernard Tschumi, *Architecture and Disjunction* (Cambridge MA: MIT Press, c1994)

demands more authority and agency;[60] it will also be the one to receive more emphasis in this chapter and more scrutiny in later ones, primarily as the key to morphological descriptions of spatial-constructs. Still, both states of inscription will remain integral to any sufficient theory of description demystifying the agency of constructing space. At the same time, the "agency" of architectural space itself as a medium is at stake here: how space inflects social aspirations projected onto it. It is thus crucial to discern the morphological import of such social aspirations in comparison to the morphological import of the architects' design moves.

To argue my case for this notion of a spatial-construct, I will draw critical comparisons to the works of Michael Baxandall and Paul Frankl. Baxandall's work provides a key for dealing with issues of intentionality, albeit being poorly reconciled to the logic of space as a medium. In contrast, Frankl's work prompts an insightful analysis of spatial-form, if almost totally blind to intentionality. Between those poles of the literature, I attempt to chart a terrain populated by the situated agency of making and intentionally transforming space, as well as the impersonal logic of space as a medium. Conceptually, what I claim spatial-construct achieves is to provide a theoretical leverage for approaching *a morphology of social space* (i.e. of crowd) – an approach which hypothesizes that the social act of making space possesses a fathomable logic. To illustrate, I will also proffer examples – of my own formulation in other research – of how a spatial-construct may work. Once clarified, spatial-construct would enable formulating the crowd design problem in the following two chapters, as well as inferring the architects' response in later chapters.

As is already evident, an implicit challenge for this chapter is to locate the trajectory of this investigation among multiple disciplines of thought: architectural history, architectural theory, morphology, the arts of interpretation and just plain common sense. Although this chapter may seem like a theoretical platform onto which consequent chapters build, the actual dynamic will proceed in reciprocal feedback loops. In other

[60] In an analysis of the Egyptian Nobel laureate author Najîb Maĥfűz' novel *Palace Walk*", I argue that the ephemeral habitual practices of Egyptians under British occupation were the limited agency of the oppressed. Such choreographies of movement and stasis constitute the range of agency for those whose ability to transform physical space is prohibited. Hazem Ziada, "Spaces of the Oppressed: A Spatial Reading of Najîb Maĥfűz' Palace Walk" paper being edited for publication in *Middle Eastern Literatures.* ,

words, arguments and observations in subsequent chapters should be regarded as testing the hypotheses set out in this one and even stretching their limits, at the same time as an attempt to follow their guidance. Validation of the theoretical claims and hypotheses set forth here may not necessarily reside within the folds of their arguments, but may be 'empirically' vetted in later chapters. In fact, the thesis as a whole should be seen as this one continuous, mutually-dependent argument.

Spatial-Construct

A first step in articulating this notion of spatial-construct comes indirectly via a critique of Michael Baxandall's Charge-Brief distinction, outlined in his 1985 book *Patterns of Intention*[61], and which proves to be of significant utility if mainly as an initiating device. Discussing works of art and engineering, Baxandall outlines the *Charge* as a form of problem-definition, instantiated by society or client, and usually set down in program, in conversations between client and artist or implicit in assumptions about artifacts. *Brief*, on the other hand, describes the artist's or the designer's unique interpretation of the problem seen against the discourses or traditions he/she engages. Through examples from Pablo Picasso's and Jean Simeon Chardin's works, Baxandall illustrates how the given problem – the Charge - registers as alternative categories in the artist's mind as the first step in formulating art (or design) intention. Baxandall next follows the artist's productive process down to the brush strokes, to qualify how the act of making itself, rather than being a mere application of ideas, expands the terrain of intentionality and negotiates its discoveries along the way. Far from being simplistically construed as conscious thoughts traversing the artist's mind, Baxandall's Brief frames intention as a space of possibilities triggered by the artist's initial ideas and prior experiences, and further expanded in the very act of making the work of art.

[61] Michael Baxandall, *Patterns of Intention: On the Historical Explanation of Pictures* (New Haven: Yale University Press, 1985).

This Charge-Brief opposition begins to demystify the notion of intentionality in the work of art. In fact, Baxandall's distinction is not between objective and subjective problem-formulations, but between two forms of problem-formulation, issuing from different subjective frameworks. Yet Baxandall's model itself requires some revision before it lends itself to useful manipulation here. Two anomalies deter its application in this specifically architectural problem with critical social concerns.

While Baxandall is quite articulate about the formulation of the 'Brief' by an individual designer, artist or - by extension - even a movement (i.e. an entity defined with reasonable clarity), the intentionality and agency of the 'Charge' are far less convincingly explained. This signals the first difficulty in applying Baxandall's model, as it stands, to a research question which does not take for granted how a collective of peoples (a crowd or a whole society) formulates spatial problems. Just how different understandings of the Firth of Forth Bridge problem evolved and filtered to its engineer, Benjamin Baker, receives scant review in Baxandall's argument. How did the problem of the bridge percolate in contemporary Scottish society – and what forms of consensus or dissent did it engender? Specifically, what spatial and symbolic problems was Baker, as a space-making engineer, confronted with? This anomaly may also explain why Baxandall's own framework elsewhere makes room for a third ingredient alongside the Charge and Brief: *Period-eye*,[62] right where the ambiguity resides – in articulating issues of context. Baxandall's concept of *Period-eye* sums up pervasive visual habits and pictorial practices in a historically-situated social milieu, and which act as an implicit visual and pictorial context the artist encounters when setting brush to canvas. These range between coded signs, such as religious hand gestures and body postures - to assumed visual skills, such as the seventeenth century merchant practice of gauging complex forms in terms of their volumetric parts.[63] Such codes, skills, habits and norms evolve as part of a society's history; they comprise an integral part of its visual biases and its pictorial repertoire and hence contaminate any Charge that this society assigns its artists and designers. What Baxandall calls *Period-eye* is inevitably an undercurrent of the *Charge*. Yet

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[62] Michael Baxandall, *Painting and Experience in Fifteenth Century Italy: A Primer in the Social History of Pictorial Style* (Oxford: Clarendon Press, 1972).

[63] Baxandall, *Painting and Experience in Fifteenth Century Italy* (1972): see "Part II: The Period Eye"

Baxandall's critical repertoire has never really reconciled the two constructs, discerning boundaries and overlaps between *them.* For the purposes of this thesis, they need to be further conflated – even collapsed onto each other; Charge is incessantly re-forged and infused by relevant social perceptions and visual practices. It is more dependent on a further ranging set of issues and practices than Baxandall assumed.[64] Simultaneously, this problem-space, now broadened to unmanageable and unchartable extents, needs to be re-parsed using an alternative construct.

This leads to the second anomaly in Baxandall's model, concerning the *medium* of formulation across Charge, Period-eye and Brief. While Baxandall does not address any specifically architectural problem in his œuvre, the body of his work seems to imply that the objective formulation of a charge may occur in any medium – or, rather, that the medium of formulation is irrelevant. Hence, the problem of the Firth of Forth Bridge occurred as *statements* in official documents and in the press evoking a type ("Bridge"!) which then become somewhat conditioned by specificities of site, context and material. Baxandall describes Picasso's charge in executing *Kahnweiler* in more elusive terms, but it seems to have been the conventional verbal transaction between client and artist to paint a portrait. According to Baxandall's argument, Baker's and Picasso's responses in their own media of steel structure and paint-on-canvas occurred in direct response to such formulations.

While such ambiguity of medium may remain uncomplicated (albeit unconvincingly so, I should note) in such cases alike bridge-building and painting, it is particularly problematic in the case of architecture. Architecture deals in a medium deeply entangled in its society's everyday-life; more so, the architecture of revolution constructs a socio-political program. As such stuff as society is made on, spatial practice could present a formulation of the charge that is possibly parallel - even alternative - to society's pronouncements. What Soviet society proclaimed in project programs and competition briefs, and even in its mass broadcasts,

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[64] Baxandall, *Patterns of Intention* (1985): see "Introduction: Language and Explanation", and Chapter One, "The Historical Object: Benjamin Baker's Forth Bridge".

publications and political speeches remain distinct from – and potentially secondary to - how its social practices transpired in space and, in the process, framed the architectural problem. Baxandall's ambiguous characterizations of Charge and Period-eye need to be re-parsed so as to further distinguish formulations in the medium of space from those in other media. Recovering dimensions of the crowd design problem and response overlooked by verbal articulation, such spatial formulations would also prove decisive in differentiating what belongs to either realms of Charge and Brief, and in more succinct terms. Simultaneously, by observing this medium-specific formulation we may detect whether architects actually responded to the given challenge, strayed from it or presented society with an utterly novel formulation; i.e. a gauge of equivalence and transcendence. In the process, we may also clarify an essential question: what Architecture contributes. Contrary to common assumptions, some lauded design strategies will prove more integral to the contextual framework presented to the architects than what architecture actually offered - and vice versa.[65] An important corollary to the above two critiques of Baxandall's model is the need to regard agency in architectural problems in fundamentally spatial terms. The implications of such a corollary on method are immense, and will be addressed later in this chapter. But what needs to be discussed first is a conceptual guide with which to re-frame questions of intentionality and agency in problems of social space.

Proposed here is an alternative parsing which employs *spatial-construct* as a guiding concept. At some elementary level, the concept of spatial-construct takes as its departure point the consideration of a built environment from the viewpoint, not of its corporeal form as Baxandall's model would imply, but rather through a shift in emphasis to the fluctuating networks of interrelations binding the components of corporeal form – to the medium of space itself. As such, this distinction hardly sets spatial-construct apart from Paul

[65] As a side effect to such re-conceptualization in terms of spatial-construct, a more generic recasting of the notion of program and its relation to design possibly follows. Regarding building program as, essentially, an articulation of a social, functional or behavioral problem in spatial-form does more than offer a new medium of exploration for programming. Additionally, it casts off the essentially analytical constitution projected by many programming theories, in favor of a more synthetic, generative fabric. This leaves program and design on turf with more common denomination: they both partake of the same resource. Addressing this issue lies beyond the scope of this thesis.

Frankl's notion of spatial-form [66]. Yet, for all its descriptive prowess when addressing the morphological properties of spatial types, Frankl's spatial-form neglects the *process* by which spatial morphologies come to be. It does not account for the making of the artifact, its intentionality and agency – as registered in the artifact itself; and hence, I claim, Frankl's spatial-form overlooks ingredients of the space it portends to describe. An additional set of ingredients are needed to account for the intentional act of spatial change.

To that end, one needs to locate the morphology of action and agency within that of physical space. An important distinction to draw lies between the ephemeral actions practiced by active agents (individuals or collectives) *in* a space on the one hand, and such residue of actions as get inscribed into the physical fabrics of space (its relations of configuration, distance, …etc). As posited in this chapter's introduction, both constitute states of inscription; habitual, recurrent practices are what may be deemed weak inscription, while the stronger state of inscription etches its traces onto the durable, physical fabric of built space and the network of relations that bind its parts. Both states remain necessary to understanding acts of inscription historically, and integral to any description of a spatial-construct. Social actions get inscribed in physical space through a historical process of political negotiation amidst power imbalances. Access to the prerogative to transform space is a privilege which not all members of society *usually* possess on equal footing – a right that customarily has to be earned and even fought for; accordingly, not all ephemeral actions find their inscription in physical space. If the making of space is an ongoing narrative of re-configuring the relative positions of objects and bodies (qualified by attendant phenomenal properties), inscription arrests this process to negate some actions (those of the disempowered) while scripting others (those possessed with the right to space) into physical space as 'legitimate', repeatable traces. Generic physical space is comprised of the residual traces of inscription which this power imbalance negotiates, in context of yet another series of negotiations with the materialities of making and building, as well as the resilience of space itself as a medium with indigenous configurational and formal properties. Out of this generic shaping of physical space, a historical process develops where the social evolution or intentional

[66] Discussed by Paul Frankl, *Principles Of Architectural History* (Cambridge, Mass., MIT Press, 1968).

employment (through design) of such inscriptions cohere into distinctive and consistent, regularly-recurring and generative, morphologies of space. A spatial-construct thus *emerges*.

I define a *spatial-construct* as an emergent formulation of practices of inscribing physical space which has attained a relative degree of formal cohesion and temporal steadiness contingent on the active agency which sustains it. For the long or short duration of its steady state of cohesion, a spatial-construct resists the infringement of ephemeral acts of a fundamentally different nature, while ingesting those with compatible affinities. As emergent, such a construct of space acquires properties distinct from its constitutive elements. A consistent syntax develops, and in such a way as to generate a specific range of conceptions for objects and bodies within this space. A non-static, self-generative construct, it incubates a particular range of rules for the making and remaking of spaces as well as a particular scope of diverse meanings about spaces. It is such that it is, simultaneously, a construct of the spatial as well as of the political kind. Formulating design problems construed in architectural terms, I contend, begins with a spatial-construct. A design problem may issue from a persisting tension or contradiction within a spatial-construct's confines; the more profound the tension or contradiction, the deeper the challenge it poses to the authority sustaining the spatial-construct – as the mosque example below will demonstrate. But a design-problem may also arise from the challenge posed by a profound infringement onto an existing spatial-construct, or the proposition of an alternative – if still tentative and quasi-stable - spatial-construct. As I will demonstrate in the next chapter, it was just such a mixture of profound contradictions and infringing alternatives which Soviet society offered its architects to frame the crowd design problem, through the performative, non-discursive media of its street festivals, revolutionary theatre and emerging art.

What justifies positing such a hypothesis - about the coherence of inscriptions into what amounts to authority-contingent, quasi-stable spatial-constructs - are observations on the historical processes of making space and which extend beyond the Soviet case under study. Ahead of discussing two illustrative examples below, I want to draw clarifying distinctions between spatial-construct and other notions which may be

conflated with it. Besides incorporating notions of authority and agency beyond Paul Frankl's spatial-form (as discussed above), a spatial-construct should also be distinguished from Pierre Bourdieu's *habitus*. While the *habitus* describes a level of experience that is primarily non-discursive and almost sub-conscious – almost the generic undertone of spatialzed social practice - spatial-construct encompasses constructions of socio-political life across its different levels of human and social consciousness. Indeed, spatial-construct subsumes such differences under the rubric of spatial phenomena. Furthermore, in the following discussion of examples of spatial-constructs, this category should not be confused with that of 'building typology', such as a religious institution, despite convincing overlaps in qualities.

Examples of Social-Constructs

To demonstrate more vividly the dynamics of a spatial-construct, I take a brief detour to discuss a main example, the prayer-hall in mosques, and compare it to early modernist conceptions of space as another. This is an attempt to clarify what the investigation would be looking for when probing the *Palace of Soviets* competition brief, and Soviet culture of the 1920s-1930s more generally. As will become evident, the following discussion offers distinct variations on social agendas and on the stability of spatial-constructs. Moreover, the examples expose the tensions, paradoxes and contradictions which, I claim, inevitably plague any spatial-construct – and which by necessity it checks into a tentative balance. The medium of space, as revealed in this exposé, is possessed of uneven grain – the very quality which embeds the seeds of transformation in its folds, and which exposes it to the possibilities for change.

What is compelling about the prayer-hall in Muslim mosques[67] as an example of spatial-constructs in the context of this dissertation lies not only in that it is a crowd space in its own right, but that it constitutes a

[67] Following arguments dissecting the spatial-construct of the mosque's prayer hall are culled from three of my papers, as follows: Hazem Ziada, "Mosque (till 1900)", The *Oxford Companion to Architecture* (Oxford: Oxford University Press, 2009). Hazem Ziada,

straightforward case, and which has displayed a surprising state of near-permanent stability throughout its fourteen centuries of history to date. It derives this relative constancy from the authority of its founder, Prophet Muhammad, at the formative moment in Islamic history – an authority which remains manifest in the nearly unchanging nature of the ritual practice dominating its program of activities (including education and community gatherings). Heeding the call to prayer, congregants align in straight uninterrupted rows, unanimously facing towards the *Kaa'ba* in Mecca – shoulder to shoulder, foot to foot. As the *imam* (prayer-leader) recites Quranic verses and devotions aloud, congregants listen attentively, then follow his prayer movements, carefully observing not to overtake him. Standing, kneeling, prostrating, then sitting is a full *rak'aa* (ritual-unit), repeated in different aggregates five times per day and night.

This daily practice constitutes the primary inscription process in this space. Throughout communal prayer, close-knit prayer-lines generate a dense, contiguous form, moving in unison. Hence, what persisted among the regional styles of mosque architecture across several continents, numerous cultures and a long history, is a tendency towards shaping the prayer-hall as a continuous field, uninterrupted by liturgical artifacts or furniture - whether visually, as physical flow, or symbolically. Unlike the Bema or Ark in synagogues, the chancel or altar in churches, no object may be introduced within the mosque's prayer-hall, except temporarily then promptly cleared away to guarantee the continuity of prayer-lines, and only for instrumental use without sanctified associations. Unlike the Bible and the Torah, the physical volume of the Quran is assigned no liturgical location within the *masjid*. Since prayer occurs through moving the body in relation to the ground, stalls were never required[68] [for samples of what drives this uniform continuity, see figure 3.1].

As such, the spatial-construct of the mosque presents itself as a contiguous elastic volume, firmly delimited only by the ground –plane and at the boundary towards the *qibla* wall facing towards Mecca, but otherwise

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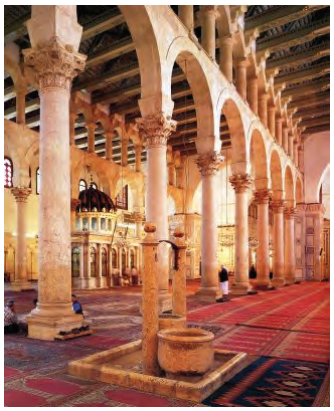
"Kinesthetic Foundations of Spatial Concepts and Configurations", *Proceedings of the Sixth Space Syntax Symposium.,* Istanbul, 2007. Hazem Ziada, "Aesthetics of Ritual Space: The Case of the Mosque", paper presentation at the AAR (the American Academy of Religion) (Montreal, November 2009).

[68] The only exceptions to this practice - of having no stalls or furniture of any kind - are mosque spaces for the Nation of Islam in North America from mid-twentieth century through the late 1970s.

extending sideways, backwards, and around objects of necessary utility (structural columns, *dikka, minbar*….etc.). The condition of such contiguity and elasticity is uniformity: no point may be assigned significance or rank more or less than others, let alone place objects of sanctity at any point. Even the *imam's* position is temporary for the duration of prayer. The datum of this continuity is the ground: contiguous, unmarked and (usually) flat. Additionally, a sense of simultaneity pervades the mosque's prayer-hall; ritually, Muslim prayer involves no processions and nothing is gained by traversing the hall. As a fundamental socio-political principle, what such spatial qualities of fluid continuity, uniformity and simultaneity proffer is *social parity*. Social hierarchies and economic disparities prevailing outside the mosque are subjugated to the uncompromising equality of prayer rows and spatial non-differentiation meant to dominate the interior. In principle, the mosque's prayer-hall rehearses the practice of a radical social equality on a regular basis of five times per day. This basic principle condenses the political agenda of this spatial-construct.

A peculiar aesthetic attends this space of uniformity and parity, and which I outline briefly[69] here to demonstrate how a spatial-construct generatively evokes conceptions of objects and bodies as well as design problems within its own framework. Perceptually, the prayer-hall's fluid volume - occupied by aligned, synchronized bodies - commands the foreground of attention; while positive focus (figure) is on the continuous volume, objects of utility recede into the background. In mosque hypostyle halls – columns or piers are perceived, not as objects around which a force-field coagulates (alike in some early modernist spatial conceptions), but as negative erasures in a continuum [see figure 3.2]. The psychological impact of an object or shape located in mid-space is not empathy, but rather 'backgrounding' or even forced transparency. Divided by columns or a *dikka* (a raised seat for relaying prayer calls), congregants observe alignment and 'visualize' themselves as contiguous despite interruptions; imaginary lines are projected across obstacles to cohere the assembly in minds' eyes. A form of transparency thus emerges as an

[69] For a more detailed argument of this aesthetic, see: Ziada, "Aesthetics of Ritual Space: The Case of the Mosque" (November 2009); available from the author upon request. Some elements of this aesthetic may be found in the following publications: Ziada, "Mosque (till 1900)" (2009); and Ziada, "Kinesthetic Foundations of Spatial Concepts and Configurations" (2007).



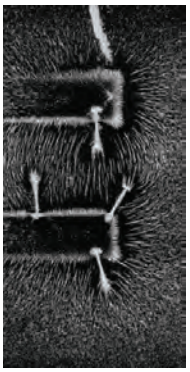
Great Mosque, Damascus

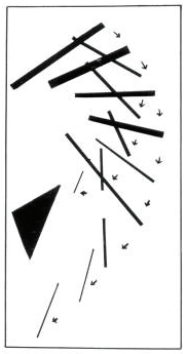
Cordoba Mosque, Cordoba

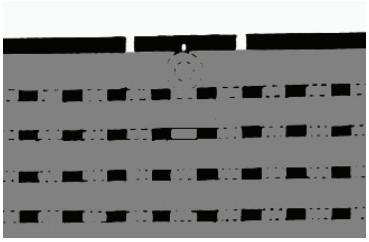
Ibn-Tulun Mosque, Cairo

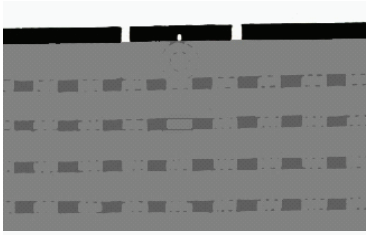
Istiqlal Mosque Jakarta

Figure 3.1 The spatial-construct of the mosque's prayer-hall: in principle, a contiguous elastic and expansive volume, of unequivocal uniformity. [sources: *archnet.org* ; *islamicworld.tmdtube.com* ; by author]









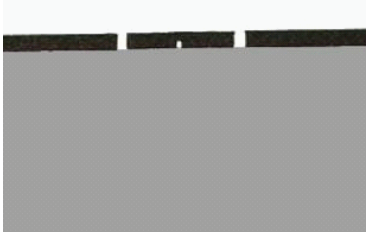


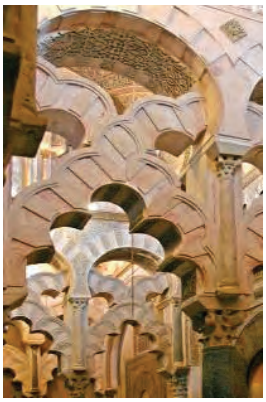
Figure 3.2 A comparison between two spatial constructs: the mosque's prayer hall and early modernist space
left diagrams likening early modernist space to the flux of a magnetic field [source Gyrogy Kepes, *Languages of Vision*, 1944]
right a diagrammatic approximation of the impression of transparency which permeates the mosque's prayer hall.

aesthetic of the prayer-hall's lower stratum populated by bodies. Such imaginative acts of seeing-through and fluctuation are confirmed by another aspect of the formal language of the prayer-hall occupying its upper heights. As Jo Tonna has observed, designers of hypostyle halls (e.g. Cordoba Mosque in Spain) contrived to evoke a sense of "perpetual hovering": between alignments of arches creating fluctuating impressions of implied vaulted volumes [see figure 3.3], as well as between one dimensional lines regulating ornament patterns into a perception of warped planes and bent surfaces.[70] The hall's space is vertically stratified into two variations on the language of transparency, each addressing different moments of spiritual engagement. Accordingly, mosque space may be seen to urge an aesthetic flux evoking an imaginary transparency of corporeal objects; indeed, it conceptually evokes their utter negation. Yet its treatment of the human body is radically different. Unlike objects which interrupt the space's fluidity, aligned, synchronized bodies are its *raison d'etre;* as the 'object' is negated, the body is affirmed in emphatically kinesthetic, tactile and non-visual terms. During congregational ritual, the body experiences primarily through lateral touch and synchronized physical engagement with other bodies against the ground plane. In sum: ocular engagement is marginalized in favor of an imaginative transparency which 'negates' objects, while presenting the body as a pulsing kinesthetic bundle.

This spatial-construct with its generative aesthetic has generally enjoyed a quasi-stable history. Yet throughout its centuries of development, challenges did arise to the principle of social-parity professed through its uniform spatial field, and to the authority such a principle represents, pushing its limits to such an extent that one may wonder whether the construct could maintain its principled political ideal for long. Contradictions arise in the prayer-hall space as problematics of power and gender. From early Muslim history, the prayer-hall volume, especially its upper stratum, became the domain where political authority inscribed its mark: through a wider bay on axis towards the *qibla*, a higher row upfront along the *qibla* wall, a domed accent on center, or the competing four axes of the *madrasa*. A singular or small-scale intervention

[70] Jo Tonna, "The Poetics of Arab-Islamic Architecture", in *Muqarnas VII: An Annual on Islamic Art and Architecture*, edited by Oleg Grabar (Leiden: E.J. Brill, 1990).

Hypostyle prayer-hall, Cordoba Mosque



Maqsura, Cordoba Mosque

Ceiling at Nasir al-Mulk Mosque, Shiraz

Calligraphy on column, Esfahan

Figure 3.3 samples of perpetual hovering between line, surface and volume [based on Tonna's "Poetics of Arab-Islamic Architecture", 1990; source for images: *archnet.org*]

Figure 3.4 A chart simplifying the terrain of inquiry in terms of its basic trajectories; more emphasis is placed on the inherent socio-political logic and implication of spatial strategies.

in the prayer-hall continuum may readily be interpreted as layering over the flowing spatial continuity, and subject to acts of imaginative transparency as discussed above. Yet when moves are of such scale as to evolve competing rhythms, an alternative directionality or a sense of spatial duality, tensions transgress over the hall's foundational principle of uniform equality. This intrusion onto the uniform field is perhaps most evident with the *maqsura:* a small enclosure placed within the prayer-hall, first constructed to protect the early Caliphs from assassination amid considerable controversy. Similar intrusion arises around the division of space by gender, especially in modern mosques. In early mosques, men and women prayed in separate clusters of lines to avert mutual distraction. This introduces a tension within the spatial-construct: between its principle of total equality and the necessity of averting distractions in a ritual which invests so much in affirming the body. Differentiation becomes hard to avoid, but it is such tensions that constitute design problems. Yet the paradox has developed into deep shades of contradiction in modern mosques as walls and elevated galleries were erected to separate the two groups. For both the ruler's *maqsura* and the strong gender barriers, differentiations have evolved into sharp inequivalence, which mars not only the uniform spatial-field, but also the primary practice of inscription, the choreography of congregational-prayer itself, and which writes social parity into space.

Spatial-constructs are tentative socio-spatial structures. Even the mosque's spatial-construct, whose aesthetic of the uniform field, transparency and predominantly non-ocular experience is focused and near-universal, and whose authority is strongly centralized, enjoys this quasi-stability only provisionally – as long as its authority-asserting practice maintains active re-inscription and dispels infringing practices. To further illustrate how agency is written into spatial practice, it is interesting to contrast the mosque's spatial-construct with one whose authority is more diffuse, and which offers distinctly different aesthetics of volume, object and body. Constructs of the early modernist space of empathy[71] issue from primary, intense relations of emotional affect which bind the modern subject to an observed object's manipulated properties of shape,

[71] See: Gyorgy Kepes' Language of vision (Chicago: P. Theobald, 1944); Cornelis van de Ven's *Space in Architecture: The Evolution of A New Idea In The Theory And History of The Modern Movements* (U.S.A.: Van Gorcum, 1987); Sonit Bafna's "Symbolic Content in the Emergence of the Miesian Free-Plan", in the *Journal of Architecture* Volume 10 (April 2005): pp.181-200.

color along with mass and weight [revisit figure 3.2], rather than resolve them independently of the viewing subject (as dominates Classical aesthetics). From the arrangement of discrete object shapes (e.g. a relation between a triangle and a square), their different tones and interacting hues, as well as their impressions of weight, space emerges as qualitatively charged with force-like, tense relationships. Hence, for example, early modern architecture's language of horizontality, as in the work of Frank Lloyd Wright, whose suspended, hovering slabs appear to defy gravitation; see for example the *Robie House* (Chicago, 1910).[72] Another prominent example of this spatial-construct is Mies van der Rohe's free-standing walls of the *German Pavilion* (Barcelona, 1929). The sliding impression of wall relations, the hovering horizontal ceiling plane and the subtle symmetry between floor and ceiling – all partake in generating an affect with a coherent language. Besides the optical effect of continuously seeing from one space into the next, one experiences the Pavilion interior as a field of linear forces which engulfs other free-standing objects (e.g. Mies' signature chairs) along with the body. Unlike the mosque's prayer-hall space of continuity between bodies and 'through' objects, here the space is primarily defined by how the individual viewing subject empathizes into qualities of the object. Significantly, it is unavoidable to regard the viewer's body itself as yet another object with shape, gesture and mass/weight properties, as well as attendant networks of relations to other bodies and objects. Unlike the mosque's prayer-hall, the modernist spatial-construct poses body and object in comparable terms; both body and object may engage in the exertion of forces, or in the deformation of the field already established by other objects. Introducing a gesturing body or a cluster of bodies among the shifting planes of Mies' *Pavilion* may deform the impression of linear force-field.

Compared to the mosque's spatial-construct, the early modernist space is one possessed of distributed agency and diffuse authority. As such, it is far more amenable to variation and change than the prayer-hall space; agents may affect the spatial composition by simply moving through it, or by introducing into it objects, bodies, or clusters of such. Authority here is not deemed that of the space's author or founder; indeed, modern architecture and culture vociferously divested itself from forms of authority inherited from

[72] Thomas L. Schumacher, "Horizontality: The Modernist Line", *Journal of Architectural Education* 59:1 (2005): pp. 17–26.

tradition. Instead, the distributed authority is inscribed in the space's fundamental subject-object relationship itself. What social principles does such a space perform? As a space where authority is diffuse, it is one concerned with distributed, decentralized freedoms over concerted collective action.

Spatial-Construct: Nature of Inquiry

The above section sketched two examples demonstrating the notion of a spatial-construct as a theoretical device with which to probe the crowd design problem. For such examples outlines suffice; for the Soviet case the description needs to acquire more rigor. Hence, this section recaps the definition of a spatial-construct and advances how it informs the strategy of inquiry.

Emerging from a critique of Baxandall's Charge-Brief model, as well as Frankl's spatial-form, spatial-construct is a conceptual framework which contributes to the discourse on social space; it permits deliberation on the act of making space as well as the logic of its transformation. As the term reveals, its underlying assumption is that space comes as a tentative – indeed quasi-stable - construct sustained by the agency of social actors or groups, and evolves from their interactions and practices or through skillful design moves. Spatial-construct is constituted by certain conditions: a qualified description (seeing-as) of the negative extension; an exclusive set of (configurational and formal) relations between the subject and object(s) as well as other subjects; particular conceptions of objects and matter; particular conceptions of the body (the subject's own, as well as other bodies); morphological ingredients from both facets: ephemeral activity along with already physically-inscribed features; a particular conception of authority, whether implicit or explicit, centralized or distributed, and which tends to permit or exclude the intervention of other agencies into the forging of space; and finally, a set of tensions - where some are creative tensions or paradoxes, while others are irreconcilable contradictions. Whether all the above conditions are indispensable to the constitution of a spatial-construct, or whether any single condition is sufficient to the constitution of a spatial-

construct, is a judgment best left to later reflection. Suffice it to hypothesize here that the last condition, the constellations of tensions, is a necessary condition of social space - an essential device for effecting the transformation of space. Note that as such, a spatial-construct is not an actual design solution or even a prescriptive blueprint for one; it is not a synthetic formulation. Instead, it is a description – a diagnosis – which problematizes conjoined sets of social and morphological conditions for designers to address. It is the spatial articulation of a social problem for design purposes. It is from the selective resolution of its tensions, informed by the qualified conceptions of extension, bodies and objects that design solutions issue. Some design schemes may confirm the spatial-construct and further stabilize it – as is the case with most mosque designs, for instance. Others may help destabilize a spatial-construct by re-assigning its authority or exploiting its contradictions.

In preparation for following chapters, I would like to reflect on the nature of inquiry that this conceptual device of spatial-construct promotes. A number of features emerge from the onset. From the critical mass of bodies, objects, relations, authorities and tensions which comprise it there emerges possible descriptions of the inner workings of social space which include both sides exercising agency: society as it formulates the Charge, and architects as they respond. Alike Baxandall's model but with more complex ingredients, spatial-construct allows the distinctions and continuities to be drawn between original problem-formulation offered to the architects and such formulations as constitute their responses. Besides the intentionality of situated agents, spatial-constructs account for the independent logic of the medium of social space, and which the category of spatial-construct assumes to possess an 'uneven grain'. Spatial- constructs allow the observation of the inherent logic of space in the course of manipulation by social agents.

Accordingly, upcoming explorations promise to involve complex dialectics: historical explanation for the detection of intentions will vie with the formulation of logic through interpretation; concern with the intentionality of the architects, and the underlying logic of their architectural proposals, will be preceded by the intentionality of their social milieu and its own socio-spatial logic [see diagram, figure 3.4]. In all cases,

but especially with the architects' work, the nature of space – more concisely, the social-space of the crowd – will be anticipated to possess its internal logic as a medium. Unlike Baxandall's model, and instead of being satisfied with moving *from* social and cultural context to hone in on the artist's choices, the inquiry now couples that with an *outward* move: from architecture into politics. Besides seeking to locate the artist's decision in context of given choices, challenges and opportunities, the emergent model now seeks to generate appreciative frameworks to support an act of judgment, as well as to bridge across into a political framework. The model's new dual modality - one explanatory, the second (and more emphasized) interpretive – is not focused on exclusively uncovering *intentionality* anymore. Instead, it is now also concerned with extruding the logical implications suggested by society's spatial moves and the architects' design strategies, to paint a more comprehensive picture of a world that follows from infilling the gaps between all their fragmentary attempts and their aborted projections. It is the fate of architecture (as distinct from architects' pronouncements) to conduct its social role mutely; the attempt here is to listen on to this silent eloquence.

In such dialectics, there will emerge, I anticipate, a number of difficulties. To mark the distinctions and continuities between original problem-formulation offered to the architects and such formulations as constitute their responses, the inquiry will need to explicate the dynamics of transfer or translation. How does a spatial-construct, or any of its components, get translated between social groups (in the formulation of the charge or crowd problem itself), but more importantly by the architects (as part of their response to the problem)? While a spatial-construct is fundamentally - as the name and the definition above assert - a *spatial* formulation, conventions of spatial formulation still vary across disciplines of practice. As will become evident when discussing the alternative sources of the crowd design problem (the next two chapters four and five – as well as in the entirety of Part-II: The Architects Respond), how space is lived in mass gatherings and street festivities, performed in theatrical choreography or explored in painting differ from its description in architectural drawings as a necessary filter for spatial transformation in architectural practice. The problem is compounded, as is the case with the crowd design problem, when the problem is new to

architects; the institutional memory of their discipline does not include ready-made formulations to apply and develop or to question and overturn. While the ingredients of a spatial-construct described above already include some seeds for such translations, the notion of *conventions of spatial description* will have to be introduced at appropriate junctures in the inquiry. I will expand on this matter at such locations, especially at the end of Chapter-4: "The Crowd Design Problem: Primary and Secondary Sources" – after the specific sources of the Soviet crowd design problem have been clarified. The argument will also expound on this issue of translation in various ways throughout Part-II: The Architects Respond.

A more fundamental difficulty will lie in disentangling the blurred boundaries between intention and logic. One has to assert that the above reframing of Baxandall's Charge and Period-eye destabilizes his model almost totally. Trafficking in the medium of spatial-construct leaves Baxandall's model's one remaining notion, the Brief, hardly intact. For one, as active participant in that same pool of practices which constitute spatial-construct, the artist's (or architect's) subjectivity is more difficult to demarcate with satisficing consistency. The issue is rendered no more solvent when dealing with the case of the avant-garde architecture in context of the Soviet Revolution, where architects sought to willingly disavow and surrender individual subjectivity for the sake of a more communal inter-subjectivity.

And yet attaining such disentanglement is central to this inquiry. An understanding of the objective nature of the spatial problem generated through social practice remains indispensable to understanding the *actual* challenge in architectural problems. Alongside extricating spatial-construct as the primary consideration in describing both challenge and response, and as a yardstick for the (in)equivalence between both, it illuminates the architectural problem in a new and significant light. It projects an important distinction between what is structurally related to the logic of a problem, and that which is incidental or contingent to it (e.g. historical, ideological…etc.). This final distinction evolves from the need to define Architecture's proposition even more sharply, and to allow the attendant act of 'judgment' to occur. It is only through demarcating what belongs to the inherent logic of the problem or the design strategy from the intrusive

contingencies of history and ideology, that a coherent interpretation may be formulated. For at a fundamental level, this author has to confess that he is less interested in how Soviet architects responded to their specific, historically-situated problem of the crowd, and more concerned with uncovering how an architectural strategy engenders political configurations. Therein lies my emphasis among the complex set of issues which the research question poses. Underlying this emphasis is an assumption that needs to be made explicit: not only are architecture and spatial design assumed to possess the potential to effect the transformation of society (and not merely to reflect its praxis), but also that they can help us 'know' society - that spatial design is no mere application, but a generator of its own epistemology. Strategies addressing such design problems evolve – by definition - expertise on spatial artifacts, but also generate authentic knowledge of society. At stake is the question of whether architecture can generate, from within its own framework of issues and findings, credible and distinct social knowledge.

Spatial-Construct and Method

To address the epistemological question of identifying a spatial-construct: what conditions guide the probe? This warrants a return to the crucial question of method. As I search for the different conditions listed above, I will allow the research data to guide the response to this question. Again, theoretical generalizations about the coherence of a spatial-construct (the necessity and sufficiency of its ingredient conditions), as well as about the analytical pursuit of its data will be summed up in two later locations: in Chapter-6: "Premise", introducing Part-II: The Architects Respond, when the nature of the data becomes clearer to the reader; as well as in the concluding Chapter-11: "Gregarious Space: A Theoretical Framework for the Aleatory States of Collective Consciousness", as part of the overall reflections on this case-specific research method.

Yet the pertinent question here and for the next chapter becomes: what kind of data should one examine in order to uncover the conditions for such spatial-constructs as define the crowd design problem? Where in the historical data may one locate such conditions? An obvious place to begin is the competition programs submitted to the architects. Yet preceding arguments in this chapter strongly suggest that rather than taking only pronouncements and denotations (in public speeches and competition programs) as the formulations of the problem, it should be society's developed spatial practices wherein one seeks such data. While some of its traces are perhaps implicit within the competition programs, they should be more abundantly explicit within Soviet social activities of coalescence in its different forms. Such spatial practice may match, override or even belie narrative and oral descriptions. In other words, the competition brief, the Construction Committee's (the competition jury's) comments, declarations of *desiderata* for the Supreme Building in Soviet councils, the architects' pre-design verbal ruminations and post-project justifications in publications and interviews – all such are relegated to *secondary* status as data for analysis. For the primary data of spatial practice, I will look to the chronicles of Soviet revolutionary society: where its social groups attempted to experience the event of the crowd, to enact gathering or assembly, as well as to negotiate the perceptions attendant to such acts and events.

The following chapter provides a more detailed analysis of what the preceding paragraph condensed. Proceeding from a critique of the competition briefs, the argument next detects a rich array of Soviet society's spatial practices, particularly in mass festivals, in Soviet revolutionary theatre and in the works of contemporary artists.

CHAPTER 4

The Crowd Design Problem:

Primary and Secondary Sources

Overview

So, did the *Palace of Soviets* competition brief (1931-3) help furnish such a spatial-construct – or any trace of its ingredient conditions? To what measure does it articulate a vision of the Supreme Building? What clues did it offer the designers about their charge, and what principles does it lend to the logic of the crowd design problem? If not, then what complementary historical sources and alternative spatial antecedents should be probed?

This chapter addresses this set of questions in two parts. In Part One, the argument turns to a critique of the *Palace of Soviets'* competition brief and its revisions in jury comments throughout different phases of the contest. To contextualize the brief and its revisions, I will offer comparisons to the *Palace of Labor* (1922) competition brief – as the foundational document for later mandates to design this thence-novel species of the 'Supreme Building'. While identifying what necessary hints the briefs offer about the crowd design problem, the critique diagnoses where they fall far short from sufficiently articulating its socio-spatial challenges. I will present such shortcomings as the briefs' *silences* and *excesses*: as contradictory features of suppression and overstated emphasis. The argument here not only establishes the necessity for mining other historical accounts as more primary resources, but also helps point to their nature. To anticipate their

contribution, Part Two discusses these three proposed complementary founts: Soviet mass events (festivals, demonstrations, marches, … etc.); Soviet revolutionary theatre, particularly the work of V.E. Meyerhold; and contemporary work by revolutionary artists (Spatial Constructions and Suprematist paintings). In each case, the argument identifies how the source would illuminate aspects of the layered complexities of the crowd design problem. Together, Parts One and Two act as a preface to the final articulation of crowd design problem in the next chapter, Chapter-5: "The Crowd Design Problem: Formulation".

Section One: Critique of the Competition Briefs

Building Program Requirements

As precisely as possible, what did the competition briefs require, and what did they call for? How were such requirements phrased, and with what emphasis - how did they present the design challenges? Appendices I and II provide accounts of the spatial requirements for the *Palace of Labor* (1922) and the *Palace of Soviets* (1931-3) respectively, as comprehensively as sources in English translations can provide.[73] I urge the reader to peruse them before reading the following sections.

[73] See Appendices I & II for a full exposé of the two competition briefs, as far as sources in English translations allow. The appendices were culled from the following sources: S. O. (Selim Omarovich) Khan-Magomedov, *Alexander Vesnin and Russian Constructivism* (New York: Rizzoli, 1986); S. O. (Selim Omarovich) Khan-Magomedov, *Pioneers of Soviet Architecture* (New York: Rizzoli, 1987); Catherine Cooke, & I. Kazus, *Soviet Architectural Competitions 1920s-1930* (London: Phaidon Press Ltd, 1992); Jean-Louis Cohen, *Le Corbusier and the Mystique of the USSR: Theories and Projects for Moscow, 1928-1936,* translated by Kennth Hylton (New York: Princeton University Press, 1992) ; Peter Lizon, *The Palace of the Soviets: the Paradigm of Architecture in the USSR* (Colorado Springs, CO: Three Continents Press, c1993).

Silences and Excesses: Unpacking the Competition Briefs

In the previous chapter, Chapter-3: "Spatial-Construct: Unpacking Design Problems Spatially", I argued that a problem definition in the field of architecture (especially one charged with a political mandate) cannot afford to ignore medium specificity; in other words, one has to formulate the design problem in spatial terms. Hence the shortcomings of Michael Baxandall's model, which did not consider the equivalence of medium between social Charge and artist's Brief. But hence also the inadequacy of generic project briefs and competition programs; although such briefs and programs are by default *about* space, they do not necessarily offer formulations of space. Usually, they point to a rather reductive spatial notion where a particular function is assigned a specific surface-area. One can glimpse this vague notion of a specialized enclosure in almost every line of the two competition briefs. Moreover, mostly expressed in list-form, generic building programs betray little of their desired or logical interrelations, with all their nuance of threshold, approach, co-visibility …etc.; and far less still of the overall spatial strategies which potentially bind them into one peculiar, project-specific spatial system. One witnesses the outcome of such generic failings in the unstructured variety of designers' submissions in both competitions; their schemes do not represent generative explorations of an articulated design problem (even if by challenging or inverting it), but rather unguided trajectories of thought - alike uncoordinated gestures in a dark room. That such generic shortcomings ensue exclusively from the historical contingencies of the professional practice of building programming is not a credible explanation. One has to consider the more structural issue pertaining to the limits of written language to capture spatial descriptions; language can never fully describe - hence replace - space. Indeed, the more articulate building programs can only *represent*, *conjure* or *allude to* spatial formulations. Through their thoughtful phrasings, they refer their readers to a body of spatial practices, and/or graphic representations of space in the public imagination.

What I wish to accomplish in the first part of this chapter is to move beyond a critique of the generic forms of building programs to the specificity of the case in question. The contention I will advance holds that the two

Palace competition briefs, as bookends to the vision of the Supreme Building, exemplify the failings of generic programs in problem-formulation, but also fall short of the limits of what programs can potentially offer. More specifically: the competition briefs failed to direct designers towards the socio-spatial practices which would reveal then still-enigmatic dynamics of the crowd. Furthermore, through misplaced emphases and contrived suppressions, the briefs effectively masked the legitimate generator of space-making and form-giving here - i.e. the crowd itself. By doing so, the briefs misplaced the agency and authority of space-making. In other words, the briefs served to confuse the potential spatial-construct of the crowd design problem.

In their defense, one may hasten to bring up a contextual 'alibi'. While the two Palace briefs offer neither specific notions of spaces and their involved activities, nor clearer conceptions of spatial interrelations, this stems to no small measure from the unfamiliar novelty of the architectural problems at hand. Not infrequently, architects are called upon to compensate for the omissions of building programs by drawing on their own experiences in designing and constructing similar edifices of antecedence. From this 'archive' of spatial and architectural precedents, architects mutate spatial types more attuned to new problems. Yet what happens when the design problem is radically new – especially in the case of the *Palace of Labor* addressing the crowd design problem in its crude, early stages; and the challenge of undivided collectivity in the case of the *Palace of Soviets*? The building program cannot advance any articulate formulation in context of such unfamiliarity, the claim would go. Such apologia may carry some veracity. Yet it is precisely because these were such novel, unfamiliar problematics that the briefs needed to engage, in a structured way, the reservoir of spatial practices which surrounded the architects – where, in effect, the socio-spatial problem had been, and was being, formulated; where, in fact, *any* design problem is initially constructed and further developed. And it is precisely when investigating a design problem chiefly concerned with social collectives that the briefs should not lose sight of the crowd and the collective – as the preeminent resources, as the legitimate origins of any socio-spatial vision and as the very substance of design conceptions.

The objective here is to identify, in more specific terms, the contributions of the competition briefs, including their limitations and shortcomings, in perceiving the crowd design problem, and to conclude with the substance of its complementary and alternative sources. My critique of the competition briefs diagnoses a set of *silences* (unjustified suppressions and de-emphases), and *excesses* (disproportional emphases and exaggerations). The briefs display *three peculiar silences*: a) the first silence is over the novel nature of revolutionary activities and events to be housed in the assembly halls, offices and other facilities required in the building program, as well as the desired interrelations and configurations binding together the individual functional components merely listed in the program document; b) a curious silence over the issue of representation – indeed, a total failure to translate the crowd's internal struggle for self-representation into questions of architectural representation, or how to draw spaces for, about and by crowds; and finally c) the third is the brief's silence on issues of context and urbanity – on how the Palaces are envisioned to fit within, draw on or transform their urban surroundings in the heart of Moscow. These three silences develop and morph into different incarnations as the Supreme Building project reaches its zenith with the *Palace of Soviets* Competition in 1931-3. In contrast, both projects display an excessive emphasis on two other issues: i) workers' supremacy among the building's user groups, as means to confound the power dynamics exercised in the building facility and hence the political institution – or who *inhabits* the institution, in Hillier, Hanson and Peponis' terms[74]; and ii) the promotion of an immense gigantism for the two Palaces as physical objects – a ploy of scale which overshadows understandings of the relationship between bodies and preempts explorations of alternative conceptions of the artifact. Throughout the two briefs, *excesses* tend to overwhelm *silences*, but especially in the *Palace of Soviets* competition process when they amplify into quasi-pathological dimensions.

In what follows, and in the course of dissecting the competition briefs, I will articulate this set of three silences and two excesses: how each is demonstrated by the competition briefs, and evidenced by their

[74] See B. Hillier, J. Hanson and J. Peponis, "What do we mean by building function?" in *Designing for Building Utilisation edited by* Powell, J.A., Cooper, I. and Lera, S. (E & F.N. Spon Ltd, London, 1984): pp. 65-6.

statements. Furthermore, I will demonstrate how, individually and together, such silences and excesses are symptomatic of critical and deeper problematics which the briefs either shied from formulating or decidedly left ambiguous, and as such have preempted the formulation of a coherent spatial-construct as a framework for the crowd-design-problem.

First Excess: User Groups, Power Dynamics

The *Palace of Labor* building program describes a curious collage of user groups, which may be classified into the following sets: trade unionists; Moscow City Council officials; Moscow Communist Party officials; radio broadcasting crews; large staff for restaurant and eating facilities; and visitors to the Palace in large numbers. Worth noting here is that the category *workers* was diffused throughout the above list. Workers were meant to run the Broadcasting Station as well as the City Council, and of course the Trade Unions. They were the group intended to inhabit the theatres and lecture halls as simultaneously audiences, performers as well as production managers. The issue here is one of identification and identity, over and above real-life roles. One was meant to be identified as a worker whether performing service in the restaurant kitchen, as a technician running the radio station or acting as a party official.

In "What Do We Mean By Building Function?" (1984), Bill Hillier, Julienne Hanson and John Peponis reframed the social role of a building as organizing interfaces between three generic categories of building users: inhabitants, visitors and strangers.[75] *Inhabitants* control and manage the building's overall spatial system, and usually occupy its configurationally deep recesses – e.g. doctors in a clinic, or clerks and judges in a courthouse. *Visitors* are admitted by the inhabitants into limited sections of the spatial system, and usually end up in its configurationally shallower margins – e.g. patients in a clinic, or defendants in a courthouse. Finally, *strangers* are those who are obstructed from entering the spatial system altogether. If

[75] Hillier, Hanson and Peponis, "What do we mean by building function?" (1984): pp. 65-6.

one employs this categorization here, one may infer that, ideally, workers in the *Palace of Labor* edifice were meant to inhabit the categories of both 'inhabitants' and 'visitors': workers hosting other workers, workers entertaining other workers and workers sorting the social affairs of other workers …etc. Yet in reality, the Communist Party officials were not really workers; and where they actually were workers, they were controlled by non-workers: the 'professional revolutionaries' rising from the ranks of the intelligentsia (along the model of Vladimir Lenin, Leon Trotsky and others). Indeed, the competition brief requires offices *only* for the Moscow City Council and the Moscow Party Committee (2,500 offices in total). So ironically, the *Palace of Labor*, the first incarnation of the Supreme Building as a "fitting monument … in the name of the workers",[76] was to house no offices for the labor unions, no operational headquarters for workers. This may then reinterpret the user-groups; the Moscow Communist Party members and the city government were the real inhabitants, since they would have ultimate control over the building space. Workers in their massive numbers were meant to be visitors or guests in this spatial system with the granted privilege, but not the inalienable right, to use it. A certain inequality is already scripted in the spatial system, if somewhat veiled by the program phrasing.[77]

Furthermore, the *Palace of Labor* was meant as a stronghold of *urban* labor, to the exclusion of other groups the revolution desperately solicited among its supporters: e.g. the peasantry, and the soldiery. This was peculiarly an urban institution; most of those who identified as workers were involved in industries and trades found predominantly in towns. Befittingly, the program required offices for city government headquarters in this building. Providing for such a massive floor area for the combined forces of the *Moscow* City Council and for the *Moscow* Party officials, as well as the involvement of the *Moscow* Soviet as members of the competition jury, all points to the local and urban natures of this institution. I will return to

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[76] From Sergei Kirov's address to the First Congress of the Soviets, December 30, 1922; quoted in Anatole Kopp, *Town and Revolution: Soviet Architecture and City Planning 1917-1935*, translated by Thomas Burton (New York, George Brazillier, 1970): Appendix 1, p.245.

[77] One should note that at this early phase of the revolution, control by the Bolsheviks was still tentative. Rival parties, Trade Unions and non-Bolsheviks exercised significant contestation in several fields. In fact, the period when the *Palace of Labor* was being considered for construction was one when Trade Unions had organized several events of unrest around the country. In other words, the bias towards party and city officials, and against Trade Unions, implicit in this competition program may reflect this power struggle.

this point again when discussing the brief's indifference to urban issues, but here I want to reveal the tensions implied. As the Supreme Building in the central city of Moscow, the hierarchical pinnacle of labor palaces from different towns and regions, the *Palace of Labor* inevitably possessed national outreach and trans-regional dimensions, besides its local identity. Representatives of such districts, regions and towns would be present in that building – whether permanently or as seasonal visitors. Local-regional tensions were also implicit in the program script.

In sum, the building program of the *Palace of Labor*, as the initial iteration of the 'Supreme Building', represented a medley of user populations, along with their engrained frictions. It was to accommodate labor unions with city government – the restive activists next to the conformist bureaucrats; it was to juxtapose the rank-and-file workers alongside Bolshevik party officials - the governing against the governed; it was to house local urban government, but also regional and national representation – a seed for provincial rivalries; and it was to host cultural activities competing for space with political authority and bureaucracy. Again, the building circumscribed an assortment of user groups historically caught along tense lines of revolutionary rebirth and petty rivalry. The *Palace of Labor* competition program thus encapsulates, in terms much clearer than what one finds in the later *Palace of Soviets* brief, contemporary political tensions and contradictions scripted in the nascent spatial fabric of the institution.

In comparison, the user populations in the *Palace of Soviets* came in three classifications. First: Soviet delegates, comprising the All-Soviet Assembly and its component Executive Committee and Presidium. Soviets were councils comprised of 'delegates' from all walks of the post-evolutionary society: its workers, peasants, soldiers, sailors, …. etc., then presumably redefined, in the ruling elite's minds, as totally classless. Soviet delegates also came from all the outlying regions of the USSR. In principle, delegates were *popularly elected* into their respective councils, which performed hierarchically at the local, regional, and national levels. Soviets possessed both legislative *and* executive functions, combined in a formula indifferent to the separation of powers. Thus, the All-Soviet Assembly was the highest legislative-*cum*-

executive body, the central representation of all peoples from all professions and regions. In 1928, this assembly numbered 3,300 members; hence they were intended to convene and conduct "the business part of the Palace" in the Small Auditorium whose capacity reached 5,900 seats,[78] while – one assumes – the Assembly's Executive Committee (300 members) and their Presidium (60 members) would meet in the smaller assembly spaces of 500 and 200 capacity respectively.[79]

Second: Large numbers of people for mass ceremonies, festivities and shows in the Mass Hall. The number was set at 15,000 spectators plus 1,500 performers during the first three phases of the competition, and then increased to 20,000 afterwards. This large mass was comprised of members of the All-Soviet Assembly who could number up to 5,900 – while the rest, one presumes, were invited from the population for specific occasions. This classification also includes large masses of people in the parade ground; besides the 20,000 who are to occupy the Mass Hall, even more spectators would converge from the urban surroundings. This larger gathering is when the elected delegates rub shoulders with the populace.

Third: 'Management' personnel headed by a Superintendent, all housed in office spaces, amounting to *only* 2,000 square meters (about 150-200 small-sized offices). This area assignment was much smaller than the 2,500 offices required for use by city government and Party Committee in the *Palace of Labor*. Besides the absence of explicit requirements in the *Palace of Soviets*, this meager office population could not possibly accommodate *all* the soviet delegates or their aides, alike in other parliaments (e.g. the United States Congress). Instead, this office space was probably for the management of the *Palace of Soviets* facility itself, and for members of the Central Executive Committee and Presidium besides perhaps performing some secretarial work for the All-Soviet delegates when in session.

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[78] Khan-Magomedov, *Pioneers of Soviet Architecture* (1987): p.402.

[79] These figures are based on a report by Henry Wales, "How Communist Party Holds All Russia in Grip" to the *Chicago Daily Tribune* (Mar 4, 1928).

This three-fold classification invites a number of observations. As the palace intended for the All-Soviets, where the supreme collective would convene in the Supreme Building, one would expect the program's emphasis to be dominated by the first category, the 'soviet delegates': their work activities as a parliament-like body and how this impacts their meeting spaces. How do they conduct political negotiations? Is the assembly divided by geographic, administrative region or profession (industrial workers, railway workers, peasantry, sailors, …etc.)? Are deliberations negotiated centrally, via a Speaker, as suggested by the then established model of the British Parliament? Or will the revolutionaries propose an alternative model befitting their radical vision and derived from some of the gregarious assembly activities reported from the period? So, on the one hand, the program marginalized information about the execution of political negotiation in a parliamentary setting, while on the other hand suppressing references to some thirteen years of prior explorations of workers' assemblies, peculiarly Soviet in their gregariousness. I allude here not only to the history of the numerous Soviet congresses which sprang up post 1917, but also to widespread workers' gatherings, factory elections and similar gatherings.

Instead of focusing on the delegates, and the business conducted in the Small Auditorium and the smaller assembly spaces, the program expends more emphasis on the large auditorium. On this Mass Hall the program articulated its demands for easily imaginable mass events: an immense stage for large performances; facilities for demonstrating machinery, new inventions and methods of work; acoustical considerations; technological apparatus for mass theatrical and cinematographic performances. Indeed, it was the Mass Hall which the competition brief pronounced as its indisputable focus, and where the architects placed spatial accent and formal prominence in response. It was the Mass Hall as the locus where soviet delegates would meet the public which took center stage. It was where the line between representatives and populace got blurred; it was where the larger social collective was to be churned into being that mattered for the institution and its spatial system. Compared to the *Palace of Labor*, the *Palace of Soviets* program thus identifies its 'crowd' with admirable precision – as the interface between the political decision-making body and the large populace, and not the former alone. What confirms this is the

requirement for a parade ground, which would guarantee a continuous influx of crowd participants from the city.

But simultaneously, just as the competition program identifies this key crowd, it seriously challenges its significance - first of all by implying the crowd's nature as passive. It is true that the brief urges designers to consider "various modes of participation from the audience", and to provide "direct access to the stage"[80]. This could urge designers to consider crowd participation drawing on the recent history of workers' assemblies as well as revolutionary theater's experimentations with crowd choreography. But the emphasis in the program's projected vision on activities in the *Mass* Hall remains unmistakable: it was one of *mass* entertainment – dominated by one way delivery from a speaker, presenter or performers to audience. Even when the audience members participate, they do so by stepping onto the stage. The crowd is still regarded from 'without' - as a mute, passive entity which does not instigate action. Moreover, the brief leaves the most crucial element of the crowd's constitution, the interface between elected representatives and commoners unexplored, unquestioned - and uninspired. In fact, what the brief embeds in the Hall's program is a curious tension: between the opportunity that the representatives-populace assembly affords, and the nature of activities envisioned for this crowd.

What confirms this tension, and compounds it into an acute confrontation, is a structural feature of the program. As a political body, the All-Soviets Assembly convened on infrequent basis, and for relatively short durations. In 1922, intervals between Congress meetings varied between 2-15 months, although the constitution stipulated twice a year; meetings lasted between 2-8 days (depending on how much work was needed).[81] By 1928, the Assembly met once every two years[82]. The Central Executive Committee and the Presidium conducted more frequent gatherings, presumably in the smaller assembly spaces – the 500 and 200 capacities respectively. From among the All-Soviets delegates, 300 members were elected to become

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80 Cohen, *Le Corbusier and the Mystique of the USSR (*1992): p.166.
81 Walter Duranty, "Soviet Polls Held Throughout Russia" *The New York Times Archive* (Jan 26, 1931).
82 Henry Wales, "How Communist Party Holds All Russia In Grip", *The Chicago Daily Tribune* (Mar 4, 1928).

the Central Executive Committee which was, in principle, i*n constant session* or could be summoned at any time, and which in turn elected a Presidium of 60 members (plus additional members as candidates or consultants). As Cohen notes when paraphrasing the competition brief, such smaller audience halls were to be "adapted to everyday use"[83]. In other words, two phenomena unfold conjointly. For one, smaller political bodies with more concentrated power convene in the smaller assembly spaces, while larger spaces are affiliated with groups possessed with lesser power; a hierarchy of isolated, non-gregarious power is scripted into the program, and maps inversely onto the spatial system's grain. Simultaneously, not only do the Central Executive Committee and the Presidium possess office headquarters, but they also convene more habitually; these select delegates are the real building inhabitants, in Hillier, Hanson and Peponis' terms.[84] Presumably also, the immense Mass Hall and its advanced technical facilities would not be left unused for extended periods of time between Assembly sessions, but would be put to use for other assemblies, mass events and popular gatherings; in other words, the main crowd of representatives and constituencies cannot call this hall their exclusive home. What makes this an acute confrontation then is the power differentials scripted in the Soviet assembly structure and which the given program does not challenge. The representatives-populace crowd, promoted to such symbolic importance despite convening irregularly, clashes against the better-organized, more regular and rather-veiled exercise of power by the Central Executive Committee and Presidium. The representatives-populace crowd's quixotic fate - the slim odds it possesses to effect significant impact - would be confirmed with the dilution of its symbolic place in the urban order, as its Mass Hall becomes more associated with other activities.

This argument on the first excess can now conclude with a few inferences on the Supreme Building's development from the *Palace of Labor* (1922) to the *Palace of Soviets* (1931-3), and which will serve as an apt introduction to other discussions below.

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83 Cohen, *Le Corbusier and the Mystique of the USSR (*1992): p.166.
84 Hillier, Hanson and Peponis, "What do we mean by building function?" (1984): pp. 65-6.

Across this trajectory, the Supreme Building's population of user groups evolved towards seeming homogeneity and increased ambiguity in mapping power relations. This raw material of the crowd expanded in number from 13,000 (mostly) workers in the *Palace of Labor*, to about 23,700 (5,900 of whom were soviet delegates, plus whatever the Mass Hall and Parade Ground may hold) in the *Palace of Soviets*. From user-groups designated as heterogonous with overt frictions (bureaucrats, party animals, trade unionists, and service employees), the user population developed into one perceived to possess a more uniform grain (if actually comprised of broad variations as delegates from all professions, ethnic variations and covert class distinctions); from emphasized differences to veiled distinctions. However, the two user populations were cast through similar inequities of power, albeit with a qualitatively different veil in each case. In the *Palace of Labor*, the stronghold of power was less conspicuous; in the *Palace of Soviets*, the hierarchy maps more precisely onto spatial morphology: power is exercised by increasingly smaller groups in ever smaller spaces. Yet in both Palaces, *discerning* such mapping of power onto space was decidedly difficult; distinguishing spaces meant for the building's controlling inhabitants from its controlled visitors was not demanded by the program briefs to be clear. Ambiguity turns into near-deception in the *Palace of Soviets',* where visitors were accommodated in grander spaces.

The *Palace of Soviets* brief advanced the problem of the crowd contextualized in much sharper power reliefs than did the *Palace of Labor*. The later competition introduced *the* crowd: at the interface between the soviet delegates and the larger electorate – a species of crowd negotiating the threshold between imposed formality and indigenous informality while exploring the larger collective. Yet this juxtaposition of opposites comes to a head when wrestling with the structure of power embedded in the hierarchy of the spatial system implied by the brief. The locus of this key crowd was to be the weakest in the hierarchical chain; the model crowd was to be explored under heightened conditions of control – a recipe for confrontation.

Finally, the discussion in this section signaled the need to look beyond the competition briefs for new sets of data and their corresponding sources. First, to better understand the user groups, the revolutionary crowds

they constitute, and the radical activities they perform, designers needed to observe contemporary activities as laboratories for this society in the process of redefinition: in factories, workers' clubs, mass street festivities and theatrical experimentations. Similarly, a researcher today needs to access resources archiving such data, which suggests pursuing the following: photographic archives and contemporary journalists' reports - rather than propaganda bulletins; photographic and filmic archives of theatrical productions and rehearsals, as well as associated narrative descriptions. Moreover, the above discussion signaled the need for conceptual constructs with which to describe the dynamics of crowd gatherings; for this I propose to draw on the constructs of *festival* and *ritual*.

First Silence: Activities and Events, Spatial Arrangements and Configurations

The *Palace of Labor's* brief called for an assortment of assembly halls, including a large hall holding 8,000 people, plus a number of smaller halls ranging from 300, 500 to 1,000 people designated, as the document states, for various generic purposes, such as meetings, lectures, concerts, performances and films. But what forms of social coalescence were meant to take shape in such a myriad of halls? How do crowd members relate to each other in such assemblies – how are revolutionary meetings and performances different from conventional ones inherited from pre-revolutionary culture? What symbolic and emotional significance would such gathering loci hold for workers? Such questions reach a critical pitch in the *Palace of Soviets* as the new seat of the central Soviet parliament, where both functional arrangement and symbolic significance demand tailored specificity, but receive little of it. As previously noted, for the Mass Hall where soviet delegates mingle with the electorate, the brief paints a picture primarily of mass entertainment for a passive crowd, with modest consideration given to reciprocity between "tribune" and audience, and none to what occurs within the assembled congregation itself.

Posing activities thus generically, the briefs also posed the interrelations between various component "functions" in reductive terms. In the *Palace of Labor, w*ere the numerous assembly halls publicly accessible for workers to use at will? How public were the Party offices and premises; how accessible was the radio station; how do the museums fit in all this? How would the city government offices adjoin the assembly halls – or to what extent were such halls extensions of the bureaucratic program? How permeable was the building institution to the surrounding urban fabric? As discussed before, the *Palace of Labor*, as implied by its constituent functional entities and their spatial qualities, was an agglomeration of distinct components, which are not only in tension with each other, but may also operate independently of one another. Government offices function to a schedule different from the museum, and serve users and visitors quite different in kind. The radio broadcasting station also has different schedules and technical requirements. Moreover, the competition brief does not propose any 'rituals' of use that connect the different components; no processional development was envisioned by the competition brief from one entity to another. Without the parade ground that the *Palace of Soviets* boasted (at least for three competition phases), the *Palace of Labor* program lacks the innate adhesive element or activity. If some entry did enact such a procession, some alternative sequencing, that was the designer's interpretation. For instance, the Vesnin Brothers introduced an operable threshold: the wall adjoining the small hall to the large hall slides open to expose the two halls to each other, thereby forming a much larger synchronic space, while sightlines remain effective and the stage becomes central [see figure 4.1]. Such an inventive threshold could have constituted a thematic device of connection with rich variations across the spatial system. Yet the rest of the Vesnins' spatial system is rather rigid. Relations to the office tower and the broadcasting station are neither as creative nor as emphasized. While the Vesnins introduced differentiations in the exterior formal mass which respond to functional variations, this expressive dynamism remains divorced from internal spatial connections and arrangements; in fact, the plan is constrained around a central axis of subtle symmetry. And yet also other competition entries do not exhibit similar creative explorations of configurational relations [figure 4.2]. This leads one to infer that the numerous configurational typologies in the different architects'

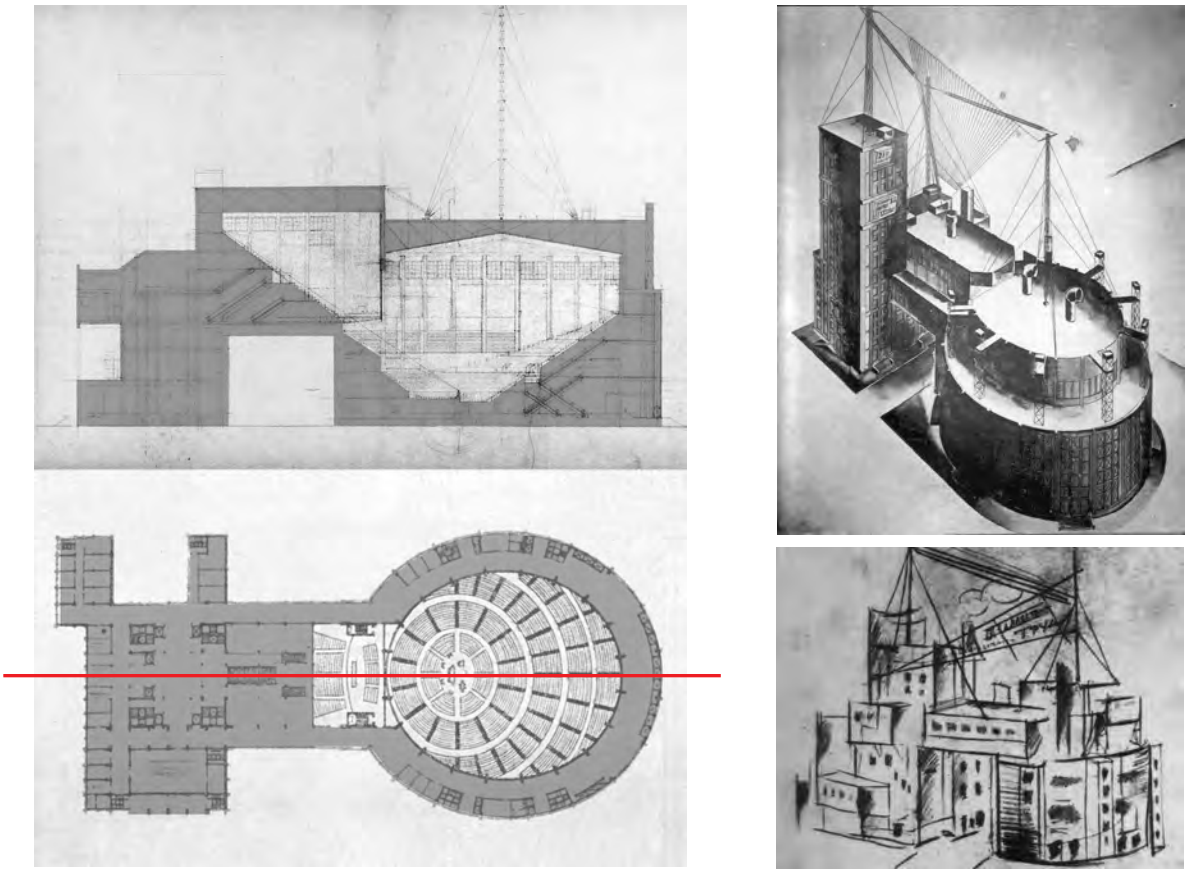

Figure 4.1 Vesnin Brothers, *Palace of Labor* Competition entry (1922-3); Section and Plan (source: Cooke & Kazus, *Soviet Architectural Competitions 1920s-1930s*, 1992) and drawings of exterior composition (source: Khan-Magomedov, *Pioneers of Soviet Architecture*, 1987): the two audience halls merge into one immense enclosure; the fluidity of exterior forms is spun around an axial internal arrangement of the plan.

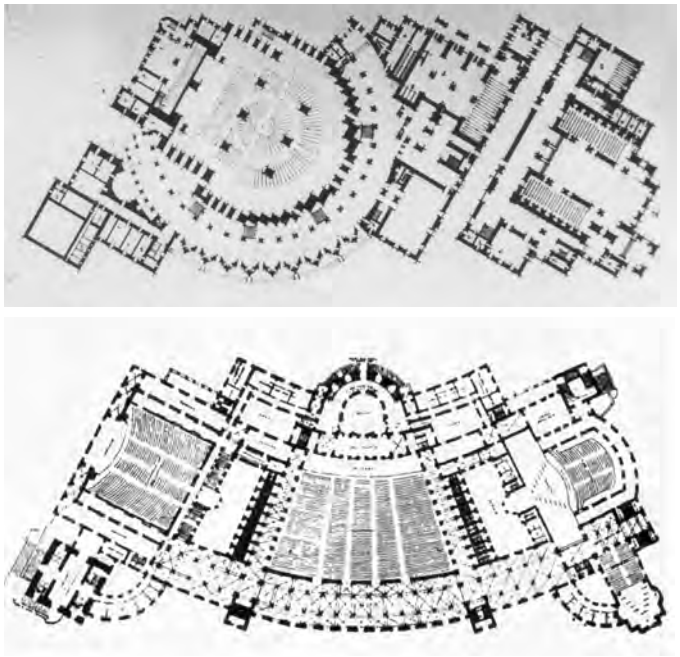

Figure 4.2 Palace of Labor Competition entries (1922-3); plans by (*above*) Ilya Golosov, and (*below*) by Andrei Belogrud (source: Khan-Magomedov, *Pioneers of Soviet Architecture*, 1987).

submissions reflect not necessarily a generative variety but rather an insalubrious ambiguity over the nature of the configurational problem.

As discussed before, the *Palace of Soviets* brief overlooked the inner dynamics of its model crowd in the Mass Hall. Moreover, after Phase II of the competition, the Construction Committee mandated that all requirements be included within a single "bold, tall, many-storied building"[85] mass. By necessity, this compactness has profound impact on the arrangement of parts; it usually effects deep configurations. Simultaneously, the critical component of the parade-ground was marginalized within the configuration. The spatial system lost its binding agent; the different halls and offices became independent fragments. With no generative conception of cohesiveness, they easily fell prey to the formula of an unquestioned neo-classicism. But that such decisions were reached after two phases of competition, including some 272 entries, reveals an inconsistency in the conception of the Palace's spatial system – a misapprehension of what spatially constitutes the ideological backbone of a building's social life.

At the same time, what spatial culture constituted the required office spaces in both competitions remains unclear. It was probably no different from existing office cultures of the time: cellular offices and meeting rooms. The chance that Soviet officials, progressive as their revolutionary culture might have been, would latch onto emerging office space cultures of the time,[86] is probably offset by the mode of directing events from behind closed doors that the Bolsheviks preferred (as given by accounts of the intrigues at the Smolny Institute in the Fall of 1917[87]). The *Palace of Labor* competition program also included facilities for cultural and propagandistic activities, including a Museum of Social Sciences. Not much information is available on these museums, neither from the literature nor from the competition entries, in whose plans the museums were not given much emphasis, and cannot be discerned in the overall architectural expression. However,

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85 Lizon, *The Palace of the Soviets* (1992): p.100-1.
86 As exemplified by Frank Lloyd Wright's Larkin Building (1904) model of quasi-open office space.
87 See the account by John Reed in *Ten Days that Shook the World* (New York: Boni and Liveright, 1919/22): pp.41, 68.

the curious juxtaposition of a Social Sciences museum in the same edifice with Party officials and city bureaucracy strongly suggests an attempt to institutionalize the representation of an historical viewpoint.

It is worth noting that while the *Palace of Labor* involved a collage of incongruent programmatic components and assembly halls of variant sizes to accommodate an array of gatherings, only one immense dining hall, along with its service facilities, was required by the competition program to seat some 1,500 people (in some references the total number of restaurateurs is even set at 6,000 people[88]). To converge building users, in their large numbers and distinct affiliations, into one dining space signals its particular significance in the building's spatial system and perhaps for the urban surroundings. As the leveler of social differences, it was the most synchronic of spaces in the whole ensemble, with familiar echoes in the dining facilities of then emerging Soviet Communal Housing projects. Yet it is equally curious that this component, as seemingly important as it was, did not receive strong formal and spatial emphasis in many of the submitted schemes – a forsaken opportunity to explore the potentials of crowd space. Compare this weak emphasis put on this large, most-public of spaces to the *Palace of Soviets*' heightened stress on the Mass Hall. The ironic similarities between, as well as the stark differences between of the two spaces, reveal an inconsistency in priorities.

Put differently, whether within a single competition or for the trajectory of the Supreme Building, the briefs fail to problematize for the architects spatial organization as a political question – or at least as means for bringing about desired socio-political outcomes. Note that neither questions of activity dynamics nor spatial system configuration are merely instrumental questions, but deeply political and symbolic in nature. They all wrestle with sorting, moving and shaping the crowd-cum-collective at its different scales, whether collected in a large synchronic space or synchronized throughout a spatial system. Hence, it is not demanding too much for the problem formulation to explicitly pose such issues, as they are determined in dialectic with the

[88] Both Kopp and Lizon list the 6,000 diners figure. See Kopp, *Town and Revolution:* (1970); and Lizon, *The Palace of the Soviets* (c1992).

political philosophy motivating the architecture. Instead one finds the description of activities in the Supreme Building briefs – its *habitus* - shrouded in statements of generic vagueness; elements are inventoried one after the other in a list that casts their interfacing thresholds as inconsequential. Occasionally, one detects a particular vision of imposed mass entertainment, which again leaves the internal dynamics of a crowd beyond interrogation. While driving towards passive gatherings, homogenized diversity and ritualized collectives, such programmatic devices reveal little of the specificities of revolutionary activities evolving during the 1920s throughout Soviet society. Effectively, the briefs omit the rich, exploratory varieties of Soviet social practices of gathering - as portrayed in period photography and film as well as contemporary journalists' reports and literature. Indeed, and as hinted in the preceding discussion on user-groups, the charge of the Supreme Building suffered from tensions between what the briefs stressed and what the realities of social practice offered.

In what follows, I provide a vintage of some such Soviet revolutionary assemblies, to further expose the contradictions embedded in the briefs, and to point to alternative resources for redefining the crowd design problem. The following account also argues for the profound importance of crowd configuration, the shifting arrangements of bodies within an enclosure or across several enclosures, as an ingredient of the design problem – and for which historical referents and morphological theories need to be articulated.

In the *Palace of Labor*'s case, the brief's silence over issues of activity and configuration is arguably explicable, if not totally justifiable. Such architectural conditions were largely unfamiliar; the crowd design problem was yet in crude form with no architectural precedents to summon. To redress this omission in the competition document, it was arguably presumed that architects *could* draw on comparable contextual events to articulate an understanding of the life of the building: to contemporary labor activities in improvised workers' clubs, agit-trains and adhoc assemblies. In the wake of the 1917 revolution, a miscellany of labor activities – of the political, educational, cultural and recreational kinds – inhabited existing buildings in a

makeshift manner. The palette of diverse activities divided and occupied different zones of the expansive mansions appropriated from the nobility and the Czar's deposed government. Such precedents of collaging diverse activities may have acted as a blueprint for the competition organizers when deciding on the highly diverse scope of programmatic functions to be housed within the *Palace of Labor*. In other words, the very spatial medley of the *Palace* stemmed from contextual practices.

Although not explicitly stated, one has to assume that the *Palace of Labor*'s large hall (8,000 seats) was meant for workers' assemblies, city-hall meetings, and Bolshevik Party congresses. Similarly, the *Palace of Soviets*' Mass Hall (15,000 – 20,000 seats) was intended for large scale ceremonial events, elections, demonstrations …etc. The peculiar nature of such assemblies comes to life in Western correspondents' accounts[89]. Correspondents report an intriguing mix of features including colorful processions, impassioned speeches, an eagerly attentive audience costumed in various regional attires, musical performances and collective signing of the *Internationale*. What consistently comes across in such reports is a precarious strain between the formal strictures imposed on the assembled, and the lingering informal behavior characteristic of gregarious congregations. As late as 1931, Walter Duranty's report on soviet elections to the New York Times highlighted how the spontaneous caucus' unpredictability frequently overcame attempts to formalize and ritualize its procedures. During one election event, Duranty likened the atmosphere to "a college football rally before the biggest game of the year". After a brief speech by the election chairman, including information on electoral law, the candidates' names and the election's purpose, a discussion followed which involved an exchange of witticisms about the candidates' shortcomings, ironically dealt with by the chairman. Duranty recounts: "During the proceedings, three citizens were ejected for "unsober manifestations", and once another rose in a back row and begged his comrades in the gallery [above] to refrain from throwing paper pellets or launching paper airplanes at the audience downstairs." [90]

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[89] See Appendix III of this dissertation for a sample of such correspondents' dispatches.

[90] See a fuller account in Appendix III: Walter Duranty, "Soviet Elections Improve in Form" *The New York Times Archive* (Jan 27, 1931).

Such events involved questionable practices. For instance, Duranty and other journalists reported that elections did not involve secret ballots; they occurred through a show of hands.[91] Not infrequently, they also included propagandistic oratory, not unlike what the *Palace of Soviets* brief called for:

> … in practice, if not in theory: … there will be an election in a certain factory. Next night there is a meeting open to anyone, which is addressed by an 'agitator' – that is, a spellbinder – of the Communist Party. His eloquence arouses – or lulls – the meeting into acceptance of the list of candidates chosen by the party caucus beforehand.[92]

I do not mean to romanticize such assemblies or trivialize their shortcomings. Instead, what I argue for is, first, that this was the fabric of lived reality experienced in soviet gatherings and which architects had to contend with, build on or challenge and question. Secondly, one has to view such happenings as the legitimate experimentations of a vibrant culture attempting the construction of radical alternatives to established collectives - even if some of their practices seem suspicious at first. For instance, the show of hands is a more gregarious form of voting, which is not in principle unlike the caucus format exercised in American primary elections.

Alongside such normative practices of assembly, it seems inevitable that the fields of theatre and choreography would have taken up the challenge of revolutionary gregariousness very early on. Besides the ideological drive, these were the artforms where modes of gregariousness would naturally be tested and harnessed. Indeed, the 1920s – the decade wherein the Supreme Building vision was mulled over – abounded with prolific theatrical experiments and with competing theories on the nature of an actor's method. This was also the period of innovative body-movement notations; heeding Étienne-Jule Marey's and Eadweard J. Muybridge's time-lapse photography, and Frederick W. Taylor's optimized work movements, choreographer Rudolph Laban established a diagrammatic notational system, alike the one used in music, for communicating and designing human locomotion. Large scale dance and acting were probed by directors such as Nikolai Evreinov, Alexander Tairov and, above all, Vsevolod E. Meyerhold who

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91 Walter Duranty, "Soviet Polls Held Throughout Russia" *The New York Times Archive* (Jan 26, 1931).
92 Walter Duranty, "Soviet Delegates Rejoice in Fancied Governing Power", *The New York Times Archive* (Dec 1921).

also developed a system of movement and actors' training called Biomechanics. In other words, the question of how bodies relate to each other in gatherings came to represent a critical question in defining a troupe's philosophical agenda – the very questions which implicitly beg themselves in the two competitions, despite the briefs' silence. Additionally or rather consequently, performances sought to question their settings: the historical divide between stage and auditorium, between actors and spectators, between spectating and participation. Collaborating with two junior architects, Meyerhold designed his own new theatre as a space which attempts to annul such distinctions. Although such questions and experiments agitated directors' minds since pre-revolutionary years, the revolution lent them heightened urgency and unprecedented scope. It also pushed their exploration outside the theatre building's envelope: street theatre festivals became a staple of revolutionary celebrations several times per year. Thus, it is rather surprising that, in 1922, the *Palace of Labor* competition required no exterior parade or gathering space to extend the newfound Soviet gregariousness along its natural trajectory, and evenmore surprising that the later stages of the *Palace of Soviets* cancelled such a parade ground.

Besides large halls, both briefs called for smaller halls of various sizes. In the *Palace of Labor*, one infers that these halls were meant to accommodate a sleuth of bureaucratic functions that the Soviet system spawned. However, period reports indicate that bureaucracy fused comfortably with ceremonies; the worker's new social life was one of perpetual assemblies - which engendered novel customs for a new Communist society. In the 1920s, spontaneous attempts to reformulate rituals of life (birth, marriage and death) emerged publicly in Russian cities, having stayed undercover before the revolution. Although not dictated in a top-down manner, they were quickly seized upon by officials and brought to public attention as models. Russian society in the countryside, however, remained largely resistant to such events. The life-event rituals most difficult to accept were death and burial rituals; crematoria were designed, built and used – yet not widely, although large scale funerary marches recalling pre-revolutionary church events were still

performed, particularly for 'martyrs' of the revolution.[93] On the other hand, rituals of birth and marriage saw the more dramatic proliferation – especially in factory towns. Significantly, such events shifted from the pre-revolutionary church to the workers' club as a setting. 'Octobering' replaced christening as the birth ritual for some, and while it started in the bureaucratic office, the more committed Communists soon took it to the workers' club. Richard Stites paints a picture of one of the earliest recorded Octobering events in a workers' club (Novermber 22, 1923): "… in Kharkov where a baby daughter was Octobered and presented with a gift – a portrait of the infant Lenin. The parents delivered a verbal promise to raise the child in the spirit of communism, the *Internationale* was sung, and choruses performed folk songs."[94] Red weddings also migrated from church and bureaucratic offices to workers' clubs; "a red covered table, a portrait of Lenin, the vows to nuptial fidelity and to communism, reports and speeches, a wedding gift to the new couple – works by Lenin and Zinoviev – and the mandatory *Internationale*."[95]

The *Palace of Labor*, as the central worker's headquarters in the capital city of Moscow, was meant to house such events and elevate them further into established rites. Assembly halls were probably the spaces intended for such events, so as to be witnessed by as many public spectators as possible. The proximity to city government offices for registration of natal and nuptial documents may also have been an attempt to consolidate the whole process. Although the *Palace of Soviets* brief suggests that its smaller halls attended the business of governance executed by the All-Soviets' Central Executive Committee and Presidium, one cannot entirely rule out that such life-events ceremonies were conducted there.

The two briefs' indifference to posing configuration as a political question, and their near-total silence on the nature of the activities to occur within their confines and such activities' kinship to contemporary

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93 Richard Stites, *Revolutionary Dreams: Utopian Vision and Experimental Life in the Russian Revolution* (Oxford University Press, 1989): pp. 113.

94 In another Octobering event in Moscow, a group of 'pioneers', with banners, drums and chants, "escorted the mother to the dais, where she affirmed that the child belonged to her "only physically. For spiritual upbringing", she declared, she presents the baby to society. See Stites, *Revolutionary Dreams* (1989): p.111.

95 Ibid: p.111. For a vivid portrayal of such events, see also the marriage officiating ceremony in Dziga Vertov's *Kinoeye* (1927).

revolutionary practices, signals a strong tendency to contain the crowd's interactions and institutionalize its dynamics. In other words, in the problem of confrontation between, on one hand, the crowd's internal drives - its self-generated mechanisms for self-expression and self-governance, and on the other hand externally imposed strictures and conventions, the briefs fall squarely within the latter camp - on the side of ritualizing movement, exchange and expression. Logically, this institutionalization of the crowd leaves the design problem, and hence the architects, in a difficult position. Following the Supreme Building's briefs unquestioningly would betray two logics: the crowd's own historical struggle for self-visualization and its morphological quest for self-definition (both identified in Chapter-2: "The Modern Urban Crowd"). Yet again, this underscores the need for (some) designers to have 'strayed' far beyond the briefs' implications to examine alternative resources for understanding the design problems. Similarly, current research should retrace similar terrain: examining period photographs, filmic archives and contemporary reporting on the activities of workers' clubs, soviet assemblies, and 'life ceremonies'. Particularly, this section's discussions pronounced the need to probe resources on period experimentations with the internal interactions and morphologies of crowd assemblies and the configurations they displayed. Of all such explorations of this issue, revolutionary theatre poses itself as the foremost field, especially the work of director V.E. Meyerhold whose interest in crowd choreography extended far beyond the stage and into the visual and kinesthetic intricacies of the audience hall itself. Besides prodding the resource of revolutionary theatre for material on crowd experimentations, the occasion calls for a morphological theory with which to conceptualize such choreographies. As Chapter-5: "The Crowd Design Problem: Formulation" will demonstrate, I will build on the categories offered by Space Syntax Theory towards such an end.

Second Silence: Representation

It is the crowd's historical struggle for self-visualization, as one means for self-actualization, to which the argument now turns. As previously indicated, the modern urban crowd's demand for employing new pictorial

devices, generated from its own indigenous conditions, and to counter the imposed scopic regimes of the nineteenth century, was a defining characteristic. This visualization-from-within was constituted by two distinct if interrelated aspects: a) potential co-visibilities within the physical space of the assembled, occurring in patterns generative of gregariousness as well as equality; and b) modes of graphic depiction which account for such co-visibility patterns, and develop them into graphic conventions and modes of expression.

And yet any examination of the two competition briefs would reveal that both totally ignore the issue and any of its aspects. Neither brief makes any mention of the issue of co-visibility within the assembly or across the spatial system. As previous discussions in this chapter have shown, the assembled crowds, where mentioned, were treated as passive entities into whose particulars the program does not venture. In fact, the issue of visibility was raised only where, in the Mass Hall, the architects were reminded to ascertain that the collective, still and hushed gaze upon the stage should remain unimpeded. Furthermore, and far more emphatically, visibility is cited when the gigantism of the *Palace of Soviets*' mass was at stake. Effectively, the scenario in the Palace program goes as such: when the crowd (not even the individual) looks upon the physical mass, the crowd should feel overwhelmed, and project its achievements and symbolism onto it. As a subtext, the crowd was meant to forfeit its identity, its struggle for self-identification and inscribe it onto the immense mass of the Palace. (But I get ahead of myself here – I will address the issues entangled in this gigantism in the Final Excess sub-section.)

Implicitly, then, the briefs invite uncritical co-visibilities. And implicitly also, the briefs assume that established drawing conventions apply unquestioningly. Even after the conclusion of the *Palace of Soviets*' initial exploratory phase, where the Soviet Rationalists (ARU: Union of Architects and Planners) submitted a drawing that pose a serious challenge to established architectural graphic conventions, and even after publishing such a drawing in *Brigada Khudozhnikov* (1931) as part of the second phase competition

advertisement [see figure 1.1, *bottom*; and figure 7.1]– even after all this, the second phase brief still shied away from tackling the problem of graphic conventions and the attendant co-visibilities.

Is this asking too much of a competition brief or any building program? What justify such questioning are several factors. First, the crowd's historical struggle for self-actualization was no foreign concept to Soviet officials, competition organizers or artists. The 1917 revolution was but a defining moment in such a struggle; its post-revolutionary activities – the perpetual assembly, for one - were its genuine, inexorable contribution. As early as the *Palace of Labor* in 1922, artists and architects were already questioning the whole sleuth of inherited pictorial devices and traditions. Malevich's Suprematism explored the non-objective world constructed from the subtleties of flat, orthogonal projection – explorations which, one should note, even predated the 1917 revolutionary events; perspective and radial projection were deeply criticized as bourgeois devices in a graphic convention which glorified the individual over the collective; the April 1921 *Composition versus Construction* debate took the questioning much deeper into critiques of the very foundation of Western representation[96]. How do *we* see objects and other bodies when we're immersed among them, had become an irking question. Even propaganda posters, alike those by Gustav Klucis, explored alternative graphic constructions with which to immerse the viewers in the experience of the crowd – to put forth immersion as a visual theme and a graphic convention. By 1931, the *Palace of Soviets* competition was introduced in context of a visual culture already considerably suffused with, and indeed perturbed by, critical questioning of art and architecture's graphic conventions. El Lissitzky's *Prouns* questioned viewpoint, but also the artificial distinctions between architecture, painting, graphic-design …etc. - the very construction of disciplines of viewing and making. Dziga Vertov's cinematic montages had suggested radical ways of seeing. And, as following chapters will demonstrate, Ivan Leonidov, ARU along

[96] For a detailed account of the debates, see Maria Gough's *The Artist as Producer: Russian Constructivism in Revolution* (Berkeley: University of California Press, c2005): pp.21-60.

with several other architects had begun exploring alternative media (using water-color and gouache on ink and pencil) and conventions (a peculiar flatness).[97]

In other words, by the final chapter of the Supreme Building, the stage was set for a visual and pictorial revolution. And yet none came; the sequence of competition briefs made no mention of the issue. The explanation for this suppression resides precisely in such profuse experimentations – or in the reactionary fear that such experimentations kindled. As seen from the Construction Committee's gradual move towards Neoclassicism, and the iterative denunciations of artists alike Aleksandr Rodchenko, Meyerhold and Vertov, as well as avant-garde architects such as the Vesnins and Leonidov, the reactionary backlash had set in by the time of the *Palace of Soviets* competition – and perhaps in part *because* of the Palace competition. Yet, as an ingredient of the crowd design problem, the issue cannot be ignored just because the briefs discarded it. It remains an integral part of the problem, because the crowd demanded it; the logic of the crowd design problem included it whether historical contingencies subscribed to it or not. But as it happened, history did acknowledge the problem; the issue was deeply debated at the time in the art community as the examples cited above demonstrate. And it is to such debates, experimentations and artwork as a resource that I propose to turn when formulating the problem in the next chapter. What specific inherited traditions did the artists confront? And what devices did they propose or attempt? Simultaneously, I will also turn to revolutionary theatre, particularly (again) the work of V.E. Meyerhold, for inquiries into the co-visibilities of crowd assemblies.

[97] In later chapters, I will discuss in more detail all the above examples, providing demonstrative illustrations. What I want to establish here is that a milieu of questioning of graphic conventions, and generative innovations in graphic techniques, did already exist during the 1920s. This milieu qualified as a resource for the competition organizers in formulating the representational aspect of the design problem, assuming their inability to infer this need on their own from reading through the crowd's history of struggles. It also qualified as a resource for the architects to draw on when during their design process.

Third Silence: the Building and the City

When reviewing the *Palace of Labor* submissions, one is struck by the absence of depictions of the Palace's urban surroundings. In several of the submitted schemes, perspective drawings pictured building masses occupying the drawing frame alone against a dramatic rendering of the sky – with little or no urban surroundings portrayed. Similarly, plans, sections and facades offered the building spaces and forms unsituated amidst the complex urban realities of Okhotonoyardsky Square. Hence, no clear sense comes across about how, and indeed if, such building masses responded to their urban condition. Even the Kremlin and Red Square to the east, with their historical significance and political charge, and in whose context the site resided, received little attention. There were rare exceptions, such as Konstantin Melnikov's scheme, where the design strategy of fragmenting the Palace's large mass was driven by sensitive responses to urban surroundings [figure 4.3]. Another more timid urban gesture was proposed in the Vesnin Brothers' scheme; a street runs through the lower floors of their proposed building mass, thus extending urban movement through the building mass [revisit figure 4.1]. But these are exceptions that seem, by sharp contrast, to confirm the general trend in other schemes. The Vesnins' scheme does not seem to go any further; the highly symbolic urban surrounds are missing from their drawings; outdoor space remains unaddressed. Even Nicolai Trotsky's winning scheme presents a self-contained symmetrical composition which attempted no dialogue with its environs.

Although design schemes do not equate with the design problem itself, they do reflect its formulation. In other words, the indifference to urban issues prevailing in submissions to the Supreme Building's first iteration stemmed from a curious unconcern prevalent in the founding document: the *Palace of Labor*'s brief. This brief did not problematize the role of the Supreme Building - possessed as it was with an immense footprint and "conspicuously huge" mass, a large user-population and unrivaled significance - in transforming its urban context as part of the design charge. Moreover, the Palace program assigned no outdoor space or activity as part of its requirements; the medley of functions were scripted from the onset

into an insular mass, with none of its ingredients capable of breaking through while remaining integrated with the complex sets of halls and offices. This is where the *Palace of Soviets* competition presents a significant development – at least in its initial phases. Requiring a *parade-ground* (or *square*, as the Construction Committee comments called it) implied a challenge to 'plug into' the network of urban streets and squares surrounding the Palace, especially Red Square to the north-east; as a site for parades, marches and demonstrations, it implied a challenge to consider the processional movement of the crowd from everyday urban life into the heightened interface of the Mass Hall and back again. Furthermore, adding such a large urban square in the heart of the historic city of Moscow involved the theoretical challenge to reflect on the patterns of urban space and the nature of the urban fabric, both historic and modern. But yet the brief pronounces little or no explicit challenge to the designers to take a position on the question whether to preserve or to transform the urban fabric of historic Moscow. Indeed, the parade ground was the closest to an implicit dare forcing the issue, which was particularly pertinent for the *Palace of Soviets* contest in 1931, in context of the Urbanist-Disurbanist debates of the late 1920s and the early 1930s, and in wake of Le Corbusier's *Plan for Moscow i*n 1930. It was only then that the city rushed to the forefront of architectural polemic.[98]

As a species of building, the immense and dense communal [99] building - whether as the large public institution (the Supreme Building) or the communal housing project – belonged to the Urbanist vision. Both Urbanists and Disurbanists reacted negatively to the existing industrial capitalist city. Disurbanism – "the nonurban redistribution of the population"[100] - proposed dismantling the city in favor of (mostly linear) expansions into the countryside; low densities and immersion in countryside environs would efface the

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[98] It is interesting to note that little of the early theoretical debate, around the time when the first Supreme Building (the *Palace of Labor* project) was in contest, dealt with (re)structuring cities. It was only until the early 1930s and the debate between Urbanists and Disurbanists that the city rushed to the forefront of architectural polemic, even though the issue of discrepancies between town and country was a central piece of Marxist theory, and even though educating and involving the peasantry was a pressing issue from the revolution's early days. A possible explanation is that, by the early 1930s, the attitude to the peasantry and the countryside was one of restructuring and remaking, while in the early years of the revolution, the issue was to educate and communicate. See Christel Lane, *The Rites of Rulers: Ritual in Industrial Society – the Soviet Case* (Cambridge University Press, 1981): pp. 127-8.

[99] Densities proposed were sometimes as high as double the density of Manhattan in 1890! See Stites' *Revolutionary Dreams* (1989): p.198.

[100] Stites, *Revolutionary Dreams* (1989): p.194.

disparities between town and country that Marx and Engels derided. For Urbanists, on the other hand, the city was a 'social condenser' which, through high densities and close proximities, would create the New Soviet Person, through radically altering his/her productive, social and personal habits.[101] Urbanists built on a long tradition of utopias stretching back to Fourier's phalanstries, while some eerily resembled Le Corbusier's *Ville Radieuse* (1935). From the literature and available projects, the Urbanist vision consisted of an array of vast and interlinked mammoth structures, in close proximity to one another, with the whole ensemble surrounded by greenery and landscape. [102] In the ultimate Urbanist scheme: *The USSR in Ten Years*, formulated by Sabsovich (high official of Gosplan – Soviet Russia's central state planning organ), cities would be agglomerations of 50,000-70,000 people – "the optimum of sane and comfortable living"[103]. Only 25-50 large residential buildings would accommodate the entire population of the Urbanist city (i.e. 1,400-2,000 persons per building; Fourier's phalanstry contained 1,700 persons); children would be housed in close-by accommodations. Private property, class distinctions, rural villages – all would be utterly abolished; and so would be private households. "No food shopping, no cooking, no home meals, no kitchens"; food processing operations would be collectivized and standardized so as to deliver complete meals to the urban population in "urban cafeterias, communal dining rooms, and the workplace". Similar attention would also be given to laundering, tailoring, and even house-cleaning.[104]

Given all this, it is therefore very surprising to detect the relative ease with which the parade ground – again, as the only component of the brief to beg the urban question - was initially marginalized after the second competition phase, and entirely dismissed from the requirements subsequent to the third phase – all in order to maximize the building mass. Indeed the sudden emergence, in the Construction Committee's comments on Phase II submissions, of the new requirement that the *Palace of Soviets* "must be done as a one-volume

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[101] Ibid: p. 198.

[102] In some respects, this recalls Zamiatin's city in his 1921 dystopian *My;* other aspects recall the futurist scenes from Santa'Elia's and other futurists' works. In fact, the kinship of both Urbanist and Disurbanist visions to science fiction literature deserves future study. Besides their shared visions, it is telling that both architects and science fiction authors suffered similar fates under Stalin's purge.

[103] Stites, *Revolutionary Dreams* (1989): p.199.

[104] Ibid: p.199.

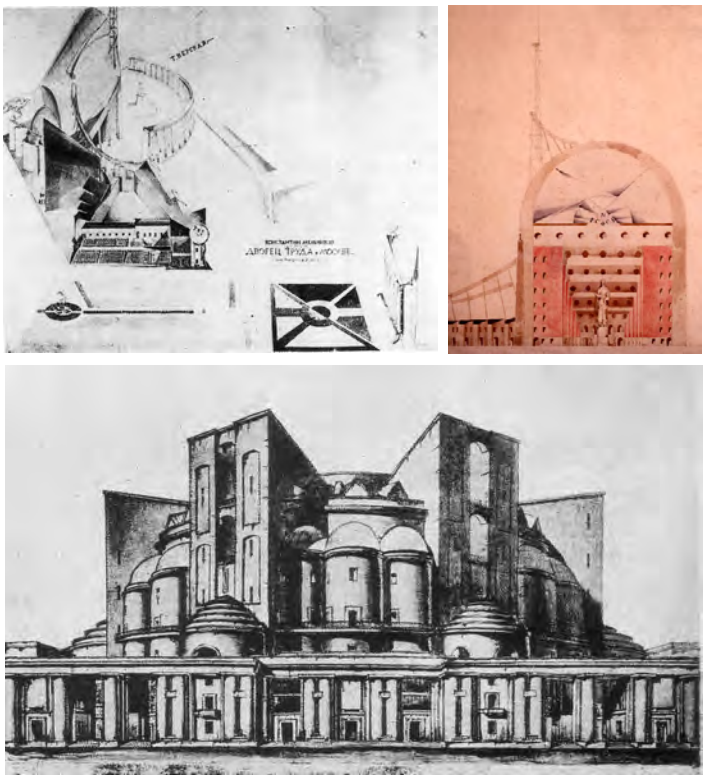

Figure 4.3 *Palace of Labor* Competition (1922-3); *above* Konstantin Melnikov's axonometric demonstrating the relation to the Bolshoi Theater, and his theatrical facade ; note also the fragmentation of the mass [source: Cooke & Kazus, *Soviet Architectural Competitions 1920s-1930s*, 1992], *below* Nicolai Trotsky's winning entry [source: Khan-Magomedov, *Pioneers of Soviet Architecture*, 1987].

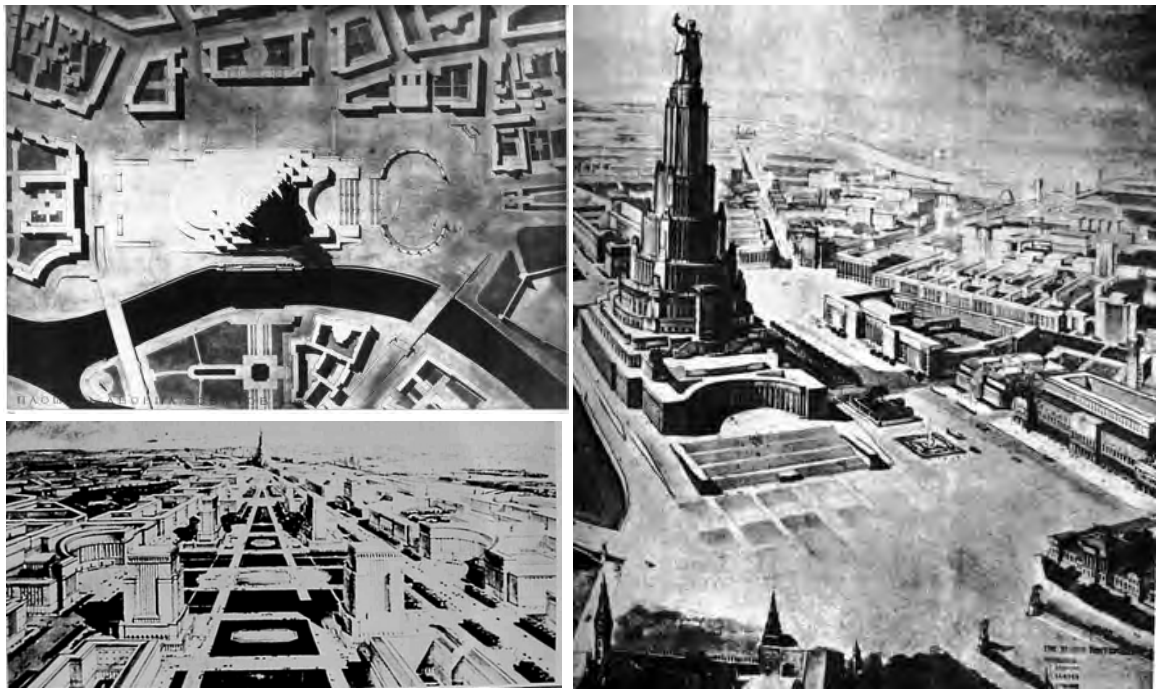

Figure 4.4 Boris Iofan, Vladimir Shchuko and Vladimir Gelfreikh, *Palace of Soviets* post-competition project (1936), showing the envisioned, wide-ranging urban changes in the vein of Albert Speer's plan for Berlin. [source: http://soviethistory.org].

complex"[105] seems to mark the resolution of an unspoken conflict or the suppression of a tacit anxiety, over the urban nature of the project – i.e. whether the different functional and spatial requirements should fit within one insular building mass or otherwise partake in intricate compositions with exterior spaces - as an urban precinct of sorts. On its own, such a shift does not determine the nature of the political space and its crowd collective. But considering the attendant emphasis in the Committee's comments on "a bold, tall, many-storied building" and the verdict that a "predominantly low-rise composition … is not desirable"[106], one is inclined to infer that deeper structural transformations had taken place with that decision. First, this signals a shift in the underlying ideology of the design problem from one concerned primarily with shaping space for sorting the crowd at different scales (from a single enclosure up to the scale of a spatial-system and its attached urban spaces) and hence choreograph collectivity, to a near-obsessive focus on presenting building mass and form to a passive collective as a symbolic icon. Moreover, as a consequence of this change in competition requirements, the crowd's historic migration from urban setting to building environs acquired a particular twist; the *building*, of the Supreme Building, has come to be seen as a category of urban elements which are limited in their role to visual communication and to politics as spectacle. This is evidenced in the post-competition development of Boris Iofan's winning scheme for the *Palace of Soviets* [figure 4.4]. Central Moscow's surrounding fabric was envisioned to drastically – and quite violently- change to become a prosthetic for the grandiosity of the Palace; essentially, a veritable Panopticon would be inscribed at a large urban scale – a vision not unlike Albert Speer's fascist Berlin.

This fundamental rift, I contend, was deeply scripted in the programmatic shifts of the second and third phases of the *Palace of Soviets* contest. I would go even further to speculate that it was embedded, at least as a potential, in the Supreme Building's first document: the *Palace of Labor*'s brief. Not only did this ensue directly from the brief's taciturnity as discussed above, but more indirectly from another of its qualities. As a collage of diverse user-groups, assorted activities and labyrinthine movement patterns – a decentered

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105 See Lizon, *The Palace of the Soviets* (1992): p.100-1. See Appendix II of this dissertation document: Competition Program for the *Palace of Soviets*, Moscow 1931-1934.

106 Ibid: p.100.

spatial system - the *Palace of Labor* program was conceived in the image of a city; a festive city or a city in a state of festivity to be more specific, as hinted before. On one hand, this metaphor of festive urbanity was a resource for conceptually transforming the building artifact - for projecting the city as an artifact of heightened inclusion, into the building as traditionally an artifact of exclusion and control. It was an attempt to take the egalitarian festive activities of the 'holidays' and their qualities into the building – i.e. to recreate the building in the image of egalitarian festivities. On the other hand, it also came charged with a latent potential to usurp the city's urbanity (a potential ultimately manifested in Iofan's final scheme). As supporting evidence, one finds extensions of this thread and its associated conundrum in the Urbanist discourse of the late 1920s. While literary and graphic descriptions of such a city elaborate - in myriad ways - on the buildings involved, the city itself seems far more ambiguous: more of an accident emerging from the juxtaposition of such mammoth buildings rather than a city with a comprehensive structure. In other words, the building defines the city much more than the city characterizes the building. In numerous project designs for House Communes, the designed building is depicted in drawings devoid of context. In fact, context only appears in schemes by the opposing camp: the Disurbanist designers; only rarely do Urbanists schemes give some inkling of how their building nests within the city.

Finally, to further probe conceptions of 'building' and 'city' as artifacts with mutual tensions developing from the Supreme Building's vision, one should examine several alternative resources. In numerous locations of this thesis, the argument will address the Urbanism-Disurbanism debate over the nature of Communist urbanism and the relationship between the country and the city. The argument will also look to other Soviet building projects of the gigantic kind (other than the Supreme Building) such as the Communal Housing projects, to detect variations in the relationship of building to city-block and street network. Alike previous issues of user-groups, activities and representation, the search will also include examining mass events in period photography and film from 1917 revolution and into the 1930s for clues of how such mass events, whether interior or exterior, transformed the threshold between building and city-space. In conjunction, the

two congregational forms of *festival* and *ritual* will also be further pursued as a metaphoric distinction between the two Palaces' spatial systems and their relationship to the city.

Final Excess: Gigantism – Scale, Object and the Generator of Spatial Conception

Gigantism affixed itself to the Supreme Building, from its inception as a vision through its evolution into various building types. Historian Khan-Magomedov relates how the apparition of "conspicuously huge and majestic" Supreme Buildings captured the collective post-revolutionary imagination as

> … visible manifestations of a free working people's future city, often described in those days by such adjectives as 'huge', 'gigantic', 'bright', 'radiant', 'stupendous', 'luxurious', 'marvelous', 'majestic', 'well shaped', 'beauteous'.[107]

Indeed, a *gigantic imagination* can be said to have taken hold, as the prevailing historical narrative indicates. One finds echoes of its mythology in numerous other historical accounts. While Khan-Magomedov evokes it as part of a revolutionary zeal for the perpetual crowd, Anatole Kopp places the emergence of this gigantism in context of the "paper architecture" of the early post-revolutionary period, when very little construction was actually realized, and hence scarce attention was paid to the "mere technicalities" of building functions. Kopp cites the period historian R.I. Khiger's diagnosis of an expressionist romanticism afflicting this nascent moment, starting as early as Vladimir Tatlin's *Monument to the Third International* [figure 4.5] and thereby prefacing the *Palace of Labor* competition. Khiger reflected that

> … every building had, at all costs, to be "inflated" into a gigantic edifice capable, by sheer size and scale alone, of communicating the revolutionary emotion that consumed the young architects. The functional justification of form was the least of their concerns, ...

[107] Khan-Magomedov, *Pioneers of Soviet Architecture* (1987): p.402.

> Indeed, the urge towards maximum ideological and emotional "expression" led to … indifference to the practical aspects of architecture. [108]

One has to temper Khiger's account with critical assessment; after all, he was writing in 1935 amidst the Stalinist purge, when revisionist histories recast the 1920s avant-garde as delinquent, formalist movements. Nevertheless, gigantism remains an unmistakable symptom. Entrenched as such in the collective imagination and public discourse, building programs and competition briefs translated the missives quite directly; constructed buildings and competition submissions responded with equal straightforwardness. It is important to note that gigantism was also a myth which gained more momentum from one building project to another, and from one competition phase to the next. Public buildings' sizes became bigger, whether on paper or actually erected. What began as a "naive desire to outdo the capitalist world, even in …*scale*", as historian Anatole Kopp noted referring to Sergei Kirov's well-known address to the *First Congress of the Soviets* 1921, evolved into a "gigantomania" during the design process of the *Palace of Soviets* (1932).[109] Indeed, a condensed and accelerated version of this whole process occurred within the *Palace of Soviets* competition phases. Commenting on the requirements of the second phase brief, a seemingly-bemused Le Corbusier ponders the immensity of its spaces:

> The program called for an immense complex of halls, offices, libraries, restaurants, etc.; an auditorium for 15,000 spectators for massive productions, with a stage capable of accommodating 1,500 actors and a considerable amount of scenery. The annexes of such a hall are quite extensive; first the cloakrooms (it snows in Moscow!) and the vestibules, all sorts of lounges and restaurants. These last-named elements were called "the Forum" by the authors; a very exact network of circulation permitting the various categories of spectators access to their respective locations – ambassadors, foreign press, Soviet press. Extensive accommodations for actors.[110]

A significant development is evidenced by the afore-mentioned Construction Committee's revised requirements after Phase II, and which exhorted competitors to conceive of the Palace "as a one-volume

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108 R.I. Khiger, *Puti Arkhitekturnoi Mysli 1917-1933*, Moscow (1935). Quoted in Anatole Kopp's *Town and Revolution*: *Soviet Architecture and City Planning 1917-1935*, translated by Thomas Burton (New York, George Brazillier, 1970): p.51.

109 Kopp, *Town and Revolution* (1970): p.55; my italics.

110 Lizon, *The Palace of the Soviets* (c1993): pp.94-5

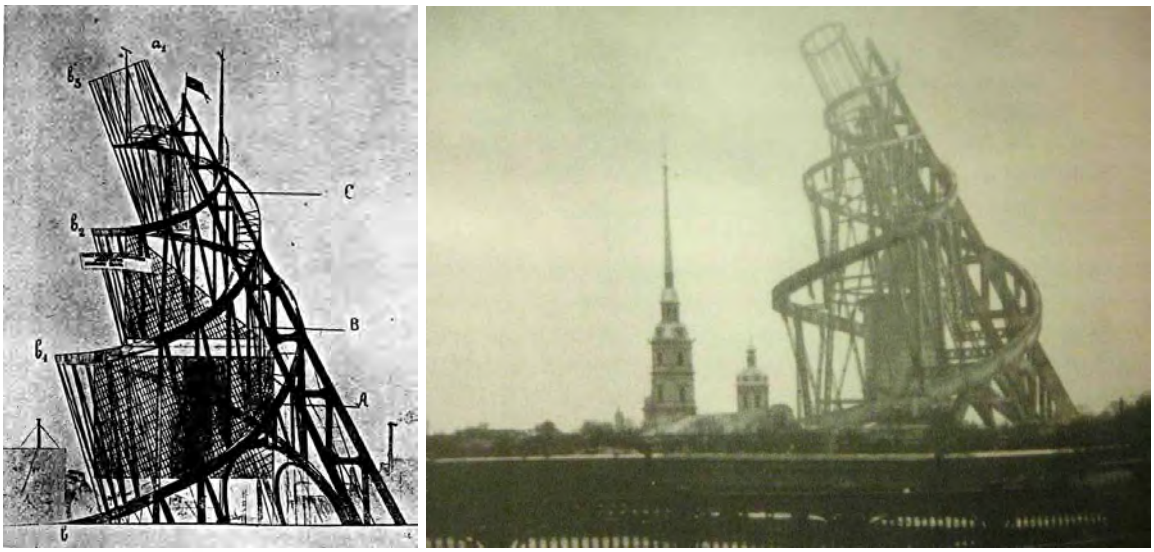

Figure 4.5 Vladimir Tatlin, *Monument to the Third International*, Leningrad (1920), unbult project; elevation (by Tatlin) and still from digital film reconstruction (1999) showing building height compared to hypothetical surounding buildings.
[sources: (left) Milner, *Vladimir Tatlin and the Russian Avant-Garde*., 1983; (right) Takehiko Nagakura, *Tatlin's Tower* (digital reconstruction), 1999]

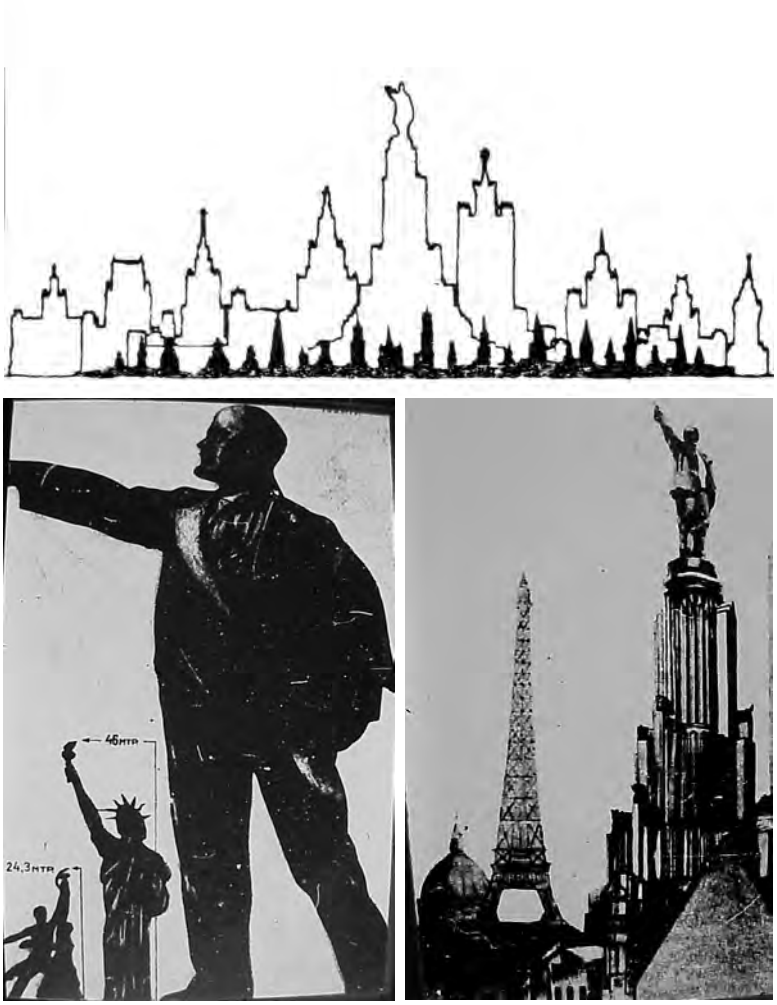

Figure 4.6 Boris Iofan, Vladimir Shchuko and Vladimir Gelfreikh, *Palace of Soviets* competition project and post-competition development (1933-6), showing the massive scale compared to other known monuments
[source: (*top*) Lizon, *Palace of Soviets*, 1993; (*bottom*) Wikipedia Commons, from *Russian Archives*]

complex", and to "consider a bold, tall, many-storied building".[111] Yet nowhere does gigantism reveal its magnitude as in Iofan's, Schuko's and Gelfreikh's post-competition development of their winning scheme [see figure 4.6], where the Lenin statue atop the Palace is extended to surpass in height all extant built structures in the world.

The above account outlines the main features of the prevailing historical narratives: an ever-growing, if monolithic or uniform, gigantism; debate, if any, was over its causes and not its nature. Gigantism, by default, is hard to miss; but it is also by nature blinding: it overpowers perception and overshadows subtlety. What I propose here is a twofold critique of the above-related narratives of gigantism in the history of the Supreme Building – a critique particularly concerned with the homogeneity with which it is depicted. First, entangled within this overpowering gigantism are threads of distinction or streaks of variation; some 'bigness' does not equate others. There was, I contend, one thread of such gigantism which emerges from the diversity and complexity of aggregated activities and volumes; another thread followed from the gigantism imposed upon the building as an object – an objectifying bigness, indeed blown out of proportion. Although both threads can be discerned throughout the historical trajectory of the Supreme Building, from the *Palace of Labor*, and even earlier since Tatlin's *Monument for the Third International*, it is the latter thread which came to exclusively dominate the gigantic imagination by the conclusion of the *Palace of Soviets* Competition.

Secondly, designers' responses to this agenda of bigness also involved differentiations in the levels of complexity and the directness with which they interpreted such bigness. In the beginning, programmatic demands for gigantism were met with truly large volumes and masses, but differentiated in such ways as to somewhat defray the immensity and defer to complexity and multiplicity. Among the *Palace of Labor* entries, such bigness borne of complexity is what numerous critics, such as Mosei Ginzburg, appreciated about the Vesnins' formal treatment; the large mass is deftly differentiated into smaller dynamic masses to reflect, at

[111] From Lizon, *The Palace of the Soviets* (1992): p.100-1.

least in principle, different functional spaces on the building's interior. The Vesnins' earlier sketches communicate even more dynamism, differentiation and a subtler grain of forms (small, medium, large…etc.) than what their finalized scheme retained. What illustrates the strong intentionality behind such formal differentiations is the fact that they did *not* really reflect the functional variations behind the facades' skins. The building's interior arrangement settled into a rather rigid spatial structure which does not allow for the formal play which their initial sketches desired. Yet, formal play willfully stayed despite not being the 'natural' outcome of interior functional arrangements, or the rush of interior spaces merely arrested at the façade skin – the rather naive recipe which some modern functionalists coveted. Nevertheless, the overall formal 'construction' retained some of the initial playful articulations; a filigree of cables, trusses and off-centered forms break down the immensity of the large mass, proffering a rich grain of scales, not only as the outcome of the different sizes involved but, equally importantly, because the forms do not add up into one whole formal composition – again, despite the unified interior axial arrangement. Similar qualities may be detected in other entries as well [see figure 4.7]. Even Nicolai Trotsky's winning entry, for all its schizophrenic Neo-classical pretensions - a "cross between Ledoux and Palladio", as Kopp tagged it - also fragmented the large mass into subordinate forms. While Trotsky's constellation does add up into one composition comprised of primary and secondary forms, the mass remained broken-down or rather fragmented. Primary shapes dominate by geometry rather than by relative size; they are placed at the center with secondary forms attached to them. The point is, as such a pervasive strategy as one can detect in several entries by designers of diverse approaches, it was quite likely scripted in the competition brief itself, or at least implicit in its problem formulation. Indeed, one may conclude that the numerous and very diverse programmatic requirements – the festive nature of the program – engendered such a formal strategy of fragmented gigantism. Khan-Magomedov argued that the "determination to bring together as many institutions and organizations as possible within a single public building … ", besides being the historical inertia of collaging diverse activities in confiscated palaces of the Czar and nobility, "…was also strongly influenced by a wish to make the new proletarian public building conspicuously huge and majestic…".[112] But, really, the question

[112] Ibid: p.39.

should be which kind of conspicuous hugeness was thus generated? With such a diverse, complex collection of spaces as included in the *Palace of Labor* brief as well as in other early incarnations of the Supreme Building, conspicuous gigantism would mutate into similarly diverse formal constructions; the basic complex substance makes for unpredictable outcomes and emergent forms.

Gradually, though, the formula changed. Instead of bigness as unpredictably emergent from the aggregation of multiple spaces, diverse functions and largely constructed (rather than composed) form – increasingly, unified composition takes over. While the size of the building may not have changed – at least until the *Palace of Soviets*' third phase – the formal language had shifted quite dramatically towards a consolidated composition. Yet the highly dramatic changes accelerated exponentially in the competition's last two phases, and in the post-competition phase as Iofan, Schuko and Gelfriekh further developed the Palace in response to Stalin's instructions. Put differently, three things occurred simultaneously: the *Palace of Soviets* building became an object of a restricted, unified composition (with anthropomorphic parts); the building object became very large – the largest, in fact; and, finally, all this materialized as a direct response to clear instructions spelled out quite explicitly in the Committees' comments. The relationship between brief and design had become monolithic and simplistically-straightforward. What the gigantic imagination gained in momentum it lost in single-minded obsession.

What is at stake here is one issue with fundamental implications on the nature of the spatial constructs in question for defining the crowd design problem: specifically, the issue of *scale*. Such overemphasis on conspicuous gigantism, as discussed above, effectively masked the problematic issue of *scale;* the gigantic imagination took for granted that the *Palace of Soviets*, indeed the Supreme Building, had to be 'big': very big; as big as possible, and much bigger than any other existing monument; big but also objectified – as a unified composition that does not accept a subject's projections of lesser scales (sub-parts, or a finer grain of forms) onto it. Scale is not merely a magnitude of size; it is a relation – a spatial relation – between a subject's situated body and at least another body or object. One's *sense of scale* involves the perception of

other bodies' and objects' physical sizes relative to oneself, and relative to contextual bodies and objects, but dialectically qualified by conceptions of such bodies and objects. The perception of relative size is informed by one's conception of the adjacent body or object, while conversely also this idea is modified by the physical bodies, objects, their sizes and their arrangements. This qualified network of perceived bodies and objects, as discussed in Chapter-3: "Spatial-Construct: Unpacking Design Problems Spatially", is a necessary, determining ingredient of a spatial-construct. The transparency of objects, characteristic of the mosque's spatial-construct, often diminishes the perceived scale of objects and 'things' within the confines of the prayer hall; in turn, objects are usually minimized in physical mass, and implied rather than built (e.g. a vault is treated as a series of arches). Hence, when competition briefs bespeak conspicuous gigantism, they already script the imagination with particular conceptions of bodies and objects in space. The problem with the gigantic imagination of the Supreme Building was not only that it had assumed a certain exclusive range of scale, with its attendant conceptions of body and object – but that these qualitatively distinct conceptions, as suggested by the competition brief, derive their legitimacy from sources other than the crowd.

When offering suggestions to "an architectural style" which "would definitely express the monumentality, simplicity, wholeness or grace of architectural forms appropriate to the great goals of … Socialist society", the Committee's comments "insist[ed] that the Palace should express the best results of modern, as well as classical, architecture by means of contemporary technology".[113] Of the two "styles" or formal systems which the Committee identified, modern architecture - at that time in Soviet circles - was at once vague conceptually, and highly controversial politically; in effect, Classicism is thus named as the formal system of most coherence and minimal political risk. Even if the brief does not state unequivocally: "Classicism!", it offers Classicism as the only coherent stratagem. Furthermore, the Committee's decisions in later stages of the competition clearly pronounced its leanings towards a Classical formal language. Again, the issue with Classicism here is that it comes packaged with a particular twofold conception of body and object that is

[113] Ibid: pp.100-1.

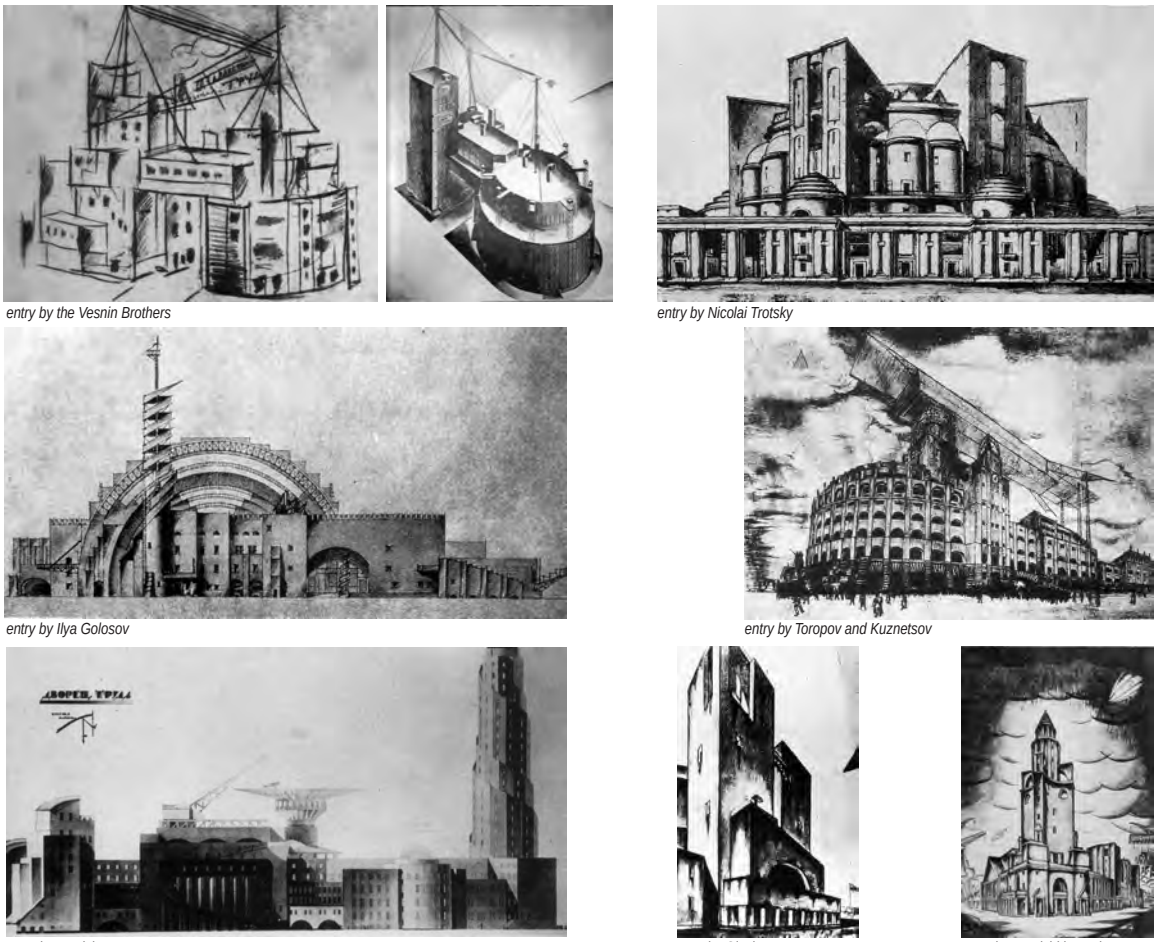

Figure 4.7 *Palace of Labor* Competition (1922-3), numerous entries; comaprison between portrayal of urban context and formal compositions across the different entries [source: Khan-Magomedov, *Pioneers of Soviet Architecture*, 1987].

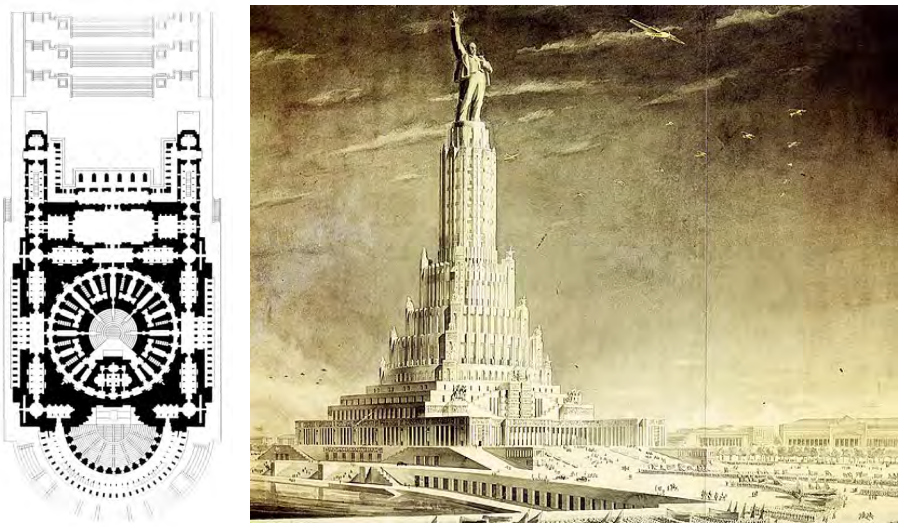

Figure 4.8 Boris Iofan, Vladimir Shchuko and Vladimir Gelfreikh, *Palace of Soviets* competition project and post-competition development (1933-6), plan [source: Lizon, *Palace of Soviets*, c.1993], and perspective [online sources]

foreign to the crowd of amassed bodies and intersubjectivities demanding self-representation. As Classical form portends to mirror an individual viewing subject, it renders the object independent of the viewer(s). When Classical Architecture reflects an idealized individual body, it marginalizes collectivity. Where Classical Architecture resolves a building's apparent weight independent of the viewers' psychological projections, it withdraws the object from the viewers' field of empathy; it usurps the engagement of the crowd – and thereby precludes as well as delegitimizes its agency. The classical formal language, particularly the Neo-Classical version eventually espoused by Boris Iofan's scheme, is one where mass and void mutually delimit each other, to evoke a self-defining and autonomous ensemble – one which precedes the crowd gathering, which remains unperturbed in its presence and which survives its departure unscathed [see figure 4.8].

In other words, this *specific* kind of conspicuous gigantism, following classical formal strategies, shifted emphasis from the crowd as the legitimate form-generator and the motivation of space-making. Indeed, it rendered ambiguous the fundamental question of what generates crowd space. In effect, the Supreme Building's mythology, as manifested in the final phases of the *Palace of Soviets* competition brief, had shifted the definition of the crowd design problem away from the crowd itself – from its native substance.

Conclusion: The Tragic Vision of the Supreme Building

> … in the name of the workers, I propose that our central executive committee undertake as soon as possible the construction of a fitting monument within which the representatives of labor could meet. In my opinion this structure, this palace, should be erected in the capital of the Soviet Union, on one of the best and finest squares. There the workers and peasants would find everything they needed to broaden their horizon. I believe that, at the same time, this building should be a symbol of the growing might and triumph of communism not only among ourselves but also over there, in the West.
>
> There is much talk about us; it is said that like lightning we have wiped from the surface of the earth the palace of the bankers, landowners, and czars. All this is true. But let us build in their place the palace of the workers and the labouring peasants, let us bring together

> everything in which the Soviet lands are rich, let us invest all our worker-peasant creativity in this monument and show our friends and enemies that we "semi-Asiatics", we whom the world continues to look down its nose, are capable of embellishing this wretched earth with monuments such as our enemies could never imagine, even in their dreams.[114]

This statement by Soviet representative Sergei Kirov is commonly credited with inspiring the vision of the "Supreme Building" in the Soviet imagination. It was in response to Kirov's call, so goes the quasi-universal story in the literature on early Soviet architecture, that, in the Spring of 1922, a site was selected in central Moscow and the *Palace of Labor* competition was organized. What vision of the 'Supreme Building' was set in motion with the *Palace of Labor* competition (1922) developed into 'gigantomaniac' proportions with the *Palace of Soviets* competition (1931-3). However, as previous arguments in this chapter and the preceding one illustrated, it is gravely erroneous to historicize the conception of the "Supreme Building" from an official pronouncement. Even its initial vision – its founding myth - must have sprung elsewhere in the spatial practices of Soviet society, only to be crystallized in Kirov's statement. Still, the grip of Kirov's statement seems to linger relentlessly on the Soviet imagination as well as in the mythology about the period. With all the preceding discussions of this section in mind, I wish to summarize and synthesize the overall impact of the competition briefs on articulating, or otherwise disguising, the crowd design problem – and, alongside, to appraise Kirov's tendered vision of the Supreme Building. Besides seeking the problem's spatial-construct, this probe into vision should complement earlier reflections on how pronouncements, visions and desires are filtered and thereby transformed in the course of 'acquiring space'.

So: How may one interpret such identified silences and excesses implicit in the competition briefs? What spatial-constructs of the crowd design problem have been detected, if any? To recall: The descriptive framework of a spatial-construct issues from a developed perception of the negative extension in-between physical matter, including conceptions of the arrangements of subjects and objects – the configuration of 'things'; it also comprises a specific understanding of authority and agency controlling the use and

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[114] Excerpt from Sergei Kirov's address to the First Congress of the Soviets, December 30, 1922; quoted in Anatole Kopp, *Town and Revolution: Soviet Architecture and City Planning 1917-1935*, translated by Thomas Burton (New York, George Brazillier, 1970): Appendix 1, p.245.

transformation of space; it is also conditioned by qualified conceptions of bodies and objects themselves – i.e. particular conceptions of the 'matter' occupying and deforming the extension; and finally, a spatial-construct lies at the intersection of social tensions and opposed formal tendencies.

And how do such spatial-constructs, or their elements, relate to the specific social and historical struggles of the modern urban crowd? As a reminder: By the conclusion of WWI, this crowd had evolved into a pervasive mode of social being, particularly in post-revolutionary Soviet territories, and which proclaimed two specific spatial demands. It demanded the making of its own space, generated on its own terms, employing its own visual and graphic categories, and issuing from within its own native substance. Crossing from its original setting of the city and into the building, it demanded that the building-artifact transform to account for its new legitimacy. In other words, the modern crowd demanded its self-actualization through building space.

In response to the above questions about spatial-constructs in context of the crowd's historical struggles, I would advance two main contentions for concluding this first section of Chapter-4: "The Crowd Design Problem: Primary and Secondary Sources". On one hand there are the omissions; *the competition briefs offered an inadequate framework for a spatial-construct to diagnose the crowd design problem*. On the other hand, there emerges from the above discussions an almost tragic facet to the Supreme Building project as presented by its briefs. What the programmatic scripts do offer came fraught with far too many contradictory forces, as well as being significantly incommensurate with the struggles of the modern crowd at this crucial juncture.

It is immediately obvious where the briefs failed the formulation of a spatial-construct. Above discussions have identified an entangled set of omissions and concealments. Veiled behind a mask of generic vagueness, the briefs – especially the *Palace of Soviets*' brief – inadequately posited its habitus of activities as well as its desired spatial system in terms incommensurate with the political questions posed by the modern crowd. References to period revolutionary activities – the emerging social practices of the New

Soviet Person - were suppressed in the briefs. Instead, the programs called for, and/or implied, standard functional requirements associated with a hypothetical typical person – the 'average' figure concurrently emerging in reference books alike *Architectural Graphic Standards*, whose first official edition dates to 1932, around the same time as the *Palace of Soviets* competition.[115] As well, spatial arrangements and configuration were treated with progressively heightened indifference in the briefs. While the *Palace of Labor*'s diverse program propped the potential for a decentered – or multi-centered – spatial system, such diversity was abandoned in the *Palace of Soviets*; although a processional parade ground was required in the latter's early phases, it was all too readily discarded by the third phase. Indeed, one walks away from the briefs with no sense of the questions pertaining to the negative extension of space as an all-scales crowd-sorter: the struggles for gregariousness within the synchronic space of a single assembly, and the strive for parity and equivalence across a spatial system – as period accounts suggest. Whereas, from such accounts, one visualizes the desired synchronic space as a complex, generative web of mutually-dependent flexible strings conjoining crowd members to one another, the briefs imply a gigantic container encircling largely passive congregants. Moreover, the briefs passed over questions of pictorial representation: how a crowd is graphically depicted deeply informs, not only how it is seen by designers and by authorities, but also by the crowd members themselves. In other words, the crowd's quest for self-discovery and self-representation seemed to have received an indifferent shrug.

Failure to politically interrogate the spatial extension at its different scales foregoes an important ingredient of a spatial-construct; mystifying the hierarchy of (programmatic) political authority and the nature of spatial agency forsakes yet another. Unfailingly, the briefs tended to homogenize the Supreme Building's user groups by overemphasizing the reach of such terms as 'workers' and 'soviet-delegates'. As a result, one finds it difficult to discern the hierarchical structure of power between the different user-groups (e.g. Bolshevik Party vs. Trade Unions in the *Palace of Labor*). Similarly, the homogenizing discourse confused

[115] In fact, John Wiley & Sons published an earlier 'prototype' version of the *Architectural Graphic Standards under the title Architectural Details* in 1924; see www.wiley.com (accessed June 2009).

the distinction between building inhabitants and visitors. The authority of who controls space, and may thus act to transform it, was cast in an ambiguous and misleading manner. An attendant issue was the spatial mapping of power, which witnessed a significant development from one palace to the other. The ambiguity of authority in the *Palace of Labor* was matched with a similar vagueness in mapping; the complexity and diversity of the program affords varied strategies for laying out the different centers of authority (I will revisit this point). At the other end of the spectrum, the *Palace of Soviets* program demanded a stricter mapping of power onto space; smaller spaces were dedicated to user-groups with higher and conjoined authority over both politics and space – although apparent emphasis was tendered to the larger spaces with weaker power and lesser authority.

Another facet of this tendency to confound the exercise of political and spatial authority is more pertinent to the crowd's historical struggle. What the briefs imply, but simultaneously belabor to mask, is an important conceptual distinction which helps map the morphological variance between the two Palaces and hence the development of the Supreme Building: a distinction between *festival* and *ritual*. At one end, the *Palace of Labor* was a collage of distinct sets of user-groups, functional requirements and their ensuing tensions – all with no definite center, and with no single spatial component to glue such disparate sets into one cohesive whole. The *Palace* brief implies (but not explicitly calls for) a decentered spatial system. Attendant patterns of movement are labyrinthine and rather unpredictable – very much alike a crowd in festival. In a festival, mass spectacles and demonstrations converge or diverge from/to disparate ends; they may occur simultaneously or sequentially; they may overlap, intersect or diverge. Contrastingly, in ritual, arrangement is more controlled and sequence predominates; events acquire significance by happening one after the other. The early phases of the *Palace of Soviets* program prescribed a procession and parade ground that would bind its distinctly defined functional sets together in a prescribed linear scenario of movement with a clear hierarchy of anchors. The Mass Hall was quite clearly designated as the destination of the parade ground; this predicated couplet influences all other spatial arrangements in the program. The *Palace of Labor*'s festival-like spatial system lends itself more readily to challenging established authority over space;

spatial sequences and arrangements may be redefined to reassign configurational depth to different groups. In contrast, the *Palace of Soviets*' ritual-like arrangements are more monolithic and rigid; they resist spatial and hence political transformations. Thus the vision of the Supreme Building developed from a beginning closer to the native capriciousness of the spontaneous crowd – and terminated by the early 1930s with a grand vision of a formalized ritualized crowd. It evolved from an indigenous, generative unpredictability in a non-committal spatial setting - to a prescribed (if possibly contemplative) uniformity in a setting to be heavily inscribed with clues and rules. As pointed out in previous discussions, the latter brief also hints that crowd activity would be ritualized even at the scale of an assembly; the brief pictured a passive crowd being "harangued" by an orator or performance, as was Le Corbusier's impression.[116] I would argue that, implicit and masked as it was, this quality of ritualizing crowd *at all scales* and its total departure[117] from an indigenous crowd's spontaneity represents one of the strongest implications which the *Palace of Soviets* brief had on the design problem – a quality in strong tension, indeed in conflict, with the nature of the assembled crowd in its Mass Hall.

This segues into what the briefs actually contributed, in contrast to what they suppressed or veiled, and here is where the tragic side of the Supreme Building project reveals itself. Besides the instrumental requirements of the building program (such as: how many halls and how many seats per hall), they contributed quite significant offerings. Perhaps the most prominent contribution of the *Palace of Soviets*' brief was to identify the *crucial crowd* for which to explore the workings of the political system as well as its spatial dynamics: the crowd of 15,000 - 20,000 persons designated to inhabit the Mass Hall and the Parade Ground. The significance of this key crowd was that it occupied the nexus of several key issues. Politically, it represented the interface between soviet representatives and their constituencies - the social threshold where political power, both legislative and executive at the same time, connected on some regular basis to

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116 Cohen, *Le Corbusier and the Mystique of the USSR* (1992).

117 I will argue in later chapters that in even highly organized mass events of the 1920s and early 1930s, while the overall crowd movement was highly ritualized, the behavior of its individual members and small groups were more spontaneous and gregarious. I will also contend that in ARU's design for the parade ground, this tension between the spontaneous small-scale movement on one hand, and the highly organized columns on the other hand, were employed as a generative device.

the electorate comprised of New Soviet Persons. In some sense, this space was to become an antechamber or a forecourt to the All Soviets' Assembly in the Small Auditorium. One detects its later echoes in the large columned hall with which Le Corbusier encircled the assembly chamber at Chandigarh's Legislative Assembly Building (1953-63) – an open, public 'lobby'. As such, this crowd was also the interface between the qualities of spontaneity and organization – a generative confrontation between the two forces characteristic of the crowd. Finally, and still theoretically, this crowd was a threshold between city and building; a forum for urban witness as delegates and constituencies march into the Mass Hall, or at best 'walk-in' assembly for the public. In other words, if convened on a regular basis and practiced in some productive form, this assembly would have been an important link in the political chain - a valuable addition to the practices of a self-discovering people, and potentially a step closer to direct participatory democracy in a modern world. As such, this crowd – its assembly as well as its procession – will receive much attention in upcoming chapters. Yet this crowd got entangled in the contradictions of the brief and the political system it represented. The briefs assigned it the weakest spot in the hierarchy of authority; the political system limited its meeting frequency to rare occasions. Together, the political system and the briefs echoing such a system set up a deeply paradoxical situation for the crowd.

The brief's second contribution also issues from the crowd's historical struggle. As the new site for crowd assemblies, the building artifact was primed for significant, even radical, change. Its internal spatial structure and its role in the city demanded transformation; the Supreme Building seemed the opportune occasion for that. One finds glimpses of such transformations in the *Palace of Labor*'s brief: in the complexity of functional activities and the diversity of user-groups. It was as if the building was being re-forged by acquiring some of the qualities of the city: its miscellany, its decentering and its unpredictability. Similarly, the *Palace of Soviets* seemed equipped to complement this medley when its brief added the parade-ground component. The composite had acquired not just another element in the mix, but also a tentacle with which to negotiate the city. And yet at every stage of this difficult dialogue between the artifacts of building and city, the negotiation was inhibited. In the *Palace of Labor* competition, the detachment from the urban fabric

pushed the schemes to almost usurp the city – a tendency also noted in contemporary Communal Housing projects. By the *Palace of Soviets*, program complexity was minimized; the building had become a simpler configuration. Moreover, the parade-ground was removed from the requirements and the building was mandated to be resolved in a single, gigantic mass. In other words, diminished in activity and spatial complexity, but far from diminished in size; sequestered into one mass without its parade-ground tentacle: the experiment of the new building-artifact had suffered a final blow. Once again, it retreated into its old self, as an artifact of intense control.

The briefs' final contribution was that of conspicuous hugeness as a quality of the new building-artifact: a complex gigantism to interface with, and continue, the city. Yet the subsequent qualification, in the *Palace of Soviets* competition brief, of such bigness as a specific version of large, independent objects entrenched in classicism, effectively abrogated its pact with the crowd's historical struggle of self-actualization. De-complexified hugeness mutated into terror; the independence of the classical object shifted the legitimacy of form-giving and space-making away from the crowd. What this achieved is denuding the crowd – the very *concept of a crowd* and not only the crucial crowd of the Mass Hall and the parade ground - of its legitimacy over the morphology of space.

Section Two: Primary Sources for the Charge

Fraught with such omissions and contradictions, the briefs would not stand on their own, whether for architects of the time, or for the researcher probing the logic of the crowd design problem today. As identified in the above discussions, three complementary resources stand out as primary ones from which to infer the particulars of the problem: Soviet Mass Events, Soviet Revolutionary Theatre, and Contemporary Work by Revolutionary Artists. It is to these resources that the argument now turns. Above arguments

identified these three resources for two reasons. For one, the evidence of period archives promised that they would shed light on what the competition briefs omitted or de-emphasized: the nature of activities and spatial relations, period explorations into crowd problems, and attendant conceptual categories. Besides this historical reason, there is a logical or a morphological one. The nature of what material they would supply is particularly spatial or, at worst, 'sympathetic' to space; i.e. it possesses characteristics easily translatable into the framework of a spatial-construct. Additionally, as arguments develop below, the resources' legitimacies will be further substantiated, particularly to establish historical connections to the Soviet architects – to demonstrate that the avant-garde architects were exposed to such resources in some manner.

In what follows, a sub-section is devoted to each resource. Concerned primarily with establishing the plausibility that each has indeed informed the formulation of the crowd design problem in architecture, the argument also extends initial connections from the resource to the problem. Beyond that, the present chapter will not pose the specific implications of each resource had on formulations of the crowd problem; this is better done when describing the problem's specifics later. It is in the next chapter that the pertinent question: what thickness did such sources lend descriptions of the crowd design problem, will be addressed.

Soviet Mass Events

> The individual was seen as a member of a team, in constant motion – in processions, at meetings or marching in the ranks.[118]

Soviet mass events presented the original crowd phenomenon in its formative spatial formulations. In more than one way, such events were the 'raw' acts of gathering and the laboratories of ferment for the forms of

[118] S.O. Khan-Magomedov, *Pioneers of Soviet Architecture: The Search for new Solutions in the 1920s and 1930s*, translated from Russian by Alexander Lieven and edited by Catherine Cooke (New York, Rizzoli 1983): p. 399.

coalescence being discussed in this thesis – and which intuitively establishes their plausibility as viable sources of the problem. Examining period photography and film, as well journalistic reports and fictional accounts, help confirm this legitimacy [for samples, see figures 4.9a and 4.9b][119]. Furthermore, such documents also help identify, more concretely, a number of threads through which such mass events shaped the crowd design problem.

For one, they help substantiate the fervent gregariousness reported about the Soviet revolution, and encapsulated in historian Khan-Magomedov's above-quoted epigraph. While the constancy cited in his statement may never be fully verified, one can ascertain that a peculiar phenomenon of social gatherings, both static and dynamic, was afoot – a phenomenon which transcends the usual in Western societies. Indeed, it was out of the momentum of the 1917 February revolutionary gatherings and following events of that year, that the energies of mass gatherings emerged as a potent arbiter of power and as a model for larger social entities, and whose organization became the quest of all involved political persuasions. This established the inherent spatiality of collective presence as an important ingredient of Soviet socialization, as opposed to the dominant hyper-spatiality (non-contiguous affiliations) of bourgeois society. Relating to others within the same physical space assumed stronger significance, both quantitatively and qualitatively, among instances of social interaction. This may help explain the increased occurrences of organized street festivals and spectacles in the first Soviet decade, as well as the plethora of large-size soviets, committees and organizations with overlapping spheres of influence and responsibility that the Soviet political system

[119] To examine the crowds of the Soviet revolution, as well as other insurgencies in Europe and elsewhere, I have relied considerably on the photographic and etching materials available through the archives of the French periodical *L'illustration: Journal Universel* (Paris: J.J. Dubochet, 1843-1944), and which I accessed at the library of the University of California at Berkeley; on the online archive of Life Magazine hosted by Google; and on many Soviet films from the period, foremost among which is Dziga Vertov's *Man with a Movie Camera* (1929). Indispensable were Catherine Cooke's *Street Art of the Revolution* (London: Thames and Hudson, 1990), René Fülöp-Miller's *The Mind and Face of Bolshevism: An Examination Of Cultural Life in Soviet Russia* (New York: Harper & Row, c1965 (1928)), as was Richard Stites' *Revolutionary Dreams: Utopian Vision and Experimental Life in the Russian Revolution* (Oxford University Press, 1989). Of great help also were James von Geldern's discussions of Soviet cultural life in his two books: *Bolshevik festivals, 1917-1920* (Berkeley CA: University of California Press, c1993); and, co-edited with Stites, *Mass culture in Soviet Russia: tales, poems, songs, movies, plays, and folklore, 1917-1953* (Bloomington: Indiana University Press, c1995).

spawned.[120] What started as a spontaneous, even emotional, street gathering spawned a political assembly exerting power.

This brings me to a crucial quality of most Soviet mass events, but especially political assemblies. What such records and reports also reveal about the peculiar social phenomenon of mass Soviet events is that, not unlike other gatherings elsewhere, it was underscored by a tension between the instinctual informality of the spontaneous crowd on one hand, and the persistent attempts to organize this crowd into a productive assembly on the other hand [figure 4.9b]. While this generic tension pertains to all large scale gatherings, it was particularly more acute in the Soviet case, because – again – the crowd assembly was a mode of practicing politics. It was no exceptional anomaly of social life; it was meant to embody and practice a new social condition. The need to distill the myriad views, voices and wills of the gathered into organized discussion, voiced ideas and finally decisions inevitably placed strains on the ephemeral, even volatile, nature of a crowd. Addressing this acute tension was inevitably part of the implicit design charge in the *Palace of Soviets*, but in any of the other incarnations of the Supreme Building as well.

Yet the Soviet mass events point the design problem into a more specific direction. Such choreographies of the masses manifested themselves in variant forms of mass street events: parades, street theater, demonstrations, marches, rallies …etc. Two general categories distinctly polarize this wide array: festivals and rituals, as pointed out previously. In the festival, mass spectacles converge or diverge, from or to, disparate ends of the city; they may occur simultaneously or sequentially. In ritual, arrangement is more controlled, and sequence predominates; events acquire significance by happening one after the other. In festivals, spontaneous exchange occurs between performers and spectators; sometimes even to a complete diffusion where spectators become the performers as emotional involvement intensifies (e.g. spectator

[120] Catherine Cooke has documented Soviet annual street events in the 1920s and early 1930s in her book *Street Art of the Revolution* (London: Thames and Hudson, 1990). For some narrative flavor of the Soviet political system and what occurred indoors in contemporary assemblies and soviets, please see Appendix III of this thesis, document which contains the summaries of some of the press reports cabled by correspondents of Western newspapers at the time from Moscow.

involvement in the 1920 *Storming of the Winter Palace* directed by Nicolai Evreinov). Audience-performer exchange are not programmed but allowed (perhaps encouraged) to occur. In comparison, ritual involves prescribed exchange and predicated involvement; but audience and performers are not meant to confuse roles. Festivals also employ drama, narrative - mythical at times – and involve carnivalesque behaviors (burlesque, satire, boisterous, animated, and unpredictable). Ritual, on the other hand, eschews (or at least minimizes) drama and narrative. Festival is a generator of myth; ritual controls and reifies existing myth.[121] In Soviet history, the festival was dominated by the mass spectacle; the ritual was dominated by the demonstration.[122] The former produces a diffused multi-central configuration; the latter favors linear arrangements. True to form, Bolshevik festivals were generative of specific arrangements of crowd-flows: multi-pronged columns start simultaneously from different parts of the city to intersect at different loci in a rather unpredictable fashion. Arguably, this imbibed early workers' clubs – especially those established in existing buildings (schools, palaces, ..etc.) - with similar distributed arrangements, multi-faceted programs and a sense of diffused presence. From 1927, and as Stalin's grip tightened, Soviet assemblies gradually assumed the quality of ritual: with its unified centralized structure, and preset codes.[123]

In other words, the acute tension between Soviet crowd informality and the formality of a political assembly may be described in terms of those two categories of festival and ritual. This opposition constitutes a pivotal distinction organizing our conceptions of the different assemblies which the emergent Soviet society spawned, and thereby the nature of the design problem. Employing this opposition as a yardstick, one may regard the different Soviet assemblies – whether conducted in the extended network of the city or within the confines of a building's environs – as gradations, admixtures and permutations. And yet it would be mistaken, to view the two opposing tendencies as mutually exclusive by necessity. For one and the same

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[121] This comparison, almost opposition, between festival and ritual – generally, but also especially in the Soviet case - is inferred from different sources. See Christel Lane's *The Rites of Rulers: Ritual in Industrial Society – the Soviet Case* (Cambridge University Press, 1981); as well as James von Geldern's *Bolshevik Festivals, 1917-1920* (University of California Press, 1993). The distinction was also confirmed by reviewing Richard Stites' *Revolutionary Dreams: Utopian Vision and Experimental Life in the Russian Revolution* (Oxford University Press, 1989).

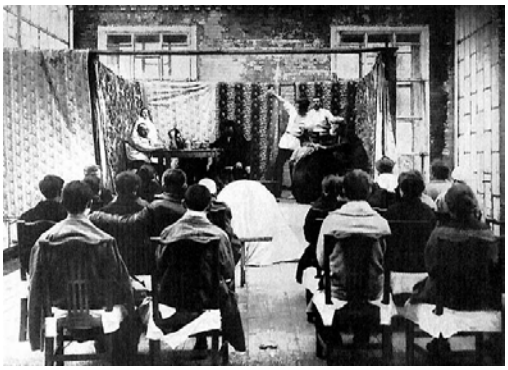
[122] See von Geldern's *Bolshevik Festivals, 1917-1920* (1993): pp.4,7; there are also hints of such a characterization of the demonstration in Lane's *The Rites of Rulers* (1981): pp. 176-9.

[123] Lane, *The Rites of Rulers* (1981): pp. 176-9.

Literary group at Moscow Auto Factory, 1932
[Von Geldern & Stites, *Mass Culture in Soviet Russia*, 1995]

Liquidating illiteracy [Fülöp-Miller, *Mind and Face of Bolshevism*, 1965]

A Workers' CLub [Von Geldern & Stites, *Mass culture in Soviet Russia*, 1995]



Performing Meyerhold at Red Workers' Club
[Fülöp-Miller, *Mind and Face of Bolshevism*, 1965]

Travelling School for Peasant Children
[Fülöp-Miller, *Mind and Face of Bolshevism*, 1965]

A Rabfak reading-room [Fülöp-Miller, *Mind and Face of Bolshevism*, 1965]

Octobering a Communist Baby, 1920 [source: Stites, *Revolutionary Dreams*, 1989]

Red Wedding, Leningrad 1959 [*Life Magazine onlive archives*]

Figure 4.9a Scenes from gregarious Soviet life, demonstrating some of the new rites and communal practices explored by Soviet society. [sources: Fülöp-Miller, *Mind and Face of Bolshevism*, 1965; *Life Magazine onlive archives*; Stites, *Revolutionary Dreams*, 1989; Von Geldern & Stites, *Mass culture in Soviet Russia*, 1995]

Street Assemblies

Mayday Celebrations, Revolution Square Moscow , 1919; parade is festive: multidirectional and decentered. [Cooke, *Street Art*, 1990]

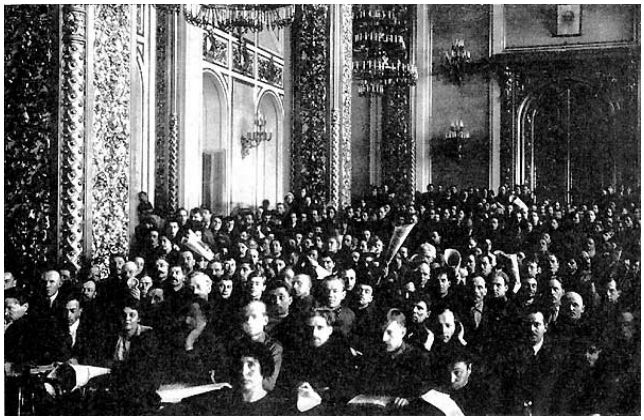
Anniversary of the Revolution, Leningrad 1924; identity and gregariousness by displaying trade worktools. [Cooke, *Street Art*, 1990]

Mayday Celebration, Uritsky Square, Leningrad 1925; identity and gregariousness through displaying ethnicity. [Cooke, *Street Art*, 1990]

Interior Assemblies

Diverse gathering, Tauride Palace 1917; fluid crowd against boundary of enclosure. [*L'Illustration Archives*]

Soviet Assembly, Duma 1917; the gathering oscillates between orderliness (podium and clerks), and informlaity (delegates) [*L'Illustration Archives*]



Central Executive of All Russian Proletariat, 1926; note the paper cones to enhance listening.

Figure 4.9b Scenes from gregarious Soviet life, *left* demonstration of the festivity, spontaneity and gregariousness marking Soviet parades; *right* tension between informality and productive organization.

[sources: Cooke, *Street Art of the Revolution*, 1990; *L'Illustration Archives*; Fülöp-Miller, *Mind and Face of Bolshevism*, 1965;].

[source: Cooke, C., & Kazus, *Street Art of the Revolution*, 1990]

closeup

[source: Cooke, C., & Kazus, *Street Art of the Revolution*, 1990]

closeup

closeup

Figure 4.10a Anatomy of a Soviet Parade, Anniversary of the Soviet Revolution 1929. Two images of the parade are compared, showing the tension between informality and organization. [source: Cooke & Kazus, *Street Art of the Revolution*, 1990]

Duma Assembly 1917, photo-1 [source: *L'Illustration Archives*]

Photo-1: closeup

Photo-1: closeup

Photo-1: closeup

Duma Assembly 1917, photo-2 [source: *L'Illustration Archives*]

Duma Assembly 1917, photo-3 [source: *L'Illustration Archives*]

Photo-2: closeup

Photo-1: closeup

Photo-3: closeup

Photo-3: closeup

Photo-3: closeup

Figure 4.10b Anatomy of Soviet Assembly, the Duma, late 1917. Three images of assemblies are compared, showing the tensions and diversity between body arrangements and attentions. [source: *L'Illustration Archives*]

assembly or gathering, one may find festive tendencies within a highly ritualized gathering, and vice versa. It is with such necessary precaution that one revisits the distinction between the *Palace of Labor* and *Palace of Soviets* competition programs discussed before. To reiterate: While the two building projects issued from the same exhortation to construct the new Soviet edifice, as a challenge from the newly-founded communist culture to the antagonist capitalists, and a response from the semi-Asiatics to the more technologically and artistically apt West, yet in several significant respects, the two projects departed from each other in terms of their principal social mandate. Conceived in radically different phases of the political development of Soviet state and society, the 'Supreme Soviet Building' sought fundamentally different incarnations; the two palaces represent divergent trends. Comprised of an admixture of functional requirements, the *Palace of Labor* challenged architects to create a social condenser of mainly everydaylife activities. City government offices, party assembly rooms, trade union meeting spaces and offices, a radio station propagating the new ideology, museums for educating the masses of labor, dining facilities, and above all, vast and varied assembly halls to engender a cultural and educational life for workers (lectures, art-making and art-shows, musical practice and performance…) and accommodate the new ceremonial rituals of birth and marriage – all this within the confines of one facility. A collage of specific functions and user-groups demanding a spatial counterpart of similar properties, the *Palace of Labor* approached the quality of a festival – as compared to the more unitary nature of the *Palace of Soviets* and its ritualistic tone. Conceived as ritualistic demonstrations came to dominate mass events, the *Palace of Soviets* was more attuned to ritualistic configurations of sequence.

So, what the competition briefs imply is a development in an overall trend: from festival to ritual. Whether the briefs advocated an exclusive form in each case respectively is hard to ascertain from their reductive prose. Yet the evidence of the Soviet events indicated a more nuanced and complex admixture. This is borne particularly well by the re-examination of reports on Soviet assemblies compiled by correspondents in the 1920s and 1930s. Appendix III excerpts numerous such reports with the additional purpose of providing some flavor of experience of what took place within such indoor Soviet gatherings. Overall, the sample

clarifies the polar opposition between festival and ritual, pointing out the struggles which the emergent Soviets had with preserving the festive spirit of their gatherings while realizing the need to streamline organization of proceedings and the attendant ritualistic demands this imposes. Two particular accounts by Walter Duranty, the New York Time reporter, exemplify the polarity, although with the added twist that the struggle for ritualizing occurs in December 1921, while the festive spirit remains resilient in his account of January 27, 1931.[124] This serves to remind us that, while the overwhelming trend in mass Soviet assemblies remains a trajectory from festive multiplicity to coherent - even totalized - ritual, the picture remained more complex and nuanced with layered, anomalous permutations. Furthermore, re-examining period photographs of mass events reveals how the tension between the two categories occurred simultaneously at different *scales*. Even the highly-organized parades of large crowds included a looser grain of small-scale behaviors that did not conform to the larger organization. Zooming-in onto the assembly, one would encounter formations and directions, geometries and speeds out of sync with the seemingly infallible strictures structuring the overall assembly [figures 4.10a and 4.10b].

So far, mass events have lent the formulation of the crowd design problem a few clues. These particularly Soviet events pointed the problem-formulation towards considering the sharp tensions between crowd informality and assembly formality, between the categories of festival and ritual – but seen as co-extant and co-mingled. More specifically, the problem seems to resolve itself into 'seeing', and considering, the crowd at different scales – each with its own measure of formality. A legitimate corollary to this is to wonder what kinds of tension may obtain between the different scales of a crowd. Are generative tensions possible? Can one scale and its respective form feed another? At what critical threshold can one scale challenge another and transform crowd dynamics?

[124] As mentioned in the main text, the two reports are part of the sample in Appendix III. They are also excerpted in the introduction to Chapter-5: "The Crowd Design Problem: Formulation" (next chapter) discussing the particulars of the crowd design problem.

A multi-scaled approach to crowd organization also segues into another dimension of the problem. As clearly revealed in period documents, crowd gregariousness took place - during and after the initial revolutionary years - in both exterior urban scapes but also increasingly within building environs; indeed, the transition is evident since the earliest coverage of the revolution. As discussed in Chapter-2: "The Modern urban Crowd", this transition from one artifact into another marked a historical shift in the political history of the crowd and its struggle for self-consciousness. What also becomes evident from examining period photographs of, and written reports about, interior building assemblies are two conjoined observations. The mass of bodies making up the crowd and inhabiting the interior volumetric container assumes the foreground of attention; written accounts of interior assemblies become largely absorbed in the movements and exchanges between assembly members. Additionally, period photographs reveal that the configurations between and across the mass of bodies acquire spatial definitions totally foreign to such conceptions inscribed in the physical space of the existing assembly building [see figures 4.11a *bottom*]. Thus, and in tandem, the walls or planes defining the volumetric building enclosure retreat into the background of attention, and their role in the definition of space becomes questionable. As ephemeral as it is, the crowd of bodies becomes the motivator of space, the center of form-giving and the basic morphological principle during the period of assembly. Different conceptions of space inhabit the synchronic extension thence. With different assemblies possessed of different scales of informality, the question becomes what variant crowd configurations, and their attendant ephemeral practices, take shape with the forms of assembly required in the *Palace of Soviets*? What concepts attend the political gathering of the Central Executive Committee, and which originate from the Mass Hall crowd which interfaces between representatives and the electorate? This then becomes a challenge for the problem-formulation with consequences for the design process.

But if the crowd – while convening - becomes the locus of spatial and formal generation, what then becomes of the planes defining the enclosure – a mere backdrop to the crowd encounter? Again, some mass events from the period suggest a different role for the surfaces of the volumetric extension - with an attendant political challenge. As James von Geldern has argued, mass events possess forms whose languages enjoy

considerable continuity across cultures and eras. Borrowing heavily from the established forms of medieval spectacles and mysteries, Bolshevik festivals developed a form evocative of the tenets of Mythical Time and Space. Emulating medieval mysteries, Bolshevik spectacles and mass performances liberally manipulated temporal sequences; this assisted the Bolsheviks in what amounted to a reshuffling of history to frame their triumph as the epitome of a contrived string of struggles extending from the medieval Cossacks to the 1871 Paris Commune. Perhaps because of their capacity for redefining the Bolsheviks' historical and political placement, evocations of medieval mysteries and burlesques equally permeated mass events during the early 1920s and in later developments of the 1930s. Mythical Time required an equally mythical space.[125] As von Geldern notes, theatrical backdrops became crucial in this evocation, with artists like Kasimir Malevich contributing some of the more notable designs, characteristically Suprematist. But what this initiated, generally-speaking, was the design problem of backdrops and backgrounds to the crowd. Conventional crowd events in the nineteenth century addressed the city mostly as it was, negotiating street routes and selecting building landmarks to emphasize meaning.[126] Bolshevik spectacles, snubbing the bourgeois city, sought to transform it, thereby associating mass crowd events with surrounding urban envelopes as necessarily conjoined in their imagination; see figures 4.11a and 4.11b] for examples of how urban surfaces and spaces were transformed to evoke new settings for the mass crowd evocative of the new narratives and myths. The phenomenon surfaces in remarks made by journalists observing the ongoings of Soviet assemblies in the 1920s, as they contrasted the clothes of the workers and peasants to the gilded decorations of the Grand Theatre of the Bolshoi, into which the assembly first convened [see Appendix III].

In other words, while relegated to the margins of consciousness from a viewpoint immersed within crowd bodies, backdrops assumed a quasi-mythological role; they possess the potential to place the crowd within a narrative - historical or otherwise. The political challenge for a crowd problem formulation becomes to what extent does such a backdrop issue from the same legitimacy of space-making and form-giving: the

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125 Von Geldern, *Bolshevik Festivals* (1993): pp.134-74, "Chapter Five: Transformation by Festival".

126 Mona Ozouf, *Festivals and the French Revolution* (Translated by Alan Sheridan, Cambridge, Mass: Harvard University Press, 1988): pp. 125-157 ("Chapter VI- The Festival and Space").

Rigoletto, a favorite Soviet theatrical production. The backdrop helps create mythical time and place.

Nikolai Evreinov (dir.), *Storming of the Winter Palace*, 1920 . The Palace facade is manipulated with a set to renact the storming in a mythical time and place.

Soviet Assembly, Duma 1917. The Neo-classical backdrop is alien to crowd morphology; also preempts mythical redefintion.

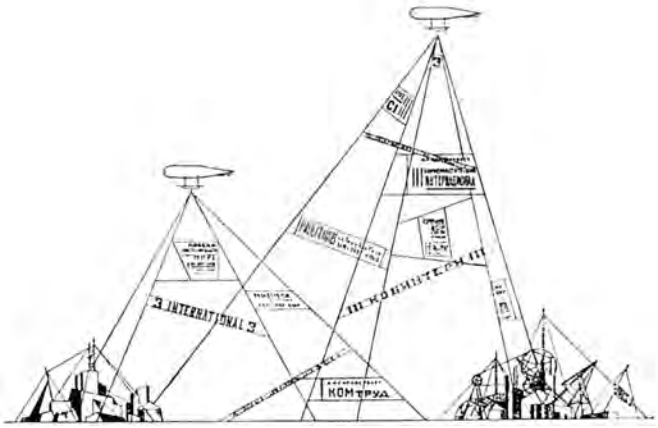
closeup

Figure 4.11a Soviet assemblies and mass events: comparison of crowd form against background in terms of crowd legitimacy and self-actualization; for Bolsheviks, the problem became one of mythical redefinition. *below* Soviet Assembly, Duma 1917; *above left* Rigoletto in Soviet theatrical production; *above right* Nikolai Evreinov (dir.), *Storming of the Winter Palace*, 1920.

[sources: *L'Illustration Archives*; Cooke & Kazus, *Street Art of the Revolution*, 1990]

Schemes

Natan Altman, design for the Anniversay of the Revolution, Uritsky Square, Petrograd 1918, Altman's initial intention was to totally transform the celebrating crowd's backdrop, despite budgetary restraints.



Aleksandr Vesnin and Liubov Popova, Sketch for an installation on the Khodinka field, Moscow, for the Third Comintern Congress 1921. The *Capitalist Fortress* (*left*) and the *Future Communist City* (*right*) - to be suspended from two dirigibles. The city is replaced in total.

Implemented Installations

Cladding the facade of public buildings, 1926.

Fomin, *Overthrow Of Autocracy Installation*; Anniversary of the Revolution, Leningrad 1927; startegies of scale and skyline

Duplitsky, *Apotheosis of October*; Anniversary of the Revolution, Leningrad 1927; startegies of scale and skyline

Figure 4.11b Samples of schemes and strategies for transforming the inherited bourgeois city, to evoke new settings for the post-revolutionary crowd, and to aid in redefining its mythology. Note the schemes' desire to totally mask or replace the city.

(sources: Cooke & Kazus, *Street Art of the Revolution*, 1990 ; Khan-Magomedov, *Pioneers of Soviet Architecture*, 1987).

crowd itself? Does the backdrop also follow from the crowd's struggle for self-consciousness or does it challenge this legitimacy and transform the crowd's consciousness, as von Geldern suggested about the Bolshevik festivals? Ultimately, architects are neither choreographers nor puppeteers; the various 'planes of backdrop' are what architecture actually proffers to explore the nature of crowd's legitimacy, to resolve its inherent tensions of spontaneous informality versus productive organization and to buttress its self-actualization. Effectively, what Soviet mass events reveal for the design problem-formulation was that the planes surrounding the crowd are charged with meaning and potential. It is unto them that the crowd would inscribe its desired self-consciousness.

Soviet Revolutionary Theatre

> It was from the theories of 'dancers and actors who work in space' that architects should work on questions of space and movement. Space and human movement, whether physical or as visual dynamics, were the cornerstones of his [Nicolai Ladovski's] teaching from 1920 onwards at the Vkhutemas.[127]

The following argument forwards the claim that Soviet revolutionary theatre armed avant-garde designers with a host of spatial propositions and conceptions addressing the social phenomenon of large crowds – what amounts, in fact, to a highly sensitive aesthetic of mass choreography. Grounds for laying such a claim may be sought in historical accounts of the designers' involvement in contemporary theatre, as well as in the similarity of problems that both theatre and architecture confronted. On one hand, the bond exhibits customary symptoms of a contextual influence; in other instances, it presents direct formulations of the spatial problem. The argument may be established on a number of levels.

That Soviet revolutionary theatre shared with the avant-garde in art, design and architecture a sphere of common explorations, experiences and practices, sufficient to establish credibility for a design culture for the

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[127] Catherine Cooke, "Ladovski, Nikolay (Aleksandrovich)", in *Grove Art Online*. Oxford University Press, [accessed May 18, 2006], http://www.groveart.com/

exchange of ideas and influences, is clearly established in the historical literature on the period.[128] Not only did artists and architects of the period, including those who submitted entries to the *Palace of Labor* and *Palace of Soviets* competitions, work on exploratory theatre building projects (e.g. Kharkov's *Massed Musical Performance Theatre* Competition, 1930-1;The *Synthetic Theatre at Sverdlovsk* Competition, 1932; The *Mosps* or *Theatre for the Moscow District Soviet of Trade Unions* Competition, 1932; *The Red Army Theatre* Competition, 1934), they also designed and executed stage sets and interior refurbishments of theatres [see samples in figure 4.12a]. Among the well-known examples, some of which will be closely examined in this thesis, are: Alexandr Vesnin's *The Man Who Was Thursday,* 1922; Varavra Stepanoav's *Death of Torelkin*; 1922, Liubov Popova's *Magnanimous Cuckold* for Meyerhold, 1922 (reproduced again in 1928); and Aleksandr Rodchenko's 1929 *The Bedbug and Inga, also 1929*. Another prominent example of such set design activity, notable also for being an ambitious refurbishment of a theatre's interior, was El Lissitzky's 1934 project for Meyerhold's production of Sergei Tretyakov's play *I Want a Child* [figure 4.12b], where El Lissitzky proposed to transform the interior of the Meyerhold Theatre quite extensively, placing the stage in the center of the auditorium. The Stenberg Brothers (Vladimir and Georgy) enjoyed an extended collaboration with theatrical director Alexander Tairov in the Kamerny Theatre. Between 1926 and 1930, they designed sets for a number of plays, including Eugene O'Neil's *The Hairy Ape* (1926), *Desire Under the Elms* (1926), *The Negro* (1927); as well as musicals such as *Day and Night* (1926), and *Die Dreigroschenoper* (1930).[129] Moreover, architects not commonly counted among the avant-garde also partook of theatrical opportunities to work out their ideas; figures alike Vladimir Shchuko advanced a quasi-abstract historicism in his 1923 set design for William Shakespeare's *Romeo and Juliette* on the stage of the Petrograd Academic Theatre of Drama.[130] It is of non-trivial import that, in almost all the above-mentioned cases, architects usually designed the cast's costumes as well as the set; in other words, architects were exposed to the full range of the design problems involved in staging a play down to the conception and

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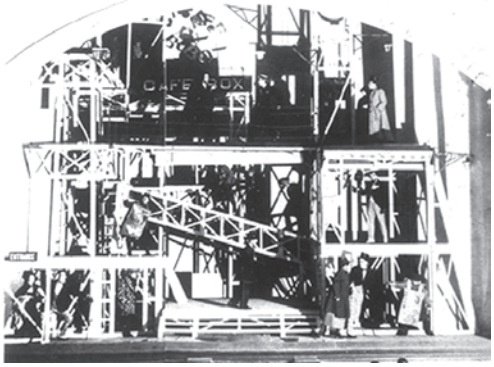
128 See: Catherine Cooke, *Russian Avant-Garde Theories of Art, Architecture and the City* (London: Academy Editions and Architectural Design, 1983); Konstantin Rudnitsky, *Russian and Soviet theater, 1905-1932*, translated from Russian by Roxane Permar; edited by Lesley Milne (New York : Abrams, 1988); Christina Kiaer, *Imagine No Possessions: The Socialist Objects of Russian Constructivism* (Cambridge, MA: MIT Press, 2005); and others.

129 Rudnitsky, *Russian and Soviet Theater, 1905-1932* (1988): pp.236-41.

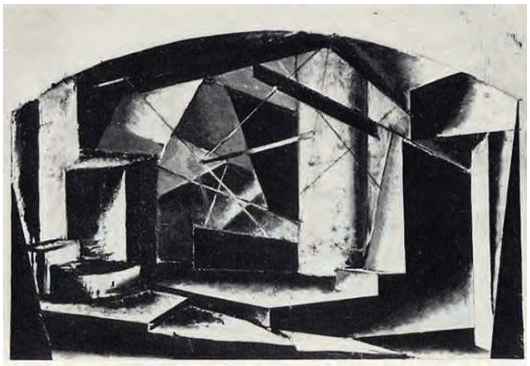
130 Ibid: pp.166-7.

Liubov Popova, Set Design for V.E. Meyerhold's *Magnonimous Cuckold* (1922 and 1928 productions). [source: *Global Performing Arts Database* www.glopad.org]

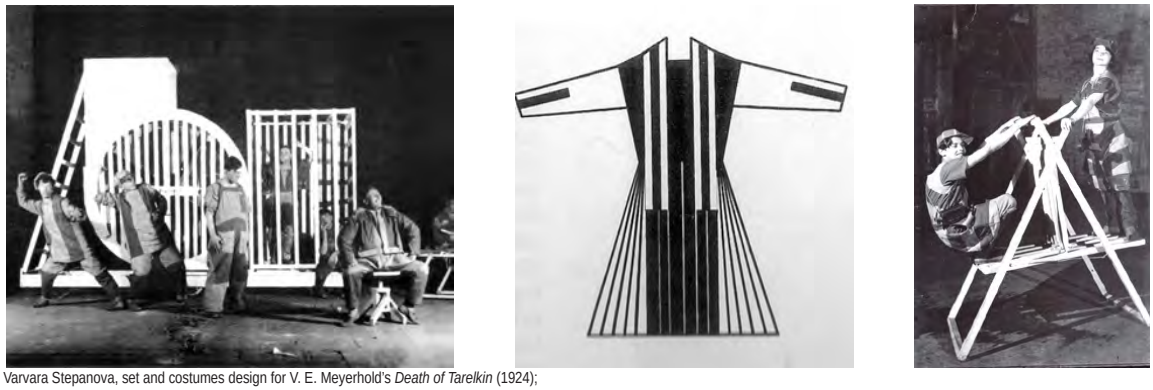
Liubov Popova, set design for V.E. Meyerhold's *Earth in Turmoil* (1923). [source: Rudnitsky, *Russian and Soviet Theater*, 1988]



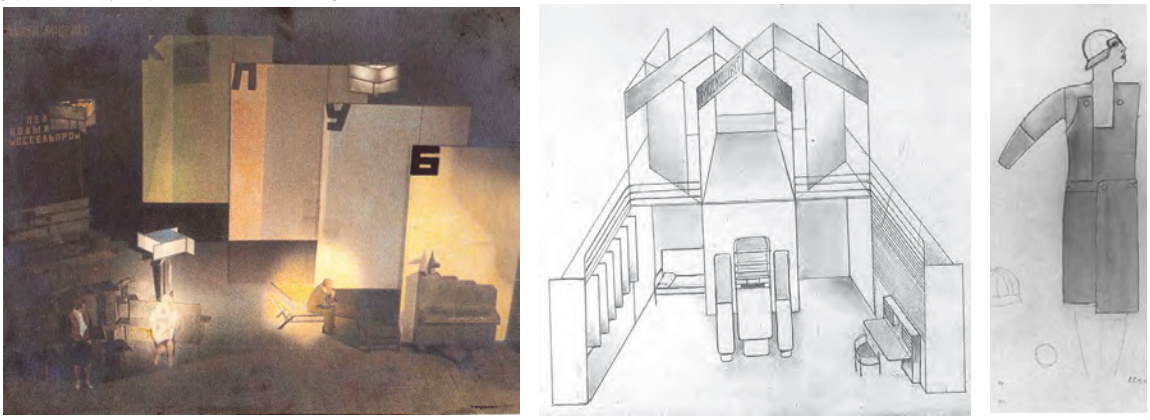
Aleksandr Vesnin, set and costumes design for A. Tairov's *The Man Who Was Thursday* (1923) [source: Rudnitsky, *Russian and Soviet Theater*, 1988].



Aleksandr Vesnin, set and costumes design for A. Tairov's *Phédre* (1923) [source: Khan-Magomedov, *Alexander Vesnin and Russian Constructivism*, 1986].



Varvara Stepanova, set and costumes design for V. E. Meyerhold's *Death of Tarelkin* (1924); [source: Braun, *Meyerhold: A Revolution in Theatre*, 1995]



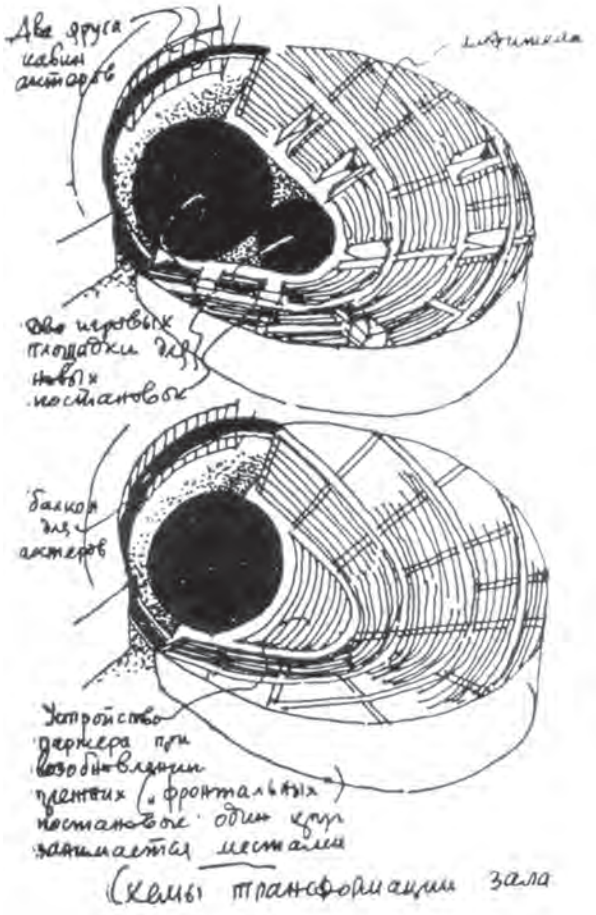
Aleksandr Rodchenko, set and costumes design for Tereshkovich's *Inga* (1929) [sources: Tupitsyn, *Rodchenko & Popova*, 2009; *A.M. Rodtschenko: Aufsätze, autobiographische Notizen*, 1993; Barris, ""Inga": A Constructivist Enigma", 1993.]

Figure 4.12a A sample of theatrical designs executed by different Soviet avant-garde designers and artists establishes the historical existence of a design-culture centered on theatrical problems [various sources].

Figure 4.12b El Lissitzky, set design for *I Want a Child* (1929-30); playwright Sergei Tretyakov; director: V.E. Meyerhold (bottom image is a recent reconstruction). The set design involved radical change in the interior of Meyerhold's theatre, as the stage was centralized [source: Khan-Magomedov, *Pioneers of Soviet Architecture*, 1987; online source].

V.E. Meyerhold, stage action sketch for *Life of Man*,1907

V.E. Meyerhold, set deisgn sketch for staging Andrei Biely's *Moscow*



V.E. Meyerhold, *New Meyerhold Theatre*, design sketch proposing steeply raked auditoriurm and circumscribed stage (1929?)

Figure 4.12c V.E. Meyerhold's repertoire of design sketches includes stage-action sketches (*top left*), but also set design ideas (*bottom left*) and even building-space design (*right*) [various sources].

presentation of the human body. Moreover, while some designers engaged in theatre, directors indulged themselves in exercises to design sets along with their set-designers or independently of them. Meyerhold's repertoire includes numerous sketches, not only of the kind frequently used to plan and direct stage action, but also explorations of stage sets[131]. In fact, Meyerhold even indulged in designing his own new theatre building with architects Mikhail Barkhin and Sergei Vakhtangov (1928-30) [see figure 4.12c].[132] If one compares this to El Lissitzky's radical transformation of Meyerhold's own theatre interior as part of the afore-mentioned 1934 stage set for *I Want a Child*, one apprehends the extent to which the lines between architecture and theatre became blurred and permeable.

Thus, a sizeable enclave in the design-culture of the time may be said to form around problems of theatre design and staging. Embroiled within such a design-culture during the volatile ferment of the post-revolutionary period until the early 1930s, architects must have been exposed to the competing theatrical theories of Constantin Stanislavsky, V.E. Meyerhold, Nicolai Evreinov and Alexander Tairov, as well as such creative derivatives in the theatrical and cinematic works of directors as Sergei Eisenstein and others. In other words, architects and theatre directors enjoyed an extended period of quite pervasive mutual exchange, adequate to imbibe influences from each other. As may be observed from photographs and drawings of such set designs, it is clear that the work was experimental – a test of new ideas of space, construction and choreography exerted by both architects and directors. In fact, one may argue that such architects' avant-garde spatial concepts and architectural expressions of the new mass society, unexecuted

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131 Meyerhold reportedly stopped sketching only "in his final years". "To sketch [sets and/or staging] means to stop up the imagination", he explained in February, 1936. "… When I was younger, I used to write things down, but as I mastered my craft, I stopped. If I devise a staging and sketch it on a scrap of paper, it becomes static. Everything that I devise and forget because I didn't write down is worthless, since what is good doesn't get forgotten." He goes on to say: "… In the art of directing, improvisation is obligatory, just as in acting, but always within the limits of the general composition." See: Aleksandr K. Gladkov, *Meyerhold Speaks, Meyerhold Rehearses,* translated and with an introduction by Alma Law (Amsterdam: Harwood Academic, c1997). One notes that Meyerhold reached this position in his career, not only as he mastered his craft, but also after his experience designing his new theatre with Barkhin and Vakhtangov (1929-1931). It would be interesting to explore whether the intense making and use of architectural drawings as part of this design process had any effect on his later position on sketching and drawing.

132 Because, in part, of his extensive interactions with architects, theatre director V.E. Meyerhold will occupy the focus of attention when exploring the influence of theatre on framing the crowd design problem. More importantly, and as will be discussed below, it will be the kinds of issues of space and choreography raised by his work and his Biomechanic acting system that urge the connection to crowd morphology.

in building-form due to limited resources or rejected radicalism, were tested as stage sets, props and costumes in period productions.

If this accounts for an historical confluence of careers and concerns, yet another side to this story displays affinities in nature (which were also arguably then recognized as such) between the generic problem of amassing crowds in buildings and staging them as theatre. For one, revolutionary theatre did require the involvement of large numbers of performers (1,500 in the case of the *Palace of Soviets*; no less than 8,000 in case of the open-air performance of Evreinov's 1920 *Storming of the Winter Palace*, with some one hundred thousand as spectators, some of whom also participated in the action)[133]. Revolutionary ideas also demanded the involvement of immense masses of spectators (8,000 in the *Palace of Labor*; 15,000-20,000 in the *Palace of Soviets*).

Beyond instrumentality, coalescing masses is, at its roots, a problem of presentation reciprocated between crowd members; to be with others in a common space implies elements of staging far from alien to theatre. Indeed, Soviet revolutionary theatre suggested the devices and themes through which such masses may be choreographed, performing the function of mediating between the Revolution's street events (whether instinctive outbursts in rebellious moments, or staged celebration parades) and the requirements of hosting mass events within buildings. To reiterate a previously-cited example: it was in the early staging of festivals, parades and large scale theatrical performances, as von Geldern demonstrates, that the Bolsheviks managed to reinterpret their position *vis a vis* earlier revolutions (the French Revolution, the Paris Commune and even medieval revolutionary incidents), and thereby consolidate their power over rival groups in an initially diverse revolutionary movement. Mythical time and space, as specific theatrical strategies drawn from medieval mystery plays, were foremost devices enabling the Bolsheviks the flexibility to recast their emergence as an inevitable outcome of people's sufferings and struggles against bourgeois oppression. Departing from norms of realistic theatre as well as metaphysical devices of the Symbolists, mythical time

[133] Von Geldern, *Bolshevik Festivals* (1993): p. 203.

and space allowed freer mixing of historical eras (present and distant pasts) as well as transpositions across spaces (far and near). This has deeply imbued the quality of space demanded of architecture as setting and framework for mass events in the two competitions.[134]

Just as theatre mediated between mass street events and enclosed crowds by suggesting thematics of display, theatre also mediated the relation between the novel science of movement studies and architecture. It is not purely an historical concurrence that the urge to amass crowds coincided with a surge in motion studies, especially in labor management as works by Taylor, Muybridge and Marey exemplify. In fact, this belongs to an objective property of the political problem: it was from the goal of streamlining and optimizing labor movements and efforts that such studies issued. This emulation of the ethic as well as aesthetic of labor pointed theatre directors, festival organizers as well as architects to an important common resource and an associated assortment of conceptions that was to have profound influence on defining the architectural problem. Historically-speaking, it was theatrical directors such as Meyerhold and his disciples (including Sergei Eisenstein) who captured such movement studies as a kinesthetic conception of space in theatrical formulations such as Biomechanics and Expressive Movement, only to be – in turn – imbibed by collaborating architects. From such choreographies, those same architects must have noted that in designing spaces for large-scale events, the immense masses of bodies making up the active crowd becomes a structural component in the formal properties of the space – and that, hence, some design strategy, and even a theoretical framework, are needed to address that aspect.

As will be argued in more detail in the next chapter, from this kernel spatial conception of concerted kinesthetics, theatre also offered architects articulate formulations on the symbolic language of crowd formations. Regarding the mass of bodies as the material of form-giving, Meyerhold's theatrical devices bespeak nuanced distinctions between *dense* arrays of bodies on one hand, and *replete* fragments on the

[134] Revisit Von Geldern, *Bolshevik Festivals* (1993): pp.134-74, "Chapter Five: Transformation by Festival".

other hand (as inherited from pre-revolutionary theater). In the same vein, Meyerhold's revolutionary theatre offered clues to forging the spatial distributions of attention across a large gathering.

Yet one has to insist that all such theatrical formulations, spatial as they are, fall not into the category of architectural response, but rather still under the rubric of the design problem. All such strategies remain theatrical devices; architects, even in the Soviet revolutionary context with its ideals of the unity of the arts, were still charged with creating the physical spaces and forms conducive of such given crowd properties. Architects were challenged to find the appropriate 'scaffolds' for this choreography of society. This inevitably points to an anomaly: if only the avant-garde architects were exposed to theatre's revolutionary formulations, how genuinely may this be considered a dimension of the generic charge? However confined to some architects the direct experience of theatrical sets design was at the time, familiarity with the revolutionary stage sets was more widespread. Even Neoclassical and Traditional architects were exposed to such period explorations in theatre. Yet, I contend, the issue of the range of exposure, while pertinent, remains secondary; this interest in choreographing human, particularly labor, movement was an objective property of the crowd problem at the time – whether its political problem or its morphological one. Moreover, this thesis' underlying objectives are not to distill the design decisions that the avant-garde architects advanced as different from other architects; the point is not primarily to clarify the architects' agency or intentionality. Instead, the argument seeks to distinguish what Architecture has offered from what it was given – to isolate, even if for the conditional sake of analysis, where the contribution of Architecture lies. It is only from such a position that a politics of architecture may be discerned here.

Contemporary Work by Revolutionary Artists

In Russia, alike in Europe of the early twentieth century, art underwent fundamental transformations. This argument posits that Soviet avant-garde architects received significant qualifications of their task (the crowd

design problem) from their contemporary art world. Yet one should reiterate early in the argument that such qualifications elude the realm of model and precedent; contemporary revolutionary art did not provide molds or spatial propositions, but mostly conventions of 'seeing', which, acting as platforms to design graphics and design tasks, radically transformed modes of visualizing crowds and their spatial enclosures.

But what grants such a hypothesis – that the architectural problem was partially heralded in the world of art - any plausibility? For an historical argument, the primary, intuitive reason was the deep and sustained involvement by architects in contemporary art debates and art production [figure 4.13a through 4.13c].[135] Archives include many a painting or spatial construction by architects such as Aleksandr Vesnin, Ivan Leonidov and El Lissitzky. Conversely, artists not infrequently tried their hand in the design of buildings, interiors and furnishings. Take for example Rodchenko's kiosks designs (1919), his preliminary schematics for the *House of Soviets,* Zhivskulptarkh (*Sovdep*, 1920), his executed furniture for Konstantin Melnikov's *Model Workers' Club in the Soviet Pavilion*, the Paris Exposition (1925), and his stage sets for *The Bedbug* and *Inga* (both 1929) [figure 4.13d]. In this age of profound questioning, debates on the nature of art and representation involved architects like Nicolai Ladovski and Aleksandr Vesnin; architectural education was being reforged in close alignment with modern art. A second historical reason for this plausibility is implied in Catherine Cooke's argument in her 1983 book: *Russian Avant-Garde Theories of Art, Architecture and the City*. For Soviet artists of the early revolutionary period, indeed for modernist artists across Europe at the time, art provided a pseudo-laboratory for design ideas. Momentarily setting aside skepticism towards the quasi-scientific connotations of such a proposition, and lingering doubts on whether – or how - architects actually tested design ideas in paintings and constructions, what may be historically ascertained is that designers from different schools of thought did 'dabble' in the problems of composition and construction that occupied contemporary artists. In other words, architects, like the Vesnin Brothers, Nicolai Ladovski, El

[135] This mutual involvement is evident in many an account of the early Soviet scene in art and architecture. See Khan-Magomedov, *Pioneers of Soviet Architecture* (1987); Cooke, *Russian Avant-Garde Theories of Art, Architecture and the City* (1983); and Maria Gough, *The Artist as Producer: Russian Constructivism in Revolution* (Berkeley: University of California Press, c2005); Christina Kiaer, *Imagine No Possessions: The Socialist Objects of Russian Constructivism* (Cambridge, MA: MIT Press, 2005).

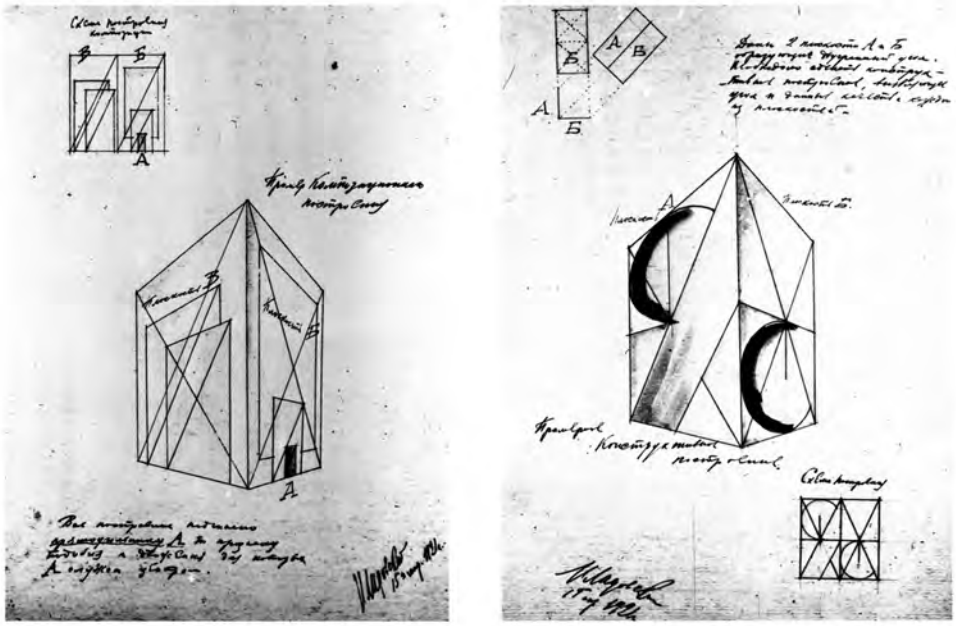

Figure 4.13a Nicolai Ladovski's contribution to INKhUK's April 1921 debate on the nature of representation "Composition vs. Construction" ; *left* Composition; *right* Construction [source: *Costakis Collection*, 1987]

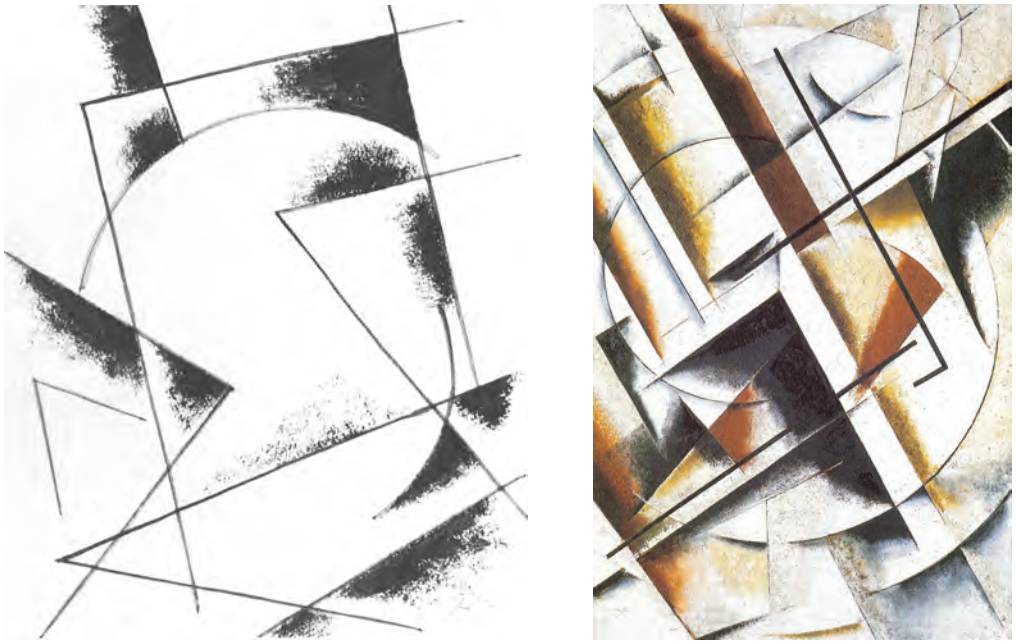

Figure 4.13b Aleksandr Vesnin graphic and painterly work paralleled his design work.
left Vesnin's entry to the *5 x 5 = 25* Exhibition Catalogue (1921) ; *right* Painterly Composition (1922).
[sources: Khan-Magomedov, *Alexander Vesnin and Russian Constructivism*, 1986]

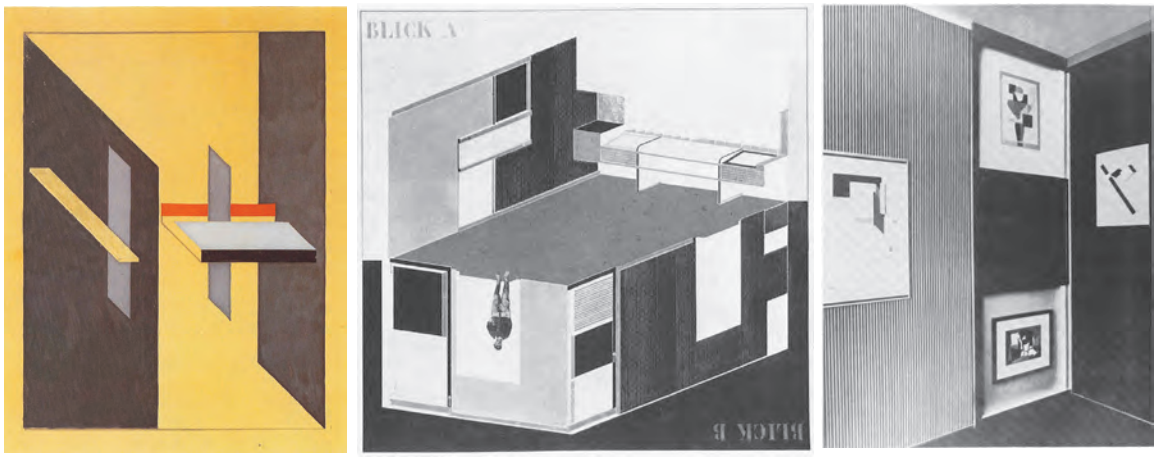

Figure 4.13c El Lissitzky : an exploration which spans from questioning painting and representation, all the way into architectural conventions and built space; *left* *Proun* (1923); *middle* *Drawing for Abstract Cabinet*, for Hanover's Provinzialmuseum (1926-7); *right* Abstract Cabinet, Provinzialmuseum - *Proun Space* (1926-7). [source: Nisbet, *El Lissitzky 1890-1941*, 1987]

Figure 4.13d The ubiquitous Aleksandr Rodchenko's repertoire exemplifies the blurring of conventional boundaries between art, architecture and design. *left* schematics for the *House of Soviets Sovdep*, Zhivskulptarkh (1920); *middle top* furniture for Melnikov's *Model Workers' Club* in the *Soviet Pavilion*, the Paris Exposition (1925); *middle top* a closeup from the *AMO photography Series* (1929); right commercial graphic design: *Box For Our Industry Caramel* (1923).
[sources: Khan-Magomedov, *Pioneers of Soviet Architecture*, 1987; Dickerman, "The Propagandizing of Things", 1998; Kiaer, *Imagine No Possessions*, 2005]

Lissitzky and others, were 'there' and, in a hands-on fashion, did imbibe the problems of representation circulating around them. Underlying the 'mutually-invasive' nature of many such endeavors was the idea of the unity of the arts. Not only were the lines between art, design and even in some cases commercial art blurred and permeable, but also such transgressions of the bounds of discipline and practice attempted to fuse their activities into one involving architecture, painting and sculpture all at once.[136]

On the other hand, one may also make the case with non-historical arguments. While both necessary and informative, the two reasons cited above are neither specific to the Soviet case nor, more particularly, to the crowd design problem. Modern architects across Europe were also involved in artists' debates and experiments, by virtue of prevalent cross-disciplinary practices and the idea of the unity of the arts (see for example: de Stijl, Le Corbusier, and the Bauhaus to name only the more famous cases). Employing art as a laboratory for design ideas was also far from uncommon, although it may have been more acute in Russia during times of economic crisis, blockades and the civil war - when building activity had come to a literal standstill. Aside from such reasons, the nature of the problems that artists faced found deep resonance in the architectural problems which architects encountered – not least of which was the crowd design problem. At some fundamental level, both art and architecture became embroiled in basic questions regarding 'motivation': what motivates pictorial composition as well as architectural form? Inextricably, motivation was posed in the context of social revolution, with attendant issues of subjectivity unavoidably emerging. More specifically, the question: to what extent do the artist's own subjectivity and procedural *faktura* (the problem of authorship) determine form and its phenomenal properties in painting and sculpture, echoes similar orientations towards adopting the presumed objectivity of machine production as foundation for an architectural aesthetic. Tensions over the subjectivity of the painting's illusionary space of perspective with its situated monocular viewer, found parallels in struggles – by both artists and architects - to redefine the immersed viewpoint from which to observe the crowd.

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[136] For some, like Liubov Popova, Aleksandr Rodchenko and Varvara Stepanova as well as Vladimir Tatlin (among others) this was an art of "production", or a Productivist practice; see Gough, *The Artist as Producer* (c2005) and Kiaer, *Imagine No Possessions* (2005).

More detailed expositions of such common problems will surface as the thesis' reasoning develops. What I would like to accomplish at this phase of the argument is to extend first connections to the crowd-problem formulation, which will take place more comprehensively in the next chapter. The two principal, and interrelated, dimensions of the crowd-problem which contemporary revolutionary art helped articulate were: first, questioning the framework for 'seeing' crowds, particularly what Jeffrey T. Schnapp coins as the Panoramic Tradition[137]; and second, questioning the conceptual relationship between foreground and background in spatial, formal as well as pictorial compositions, particularly as framed in the 1921 INKhUK debate: composition vs. construction – a debate that is more profoundly concerned with political hierarchy and alienation.

First: Contemporary art highlighted the contradictions embedded in inherited traditions and conventions of crowd representation. To maintain the clarity and contiguity of the argument on the architectural form of the crowd design problem, I will discuss this particular issue in detail in Chapter-5, *Seeing' Crowds: The Challenge of* Immersion. Suffice it here to mention that contemporary revolutionary art signaled to architects how delicately balanced, subtly disguised and firmly established constructions of pictorial representation were skewed against the perception and conception of the masses in an equitable light. Art demonstrated to architects how such pervasive graphic conventions of crowd representation mitigated against the crowd generating self-representations, and hence negotiating its own consciousness and intersubjectivity. Contemporary revolutionary art diagnosed which graphic and pictorial devices fed such bias, while also showing in depth how such devices urge basic questions on the nature of representation. As will become clear later, contemporary revolutionary art also highlighted the way out of the quandary – offering alternative frameworks of 'seeing'. Such endeavors are evident in propaganda poster graphics: including Gustav Klucis, I. Fomin and others; in photography: primary among which was Rodchenko's techniques of tense closeups and oblique compositions; and film: such as Vertov's and Eisenstein's montage, ambiguous closeups and other radical cinematic techniques. Less evident, but no less profound, in addressing

[137] Jeffrey T. Schnapp, "The Mass Panorama", in *MODERNISM / modernity*, 9(2) (2002): pp. 243–281.

problems of seeing crowds, or *seeing as crowds*, were the graphic experiments of the Constructivists' Spatial-Constructions and El Lisstzky's *Prouns*, and which pursued conventions of collective seeing to supersede the individuality of perspective. The architects' challenge, I contend, was not to reinvent the framework anew; that was, to a large extent, already given by the artists' innovations – or actually by the collaboration of artists and architects-as-artists. In fact, the artists' formulation *was* the charge which architects received from their culture of context; as concluded before, no building program explicitly required architects to re-examine visual frameworks pertaining to crowds. Instead, the architects' challenge was to adapt the given frameworks to the specificities of the architectural design process – to distill, from artifacts of revolutionary art, such graphic conventions as to be of utility in architectural drawings, bearing in mind architectural drawings' own utility and intrinsic conventions [see El Lissitzky's attempt at translating across conventions, figure 4.13c]. Later arguments will demonstrate how this problem of 'seeing' or visualizing the crowd in architectural media represents a pivotal component of the overall problem. It is on the platform of such graphic conventions that design ideas are forged.

The second problematic – foreground vs. background - has repercussions on, but also far beyond, the framework of seeing. Hence, I will elaborate on it here with some detail as it informs several aspects of the crowd design problem. Let us revisit the roots of the avant-garde approaches in the INKhUK debate of April 1921, on the radical distinctions between composition and construction. A point of near-consensus between participants in the INKhUK discussions was the critical definition of *construction* as an organization devoid of "… superfluous [*lishnikh*] materials or elements. The chief distinguishing mark of composition--is hierarchy, coordination."[138] Compositional 'relationality', as Maria Gough puts it, involves an organizational strategy where some materials or elements define others as secondary or even redundant – similar to how, pictorially, foregrounds define backgrounds. In other words, negating the redundancy of the (pictorial or spatial) background came to present one defining aspect of revolutionary art and design language.

[138] Quoted in Maria Gough's "In The Laboratory Of Constructivism: Karl Ioganson's Cold Structures", *October* (MIT Press, Spring, Issue 84 1998): p.97.

Interestingly, the earliest formulation of this specific aspect belonged to Nicolai Ladovski,[139] the founder of the Rationalist school, and whose influence on both ARU and ASNOVA was immense. No less significant was how the Constructivists of OSA, Alexandr Rodchenko and Karl Ioganson, developed this position from an aversion to the background's redundancy to the necessity of its generativeness. In other words, instead of a formal language where the interrelations between elements cohere a composition thereby creating 'leftovers' that act as a background to the figured elements – instead, Rodchenko and Ioganson called for a background generative of its figure, such that dissociating one from the other becomes untenable. In particular, Ioganson's submission to the debate under the title "construction" initiated a graphic logic of two and three-dimensionality generated from the given properties of the drawing-frame and drawing-plane within which it emerged [figure 4.11]. More significantly, Ioganson's later developments of his graphic constructions into what he termed 'cold structures' revolved around exploiting tensile forces to create an internally-rigid structure where all members partake in the achieved equilibrium. Gough summarizes Ioganson's investigative trajectory:

> … first Ioganson's series: II, III, and IV declare the cross as the fundamental principle of cold structure; VI and VII demonstrate its modular extension; and VIII and IX transcend it--VIII, as a meditation upon the intrinsic and perpetual motion of all, including rigid, structures, and IX, by *ridding cold structure of any internal armature whatsoever*.[140]

Effectively, Ioganson's *Spatial Construction IX* [figures 4.14a and 4.14b] achieved the annihilation of several primary-secondary distinctions, the hallmarks of a composition; a feat which logically opens up intriguing possibilities for the making of form and space for a crowd. For one, neither metal stakes nor string plays second fiddle to the other in effecting the unique balance of this material structure. Moreover, the configuration of struts and wires is itself totally independent of any additional "supporting armature"; it

139 Ibid: p.97.
140 Ibid: p. 113; emphasis added.

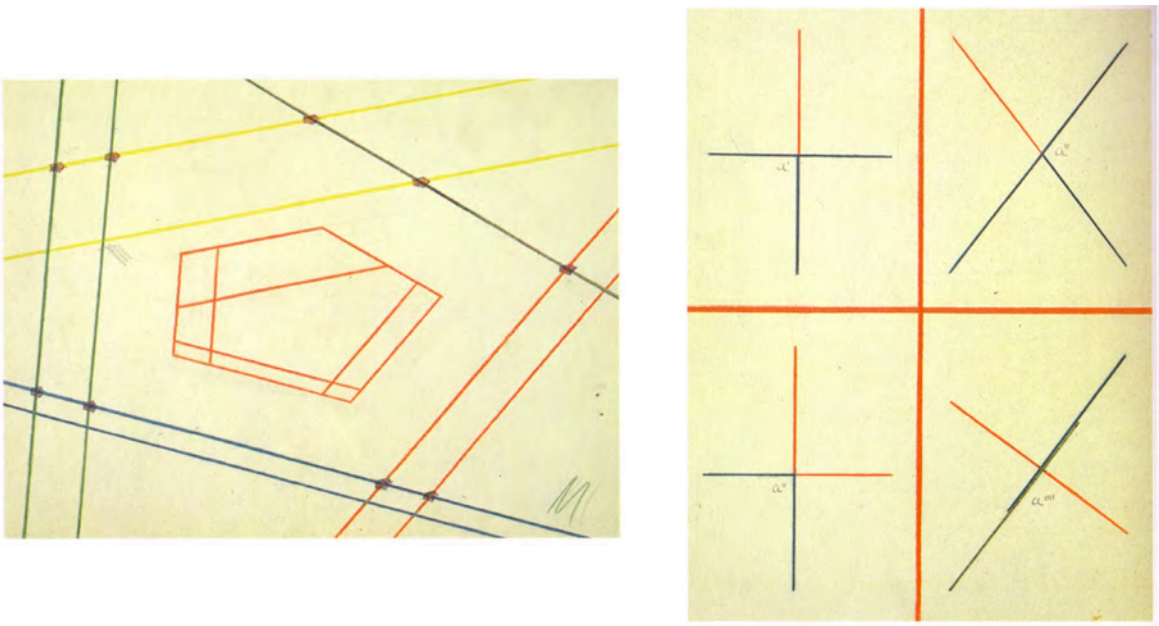

Figure 4.14a Karl Ioganson, submission to the Composition versus Construction Debate, April 1921. *left* composition; *right* construction [source: Russian Avant-Garde art: the *George Costakis Collection*, 1981].

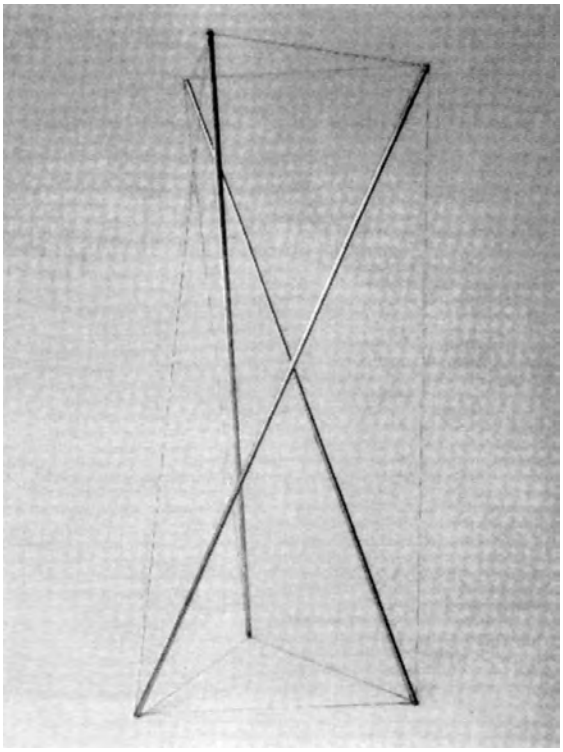

Figure 4.14b Karl Ioganson, *Spatial Construction IX*, 1920-1 (reconstruction by Vycheslav Koleichuk, 1991) [source: Gough "In the Laboratory of Constructivism", 1998].

stands on its own and withstands a range of "loading forces without permanent deformation or collapse".[141] Besides this near-total material equivalence, the construction generates similar visual and spatial effects. Its "fundamental asymmetry", effected by the indistinctness of the material pieces (what Gough terms structural unpredictability), "presents radically divergent versions of itself according to the vantage point of the viewer".[142] Put differently, *Spatial Construction IX* would offer multiple simultaneous viewers different visual messages – none of which constitutes *the* definitive reading – thereby initiating complementarities among its viewers. The multiplicity of views acquires significance beyond an individual observer: it structures a discourse – it assumes a crowd.

Furthermore, this "disorienting" construction diffuses the sharp distinctions between interior and exterior space; it would not be "possible to "clad" IX, to provide it with a virtual skin", as Gough puts it. I would venture further to speculate that *Spatial Construction IX* further managed to transform the in-between void - simultaneously separating and joining the structural members - into an active ingredient of the diagram of forces. In the series II through VIII, the void still acted mostly as 'background' – as redundant excess cut out from the surrounding extension as - mostly - the outcome of a string stretched between two stakes. The void does play a role, if a minor secondary one; effectively, it is the intersection of the stakes that carries most of the burden. With IX, Ioganson's void leaves the realm of background to become alike an invisible medium buttressing the structural play. Obviously, I do not mean to claim that actual force transmits in the immaterial void abutting the stakes and strings. Instead, the configuration of implied triangular and trapezoid planes adjoining stakes and strings is inseparable from the flow of forces within their material boundaries. In other words, what emerges approximates what structural engineers would call a hollow cross-section. In itself (if verified), this is not the major achievement, since it occurs (albeit piecemeal) in the other series – II-VII. What is remarkable here is that Ioganson managed to release the structure from exclusive necessity of material continuity. Material continuity is not the primary structural (and formal) arbiter here, but also the

141 Ibid: p.110.
142 Ibid.

implied planes and volumes, in their relations to each other, equally partake in the construction of the inherent rigidity of the work. While this final speculation requires more elaborate hands-on vetting, the overall argument – grounded mostly in Gough's analysis – remains intact; as a material, visual and spatial device, Ioganson's *Spatial Construction IX* is a diffuser of distinctions. This has profound implications for space-making, especially for a crowd seeking equitable self-representation; it poses as a logically possible to engrain equivalence in the very morphology of space.

If above arguments lend credibility to the idea of seeking portents of the mass crowd design problem in the unlikely terrain of the pictorial and the sculptural, as well as establish first connections to that problem to orient the discussion in upcoming chapters – if so, the question then becomes: in which art movements and genres may one explore such formulations? Although architects of the period had wide exposure to current art movements, the argument here maintains that only a few effectively partook in shaping the crowd-problem. Undeniably, Futurism and Cubism dominated the pre-war art scene across Europe and in Russia. In decades and years leading up to WWI, Russia itself entertained its own local flavors of Classicism, Social Realism (the Wanderers), Symbolicists (Mikhail Nesterov, Mikhail A. Vrubel and *literatis* alike Andrei Biely)[143] as well its very own Spiritual Art (Wassily Kandinsky). However, it is only movements spawned of the political revolution, or (to be more chronologically precise) movements whose development was heavily informed by its eruption, whose impact may be visibly detected in the architectural problem of the crowd: namely, Constructivism, particularly its Objectivist and Productivist strains, as well as Suprematism and its Non-objective streak. And that is why the quasi-modernist experimentations of Mikhail Larionov and Natalia Goncharova in the early 1910s are excluded from this study; besides having been an eclectic mix of Neo-primitivism and Non-objectivity with murky implications on post-revolutionary streams of thought, such experiments lost touch with realities of Soviet revolutionary ferment when the couple left Russia in 1915.[144]

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[143] See John E. Bowlt. *The Silver Age: Russian Art of the Early Twentieth Century and the "World of art" Group* (Newtonville, Mass.: Oriental Research Partners, 1982).

[144] See Anthony Parton's *Mikhail Larionov and the Russian Avant-Garde* (Princeton, N.J.: Princeton University Press, c1993).

In terms of chronological sequence, Vladimir Tatlin's Constructivism as well as Kazimir Malevich's and Olga Rozanova's Suprematism predate the 1917 revolution. One may, in fact, point to the 1915 exhibition *0.10* as the possible historic initiation for both movements and their stream of thoughts[145]. This suggests a contradiction; art movements underpinning the visual framework of the revolutionary crowd stem from a pre-revolutionary nascence. However, the contradiction is not genuine. Politically speaking, the Russian revolutionary events may be taken to span from the unrests of 1905 through the successful overturn of authority throughout the events of 1917 and even beyond. This designation mitigates the common mistake of considering a revolution as a sudden, watershed event with little or no grounding in prior circumstances wherein it 'brewed' into eruption. Russian ideas of revolution simmered in hearts and minds from the late nineteenth century; the year 1905 marked the first major event where the will to change announced its presence in the public streets and squares of St. Petersburg. Violently repressed, revolutionaries – across the political spectrum - resorted to alternating underground with overt tactics until World War I presented a political environment more conducive to change. More importantly, artistic revolutions rarely accompany political revolts hand in hand; a far more complex dialectical process is usually at work. Thus, regarding political revolt as an extended duration, and probing a dialectical interface between politics and art afford correlating pictorials as, themselves, practices of contestation of political ideas and movements.

This assists in setting apart Constructivism and Suprematism from other contemporary art movements, as particularly influential on the crowd design problem. They constituted the two movements most engaged in an intense dialectic with the revolution – quite consciously in the case of Constructivism, but far less so in the case of Suprematism.[146] Notably, that of the three major avant-garde *architectural* movements of the time: Constructivism, Suprematism and Rationalism, only the latter spawned no known art movement besides its architectural concern. Still, the work of Rationalist designers will occupy the central concern in

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[145] Nina A. Gurianova, *Exploring Color: Olga Rozanova and the early Russian Avant-Garde, 1910-1918*; translated from Russian by Charles Rougle (Amsterdam: G&B Arts International, 2000).

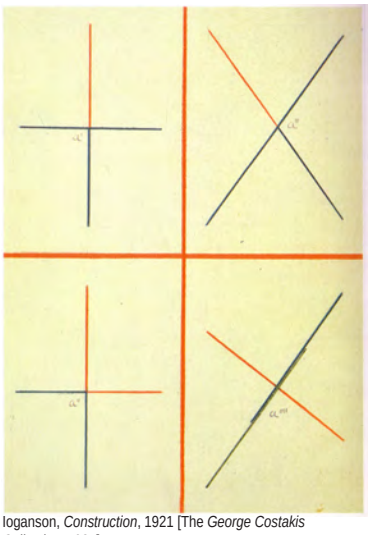
[146] This points back to an earlier argument introducing this chapter. If influence, inspiration or even period-eye were the effective conceptual constructs framing the transfer of ideas and formulations, it would have been more difficult to isolate which movements impacted the crowd-problem formulation. But it was out of such dialectics that both movements generated the requisite graphic and pictorial conventions which enabled architecture to build upon.

this thesis when discussing architects' responses to formulations of the crowd-problem. In that, I will argue, Rationalist architects and planners drew upon the contemporary culturee of intense collaboration across disciplines as well as art movements to appropriate the work of Constructivist and Suprematist artists.

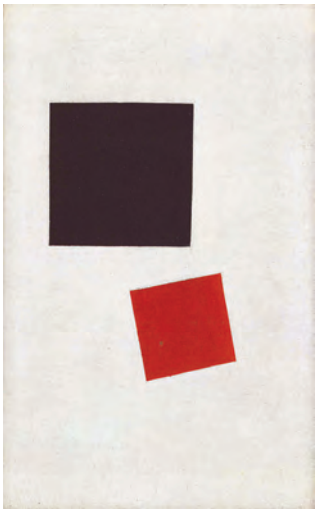
But if the art movements of main concern were primarily two (Constructivists and Suprematists), the genres of manifestation were far more numerous. As mentioned above, conventions were questions and re-formulated in El Lissitzky's *Prouns* and axonometric compositions, but also in the composition of propaganda posters (Klucis and others), in spatial constructions (Ladovski, Ioganson, Rodchenko and others), in commercial graphics (Rodchenko and Mayakovsky) in photography (Rodchenko), in cinema (Vertov, Eisenstein and others), as well as in fabric designs (Stepanova and Popova). Figure 4.15 captures this pictorial laboratory, by collating thumbnails from several representative works. Additionally, two other graphic genres had great impact. Although they did not strictly emerge from within the folds of what is commonly considered 'the art world', they were soon co-opted within it: Tayloresque time-motion studies and dance notations. Following arguments will mine this rich and diverse range of artifacts to articulate fundamental dimensions of the crowd design problem.

Conclusion: Translations Across Artforms

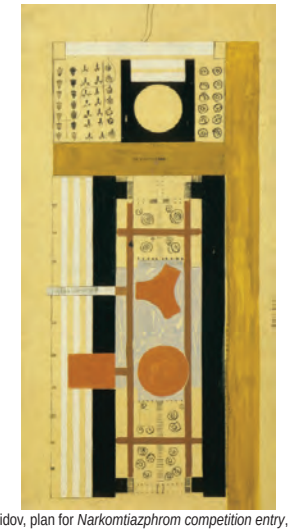
Probing how non-architectural resources inform the formulation of an architectural problem raises questions of cross-disciplinary translation that merit attention before one moves into stating the crowd design problem in the next chapter. The questions pertain to the *nature of the impact* one expects the resources' revealed insights and findings to have on the crowd-problem formulation. Indeed, this is a generic question: how do any resources, non-architectural as they are, inform an architectural problem - by what dynamics of transfer and translation? The question is not merely one of historical plausibility, which have been addressed above. Indeed, the question begs itself also morphologically, and in two respects. On one hand, such resources



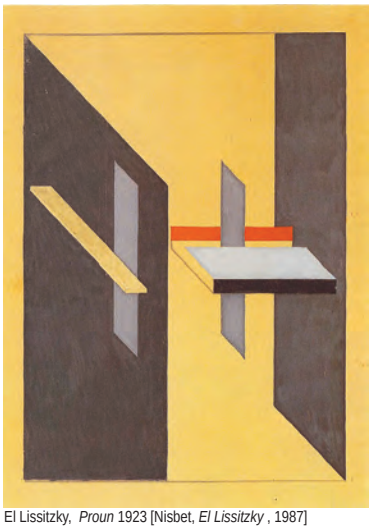
Ioganson, *Construction*, 1921 [The *George Costakis Collection*, 1981].



Malevich, *Boy with Knapsack: Color masses in Fourth Dimension*, 1915 [D'Andrea, *Kazimir Malevich*, 1990].



Leonidov, plan for *Narkomtiazphrom competition entry*, 1931 [Cooke, *Soviet Architectural Competitions*, 1992].



El Lissitzky, *Proun* 1923 [Nisbet, *El Lissitzky* , 1987]

Stepanova, costumes design for *Death of Tarelkin*,1924; [Braun, *Meyerhold: A Revolution in Theatre*, 1995]

Rodchenko & Mayakovsky, advertisement: *Red October Cookies* 1923 [Kiaer, *Imagine No Possessions*, 2005]

Klutzis, Propaganda Poster *We'll Fulfil the Plan of Heavy Tasks*, 1930. [Gustav Klucis: *Retrospektive*, 1991]

Vertov, stills from *Man with a Movie Camera*, 1929.

Rodchenko, Sawmill Worker, *Vakhtan Lumberyard series*, 193
[Dickerman, "Propagandizing of Things", 1998]

Figure 4.15 A representative palette of the genres , artforms and media explored by Soviet Constructivists and Suprematists in redefining pictorial conventions of 'seeing' crowds [various sources].

derive from artforms (street festivals, mass performances, theatre, 'painting' and propaganda posters) which, not unlike Architecture, enjoy measures of internal cohesion as symbolic systems, without which individual components or concepts may misplace meaning. On the other hand, individual components of significance to the crowd problem may comprise non-spatial matter.

How may one describe the transfer of ideas and/or practices from such resources of diverse disciplines and internally-consistent symbolic forms, into the realm of space and Architecture? What conduits perform the channeling procedure? Devices prevalent in art and architectural history may not be of adequate assistance here. Notions such as 'influence' and 'inspiration' are rather too vague and nebulous to pin down a coherent path of inquiry. 'Zeitgeist' (or spirit of the age) - accounts for the ubiquitous, simultaneous emergence of a set of ideas and practices rather than their exchange, while also itself suffering from considerable ambiguity. Then again, devices like 'precedent' and 'model' may possess some potential. For instance, when discussing the impact of Soviet mass events and revolutionary theater, the respective resource would prove to have already formulated spatial propositions in addressing alike problems, such as the problem of multi-centered form in mass festival crowds, or the problem of shifting attention foci in theatre. In each case, the original activity had provided relatively clear spatial formulations, which, I argue, present themselves to architects addressing similar challenges as analogous practices and 'ready-made' spatial propositions that simply cannot be ignored. However, as concepts, 'precedent' and 'model' still suffer from two shortcomings. First, and obviously, they remain totally inept in addressing the interface with influences which are not clearly spatial, such as the graphic propositions of contemporary revolutionary art primarily. Even if it is admissible to think of V.E. Meyerhold's theatrical arrangements of performance groups as precedents or models, it is rather difficult to address Aleksandr Rodchenko's photography, concerned as it is with viewpoint immersion, as a model in any immediate sense of the word. Furthermore, it is altogether inconceivable - even remotely - to contemplate a *Proun* by El Lissitzky, also concerned with viewpoint and depth, as a model or precedent. Even cases of three-dimensional art works, as in Karl Ioganson's spatial-constructions, inhabit a different realm of scale that permits of no direct transfer into architecture as an

applicable model. Similar cautionary words may be cited for even certain aspects of mass events and revolutionary theater, where relevant impacts had not yet been formulated spatially in their own milieu of street and stage, or were simply non-spatial in nature. Second, and perhaps primarily as a result of habitual deployment more than any inherent properties of the concepts themselves, 'precedent' and 'model' do not convey along with them the necessary component of critical transformation; as the adapted proposition is inducted to its new construct, it is challenged and re-contextualized. Instead, a model usually connotes borrowing a mold into which the new problematics are cast, which defies the logic of the new medium (architecture), let alone how one would expect the radical avant-garde to critically address their society's practices in context of such revolutionary new problems. Thus, even for coherent spatial formulations derived from mass events or theater, additional operations of translation still needs to be executed.

Hence, a different conceptual tool needs to be introduced to account for translations across the diverse assortment of cultural phenomena discussed. While devices alike 'precedent', 'model' and 'spatial proposition' have been used to approach the description of found resource components, especially practices of street events or theatre, the argument will employ the additional device of 'conventions' to account for translation across symbolic systems. Considering a proposition within its systemic conventions (e.g. graphic, choreographic, or even literary) would enable disentangling the proposition with awareness of the implications of severing. The device of 'conventions' serves to complement the conceptual framework of a spatial-construct.

In sum: the crowd problem burst onto the architectural scene already charged with underlying tensions and contradictions and tantalizing propositions, developed in the laboratories of mass street events, revolutionary theatre and radical contemporary art – and which begged reaction and demanded response. It is in this sense that society's spatial practices partake in scripting Architecture's agenda. Yet these different components remained fragmentary; the coherence of an architectural problem is another matter.

CHAPTER 5

The Crowd Design Problem: Formulation

Above arguments established plausibility for the three additional sources, as well as primed intuitions towards the next task of formulating the crowd design problem in more articulate terms. What come next are a series of insights into the problem space that the competition programs and the three different sources evoked - the logical extrusions they entail and the assumptions they issue from. Four fundamental design challenges may be collated, the totality of which describe the complex terrain of the crowd design problem. Needless to state, such challenges are deeply intertwined and their disentanglement as presented here is but an analytical contrivance.

Crowd Sorting and Organization: Matrix of Conviviality

> The Delegates occupy the parterre and the three lowest tiers of boxes in the magnificent building, formerly reserved for the members of the nobility and the imperial court and the wealthiest of the bourgeoisie. What was formerly the Czar's central box has been set aside for the members of the Communist Internationale, and on the stage at a long table there are the members of the Central Executive Committee. Two boxes at the left of the stage are at the disposal of the foreign diplomatic representatives and the members of the American Relief Administration, and fervent Communists from Germany or America can – and do – turn toward them as they fling defiance at capitalistic tyranny and its tool, the bourgeois press. … The sessions of the congress were held in the Moscow Opera House, which was crowded with 1,952 delegates and 200 other party leaders and spectators… The main floor of the theatre was entirely filled with delegates, mostly workmen dressed in furs, who kept on their fur caps throughout the proceedings, presenting the appearance of a gathering of frontiersmen, contrasting with brilliantly lighted and gold-decorated

> auditorium. M. Kalenin, the elected chairman, and his executive committee of thirty-two members, including Premier Lenin and Leon Trotzky, the War Minister, occupied seats of honor around a red table….[147]
>
> In the past fortnight the factory newspaper published special electoral numbers giving biographies with photographs of the candidates… [Each worker received a gray invitation ticket to the electoral meeting, set for 5 P.M. in one of the Moscow theaters. The ticket listed a reserved seat, to which was attached a little fly-sheet stamped by the factory committee for any comments or suggestions the elector cared to address to the presiding officials. In all Russian mass meetings there is a constant flow of such messages paper messages passed from hand to hand up to the platform.
>
> … At 3:30 o'clock, a half hour before the usual closing time, a detachment of "Pioneers", the Red Boy Scouts, entered the factory blowing bugles. Then one of them … made a short speech, exhorting his elders. … The workers formed a column at the factory gate and led by the Pioneers and the factory band, they marched through the streets to the theatre. ... In the theatre the chairman made a brief speech about the purposes of the election and then read part of the electoral law and the list of candidates. A short discussion followed, with one or two witticisms from the audience about the alleged weaknesses or shortcomings of this candidate or that. The chairman dealt with such remarks snappily, sometimes raising a laugh at the inquirer's expense. It really was amazing how excited and interested they all were, and the whole thing was reminiscent of a college football rally …
>
> … candidates were elected singly … nobody suggested different candidates. … voting generally was unanimous … once somebody raised his hand in opposition. Invited by the chairman to explain his reason, he rose, stood tongue-tied, then sat down, and the chairman dismissed him with a "wisecrack". … three citizens were dismissed for "unsober manifestations", and once another rose in a back row and begged his comrades in the gallery to refrain from throwing paper pellets or launching paper airplanes at the audience downstairs. There was a holiday air about the scene, but nearly all were in keen earnest, thrilled with the importance of the moment, fully responsive and far more attentive than at electoral meetings which your correspondent has attended in other countries.
>
> In conclusion the chairman announced the voting percentage had reached a record figure of 112 per cent, which was greeted with applause and the singing of the "Internationale". There followed a concert and a scene from "Rigoletto" by a professional company. [Repeated voting in the same election is permitted in Russia, and the 112 per cent record presumably takes this into account]. [148]

The two accounts cited above bespeak a sense of search – a negotiation, albeit awkward and comic at times, of spatial positions in relation to others in the same gathering and within the same enclosure. Thus, besides exemplifying the fundamental polarity between festival and ritual, the two journalistic reports cited

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[147] Excerpt from a report by Walter Duranty, the New York Times Correspondent in Moscow, "Soviet Delegates Rejoice in Fancied Governing Power", from the *New York Times*, Dec 1921: starts on p.1, column 4 and continues on P.3.

[148] Excerpt from a report by Walter Duranty, "Soviet Elections Improve In Form" for the *New York Times*, Jan 27, 1931: p.7.

above reveal important aspects of the crowd design problem barely touched upon in the competition programs. These are concerned primarily with issues of crowd configuration, arrangement and sorting.

Indeed, a most distinctive feature of the programs for the *Palace of Labor,* the *Palace of Soviets,* as well as many other building programs from the period, is an insistence on requiring spaces of vast physical dimensions to house large numbers of people. The required spaces ranged in size and scale from the massively large, accommodating 20,000 people, down to housing some 500 people; the scale variance was caused by variation in types of activities performed within, as well as by the varying degrees of exclusivity of their inhabitants. Coalescing massive numbers of people inside building spaces was urged by a seemingly unquestioned belief that such mass gatherings in expansive, unobstructed spaces would – somehow - give rise to the desired sense of unified, classless collectivity. Yet the competition briefs, given to architects as part of the contest procedures, barely address the pressing questions: what is the social constitution of such synchronic spaces – whether desired or unintended? And: what spatial categories may one employ to think of it?

By reading into accounts of mass assemblies of the period, whether in period photography, journalistic reports or fiction literature, one may begin to approach the program requirements in a manner probably not unlike how Soviet architects of the time actually did. The implicit challenge posed to designers was to articulate the interior of such spaces so as to optimize the sense of synchronicity and simultaneity which the crowd enjoyed, within what essentially defined itself as an open undifferentiated field. More specifically, the task was to dissolve the social segregation effected by conventional (i.e. bourgeois) divisions of an assembly hall into rank-based arrangements of tiers and stalls versus boxes and balconies; and to replace it by novel, alternative arrangements, which still allow the differentiations conducive to productive communications, while maintaining a fundamental sense of equality. In other words, one crucial challenge became: how – and with what elements - to differentiate the open uniform field of the mass space, without introducing marks of rank and status? As a design problem pertaining to the internal organization of

spectators of a shared event, the problem logically involves exploring properties of the assembled as witnesses to each other's presence and activities. Inseparable from this is the problem of the relationship between the assembled crowd and the object(s) of their immediate focus of attention: a performance, speakers ...etc. Consistent with Marxist thought (especially its neo-Kantian strain espoused by the Proletkult), this relation may neither be passive, nor induce a disjunction in rank between performers and spectators; two interrelated problematics. To comprehend the profundity of the challenge faced by revolutionary designers here, one refers to Walter Benjamin's diagnosis of the pathological practices in modern mass arts, where he associates passivity with the Führer cult. The masses' reception to such modern arts is marked by passive distraction – an ancient, generic distraction, Benjamin notes, habitual to the reception of architecture itself as an everyday art and, one may extrapolate, the way it further infuses the reception of other arts within its bounds. A modern menace adds to this distraction, Benjamin warns: Fascist regimes' offer the masses the aesthetic means for self-expression in mass events as a distraction from overcoming the real underlying problem in Benjamin's view: transforming the forces and relations of production.[149] Hence, a basic tension is even more deepened with the need to assign a focus of attention within the gathering space; how may a designer generate attentive focus precluding a hierarchy which affords domination of some groups over others in modern gatherings, as well as discouraging the passive distraction which Benjamin diagnoses?

A corollary of this tendency to require immense spaces is yet another spatial problem. Competition programs called for *several* large spaces to accommodate mass assemblies, which were meant to convene both regularly and frequently; hence, program scheduling for large multipurpose halls was frequently inconceivable to mitigate such redundancy. In addition, program requirements juxtaposed many such oversized uses together in one mass. For instance, the *Palace of Labor* competition brief demanded several halls of similar size to accommodate the different types of user groups (e.g. city government officials vs.

[149] See Walter Benjamin's "The Work of Art in the Age of Mechanical Reproduction", in *Illuminations: Essays and Reflections*, translated by Harry Zohn (New York: Harcourt, Brace & World, 1968): pp.238-42.

workers). This would yield not only a very large building mass, but also a sequence of spaces much larger in overall volume compared to buildings existing at the time – or even by present-day standards. In other words, not only were architects required to create one large space, but – quite frequently – an overall *grain* of large spatial volumes, with large numbers of people circulating within and between them. In some projects, besides than the two palaces in question, the briefs enjoined the architects to explore the flexibility of providing various large spaces in juxtaposition, such that they may be opened onto one another, thereby creating an immense spatial continuity (for example, the Zuev Workers' Club , Moscow 1927-9; figure 5.1)[150].

A set of interrelated design problems arise here beyond the instrumental concerns of safety, flow and efficiency. There is an unmistakable concern with creating meaningful relations between co-extant individuals and groups. How may such intricate social relations obtain *architecturally,* whether in one spatial-volume, or across several large ones? What spatial and formal rules structure their morphology and transformations? And what categories and methods may architects deploy? Particularly for a synchronic space, social interaction, exchange and control within the vast volume of a Mass-Hall, departs from the model of conventional interface (across walls, partitions, doors and windows) towards a more subtle form constantly renegotiated within the large extension. Ephemeral as they are, such relations require a deliberate spatial framework lest their malleability resolves into unintended social structures. Again, the two competition programs remained silent on this essential framework. But, furthermore, the challenge for this research project is to structure a theoretical discussion about the social workings of such a spatial typology.

Although Space Syntax Theory generally addresses diachronic spatial systems, a clue to the present problem is given by Hillier and Hanson in terms of their proposed categories of *generic-functions*,

[150] Other examples abound; the Rusakov Workers' Club also by Melnikov in 1927 is an interesting configurational variation. Instead of all halls opening to each other as in Zuev (or each two adjacent ones interconnecting), in Rusakov each of the three small halls opens independently onto the main large hall, configurationally centered.

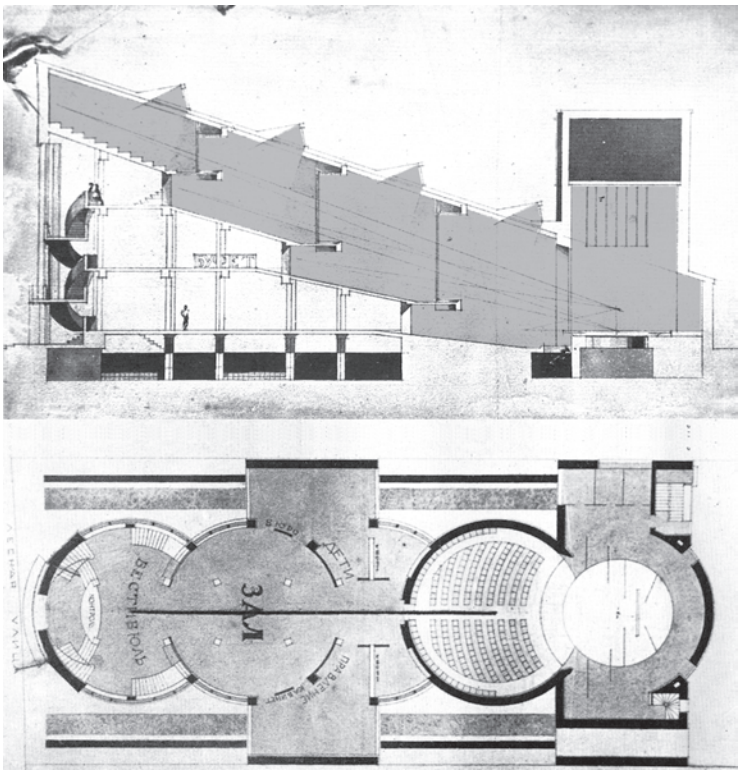

Figure 5.1
left: Ilia Golosov, *Zuev Workers Club*, realized scheme (1929); interior period photograph. Although Melnikov's proposal was not adopted, a similar spatial pattern may be glimpsed in the actualized scheme. Note how large spaces flow into each other and at different levels. (source: Cooke, *Russian Avant-Garde Theories*, 1983)
right: Konstantin Melnikov, Zuev Workers CLub, Competition Entry (1927); plan and section. The flexibile continuity of spaces in the proposed scheme offers the whole sequence of halls as well as each adjacent set as variations on assembly sizes. (source: Khan-Magomedov, *Pioneers of Soviet Architecture*, 1987)

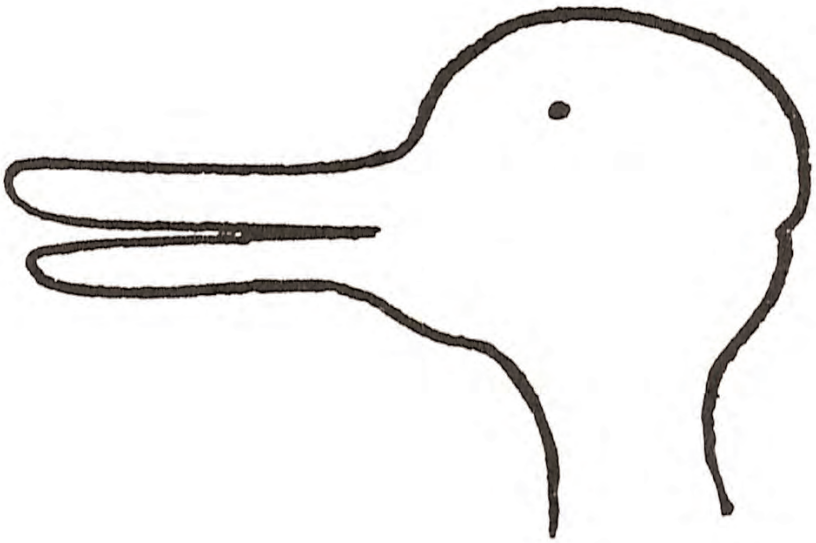

Figure 5.2 The duck/rabbit Gestalt graphic, which Wittgenstein employs to distinguish aspect-dawning from continuous aspect. (source: Wittgenstein, *Philosophical Investigations*, 1978)

particularly *co-presence* and *co-awareness*.[151] While such generic properties pertain to any spatial system housing any distribution of people, they are particularly relevant where crowds are assembled with the objective of creating a sense of collectivity. Hence, generic-functions provide a good starting to rephrase the questions: What variations of arrangements and architectural treatments across a synchronic space engender which forms of co-presence and co-awareness? Additionally, structuring patterns of *movement* across a spatial system (patterns of diachronic experiences)[152] is a particularly crucial device to further determine co-presence and co-awareness - and consequently inform the nature of social collectivity engendered.

Framework of Analysis: Matrix of Conviviality

Interpreting all this into more specific spatial and architectural terms requires a short detour in order to propose an analytical, generative framework. Here, I present what I will call the *matrix of conviviality* which a building or spatial-system conjures into being, as a theoretical framework within which nest Hillier and Hanson's co-presence and co-awareness but also other notions such as *co-action* and *co-visibility*, and as a structure of agency through which the dialectics between physical-environments and society unfold. Articulating this matrix initially sprang from a critique of the inadequacy of current socio-spatial descriptions employing co-presence and co-awareness concepts. As a first critique, there exists no distinction between the two concepts possessed of deep conceptual grounding; the two are used with substantive overlaps as to render them, if not interchangeable, then practically analogous or conflated. Second: while co-presence and co-awareness are necessary designations of virtual community or, generally, social conviviality writ spatially,

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151 See Bill Hillier and Julienne Hanson, *The Social Logic of Space (*New York: Cambridge University Press, 1984): particularly Chapter Six: "The Spatial Logic of Arrangements" and Chapter Seven: "The Spatial Logic of Encounters". Hillier's *Space is the Machine includes* some developments on the notion of co-presence (see Hillier, *Space is the Machine,* New York: Cambridge University Press, 1996): Chapter Five, "Can Architecture Cause Social Malaise?"

152 Hillier and Hanson, *The Social Logic of Space* (1984): particularly chapter one: "The Problem of Space", chapter three: "The Analysis of Settlement Layouts", chapter four: "Buildings and their Genotypes" and chapter six: "The Spatial Logic of Arrangements". See also Hillier, *Space is the Machine* (1996): Chapter Six, "Time as an Aspect of Space".

they do not sufficiently cover its dimensions nor account for the fine-grained complexity of social exchange in terms of its ingredients of perception, thought, emotion and action.

Alternatively, the proposed *matrix of conviviality*, draws a critical distinction between co-presence and co-awareness. Co-presence springs from a perceptual qualification of the simultaneous incidence of bodies in spatial settings, and hence is locally-bound to the perceptually-available 'others'. Even in everyday semantics, the term comes with an unmistakable connotation of vicinity, while also implying a sense of being in the *here-and-now*. It invokes an instantaneous juxtaposition, but less so as an intelligible arrangement (as extracted from a map) - and more the feeling or experience thereof, which obtains from being immersed in an encounter with a person or an object. Beyond physicality, significant associations of presence are terms that denote the demeanor of an extant body, such as: aura, acumen, alertness, bearing, carriage, composure, demeanor, mien,...".[153] These refer to aspects of the body; fleeting gestures, expressions or gaits that communicate in non-symbolic kinesics. Such semantic intuitions are verified in the literature by approaches to co-presence such as Erving Goffman's, whose definition is perhaps the most circulated and upon which Hillier and Hanson build their own. Goffman states: "Persons must sense that they are close enough to be perceived in whatever they are doing, including their experiencing of others, and close enough to be perceived in this sensing of being perceived".[154] At first glance, Goffman's nuanced pronouncement seems to imply more overlap with the notion of co-awareness than it really asserts. Yet, his insistence on perception, experience and `sense', transposes this discussion into the sensory realm. Instead of an apparent intimation of reciprocal awareness, with its attendant exertion of attentive reflection, Goffman draws our attention to a layer of experience beneath the cognitive radar. Note also the criterion of proximity underwriting reciprocal sensing and perception in Goffman's statement.

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[153] "Presence", *Roget's Thesaurus,* Lexico Publishing Group, LLC http://thesaurus.reference.com, (accessed May 2005). Some of the connotations came from: "Presence", *Roget's II: The New Thesaurus*, editors of the American Heritage Dictionary, Boston: Houghton Mifflin, Third Edition (1995), www.bartleby.com/62/ (accessed 6/25/2008). See also: "Presence", *Random House Roget's College Thesaurus*, revised and updated by Enid Pearsons and Carol G. Braham, New York: Random House (2000).

[154] Erving Goffman, *Behavior in Public Places: Notes on the Social Organization of Gatherings*, New York: Free Press of Glencoe (1963): p.17.

On the other hand, psychologists customarily locate `awareness' in the upper rungs of mental prowess; it engages a subject's active reflection on his/her `position' within a milieu (social, physical ...etc.), and - through that - on the milieu itself.[155] Co-awareness is a retrieval of descriptions of the global and cognitive kinds; it involves memory, a conception of rules and a capacity to construct mental representations. From configurations, ordering geometries and the more-fleeting encounter-formations (e.g. crowds), such mental representations describe how people are (potentially) distributed across spatial settings. Co-awareness involves constructing mental representations; as Taylor has noted, this mode of apprehending the environment – endemic to Enlightenment epistemology - institutes a disembodied socio-political view.[156] Through such representations, the subject becomes primarily an inner space or mind processing representations; a "*monological* consciousness" independent of 'body' or 'other' (society and culture).[157] Contrastingly, co-presence is non-representational; "... a mode of understanding ... a kind of unarticulated [unrepresented] sense of things",[158] particularly more prevalent in *dialogical* acts, which demand the co-agency of more than one subject to execute.[159] Settings may emphasize one type over the other; or, alternatively, they may afford disembodied experiences to one user-type, while offering a habituated impression to another, thereby unbalancing equivalence between different categories of space users.

This distinction between the visceral roots of co-presence and the more cognitive nature of co-awareness is, in fact, suggested by Hillier himself in *Space is the Machine*, where he discusses co-awareness in context of social malaise[160]. For Hillier, co-presence is the primary condition of persons acknowledging the presence of each other in space in terms of primary social categories, such as ...inhabitants and strangers, men and women, adults and children, ..." , but without classification of social solidarity. Co-awareness involves recognition of such higher social categories that characterize a community - an apprehension of social

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155 Alain Morin, "Levels of Consciousness and Self-Awareness: A Comparison and Integration of Various Neurocognitive Views". *Consciousness and Cognition* 15 (2006): pp. 359–61.

156 See C. Taylor, "To Follow a Rule…", in *Bourdieu: Critical Perspectives*, edited by C Calhun, E LiPuma & M Postone (Chicago: University of Chicago Press, 1993):pp.45-60.

157 Taylor, "To Follow a Rule…" (1993): p.49; [emphasis added].

158 Ibid: p.51.

159 Ibid: p.53.

160 Hillier, *Space is the Machine* (1996): pp.186-9.

order. Beyond registering social signs from actual people's behaviors, the cognition of social solidarity also occurs through underpinning spatial properties of configuration. Mapping patterns of spatial and trans-spatial social relations, and their social implications, are one instance of that. However, Hillier's discussion of such mappings leaves unclear the mechanism through which the cognition of such complex mappings happens, and hence does not explain the discrepancies between, and the inequalities of, co-awareness mappings. I will return to issues of mechanism and inequality later in this sub-section as part of articulating the crowd design problem in more specific terms.

Moreover, co-presence and co-awareness are conceptually independent of each other. Perceptions may not necessarily consolidate awareness; instead, they may cohere into a *habitus* of dispositions. Conversely, awareness may result from perceptions of a non-immediate nature: as in cases where building settings are surveyed from above (e.g. in stadia). This antonymic distinction between co-presence and co-awareness straddles the same fault-line that Bourdieu attempted to bridge: between habituated actions of the everyday *habitus*, and the rule-based structures of institutionalized social practice.[161] As well, this is but a continuation of Hillier and Hanson's early efforts to bridge the impasse plaguing Structuralist descriptions of space, by framing description-retrieval of rules from "random, ongoing ….reality" as the initial dialectic between space and society.[162] What is at stake here is the question of *how* social-space is generated – what are the intricate mechanisms of social agency involved? Can one detect, qualify and describe a mechanism for such agency?

It is possible to propose measures to describe this perceptually-qualified co-presence.[163] The first qualification it introduces to a field of physically co-extant bodies in a setting concerns aspect-dawning: discerning a quality of an 'other' body whereby such a body leaps to the foreground of one's attention, even

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161 Ibid: p.58-9.

162 Hillier and Hanson, *The Social Logic of Space* (1984): discussed in several locations throughout the book, including the "Introduction" as well as chapter one: "The Problem of Space" and chapter six: "The Spatial Logic of Arrangements".

163 The following conceptions are meant to begin exploring rigorous measures of description. Some graphic explorations based on these notions are attempted in later chapters. However, this has yet to be translated into more exact techniques: quantitative measures, and graphic techniques.

if briefly. Aspect-dawning is a function of shape and rhythm recognition, and for its explanation I would like to draw on an unlikely source: Ludwig Wittgenstein's aspect-perception, which he argues in the *Philosophical Investigations* (Part II). Using the Gestalt graphic in figure 5.2, Wittgenstein highlights the alternation in seeing-as `duck' or seeing-as `rabbit'; as one emerges, the other disappears. Wittgenstein coins this shift `aspect-dawning',[164] which, while seemingly exceptional, is really an intense moment of what underpins normal perception or `continuous-aspect'.[165] As such, it helps illuminate the notion of `presence'. As the emergent aspect dawns, simultaneously dislocating the other figure from perception, it assumes a strongly perceived presence – or a presence that is almost purely perceptual. The dawning evokes a visceral effect upon the perceiver, as his/her eyes - in the revelatory instant of dawning - experience an intense moment of direct unmediated seeing, while the body as a whole lurches forward, perhaps with the excitement of revelation but perhaps also with the alertness evoked by an act of forthright perception. Similar effects may be experienced with rhythms as they alternate or overlap. Graphic analysis would discern such interlocked shapes and rhythms towards formulating case-specific notations.

Another important measure for rigorously describing co-presence is 'metric distance'. As borne by common sense observation, as implied in Goffman's definition and also as verifiable through performance studies, different distances provide varying ranges for the probable perception of other bodies. Facial gestures require closer metric range, bodily gestures and demeanor a longer distance, while clusters of crowd movements a farther span. Arrangements of bodies afforded by a setting also affect the registration of co-presence; e.g. conventional auditorium-seating restricts perceptions to the less-expressive human backs. Similarly, bodies arrayed in large numbers and uniform arrangement, makes for a difficult discernment of individual presence, and begins to deal with aspects of crowds, relating more to Goffman's notions of 'distribution' and 'focus of attention'. On the other hand, 'awareness' relates to some established Space Syntax measures and may, in future research, draw on their values in case-specific analysis; these include:

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164 Ludwig Wittgenstein, *Philosophical Investigations*, translated by G.E.M. Anscombe (New York: Prentice Hall, 1958): pp:193-229.

165 Thomas Sheehan, "Wittgenstein and Vertov: Aspectuality and Anarchy", *Discourse*, 24(3) 2002): pp. 106-9.

a) integration (identifying people's probable distribution within a setting as afforded by its overall configuration: densities, locations and depths), and b) intelligibility (mapping the configurational and geometric structures of a spatial setting; the local versus global properties).

Co-presence and co-awareness begin to describe the social and spatial attributes of such structures. However, the two notions, while necessary descriptors of conviviality in space, remain insufficient to forging a comprehensive picture of physical-social dialectics. Human and social experiences of space encompass further forms of yet unaddressed exchange; such as emotion and action, as well as subtle forms of sensory interaction through visibility, kinesthetics and others. A spatial framework for social interaction should account for all such forms of sociability. Chapte-8: "Dynamic Crowds, Abstract Machine", will articulate the *Conviviality Matrix* further as it substantiates its arguments through close scrutiny of the design entries to the two competitions. Suffice it here to give a foretaste of the matrix, in terms of some of its generic categories as well as those more specific to the crowd design problem.

Co-visibility generically connotes probabilities for 'mutual seeing' afforded by a spatial setting, and qualified by the differential of 'display': the spatial settings' affordance to 'exhibit' bodies to each other in variant ways. 'Display' is the *flaneur* writ spatially - inscribed as a property of the built environment. 'Display' may be mutual but could also be one-sided, which implies a measure of inequivalence between user-types. A further qualification of co-visibility distinguishes a form of indirect visibility from generic co-visibility; a joint focus of visual attention provides a gathering or crowd with a common 'reflective' device (after Goffman's 'focus of attention'[166]). Another qualification relates co-visibility to traditions of crowd representations, as will be discussed below.

Founded on Goffman's notion of 'interdependency of action' (1983), *co-action* is concerned with the coordination of actions executed by groups or individuals as afforded by the setting's configuration. Co-

[166] Erving Goffman, "The Interaction Order", *American Sociological Review*, 48(1) (1983): p.3.

action differentiates between consecutive actions performed by gatherings or distributed individuals as – essentially – in sequence on the one hand, and non-consecutive actions on the other hand. The former kind suggests a gathering whose individuals are unified by the performance of similar or co-dependent actions. Of obvious import to this investigation is how spatial settings temper (or even initiate) such sequences of actions. Different settings afford different levels of interdependency of actions, allowing prevalence to some over others or, otherwise, total independence from each other. As an action, 'movement' is a particularly important factor in the generation of building configuration and formal properties. Relations of interdependence between different movement trajectories or flows, manifest over an entire spatial setting, characterize such a setting as different from others, as suggested by Hillier and Hanson's discussions of movement. [167]

Conviviality attempts to capture - in a structured, comprehensive way - what invisible strings attach physical form to social agency. In a sense, conviviality anchors itself in another notion defined by Hillier and Hanson: virtual community. Yet while virtual community portends to describe and measure *states* of (probable) social solidarities afforded by space, conviviality aspires to discern the *processes* by which such solidarities are constructed and how, in turn, they shape space.

Articulating the Architectural Problem

What variations of spatial-form and architectural treatments across the spatial-system engender which forms of conviviality? While this generic formulation of the question, and responses to it, would potentially paint the social properties of space with a broad brush, the problem seems rather procedurally-intractable. The above concepts and categories sustain a generic morphology for crowds, but do not address specifics of the crowd

[167] Hillier and Hanson, *The Social Logic of Space* (1984): particularly chapter one: "The Problem of Space", chapter three: "The Analysis of Settlement Layouts", chapter four: "Buildings and their Genotypes" and chapter six: "The Spatial Logic of Arrangements".

design problem. To attend to such specifics, the formulation needs to attach further subtleties to help converge closer onto the realm of design issues and principles. In particular, three problematics pertain to the configurational foundation of the Soviet version of the problem. First are a set of questions confounding the construction of structural equality within a crowd, without privileging positions of rank or status, and without dispossessing certain groups or segments of the crowd. How may a sense of collectivity be evoked and maintained despite a crowd's penchant for fragmentation, while preempting pathologies of blind imitation (as discussed by E. Faris[168]) or passively following a father-figure (as Sigmund Freud claims in his discussions of the crowd's regressive projection of the Super-Ego onto its leader[169])? At the same time, how may equality be underscored against the hierarchy implied by a unifying center of interest? Here, I will propose (*in)equivalence*, *mapping time* and *shifting-attention* as constructs with which to tackle such questions, thereby qualifying the matrix of conviviality for purposes of the crowd design problem. Second: the question of coherence advances a further challenge; how may the crowd become internally interactive (even if equitable throughout but passive)? To this end, the notion of *interdependency* – built on co-action discussed above – is put forth. Finally: the question of information transmission within a crowd mass explains not only crowd movement, but also probes the internal consciousness of the crowd and its debated intelligence, rationality and (individual versus group) agency.

First: the matrix of conviviality may be qualified in terms of the degree of *equivalence* it generates between building users or crowd sub-groups, as well as the *interdependence* (of action, but also visibility and intelligibility) it engenders among them.[170] I will deal with interdependency later, but the point serves to emphasize the "*co*-" in conviviality and its different measures: the inter-dependability which undergirds community and conviviality, and which makes them a collective rather than an aggregate of individuals. Each of the categories discussed above (co-presence, co-awareness, co-visibility, co-action, …etc.) may

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168 E. Faris, "The Concept of Imitation", *American Journal of Sociology*, 32(3) (1926): p. 367-378.
169 Sigmund Freud, *Group Psychology and the Analysis of the Ego* (New York: Bantam Books, 1960[21]).
170 More particularly between building inhabitants and visitors, after Hillier and Hanson's classification. See Hillier and Hanson, *The Social Logic of Space* (1984).

develop equally among different actors, or otherwise in an imbalanced manner. It is based on such differing presences, awareness-es, visibilities, and actions that a collective network of (im)balances is constructed. In design terms, (in)equivalence may be forged in users' variant capacities to construct intelligibility; in their disparate associations to a spatial system's integration core; in the comparative exposures of different user-groups' isovist vistas; and/or even in the phenomenal incidence of light on different bodies presenting them to each other unevenly.

I will engage the (in)equivalences of co-awareness more than any of the other categories in this section. Equivalence – as the (im)balances between mappings of different types of space users - thus becomes an important consideration in conceiving of the political life of spatial settings, on the basis of which the will to change or to stabilize is exercised. As a configurational phenomenon, (in)equivalence in crowd morphology may be compared to the normative fault-line between inhabitants and visitors in spatial systems, as discussed by Space Syntax theory. What this depends upon is access to, or potential for, mapping the global properties of a socio-spatial system, based on local information or the capability to move across the system. An institution may thus be defined as a spatial system where inhabitants enjoy sharply distinct privileges over visitors: the deep recesses of the configuration and privileged imbalances of co-awareness, enforced by strong 'design' moves (e.g. the stage--auditorium distinction in theater), and overwhelming disparity in co-visibility between the two user-types. By convention rather than by logic, a 'building' enclosing the activities of a mass crowd (e.g. courthouses, hospitals, school, …etc.) tends towards being an 'institution'. Crowd members, the visitors in a building enclosure, are usually subjected to restrictions on movement and perception such that sharp discontinuities are generated between the global information available to them in comparison to the inhabitants. Hence a crucial measure in crowd description registers the distinctions between mappings of crowd members versus event-organizers, as well as distinctions between mappings of different crowd members.

An important consideration here is mapping time or duration. While patterns of encounter may cohere into a structure, the mental process of mapping them - the construction of co-awareness - unfolds in time. This diachronic construction is different for different kinds of generic building-users (inhabitants, visitors and strangers) depending on their dissimilar exposures to the different parts of the overall spatial system and their movement potentials. Co-awareness progresses unequally for different users; a spatial system with variant but equivalent scenarios of progress is perhaps a more `equitable' or 'balanced' one. Yet this applies as much to the temporal sequences of schema, as it does to users' distinct stabilized constructions. For example, Bentham's Panopticon configuration (plus co-visibility properties) clearly favors inhabitants (guards) over visitors (prisoners) in terms of their potential to retrieve descriptions and construct mental maps of configuration, geometry and distributions. It is doubtful that a prisoner in such extreme conditions could evolve co-awareness mapping at all! To a less acute measure, a similar argument can be made for visitors to courthouses or hospitals, where physical and visual accessibility to all building spaces are, by definition of functional performance, restricted. Another example is a stadium setting; audiences are meant to have far more aptitude to observe activities than the athletes have. Co-awareness, which evolved during the performance of relevant generic functions defining spatial settings, is crucial.

It is important to register here that confirming such sharp distinctions between inhabitants and visitors was indeed pronounced in the *Palace of Soviets* competition requirements, and the manner in which the program document was parsed into three parts [see Appendix II]. For the Soviet avant-garde seeking unadulterated equality, however, the question remained: Can the new 'building artifact for the masses' work against the conventional grain of a building to offer a departure from the institution? Or, alternatively, can a new form of institution be created that fosters a closer association between inhabitants and visitors?[171]

[171] Interestingly, revolutionary theatre offered to Soviet architects some living precedents on this particular aspect of the problem. Meyerhold toyed with the inhabitant-visitor relationship. His theatre mitigated disparity in configurational depth through exposing more of the inhabitants (actors) to visitors (audience), by collaging the actors' changing rooms against the performance area. Additionally, visitors to his theatre were not mapped rigidly in space; instead, their positions were negotiable amongst each other as well as with those of the actors when, in interludes, spectators occupy the 'stage' to socialize or on their way to exit the theater. Also, if one compares spaces meant for visitors in his theater, to those dedicated to the performers' section, it is the former set that dominates the overall spatial building configuration.

Here, V.E. Meyerhold's theatre building offers hints for alternative configurations. Starting in 1930, Meyerhold worked closely with two architects, Mikhail Barkhin and Sergei Vakhtangov, to redesign the Meyerhold Theatre to accommodate his revolutionary ideas about theatrical performance [see figure 5.3].[172] Although the final implemented design compromised over a number of issues, the schemes created along the way serve to illuminate critical issues relevant to this discussion. While centered, as a theatre should be, on the synchronic space of its assembly and performance hall, Meyerhold's theatre was so configured so as to minimize configurational depth around it.[173] An important component of theatre experience that is conventionally hidden from its audience is the backstage. In Meyerhold's theater, actors' changing rooms opened directly onto the stage, and scenes were prepared for deployment openly. There was no hidden space mediating between backstage and the performance area; in other words, the audience had more exposure to – and hence stronger capacity for immediate mapping of - the workings of theatre 'behind-the-scenes'.

Yet the issue here should not be construed exclusively in terms of the distinctions between crowd members as visitors on one hand, and the organizers of mass events - the Commissars or Bolshevik party officials – as inhabitants, on the other hand. The very condition of a crowd, a mass of bodies more or less contiguous, creates discrepancies across the gathering itself: in arrangement, in experience and hence in cognitive mappings. (Here the argument departs from Space Syntax proper; there is little in the theory and its current applications to structure a discussion on the internal equivalence of crowd arrangements.) Co-awareness and its temporal mappings unfold unequally across the mass of the crowd, which tends to evolve internal rank discrepancies. A morphology of the crowd design problem should discern such internally-generated

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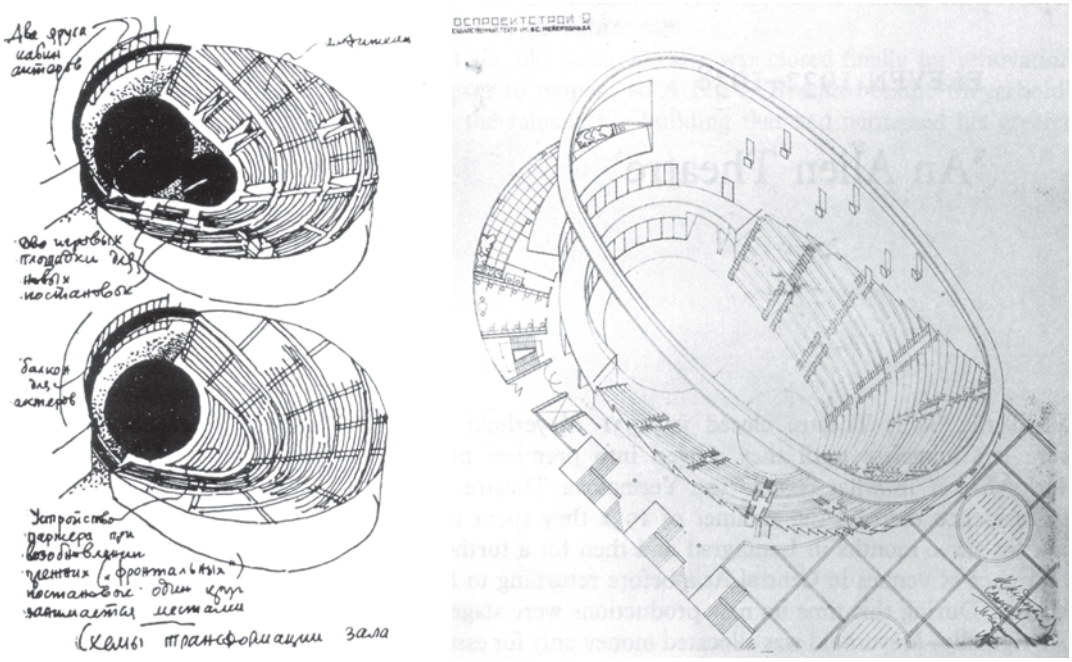
172 As argued in Chapter-4: "The Crowd Design Problem: Primary and Secondary Sources", Meyerhold worked closely with architects on stage sets and theatrical arrangements since as early as 1922, when Liubov Popova designed the set for his first production of *The Magnanimous Cuckold*. Hence, while his theatre design process roughly paralleled the *Palace of Soviets* completion process, the influence of his ideas precedes the contest. At the same time, it is not inconceivable that some of the ideas worked out with Barkhin and Vakhtangov were shared with a broader audience of architects and designers.

173 The fundamental problem of forging crowd configurations, spatial conceptions and visibility, alternative to established, pre-revolutionary conventions, is not exclusive to the synchronic space, yet manifests itself more intensely in it. While diachronic 'seeing' and perceiving across several spaces initiates scenarios of mapping of no less interest, it is in the sustained reciprocity of mutual display within a synchronic space of assembly that social relations are iteratively revisited and deepened. If a framework of seeing is to be developed as a social convention, it is from the paradigmatic interactions of the synchronic space that it is bound to emerge.



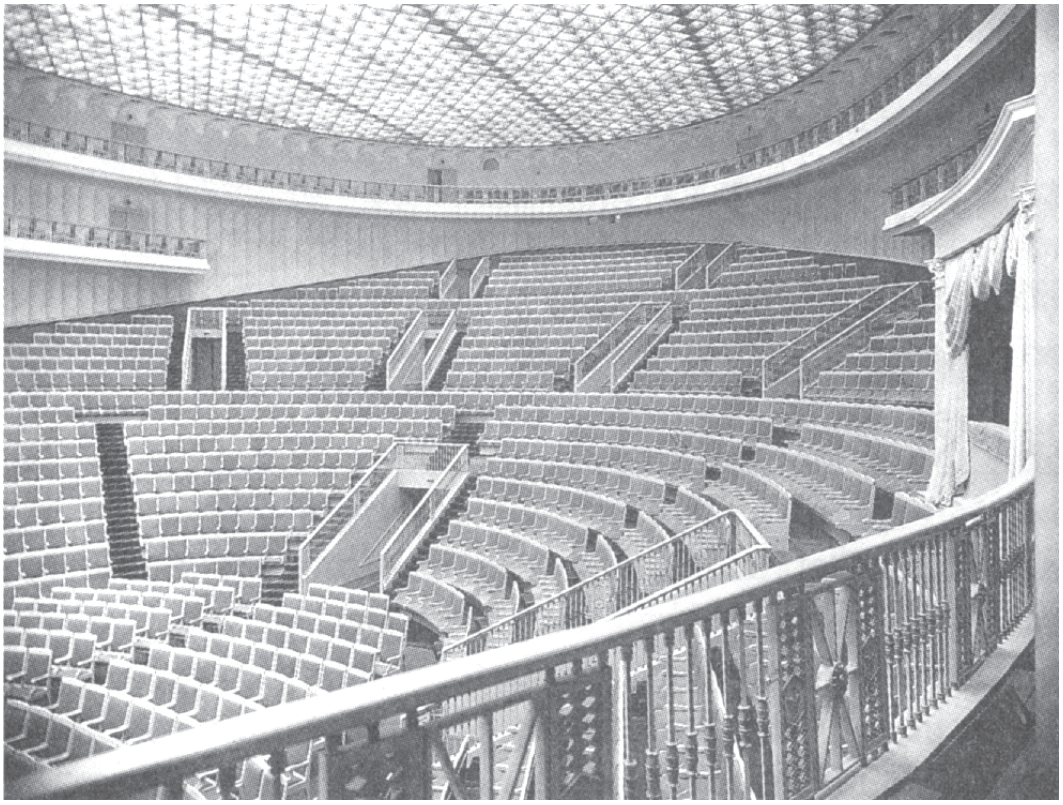


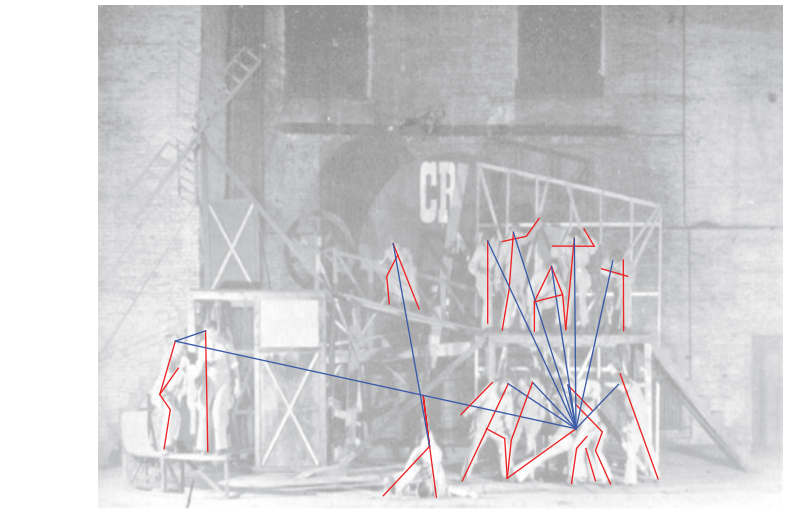
Figure 5.3 V.E. Meyerhold's Theatre, Moscow, constructed 1930-2.
above left Meyerhold's own sketches of the interlocked auditorium and stage areas.
above right An axonometric by the architects: Mikhail Barkhin and Sergei Vakhtangov
[source: Khan-Magomedov, *Pioneers of Soviet Architecture*, 1987].
below A view of the implemented scheme (1940), which included some of Meyerhold's ideas but was extensively modified (since known as the Tchaikovsky Concert Hall). While the evenness of lighting was guaranteed by the skylight, some balcony boxes were maintained. [source: Braun, *Meyerhold: A Revolution in Theatre*, 1995]

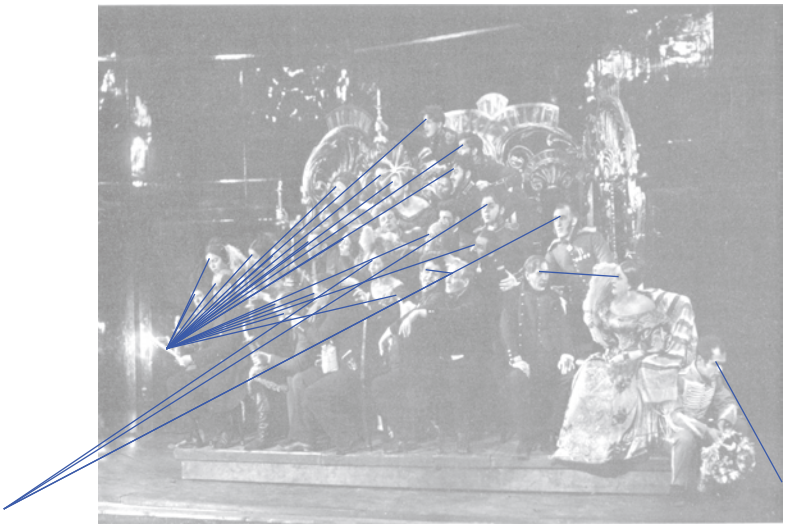
differentiations, as well as anticipate ways through which the Soviet avant-garde attempted to overcome them.

Again, Meyerhold's theatre building design suggests a model here. The configuration of the theatre assembly itself was dramatically transformed to break the conventional, strict separation between stage and auditorium. Auditorium seats were set into a U-shape arrangement encompassing the extended stage area. A number of consequences follow from this move. First, the customary uni-directional 'seeing' from auditorium to stage no longer applies; the audience would inevitably overlook each other as they watch the performance. An array of visibility lines across the performance arena spring to life. Theatre inflected the interrelated problems of arrangement and of co-visibility into one of intentional 'mutual-seeing' (and perception, generally) or 'reciprocal staging' – a strong complement to the quality of observer-immersion forwarded by contemporary propaganda posters and photography, as Chapter-5 *'Seeing' Crowds: The Challenge of Immersion*, will argue below. Second, considered as themselves part of the crowd, the performers interlock with the audience spatially. Physical distinctions between the physical environments of the stage and the auditorium are eliminated towards forging a spatial continuity there-between: no height differential, no contrast in lighting conditions, and even dissolving the specialized functional use for both sides as either performance or spectating. Performance was meant to take place within and through the spectators' space as well as on the designated stage. Complementing configuration, Meyerhold's technique also invested theatre's phenomenal qualities of light and shadow with a peculiar twist. Stipulating a unity between stage and auditorium through abandoning footlights and flooding both areas with natural light, this near-homogeneous blanket of light transposes the agency of generating phenomenal distinctions within the space to the involved bodies: their shapes, their colors, but also their gestural movements and kinesthetic expressions. Whether as an actor or as a spectator, in performance or as a response to performance, one's movements register more readily in everyone's attention throughout this expository space with near-uniform illumination.

This generative conceptual category of *attention* is precisely the next challenge. Generically, attention describes the collective foci of concentration that a gathering constructs; revolutionary theater's contribution is that it internalized in its routines inherently spatialized forms of attention, attaching them to specific theatrical devices: from bodily performance (patterns of bodily gestures, postures and displacements), to the aesthetic qualities of objects placed on stage, as well as lighting schemes. Much of this will be addressed in the next sub-section on the Kinesthetic Conception of Space; here, I would like to focus on theatre's proposed systems of order and its attendant formulation of shifting-attention.

As discussed above, Meyerhold's spatial arrangements for his theater's auditorium proffer an exemplary infrastructure for such distributed attention. Yet revolutionary theater's contribution is more specific than that. What theatre proposed in structuring mass events included techniques of dramatic performance which afford joint (shared) attention, but such that this attention *shifts* throughout the event from one spot to another. The objective was to prevent concentration on a single focus – incommensurable with fundamental revolutionary philosophy due to its associations of hierarchy and power. As a *form of attention*, shifting focus among multiple centers within a unified whole induces a greater sense of equality. As a formulation, this dissociation between hierarchy and attention is specifically owed to Meyerhold's theatrical acumen in transforming his teacher's (Stanislavski) method of 'public-solitude' with its focus on the individual actor into one more concerned with the choreography of groups of actors. Expression was not exclusively generated by an individual actor's reconstruction of internal emotions and outbursts of intuition, but through the rhythms of exertions and movements coordinated across choreographed arrays of bodies. Attention, in other words, became a function of the re-arrangements of performing bodies; this was the very language of the technique treating dramatic expression as essentially spatialized, diffused and expandable [see Meyerhold's performances, figure 5.4]. Meyerhold's acting technique was also bent on activating both performance and spectator spaces together and simultaneously, shifting attention not only within the stage confines, but also across the stage-auditorium divide to actively engage spectators. In Meyerhold's theatre, spectators' bodies were as much loci of dramatic expression as were the actors'.





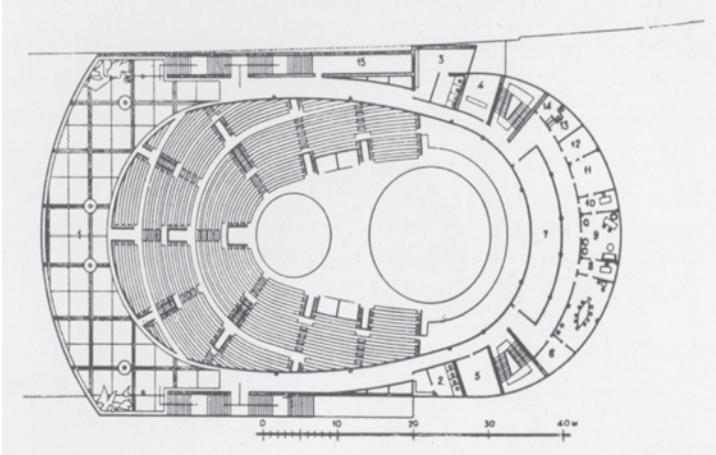


Figure 5.4 *top* V.E. Meyerhold, *The Magnonimous Cuckold* (1922 production) (source: Law, & Gordon, *Meyerhold, Eisenstein, and Biomechanics*, 1996); *middle* V.E. Meyerhold, *The Government Inspector* (1926). (source: Pitches, *Vsevolod Meyerhold*, 2003.); *below* V.E. Meyerhold, *Plan for New Theater*, designed in collaboration with architects Mikhail Barkhin and Sergei Vakhtangov (Second Variant 1931-2). [source: Barkhin & Vakhtangov, "A Theatre for Meyerhold", 1972] . In Meyerhold's theatrical productions, distributed attention pertains not only to where the actors' gazes are directed (blue lines), but also to the subtler attentions evoked by the actors' various body formations (red lines). Simultaneous events unfold in multiple compositions.

Such innovative engagements generated a novel web of invisible spatial relations: diffuse with multiple and shifting centers. In terms of an architectural problem for assembly spaces, Meyerhold's drama technique transposed the design problem into the fundamental level of underlying systems of order. As free-standing objects became de-emphasized in favor of larger compositions of arrayed bodies, the complex geometries regulating arrangements and movements were, quite literally, 'embodied'. On its own, this formulation would challenge architects to explore the impact of variant ordering systems: can seating and performance arrangements forming and shifting in time dissuade a single centrality? Can a collage of geometries coalesce a unity? Yet furthermore, within this innovative field of 'fluctuating seeing', certain biases emerge. In stipulations to architects regarding his new theatre building, Meyerhold posed the problem of performance-spectatorship as a plastic, three-dimensional display, rather than a two-dimensional painterly projection. As a performance technique which depends on body exertions in groups, it demanded observation in-the-round [revisit figure 5.3]. The more two-dimensional the stage presents itself to spectators, the more removed it becomes, since the complex geometries of bodily arrangement would be lost on the spectators. This helps to further explain Meyerhold's preference for the arena format, rather than the conventional stage. For Meyerhold, the two-dimensional proscenium stage precluded clear, sustained observation of the 'biomehanics' of actors' bodies which he advocated not only as a technique of training actors, but as a kinesthetic language of mass communication rooted in an aesthetic of labor.

Furthermore, in discussions with architects Mikhail Barkhin and Sergei Vakhtangov over the design of his new theatre building, Meyerhold specified a preference for the spectatorship of mass acting to best occur from the oblique, elevated angles of steep seating arrangements. This specification has been variously compared to configurations of ancient Greek theatres[174], and to a viewing prospect that is axonometric-like in nature[175]; if proven credible, such comparisons may reveal additional historical and representational

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[174] S. O. (Selim Omarovich) Khan-Magomedov, *Pioneers of Soviet Architecture* (New York: Rizzoli, 1987): p. 460.

[175] References to an intended axonometric-like spectatorship in Meyerhold's new theatre recur in the secondary literature with scant clarification of how structural this is as a metaphor. Roannn Barris characterizes Meyerhold's vision of theatrical spectatorship as "axonometric perception of action" in " Culture as a Battleground: Subversive Narratives in Constructivist Architecture and Stage Design in *Journal of Architectural Education*, Vol. 52, No. 2 (Nov., 1998): p. 118. See also: Robert Leach's *Vsevolod Meyerhold*

facets of Meyerhold's theatre in future research. Suffice it here to reflect on a principal implication of his confirmed intention, documented above all in Meyerhold's own sketches, in the architects' submitted design and in the executed theatre interior. Steeped seating offers clearer views of the planimetric imprint of the action on stage; it privileges the observation of configurational relations (juxtapositions and relative positions) and rhythms amongst human-figures and objects as they move and gesture to the theatrical choreography across the performance space. This would become even more pertinent in the case of a large open field, such as the expanse of a performance arena or a large mass hall, where no wall is in place to serve as a datum denoting depth or facilitating the perception of relative positions. Moreover: from such an elevated vantage point, visual apprehension of group movement configurations is collapsed in temporal duration. One does not read a configuration in parts then reconstruct the whole, as would occur in perspectival viewing or in the painterly proscenium screening; it almost occurs instantaneously.

For architects, the above-stated challenges translate into design problems of manipulating seating arrangements, the relation between performance space and spectator space, and the quality of light within the vast interior field of the synchronic space to generate highly-probable opportunities of three-dimensional co-visibility, but in such a way as to be balanced by clear intelligibility of planimetric arrangements (the interrelations of objects and events) – i.e. to maintain the integrity of plan conception. Objects and events were to be emphasized mainly in clear relation to each other; what mattered more was the arrangement. As such, this challenge expresses the desire for a departure from the normative frontality and individuality of expression abundant in everydaylife as well as in prior schools of theatre (especially Stanislavski's). De-emphasizing the body's front (with its richer concentration of expressive devices and connotations of individuality) shifts attention to other body parts and postures which, while possessed of less expressive gifts, communicate better as part of a rhythm of movement arrayed amongst numerous performers. All this suggests a strategic transfer of emphasis within the design problem to the crowd itself as the generator of

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(Cambridge University Press, 1989): p. 39; Mikhail Barkhin's and Sergei Vakhtangov's article "A Theatre for Meyerhold", translated by Edward Braun, in *Theatre Quarterly*, 2.7 (1972): pp. 69-73; and Khan-Magomedov, *Pioneers of Soviet Architecture* (1987): pp. 459,460, & 464.

formal and spatial distinctions. This also harkens back to an inherent aspect of the architectural problem: in its density and regular formation, the mass crowd partakes of the morphology of interior space far more forcefully than in exterior urban space. Moreover: while individual bodies in a non-assembled formation may be perceived as separate 'objects' inserted in the field, the mass of a crowd-assembly (parade, demonstration, rally …etc.) becomes a crucial parameter in articulating solid and void relations, as well as in articulating movement vectors.

The *second* qualification to the matrix of conviviality, i*nterdependence,* concerns the active cohesion of a crowd. Cohesion is seen as a function of an interdependence of experiences, particularly in action and movement, and the need for negotiating encounters. *Interdependence,* as a morphological construct and as a design variable, may thus be detected in the architectural treatment of intersections between spaces, particularly thresholds and crossings – as well as in the management of flows and cross-flows in general. This involves analyzing the spatial language of defining spaces and interfacing them in the different entries, and provides strong indices to the patterns of social encounter.

Of relevance to *interdependency* are temporal questions. To what extent did different architectural strategies, with their subtle varieties of collective formations, employ properties of synchrony and diachrony across the spatial system? Do crowds gather in stasis, but disperse in movement; or do they move in unison, but disband when still? How are each set of spaces (of movement and stasis) set up to convey significance and meaning? Underlying such concerns are the ways in which natural movement – natural to the life of buildings and their social makeup – is employed as a design strategy. Clearly, intersections and thresholds are more significant in some cases than others.[176]

[176] As given by the crowd design problem and its attendant safety requirements, a mass crowd is conventionally more likely to circulate between a mass hall and exterior space than between various oversized assembly spaces in the system. Consequently, this places limitations on the configurational depth of crowd-flow and the potential for forging meaning in diachrony. However, this formula is inverted in spatial systems as suggested by the competition program for the *Palace of Labor*. Different implications may be drawn in such systems.

This also informs the third qualification of the matrix of conviviality. *Communication* or information transmission within a crowd is entangled with patterns of encounter as well as movement flows. Probing such internal information flows is significant for purposes of revealing the internal dynamics of the crowd: how it shapes and transforms itself – both formally and socially. As well, and as mentioned above, this allows us insight into the construction of the crowd's self-representation and self-consciousness. To advance this probe, Chapter-8: "Dynamic Crowds, Abstract Machine", will explore the anatomy of the spatial unit of the crowd: the plastic 'bubble' surrounding, emanating from and extensive with, a crowd-individual's body (roughly what Lefebvre calls the spatial-body). Defined less by other bodies as boundaries, than by the messages (overt action-signs as well as subtle and implicit kinesthetics), this continuously fluctuating bubble registers local messages together with distant ones transmitted across adjacent bubbles. It thus acts as the primary link in the communication chain which begins to define a crowd in terms of incremental decision-making and distributed information.

Conclusion

Arguments in the above sub-section posed an assortment of questions as the first ingredient of the crowd design problem. Here, I wish to draw a clear distinction between two streams of inquiry running through such questions, and which Chapter-8: "Dynamic Crowds, Abstract Machine" will address. There are, on one hand, questions of intent and purpose; on the other hand are questions of outcome and logic. The former kind probe the architects' design moves in response to the charge to generate spaces of social equality and cohesion. The latter stream pursues a different line of inquiry, albeit built on, and instigated by, the former. The latter opens up the inquiry to asking what social consequences do such design moves generate – what particular forms of social equality and cohesion, but also whether the architects' strategies initiated altogether different implications. This distinction secures a critical stance throughout the research pursuit; it allows vetting the architects' work to remain an underlying probe. But, more significantly, it allows one to

pursue the spatial and architectural design strategies for their own logic; to prod space and architecture for what they afford, which is after all the objective of this research project.

Hence, as a theoretical construct, the *matrix of conviviality* and its three qualifications help structure this unexpectedly vast terrain of the first component of the crowd design problem, with its two streams of questioning. It affords the categories through which to approach Soviet design submissions to the two palace competitions, permitting a reading of their political thickness. That this was a filter similar to that through which Soviet architects internalized the problem is possible but unlikely. Its utility is to allow one - today - to probe their design strategies in a structured, and hopefully intelligent, way.

At the same time, several aspects of this central problem of crowd-sorting and movement are so emphatically pronounced, they have acquired the consistencies of independent problems. While the matrix of conviviality provides a basic framework for addressing them, their intricacies are such that they require more elaborate analyses. The generic problem of visuality was deeply inflected by contemporary revolutionary art and theatre as well as established traditions of crowd representation, thereby acquiring a rich array of design parameters. It will be discussed later as a charge to generate a 'framework of seeing', proving to be pivotal to all other aspects of the problem as the pictorial platform onto which any design ideas are constructed. Notions of attention and focus to others in a gathering raise the issue of the architectural background against which they occur: the role of the enclosure shell, or the problem of the physical object in general, will also be singled out for independent discussion. Likewise, interdependence of action evolved through the agency of revolutionary theatrical techniques into a spatial language in its own right. The implications and potentials of such a kinesthetic language will be addressed next.

Kinesthetic Conception of Space

> "a pattern of movement on the stage … deft mastery of line, grouping and costume colour ... [not] movement in the literal sense, but by the disposition of lines and colours and by the ease and cunning with which these lines and colours are made to cross and vibrate"
> Vsevolod Emilevich Meyerhold [177]

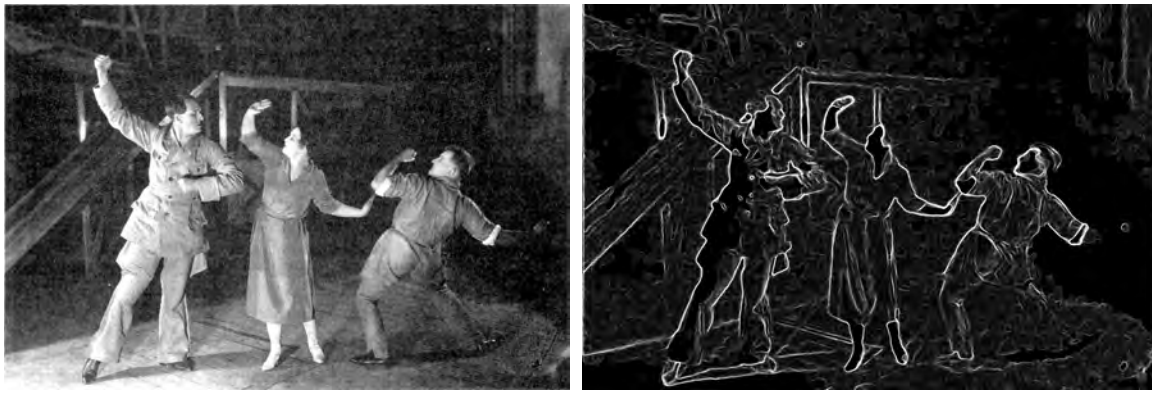
Drawing on the internal logic of the crowd, the Matrix of Conviviality articulated design problematics primarily concerned with the spatial configurations of the crowd. Beyond that, the second formulation of design problems confronts the task of how to mine an aesthetic, still from within the crowd's own internal logic.

If theatrical sets and layouts offered architects propositions for addressing equivalence in configurational depth and spatialzed formulations of attention, architecture's debt to theatre extends far beyond that. Perhaps the pivotal way in which theatre proved to be a resource for architecture in formulating the crowd design problem came through posing a novel conception of space – which, unavoidably but at some implicit level, became an integral part of the fabric of spatial ideas that the competition architects were obliged to contend with.

So, what is this novel spatial conception? V. E. Meyerhold's acting method and training system: Biomechanics - which Sergei Eisenstein later synthesized into Expressive Movement – formulates a kinesthetic spatial field out of the rhythmic tempos generated by constellations of bodies moving and flexing in concert [see figure 5.5 for examples of Biomechanics exercises and performances]. An acting performance consisted of choreographed movements exerted together in ensembles, thereby conjuring a dynamic field of rhythms; it was this spatial field – rather than, exclusively, a caste of individual actors - that was the pliable substance of Meyerhold's directing. I will explain this further below, but first I want to qualify a crucial point. Perhaps more significantly than the spatial field itself, what Biomechanics offers is an aesthetic yardstick. Primarily constructed out of the exaggerated (even grotesque) patterns of movement

[177] Quoted in Edward Braun's *Meyerhold: A Revolution in Theatre* (London: Methuen, 1995.)

Meyerhold, large group Biomechanic Exercises [source for original: Law & Gordon, *Meyerhold, Eisenstein, and Biomechanics*, 1996].



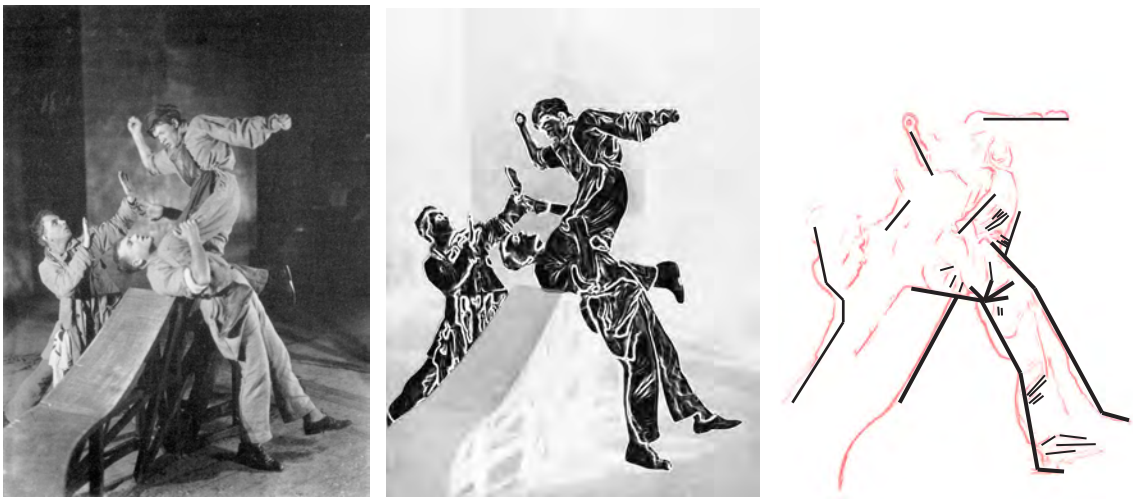
Meyerhold's reproduction of Fernand Crommelynck's *Le Cocu Magnifique* (*The Magnificent Cuckold*), 1928 [source for original: Braun, *Meyerhold: A Revolution in Theatre*, 1995]

Meyerhold production of Gogol's *The Government Inspector*, 1926 [source for original: *Global Performing Arts Database* www.glopad.org]

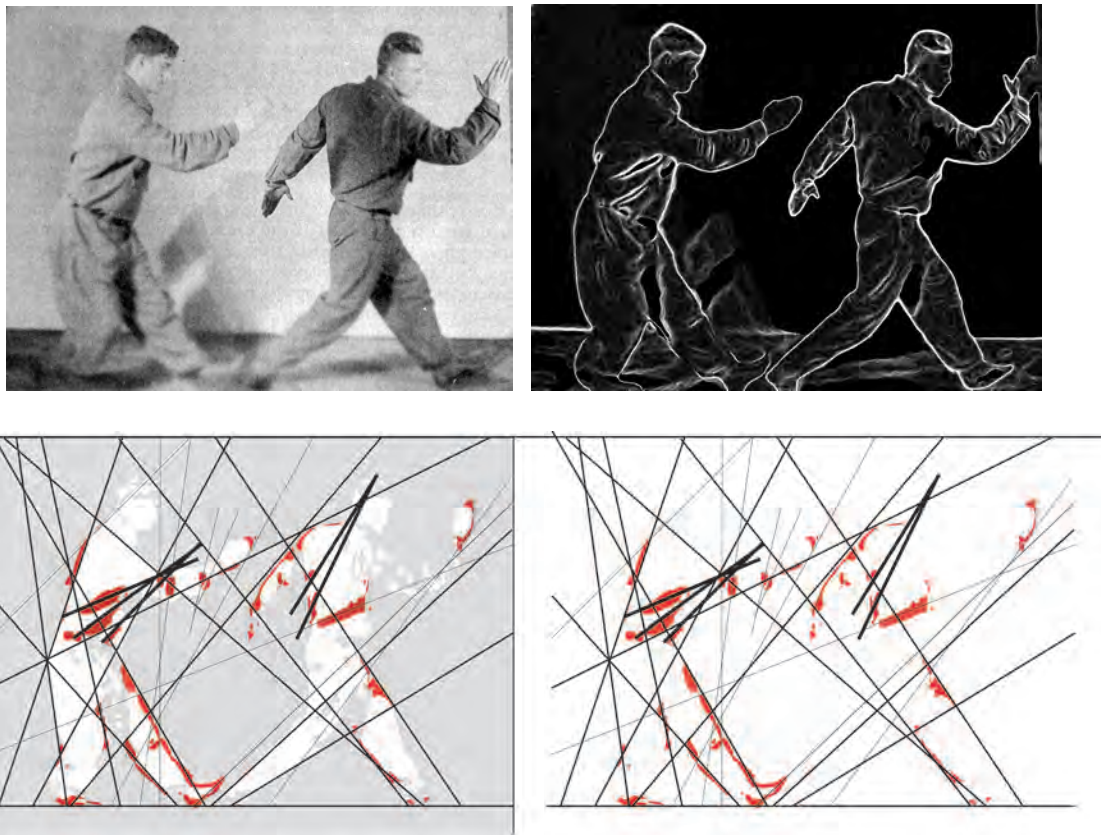
Figure 5.5 Exercises and performances based on V.E. Meyerhold's Biomechanics method; note the arrays of lines and fields of rhythms created by the carefully arranged bodies. [sources for originals: Law & Gordon, *Meyerhold, Eisenstein, and Biomechanics*, 1996; Braun, *Meyerhold: A Revolution in Theatre*, 1995; *Global Performing Arts Database* www.glopad.org]

executed by carefully arranged groups of human-bodies performing various actions as its building blocks, Biomechanics furnishes for its observers a principle of conjoined visual and kinesthetic observation. Especially since the acting method depends on stripping away all illusionary devices (including makeup, props, backdrops, special costumes … etc.), the emphasized forces and rhythms of active bodies in the focus of attention establish a measure against which other objects are compared and gauged. Force and rhythm become the measure of things; objects within the space become accountable to this sense of action. Thus the first quality of this spatial conception is an economy of force, action and kinesthetic sensitivity which becomes definitive of compositional qualities: whether of the relations between objects (which carries more force or weight, in which direction, … etc.), or the relations of objects to observers (kinesthetic sensations, emotional economy … etc.). The construction of space comes to depend upon generating fields and/or foci of bodily exertions: deployments of weight, balance, tension and explicit display of force among bodies and objects [see figure 5.6, showing fields composed of kinesthetic exertions].

In addition, Meyerhold's method stems, perhaps primarily, from the exigencies of mass acting. In his theater, a performance was executed by a relatively large number of actors, all jointly – or in sub-groups – expressing the emotions and conveying the significance of the production. Competing with individual-based acting - where expression was conveyed through a few figures playing the lead roles - such group-acting generated an overall map of performance that is more significant than (or at least equally expressive as) the expression of a single performer. Figures 5.7a and 5.7b present two examples to demonstrate this assertion; effectively, choreographed ensembles of performers partake in defining the expression of an emotion or an idea at a given theatrical moment. Emotional expression is thus mapped across the arrayed performers' bodies, rather than exclusively onto the face or body of a single actor. Moreover, it is to further de-emphasize the individual actor's significance in favor of the ensemble, that Meyerhold stressed the three-dimensionality of the performers' bodies during acting, I contend. It was not the frontal (two-dimensional) facial expression, issuing from the actor's inner emotional verve that demands attention in his post-revolutionary theatrical productions. Rather, it was the language of bodily gestures and movements that call



Still from V.E. Meyerhold's reproduction of Fernand Crommelynck's *Le Cocu Magnifique (The Magnificent Cuckold)*, 1928 [source for original: Braun, *Meyerhold: A Revolution in Theatre*, 1995]



V.E. Meyerhold, elementary Biomechanic exercises [source for original: Law & Gordon, *Meyerhold, Eisenstein, and Biomechanics*, 1996]

Figure 5.6 Exercises and performances based on V.E. Meyerhold's Biomechanics. Note the compositional effect of the generated bodily rhythms. The red patches are bodily regions of marked physical exertion.
[sources for originals: Braun, *Meyerhold: A Revolution in Theatre*, 1995; Law & Gordon, *Meyerhold, Eisenstein, and Biomechanics*, 1996]

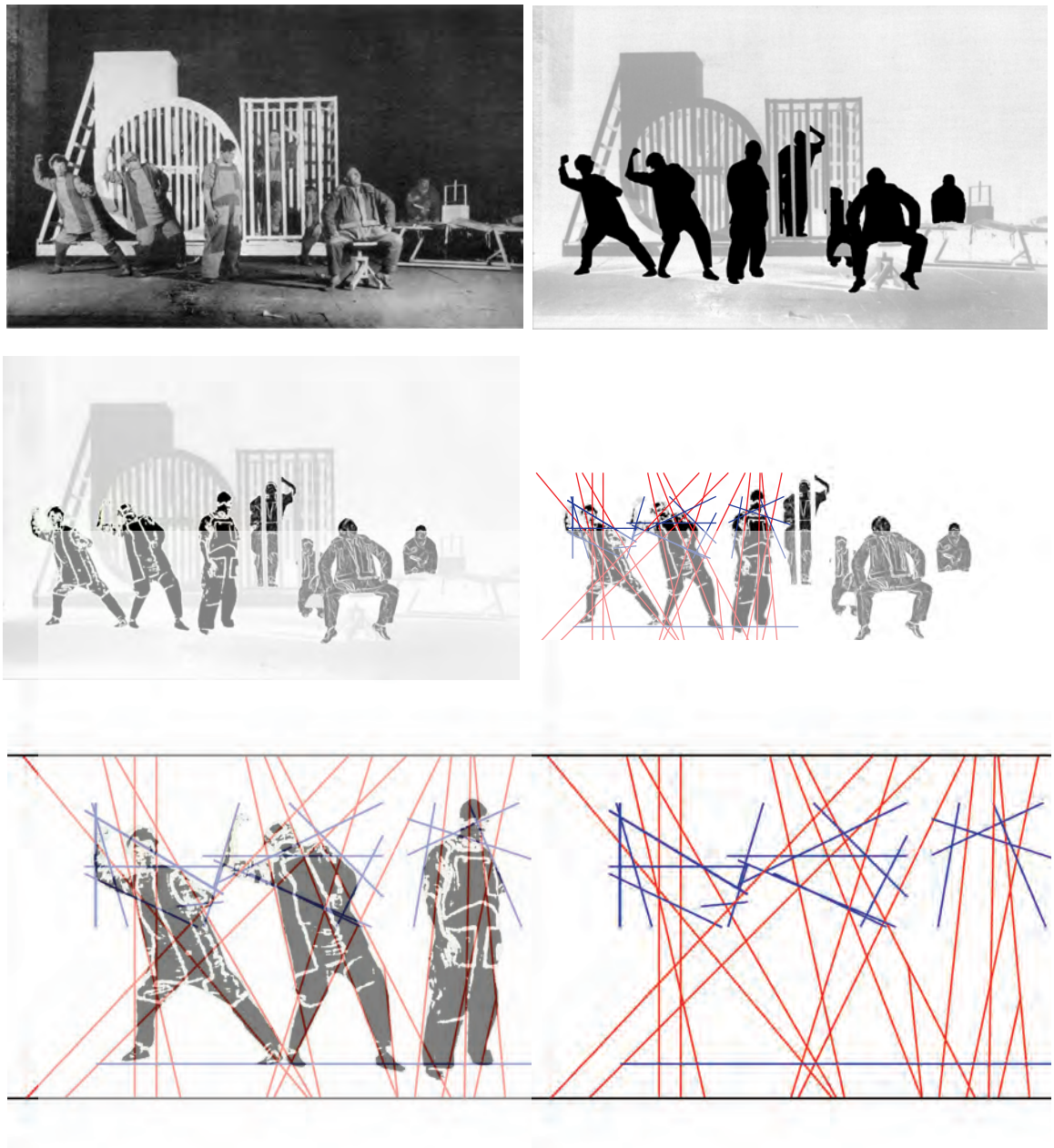


Figure 5.7a V.E. Meyerhold, *Death of Torelkin* 1922; a character or an emotional expression maps onto an ensemble of three performers' bodies. [source for original: Braun, *Meyerhold: A Revolution in Theatre*, 1995]

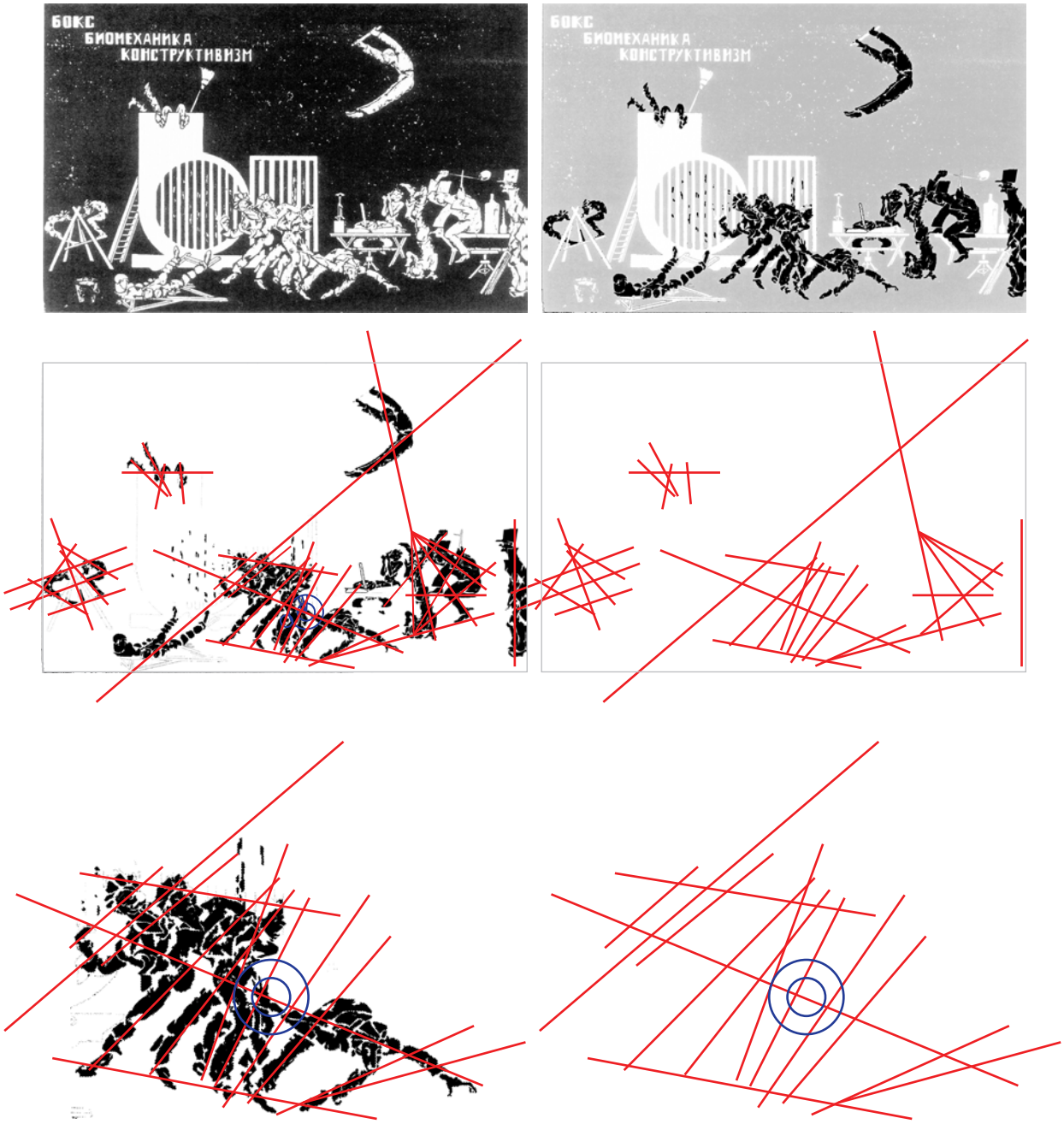


Figure 5.7b V.E. Meyerhold, *Death of Torelkin* 1922: Analysis of poster advertising play. Besides the overall kinesthetic field, sub-ensembles act in concert to evoke emotion or character role. [source for original: Leach, *Vsevolod Meyerhold*, 1989]

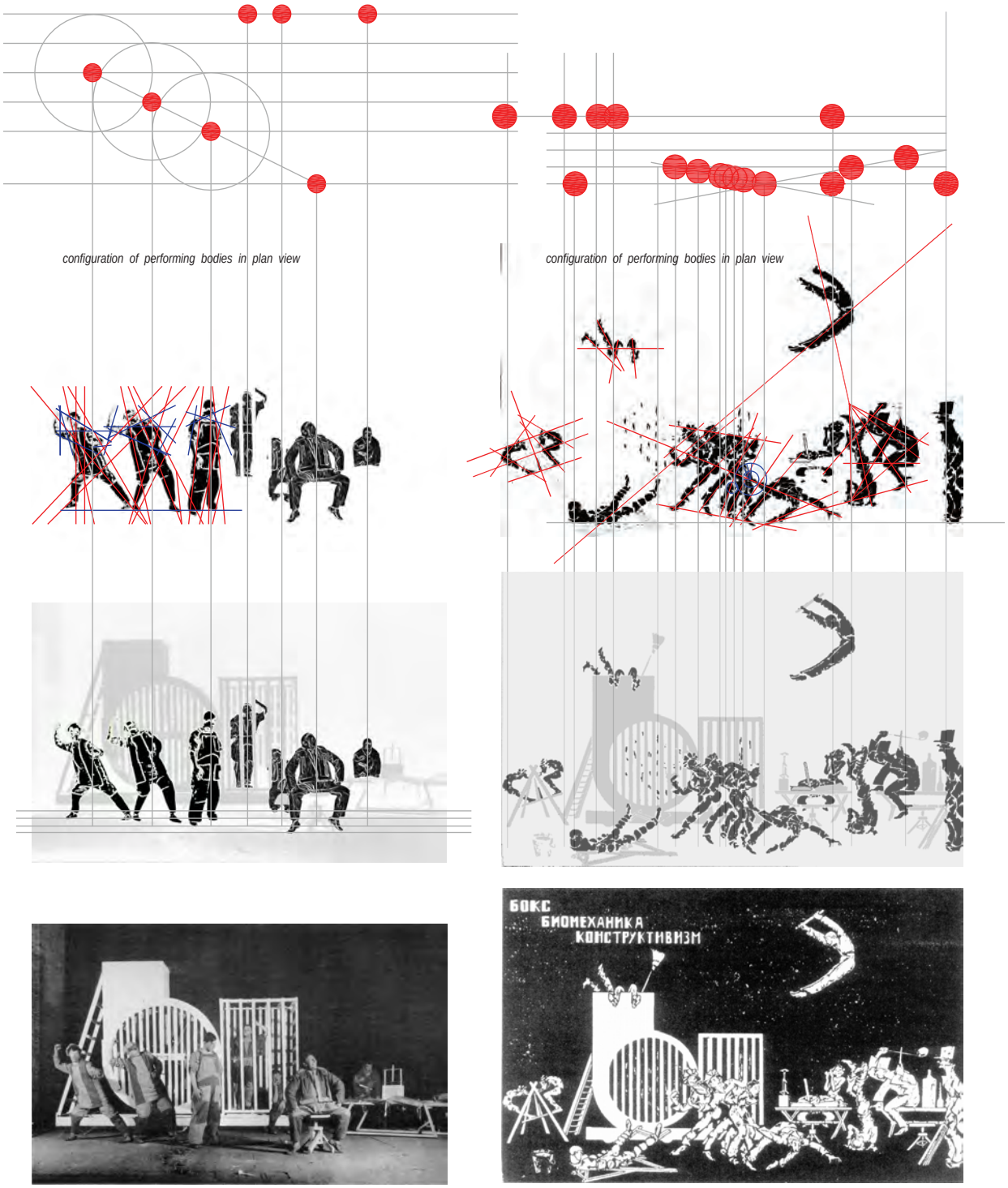


Figure 5.8 V.E. Meyerhold, *Death of Torelkin* 1922: Analysis of performance still (*left*) and advertisement poster (*right*), extracting basic planemetric relations between performing bodies.
[sources for originals: Braun, *Meyerhold: A Revolution in Theatre*, 1995; Leach, *Vsevolod Meyerhold*, 1989]

for observation in the round and, more often than not, in rhythmic negotiation with gestures and movements by other performers across the stage. It was the mutuality and reciprocity of moves, gestures and evoked sensations of weight and mass – the fluctuating maps of cumulative moves and gestures - that are the object of observation. From a spatial viewpoint, this mapping foregrounds the configurational arrangements of performing bodies – i.e. the planimetric relations they construct [figure 5.8]. It also demands elevated vantage points from which to observe such relations - as will be discussed below (in Chapter-5, *'Seeing' Crowds: The Challenge of Immersion*) in more detail. From an ideological viewpoint, this conception draws upon the labor of bodies celebrated by Socialist politics; indeed, the main propagators of this conception, Meyerhold's Biomechanics and Eisenstein's Expressive Movement, cite their debts to contemporary Taylorist studies of workers' motions as much as to Chinese and Japanese theatre as well as Russian folk carnivals.

Again, Meyerhold's theatrical formulation confirms the mass of bodies as the very substance of space-making and the gauge for form-giving – as, potentially, the conceptual fulcrum of design thinking. In contrast to the Beaux Arts conception which treats space as a carved volume shaped by a discrete enclosing shell, and instead of the early modern architectural concept of space as networks of relations between free-standing 'objects' (walls, columns, …etc.) of variant field flux, l – instead, the kinesthetic spatial conception evoked a three-dimensional network of relations among the minute but incessant, copious actions performed by active bodies. As such multitudes of actions and events grow more coordinated and concerted, their compounded effect becomes more pronounced and qualitatively definitive of the space. The reciprocities of kinesthetic sensations generate the finer grain of spatial relations.

From a design perspective, this translates into questions of rhythm and flow evoked by the active bodies; into questions of shape(s) emerging from their concerted action; and into compositional problematics pronounced by interrelations between flows, rhythms and shapes and the degree to which they are coherent or collaged. As a conception that harnesses the very substance of the overarching problem – the mass of

bodies making up a crowd – and which constitutes a fundamental component exceptional to the problem, architects were challenged to weave an architecture out of this material of collective actions, bodies, and energies. In other words, the kinesthetic spatial conception presented the architects with an opportune framework with which to address the *crowd as form*, and to explore the rich variations it may produce. It was not the architects' creative discovery which brought it forth; implicitly or under pressure to employ whatever available devices revolutionary culture generated, architects were challenged to forge architectural strategies from its available substance.

Furthermore, Meyerhold's theatre inflects the architectural problem as pertains to the issue of attention discussed earlier - specifically, how attention, within the kinesthetic conception of space, implies a symbolic system of signification. Let me explain this through comparing Meyerhold's *Biomechanics* to his mentor's, Konstantin Stanislavski's, *Method Acting*. Stanislavski's theatrical doctrine withheld attentional focus within the space of the stage, for performers and consequently for their audience.

> Now you will realize that *an actor must have a point of attention, and this point of attention must not be in the auditorium*. The more attractive the object the more it will concentrate the attention. In real life there are always plenty of objects that fix our attention, but conditions in the theatre are different, and interfere with an actor's living normally, so that an effort to fix attention becomes necessary. It becomes requisite to learn anew to look at things, on the stage, *and to see them*.[178]

Stanislavski trained performers to focus their attention onto a sequence of objects forming a solid line or a circle.[179] Generating Stanislavski's concentric circle(s) of attention (small, medium and large) and their attendant psychological state of "Solitude in Public"[180] occurred through concentration – on the part of the actor – on object(s) within the bounds of the stage area at varying radii away from his/her body. This form of attention renders the familiar defamiliarized as Stanislavski's instructions imply, but also requires such

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178 See Konstantin Stanislavski's *An Actor Prepares* (translated by Elizabeth Reynolds Hapgood, New York, Theatre Arts Books, 1948): p. 71 (emphasis in original).
179 Stanislavski, *An Actor Prepares* (1948): p. 77
180 Ibid: p. 78

objects of attention to be rich and articulate in detail, in order to sustain scrutiny. In the course of training actors described in *An Actor Prepares,* Stanislavski required his students to select an object of concentration, and then describe it in minute detail. The more articulate the object(s), the richer and deeper its repertoire of signification, the easier an attentional aid it becomes, and the longer it may hold one's concentration. For instance, Stanislavski would direct his actors to observe a richly embroidered rug, an ornate chandelier or a "museum-piece" urn. [181] In other words, the object(s) in the actor's circle of attention conducive of this total state of concentration may be considered *replete* - to draw on Nelson Goodman's terminology – or satiated with inexhaustible details and layers of meaning. An actor in Stanislavski's Method steps into a mindset (a psychological state) structured by repletion; the actor refers back to that object every time his/her concentration is lost in order to 'regroup' and issue forth again.

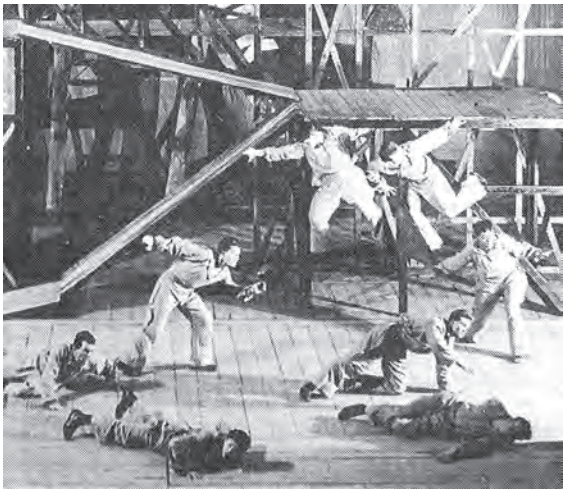
On the other hand, for individual spectators in Stanislavski's auditorium, the actor him/herself becomes the object of attention in a similar mode. Exhaustively trained in practicing such concentrated, immersed attention, the actor's body evokes such a state of absorption in the spectator – it becomes the medium through which the spectator him/herself achieves a similar state of *public solitude*. In other words, the actor's body becomes a replete one - not rendered replete by the mode of attentive looking (it is not a subjective state), but by what it objectively acquires in terms of gestures, consistencies and expressions in the process of generating and holding that state of intense concentration on the character's traits. An actor who 'captures' a character in Stanislavski's Method was one who managed to slip into the character's most delicate, intricate workings, so that his/her traits come with natural ease to him/her. Every gesture, twitch, glance and wrinkle partakes in communicating the character to the audience, but also to maintain its felt consistency for the actor him/herself [figure 5.9 captures and compares Stanislavski himself in such replete states across different acting roles].

[181] Ibid: p. 75-8

Figure 5.9 Konstantin Stalislavski in multiple theatrical roles. Note how, more often than not, period photographs of his performances frame his figure alone; note also the detailed makeup, costume and how he fully assumes the character down to the details of the hand and the peculiarity of the smile. [source for original: Benedetti, *Stanislavski*, 1988]

Biomechanics Exercise: *Shooting a Bow* 1927 [*Global Performing Arts Database* www.glopad.org]

Closeup on Meyerhold's large group Biomechanic Exercises [source for original: Law & Gordon, *Meyerhold, Eisenstein, and Biomechanics*, 1996].



Closeup, Meyerhold's *The Magnificent Cuckold* 1922 [source for original: Law & Gordon, *Meyerhold, Eisenstein, and Biomechanics*, 1996]

Closeup, Meyerhold's *The Magnificent Cuckold* 1922 [source for original: Braun, *Theatre of Meyerhold*, 1979]

Meyerhold, *Sister Beatrice*, 1928 [Braun, *Meyerhold: A Revolution*, 1995]

Meyerhold , *The Bathhouse*, 1929 [Leach, *Vsevolod Meyerhold*, 1989]

Figure 5.10 V.E. Meyerhold, Biomechanics exercises and theatrical productions (1922-1929) demonstrating Diachronic Rhythms across group performances at least throughout the 1920s. [sources for originals: *Global Performing Arts Database* www.glopad.org; Law & Gordon, *Meyerhold, Eisenstein, and Biomechanics*, 1996; Braun, *Theatre of Meyerhold*, 1979; Braun, *Meyerhold: A Revolution in Theatre*, 1995]

Thus, this particular mode of attention depends on an environment, or – to be more precise – an assortment of individual objects and/or bodies defining an environment amongst them, which evokes a *replete* system of signification per each individual artifact or performing body - but not necessarily for the overall space. Such an environment would be dominated by an aesthetic of repletion; each object or body therein would be selected, designed or choreographed to be sated with meaningful detail and inexhaustible nuance. In contrast, Meyerhold's Biomechanics effectively replaces this introspective, solitude-generating attention with one that generates public gregariousness and cross-referencing across the environment of performance – that is, both stage (arena) and auditorium stalls. At a very basic level, the two systems radically diverge in the manner they suggest an aesthetic and inform spatial-making. In Meyerhold's system of seeing, attention foci engage enough to create attention in the first place, yet are not be so *replete* as to arrest one's attention there in an inexhaustible exploration. An object or body possesses a *dense* aesthetic - enough to lure eyes – but also alludes to other foci within the larger event; it continuously refers observers to other objects.

This requires further clarification, particularly since it illuminates further dimensions of the kinesthetic space conception and its associated aesthetic. In Meyerhold's Biomechanics, the language of body movements structures its own symbolic system in two significant ways. First, an expressive movement may be distributed across an array of bodies instead of being intensified in a single actor's body [revisit figures 5.6 and 5.7a *bottom*]; the expressive unit is enlarged as well as spatialized. This enables spectating for a far larger audience, from a wider variety of viewing angles, and hence addresses the issue of scale. Second, besides this array, expressive movement in Meyerhold's system is also spatialized in another way: body movements and exertions are not self-absorbed but rather point to or allude to each other through gestures and engagements. This distinction is conceptually articulated by Rudolph Laban's theories of dance, as a distinction between *effort* and *shape* body exertions.[182] Laban distinguishes between exertions through

[182] See: Cecily Dell, *A Primer for Movement Description Using Effort-Shape and Supplementary Concepts (*New York: Dance Notation Bureau Press, Center for Movement Research and Analysis, 1977). More recent research on Effort-Shape Theory, as well as some later developments by Laban's followers, are articulated in: Eden Davies *Beyond Dance: Laban's Legacy of Movement Analysis* (New York: Routledge, 2006).

which the body simply expends effort or does so to point to itself on the one hand, and other exertions through which the body relates to other bodies or objects around it, on the other hand. It is the second typology of bodily actions, what Rudolph Laban's system came to call *spatial exertions*, which dominate Meyerhold's repertoire of movements. Even at this subtle level of fleeting gestures in elementary exercises, Biomechanics generated a body language that almost consistently touched (or at least pointed to) other bodies, generated rhythmic movements in concert with them, and/or consolidated formal arrangements with them [revisit examples from Biomechanics exercises, figure 5.5]. The very fine grain of movements underlining the kinesthetic conception of space are, in a sense, gregarious and convivial. While Stanislavski's earlier method projects the individual actor and the spectator – their bodies as well as their mindsets - into a willful detachment from their surroundings (a state of public solitude), Meyerhold's system evokes a dynamic of interaction, or a psychology of engagement.

Furthermore, closer scrutiny of a number of Meyerhold's theatrical performances in surviving photography reveals another subtlety. The range of concerted 'spatial gestures' exerted by a column of performers as a dramatic expression is seldom (if ever) repetitive. In other words, performers along an arrangement of bodies do not replicate the movement next to them. Instead, what unfolds is a movement vector pulsating across an ensemble of performers; the movement starts at one end, in what resembles a rule or initial generation, only to evolve across the concerted group of performers; instead of a uniform pattern, an animated rhythm; rather than synchronized movements, concerted diachronic movements, which also seem not to be simply timed to be consecutive, but to the application of a rule. I will call this specific aesthetic quality: *diachronic rhythms* operating across bodily ensembles [revisit figures 5.6 through 5.8; also see figure 5.10 for more examples of such diachronic rhythms from Meyerhold's repertoire].

In response to this kinesthetic conception of space and its attendant aesthetic of density, convivial spatial gestures and diachronic rhythms, architects were challenged to mine a resource - to shape a physical space out of it and through its logic. Yet this also signals a significant shift in the architect's agenda and skill-sets.

Traditionally trained to morph the physical ingredients of an environment and their interrelations, the architect was henceforth enjoined to additionally assume the burdens of a choreographer. How may the definitions of physical space effect variations in crowd forms – and, if one recalls the first problem, what crowd formations advance such forms of co-presence as conducive to a sense of conjoined collectivity?

As segue into the next argument, I invite the reader to revisit figures 5.8 and 5.10 to examine this time, not the bodies choreographed to concerted rhythms, but the theatrical sets inbetween, behind and under such bodies – the artifact, or here the theatrical object. The question which the next section will address concerns the nature of such an object in context of the concerted bodies, the rhythmic fields and the dense aesthetic generated by the kinesthetic conception of space. One clue to glean from such theatrical objects as the argument moves on is that they seem commensurate with the rhythms one reads across the bodies. Indeed, some such objects partake in the making of the bodily rhythms, although they may not themselves read as possessed of the same ordering system as such rhythms. Furthermore, and not only do they seamlessly blend in the mass acting, the theatrical objects in question do not stand out in the field of dynamic bodies. Their presence is not conspicuous, neither to one viewing the performance, nor to the performers themselves whose' attentions seem mostly drawn to each other and to the ephemeral rhythms they enact. How do such objects feature in the consciousness of the bodies practicing such concerted dynamics?

Legitimacy, Consciousness and the Problem of the Object

> This session was held in the Moscow Opera House; delegates numbered 1,952 plus 200 counted as "other party leaders and spectators including …. foreigners". "The main floor of the theatre was entirely filled with delegates, mostly workmen dressed in furs, who kept on their fur caps throughout the proceedings, presenting the appearance of a gathering of frontiersmen, contrasting with the brilliantly lighted and gold-decorated auditorium.[183]

[183] Excerpt from a report by Walter Duranty, the New York Times Correspondent, "Soviet Delegates Rejoice in Fancied Governing Power", December 1921. See Appendix III for a larger excerpt of the report, as well as more reports by Duranty and other Western correspondents who witnessed the developments of the post-revolutionary events firsthand.

The preceding two sections concerned themselves with articulating different facets of the design charge focused on the crowd as the very substance and origin of form-giving. Specifically (and respectively), aspects of configuration and aesthetics were examined. The first section argued for employing configurational principles derived from the crowd's collectivity to provoke its internal arrangements, or the relations between bodies; hence the Matrix of Conviviality as a conceptual framework. Pressing for an aesthetic generated from the dynamic material bodies of the crowd, the second section presented revolutionary theatre's kinesthetic conception of space as a model and a challenge to architects to assimilate to the language and challenges of their medium. However, this does not project a comprehensive picture of the crowd design problem yet. As anticipated by discussions of the spatial-construct (Chapter-3) and of the sources of the problem (Chapter-4), a thorough understanding of a spatial problem[184] remains elusive unless the *architectural object is* aptly situated within its framework of challenges and tensions. As an initial premise, any material construction - other than bodies - involved in a space will be assumed to partake in the definition of its architecture, and hence will be deemed an *architectural object,* whether elements of the surrounding enclosure (walls, floors, ceilings, …etc.), furniture or otherwise. Particularly but not exclusively, and as the previous chapter demonstrated, the enclosure planes surrounding the crowd come charged with meaning as well as challenges.

Thus, the present section shifts the discussion from the crowd per se to examine the problem of the object(s) in context of, and in discourse with, the crowd. This, as I will argue, is architecture's most profound challenge in the crowd design problem, and in interrogations of collectivity more broadly. Two sets of fundamental questions arise here. The first set probes the aesthetic legitimacy of such objects, as pertains to the crowd's historical demands for self-representation and self-inscription in its environment. The second set questions the forms and states of consciousness that arise in the interface between subject(s) and such 'legitimate' objects of architecture. As will become clear, the two sets of questions are not only closely

[184] Or, I should add, a design proposition; as two sides of the same coin, both the challenge and the *proposition* should situate the object within their conceptual frameworks.

interrelated, but represent almost two facets of the same problem of the object. In what follows, after articulating the two sets of issues, the argument concludes with a summary which distills the resultant inflection of the crowd design problem.

Legitimacy

In the above epigraph, Walter Duranty's firsthand account of the 1921 Soviet Congress vividly revealed a tension between the assembled, in their rugged "frontiersmen" appearance, and the gilded hall of the Grand Opera House (the Bolshoi Theatre Hall) wherein they gathered. Yet whether such tensions developed in the Bolshoi, in the Kremlin's throne room where the Soviet assembly later convened, or even in outdoor urban events, this should not be taken as merely the superficial tension of stylistic appearances. The slippage noted by Duranty between the gathered crowd and the enclosing shell resonates with one of the most fundamental questions in modern architectural theory, the problem of the *legitimacy of form*, posed in different modalities throughout modernity's turbulent history, but broadly goes as follows: if the authority of traditions is eschewed, what motivates and justifies form generation?[185] Duranty's report unwittingly echoed the late nineteenth century formulation of this question, immersed as he probably was in its aftermath. As part of the famous debates on style in nineteenth century Europe, the question begged to unlock a fundamental language of form with which to shape and style architecture as befits the *zeitgeist* – a language which ostensibly mines some inherent essence of the times, as well as unifies the fragmentation issuing from its veiling. As the earliest modern formulation of the legitimacy problem, it was riddled with contradictions about the nature of modern subjectivity and its role in preempting this desired unification. I will return to this matter in more detail below when discussing the problem of consciousness, but I wish to

[185] In her book *The Artist as Producer: Russian Constructivism in Revolution* (University of California Press 2005), Maria Gough refers to this same issue as the problem of *motivation* (see her "Introduction" and Chapter One: "Composition and Construction"), citing Yves Alain Bois' arguments on the search for motivation of the "newly emancipated content of painting" in the wake of abandoning figuration and representational painting (and the authority of tradition associated with them) from "free-falling into the merely arbitrary arrangement of random pictorial elements" (p: 27).

introduce it here to contextualize the issue of legitimacy. Briefly, I contend that, following Romanticism, the nascent modern subject suffered a fundamental rupture which engrained a deep bias towards individuality subjectivity as the primary source of judgment. Founded in the dissemination of Enlightenment ideas among the dominant social classes – ideas such as those by René Déscartes (where the mind was conceived to be disjointed from the *res-extensa,* and sequestered not only from its own body-sensations but also from other minds and bodies) and of Galileo Galilei (where the secondary qualities of objects, such as color, apprehended by the subject became exclusively internal subjective experiences) as well as other thinkers, this rupture lies simultaneously at the root of the legitimacy problem, as well as of the crowd's historical struggle discussed in the second chapter of this thesis. As the dominant and pervasive model of social being since the Romanticism of the late eighteenth century and through Modernism (and indeed to the present)[186], ruptured subjectivity delegitimized collectives, as much as it mandated the search for elusive essences to compensate for collective experiences and collective knowledge.[187] The architectural object's legitimacy, formulated as a question of style, and designing for the crowd as collective were (and remain) sister problematics, if mutually exclusive. After all, it was to a menu of styles that the *Palace of Soviets* brief and jury defaulted when effectively dismissing the crowd's historical struggles, as discussed in Chapter-4: "The Crowd Design Problem: Primary and Secondary Sources". It was with Boris Iofan's gigantic Neoclassical Supreme Building that Socialist Realism recycled the question on style.

It is in contrast to this formulation that the legitimacy of the designed object – or the artifacts of architecture in general - gets queried by the crowd itself.[188] As easily anticipated from previous chapters and arguments, such legitimacy here stems from how the design of the object draws on the crowd collective as its

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186 What Dalibor Vesely recently described in terms of this ruptured subject's emancipated representation. See Dalibor Vesely, *Architecture in the Age of Divided Representation: The Question of Creativity in the Shadow of Production*, (Cambridge, Mass.: MIT Press, c2004).

187 Using a different chronology, John A. Schumacher argues that the evolution of this modern ruptured subject from the world "in-pieces" and from modes of "co-making of inquiry" comes as a recent phase of a long evolutionary process which he articulates as part of the phenomenological history of human posture. See John A. Schumacher, Human Posture: The Nature of Inquiry (State University of New York Press, 1989).

188 It is also distinct from the manner in which Bernard Tschumi recast the problem in the late twentieth century: as an irreconcilable tension between form and program. See Bernard Tschumi, *Architecture and Disjunction* (Cambridge MA: MIT Press, c1994).

generative substance, and reciprocally: for the crowd, struggling for self-representation and self-consciousness, the object becomes an event of self-inscription in the fabric of built reality. How may the design of the object draw on conceptions of the crowd's gregariousness, and simultaneously enforce the crowd's intersubjectivity? What this co-generative premise may hastily imply is foregrounding architectural questions about the system of order with which architectural objects are conceived. But besides the propensity to relapse into stylistic fixations and formal obsessions, ordering systems do not adequately narrow down this generic problem. Indeed, and as discussions of the primary sources of the problem in the previous chapter revealed, diagnoses of objects' co-generative legitimacy were evoked in contemporary revolutionary art, theater and mass events in more specific spatial-*cum*-design categories. These included: in terms of foreground-*cum*-background relations between crowd and object (or enclosure); in terms of the visual portrayal of the crowd against the basic datums implied by the object, such as horizon-lines and a vertical *axis-mundi*; as the sense and conception of the object's scale relative to the crowd; and finally in terms of the mythology evoked by the object. Logically, such categories may not be the exclusive manifestations of the question of the co-generative legitimacy of the object. Yet, focusing on them here helps narrow down the breadth of the question – based, again, on what the three primary sources suggested. I will briefly discuss each category.

Cautions against backgrounding either crowd or object emerge primarily from discussions of the avant-garde artists, especially the Composition-Construction debates which started in 1921. The morphological principle demonstrated by works such as Karl Ioganson's *Spatial Construction IX* (1921) advocates an interdependency of parts across a formal system which potentially includes its physical as well as its implied elements. If rather abstractedly, the construction demonstrated that diffused equivalence may be inscribed in form; for the architectural space of a crowd seeking to diffuse power as part of its historical struggle, this principle presents no deterministic formula, but rather a metaphorical register of the idea of equivalence. As well, it has experiential and performative implications especially if considering a crowd against the background of its enclosing planes, shapes and contained objects in a synchronic assembly space. These

beg the issues of attentional foci yet again, if pertaining to themselves this time. One may qualitatively differentiate between attention resulting from scrutinizing (more or less consciously) others in the spatial setting on the one hand (in all its possible variations: whether joint convergent attention – as in a performance; distributed attention; associated attention; or mutual attention; concerted attention) and attention paid to the components of building artifact itself, on the other hand. In its variations, the former is informed by the latter's measure of fragmentation or unity, and by the degree of autonomy its formal language possesses. The surrounding shell and contained objects may help fragment the crowd's views, or it may come to dominate the gathering by the indifference its autonomous language displays.[189]

Furthermore, when a horizon line or a vertical axis is implied by the object or an arrangement of objects, as in the case of an enclosing shell of walls and ceiling, issues of background and foreground acquire further experiential implications. How do such datums evoked by the architectural artifact compare to the ones generated by crowd-members as visual agents and bodies immersed within the gathering? As the building interior establishes one independent datum or the other (especially when it hovers above the crowd), the building shell acquires more significance, independence and steps into the foreground of attention – or at least into competition with the crowd. As the crowd occludes or de-emphasizes the shell's datums behind its masses or by the force of kits dynamic arrangements, the crowd assumes the center of attention. Indeed, as in some architectural treatments, as in Boris Iofan's *Palace of Soviets*' Mass Hall [see section, figure 9.5], the shell – here walls and a dome - dominates the crowd by the sheer height of its horizon datum and the towering emphasis of its vertical axis. As an ordering system or a style, the shell may also draw on formal devices irrelevant to the gregariousness of assembly. Compounding such issues of horizon-datum, unity-versus-fragmentation, independence of ordering system would have significant impact on how the crowd's self-perception.

[189] This facet of the problem can only be adequately considered within the next section, *'Seeing' Crowds: The Challenge of Immersion*, as part of arguing for an overall apparatus of co-visibilities that includes intra-crowd views.

Discussions of scale in the previous chapter (see Chapter-4, the *Final Excess* and the *Conclusion* sections) resolved that the architectural object partakes in a network of interdependent relations of size and composition, themselves informed by the qualitative conceptions of the object itself. In a co-generative relationship with the crowd, the assembly of bodies furnishes a foundational field of size relations emanating from the crowd's own scales and scale-related conceptions, on which the object may act or wherein it may be subsumed. But as primarily a constellation of bodies where notions of shape and size are secondary and indeed fragmented, the crowd skews conceptions of scale to its own native language. In any dealings with the crowd, the object would negotiate two crucial demands: a) scale, a primary visual measure, would need to be translated into kinesthetic qualities and measures in order to deal with the crowd's conceptions of space discussed before in this chapter; and b) multiple senses or conceptions of scale would need to be introduced to address the dynamism of crowd gatherings. In all cases, and as again demonstrated by discussions of the Supreme Building's *gigantomania* in the preceding chapter, dominating the crowd through immensity negates the collectivity of the crowd and preempts its empathetic projection into the architectural object.

Each of the spatial categories discussed above (background, basic datums and scale) presents rather independent design challenges. Yet all of them may be employed in the service of forging a myth. As articulated by James von Geldern and also discussed in the previous chapter, building backdrops and theatrical sets were used to sustain a mythical space where the historical Bolshevik narrative was reinvented. As also discussed, *gigantomaniac* scale accompanied the evolution of the Supreme Building mythology throughout the 1920s and into the *Palace of Soviets* competition. Indeed, one actually detects the manipulation of all such parameters, including the basic datums, in Boris Iofan's post-competition developments of the *Palace of Soviets* scheme. Indeed, the construction of myth may be unavoidable; a myth need not come with inflated scales and dramatic backdrops, but could be subtle and unassuming. It denotes a state of mind and emotion that attends the object – a particular kind of consciousness. This makes the category of myth particularly salient as segue to the problem of consciousness. But what are at

stake here are above all similar questions of legitimacy: Does the myth derive from the collective or is it imposed upon it? Does the myth address the crowd as a multitude of individuals or as a coherent collective? Also, if a collective myth, how *stable* is it?

Consciousness

Stability is particularly important to the problem of consciousness, as I will argue shortly. Generically, this problem of consciousness can be stated as: what kind of consciousness may the architectural object of the Supreme Building construct in its collective subject(s)? While it is obvious that the first quality of such a consciousness is that it is shared among members of the collective, the problem really demands more specific qualities. Historically, what complicated the problem was that it arose in context of two historically-established systems of thought. The first recalls the earlier discussions on the ruptured subject as the philosophical nemesis of collective self-consciousness. If architectural objects, and their attendant representations, had been styled to engage such ruptured individualism for so long, this places a burden on the designers to subvert established conventions and representations in order to address collective subjectivity instead. In particular, and as demonstrated by the work of revolutionary artists, addressing shared intersubjectivity would necessitate subverting the inflexible stabilities which attended certain established object typologies, especially the object-as-monument, and the object-as-commodity. The monument typology involves mythologies placing the collective within meta-narratives outside its own agency. As an object, the monument fixes one of the collectively shared narratives, promoting it to an über-narrative; this not only excludes other narratives, but also precludes the continuous process of co-making narratives – i.e. the continuous, renewed construction of intersubjectivity. Employing myth, the monument ingests one collective thread, institutionalizing it and blowing it out of proportion – much as one witnesses when examining Iofan's winning entry for the *Palace of Soviets* competition. In contrast, the second inflexible typology of the object – the commodity - usurps shared narratives altogether. The object

constructs itself to replace social exchange. Paradoxically, the commodity is made for the ruptured individual subject – it emerges from that subject's history, but yet simultaneously it compounds this subject's alienation. In other words, the problem of consciousness demanded the subversion of objects which preempted a particularly dynamic, constructive intersubjectivity - whether by reducing it to a forcibly stabilized single narrative (i.e. the monument), or by usurping it altogether (as is the case of the commodity). It demanded the object to negate the consciousness of alienation, and the consciousness of mythology. Instead, it demanded the architectural object to generate and sustain engaged but flexible states of collective consciousness – or an ongoing process of negotiating intersubjectivity.

Philosophically, the issue was complicated by a seeming logical gap in early twentieth century Marxist theory – and this brings us to the second historical system implicated here. As a philosophical framework which set as its goals to achieve the collective sensibility of class consciousness, it seems strange that Marxism did not assign such consciousness itself an active role in the struggle. According to Marx and Engels, and later Lenin, the self-consciousness of the masses would be a phenomenon emergent from the dialectics of production; somehow, this consciousness would spring ready-made from the transformed technical and economic relations of production. In *A Contribution to the Critique of Political Economy (1859),* Marx asserts:

> In the social production of their existence, men inevitably enter into definite relations, which are independent of their will, namely relations of production appropriate to a given stage in the development of their material forces of production. ...The mode of production of material life conditions the general process of social, political and intellectual life. It is not the consciousness of men that determines their existence, but their social existence that determines their consciousness.

Therefore, the historical context presented the architects with a twofold dilemma. Not only did they confront established regimes of making objects which marginalize collectivity and negate intersubjectivity, but also the very philosophy which the architects advocated as a revolt against ruptured subjectivity denied them any

conceptual foundation to work from. With little guidance from political philosophy, architects were trotting virgin territory; one may even venture to say that they were reinventing politics.

Conclusion

In sum, if the previous two formulations of the matrix of conviviality and the kinesthetic space addressed, albeit still partially, the intersubjectivity of the mass crowd – the new Soviet person inseparable from a collective – the present formulation in this section questions the nature of the 'object' within the framework of this novel intersubjectivity. More specifically, if the crowd is to reverse its historical trend throughout the nineteenth century as an enigma conceived (as well as perceived) from points external to it – if it is to begin commanding its subjectivity in space, then the formal and spatial logic of the artifact (any artifact) should initiate from precisely this collective subjectivity. What the problem of the object demanded was a co-generative relationship between object and crowd collective. Particular architectural parameters were problematized in the historical context of the *Palace of Soviets* competition, namely: background, horizon-datum and scale. The construction of myths also came to acquire particular significance given its increased frequency and given its salient role in the construction of consciousness. The nature of collective consciousness desired was a quasi-stable intersubjectivity – one which evoked intersubjectivity not as a finalized inflexible state, but as an ongoing renewable process. Hence no myth would be permitted to consolidate and stagnate in such a conception of intersubjectivity, since myth depends on and regenerates stability through acts of repetition.

Again, this problem of the object was potentially the most profound problem confronting architecture. It was, in fact, the *question of architecture* - of the location of the building artifact in the new system of values that Communist culture heralded. What rendered the question even more complex was that such a shell was frequently burdened with mediating an additional tension: the relationship between the choreographed

assembly, and the generic dispersion in the urban setting beyond. Or, stated otherwise: it was across that shell – from the artifact of the city into the artifact of the building – that the crowd made its historic transition, and which it now was called upon to mediate.

'Seeing' Crowds: The Challenge of Immersion

At this point, it is worthwhile to reflect on the development of the argument so far and to consider the significance of its formulations of the crowd design problem. Insisting that the modern revolutionary crowd's shift from its native urban setting into the building artifact was, historically and logically, attendant to the crowd's search for its innate identity and self-consciousness through inscribing physical space with its own properties and practices, the argument proceeded to understand the crowd design problem, firstly, in terms of the crowd's own propensities to be generative of space, form and organization. Hence, the problem of spatial configuration was defined through the crowd's internal dynamics of, primarily, co-presence but also interdependence, equivalence and attention; hence issues of space and aesthetics were approached through the crowd's own potential to generate symbolic forms drawing on the mass of bodies as the material for form-giving; and hence, the problem of architecture (as crystallized in the shell of the synchronic space) was spotlighted in terms of its quality as derived from the crowd's intersubjectivity.

The hypothesis now is that for architects to address such radically new demands of the crowd design problem, a parallel revolution in visualization was indispensable. A new visual regime had to be evoked before (or in the course of) any critical thresholds of design conceptualization were attained.[190] In other words, the argument now contends that what the crowd posed to the architects was a problem of 'seeing'

[190] One vivid case where architectural graphic representations – and not only spatial arrangements and qualities - change with the practices of a social group or class is articulately argued by Robin Evans in "The Developed Surface", in *Translations from Drawing to Building*. Cambridge, Mass.: MIT Press, c1997: pp.195-231.

alongside being a problem of conceiving. For artists and architects alike, this meant the need to understand the visual systems which lend more emphasis to internal crowd visual dynamics rather than to external ones gazing upon it, to discern the design issues attendant to such, and to formulate generative iterations of it. In part, this was an underlying current in the previous sections; the implications of this new visual order in terms of equivalence, shifting attention, information flow, and emphasized presence for other bodies. Yet one significant component remains missing. At a profound level, addressing such novel conceptual problems was logically dependent on elaborating a novel set of graphic conventions derived from internal crowd visuality.

But what justifies the contention that finding new graphic conventions constitutes an integral component of the crowd design problem? Just as understanding the crowd's problems hinges on conceptualizing them through the crowd's own logical categories, a similar repositioning from within is called for, to re-visualize the social phenomenon of the revolutionary crowd but through the filter of its own subjectivity. The emphasis on graphic visualization seeks to ground the subjective in already established, objective measures of configuration (see the first argument in this chapter: "Crowd Sorting and Organization: Matrix of Conviviality"), while also pursuing necessary linkages to the graphic medium of architectural drawings. Any modern architectural design process issues from graphic conventions that evolve from negotiations amongst practitioners as well as with their society for purposes of effective communication – negotiations which cannot help but be contaminated by prevailing perceptions. Design visualization is constructed from the material of such graphic conventions. The hypothesis posits the necessity to reveal how the crowd, through its constructions of intersubjectivity, regards itself and formulates its own design problem thereby inflecting the objective categories articulated in the previous sections. In other words: can one legitimately conceptualize the crowd design problem without setting up its indigenous visual apprehension as, at once, a reference point for judgment of, as well as a procedural threshold for bridging into, architectural drawing

conventions? Indeed, and as demonstrated by Jeffery Schnapp's historical exposé,[191] finding such alternative visual frameworks was a conscious concern in Europe during the period, just as defining the self-consciousness of class was a primary interest for emerging working classes.[192] And, as the final chapters will demonstrate, it is this involvement of crowd subjectivity which critically distinguishes the Rationalists' approach to the crowd design problem.

Ultimately though, a contention that arriving at radically new architectural conceptions are intimately coupled to radically new novel graphic conventions, is but a hypothesis that can only be conclusively borne out by the thesis argument itself. Logically then, the argument for a comprehensive understanding of the crowd phenomenon as an architectural design problem, hinges on discerning what existing visual frameworks the architects were challenged to confront, and what others were already offered as resources. The present section will perform this discernment, while Chapter-7: "To See a Crowd, To See Like a Crowd" will articulate the architects' response: how they managed to 'translate' such pictorial and theatrical frameworks into specifically architectural conventions. For indeed, the above argument is posed with the full realization that the migration of pictorial traditions from art (painting, photography, theatre and the print media) into conventions of architectural drawings cannot be assumed to have occurred through a simple grafting of techniques and graphic properties. Architectural drawings possess their own functional objectives, their own trajectory of evolution and their own peculiar conventions. Centered as they are on exploring the physical environment, architectural drawings inflect artistic tradition. The significance of pictorial traditions and graphic conventions to architecture is that they afford initial graphic platforms onto which design tasks are negotiated, and from which design ideas emerge. Some conventions enable richer explorations of collectivity than others.

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191 Jeffrey Schnapp, "The Mass Panorama", *MODERNISM / modernity*, 9(2) (2002): pp. 243–281.

192 A prominent example of works (albeit not necessarily visual or graphic) documenting and analyzing such a search is E. P. Thompson's *The Making of the English Working Class* (London: Gollancz, 1964).

Crowds: Traditions of Pictorial Representation

What pictorial traditions[193] of crowd representation Soviet artists and architects inherited evolved primarily from pre-revolutionary practices in Russia, as well as from the turbulent Europe of the nineteenth century - but whose roots extend further back in history. In "Mass Panorama" (2002), Jeffrey Schnapp offers two categories to classify the content of crowd representations, and which serve as useful starting points: the emblematic and the oceanic.[194] The oceanic is as old a metaphor as Virgil, and has persisted into twentieth century literature.[195] In immensity, sound and reiteration of layers, the crowd approaches the effect of ocean waves. In contrast, the emblematic crowd comes with the larger-than-life figure of a "man [assertively male in face of the mob's 'female fickleness', who] "remarkable for righteousness and service"[196], manages to control the crowd through words and prestige. Sigmund Freud investigated the primitive forms of such a phenomenon as a manifestation of what he called (albeit briefly) the Super Ego – an investment by different crowd or group members in the aggrandization of a central patriarchic figure to a near god-like status, as a means of controlling competition among such members.[197] The crowd, qualified as a horde (rather than Le Bon's herd) coalesces around this emblematic figure in a state of hypnotic deference.

Schnapp's first claim to the specificity of modern crowd representations comes in specific qualifications of the 'emblematic', where the mass or crowd is still identified with a leader, but who is "[n]o longer the

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193 Literary representations also abounded. A whole lineage may be traced in psychology and psychoanalysis from Gustave Le Bon's *Psychologie Des Foules*, through Freud's *Group Psychology and the Analysis of the Ego* to Elias Cannetti's *Crowds and Power* where irrationality and suggestibility were theorized and institutionalized in modern sociology and psychology as defining characteristics of the crowd. Baudelaire's account of the voyeuristic *flaneur*, and Benjamin's later elaborations trace another thread of crowd representations in literature. Compared to Hugo's disgruntled and revolutionary crowd of workers, Gogol describes how the elite coalesce in the public space in *The Nevsky Prospekt*, 18?? – in yet another strain of representational distinction based on class. Significantly, Hugo's account of the insurgent crowd in *Les Miserables* seems to belie this irrationality; but his was an exceptional look at the crowd from 'within'. Although the main account in this thesis focuses on pictorial traditions, literary representations are a constant background presence, and are intermittently evoked to support the argument.

194 Schnapp, "The Mass Panorama" (2002): p. 245 - .

195 For instance, it is also employed by Najib Mahfuz in the 1950s to describe the Egyptian revolutionary crowd of 1919; see Mahfuz' *Palace Walk*. Cairo: Maktabat Misr, 1983[1956]. An analysis of Mahfuz' description can be found in my paper "Spaces of Oppression: A Spatial Reading of Najîb Maĥfűţ' Palace Walk", accepted for publication in *Middle Eastern Literatures.*

196 From Virgil's *Aeneid,* quoted in Schnapp's "The Mass Panorama" (2002): p. 247.

197 See Sigmund Freud's *Group Psychology and the Analysis of the Ego* (New York: Bantam Books, 1960[21]), particularly chapter IX "The Herd Instinct", and chapter X "The group and the Primal Horde".

monarch, the aristocrat, or the godlike man; no longer the tyrant imagined as the rabble's monstrous counterpart". Instead, this charismatic superior-being

> …is the man of the crowd: at once immanent and transcendent, at once an insider and an outsider, at once everyman and the exceptional individual *who provides the masses with a singular identity*, a singular face, a *mirror image of a sovereign* collectivity that is now *always in motion* (in motion, because, in conflict with classical political theory, motion—not stasis—has become the normative state of healthy collectivities). Fully swept up in the multicolored and polyphonic waves of modern revolution, he is able to channel their tidal fury towards higher and nobler ends: national sovereignty, liberty, empire, progress.[198]

Schnapp cites Abraham Bosse's 1651 frontispiece to Thomas Hobbes' *Leviathan*, as the earliest such modern representation [figure 5.11]. In size, shape as well as in composition, the king's figure overwhelms the realm as it looms above its horizon. Moreover, his body circumscribes the populace whose attentive visages are turned to none but him, while his gaze firmly fixes itself past them and even beyond the realm itself. He is transcendental as much as he is emblematic; he occupies an unbridgeable distance from the crowd of citizenry in every respect. Among similar but later portrayals are the American evangelical and military-photographer Arthur Mole's various photographic tableaux from the early twentieth century [figure 5.12]. Mole organized large groups of people (worshippers and soldiers) into mass scenes and compositions not confined to leaders' heads (as was the case with President Woodrow Wilson), but also into emblems of objects alike the *American Flag*, the *Liberty Bell* and the *Statue of Liberty*, among others. Densities of assembled individuals had to be meticulously managed according to their distance from the elevated camera to generate the correct grey scale and visual texture, as well as iteratively rehearsed to provide a coherent reading of the emblem's shape and contours. Mole's mass gatherings, photographed from a single elevated point-of-view involved elaborate techniques of distortion and 'flattening' to achieve the desired composition. The structural distance between the viewing camera and the shape of the assembled, distill the two conjoined features of this representation: distance and the rationality imposed on the crowd.

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198 Schnapp, "The Mass Panorama" (2002): p. 247; emphasis added.

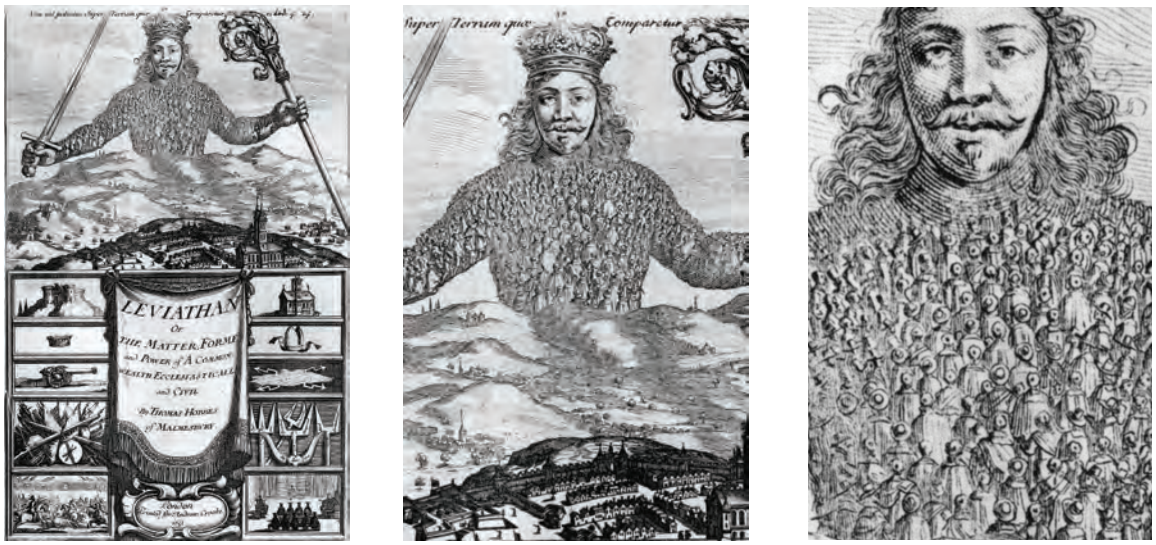
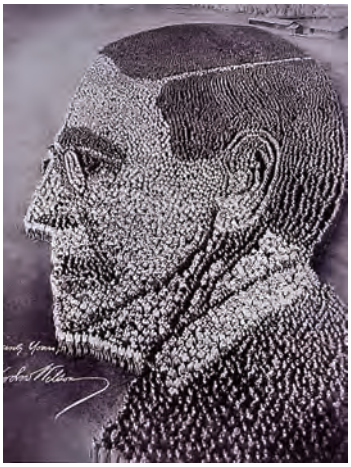


Figure 5.11 Abraham Bosse's Frontispiece to Thomas Hobbes' *Leviathan*, 1651 [source: Hobbes, *Leviathan*]

Mole and Thomas - *US Shield*: about 30,000 men, Battle Creek, Michigan 1918

Mole and Thomas - *Human Statue of Liberty*, Camp Dodge, Des Moines 1918 Iowa 1918



Mole - *Living Portrait of Woodrow Wilson*: 21,000 officers and men, Camp Sherman Ohio 1918

Mole - *Living Emblem of US Marines*: 9,100 officers and men, Paris Island, South Carolina 1918

Closeups showing the meticulous choreography of bodies.

Figure 5.12 Arthur Mole and John Thomas: photographs of closely choreographed crowd formations taken from elevated vantage points, 1918 [source: Library of Congress, *American Memory online* memory.loc.gov].

Schnapp's second claim to the specificity of the modern crowd rests on the finding that its late eighteenth century representation was thrown into new light with theoretical formulations of the sublime as an aesthetic. The evocation of the Kantian sublime conventionalized an 'apprehension distance' between observer and crowd: from the safety of which the sublimity (exhilaration, immensity, incessant rapid movement, anticipation of emancipation ....) can be experienced but such as to maintain (even generate and guarantee) the observing-subject's rationality.

It was at this pivotal juncture that crowd representations became nested in the visual conventions of the Panoramic Tradition, with its evocation of the sublime as a manner of dealing with the enigmatic conundrums which the modern urban crowd represented: emancipatory but irrational, massive and unpredictable, magnetizing but overwhelming. The Panoramic Tradition manifested itself early on in Diorama buildings in late eighteenth century France and Britain. Here the observer was situated in a central location, encircled by the realistically painted scene (*trompe l'ouiel*) of the crowd, but so as to maintain an 'apprehension distance' of rationality. This distance – constructed by the physical building separation as well as the specificity of the perspectival cone of vision - recalls the distance that separated voyeurs of Alpine scenes in seventeenth and eighteenth century paintings, and as captured in Nicholas Poussin's landscape paintings [figure 5.13].

A few features are of prime importance to diagnose the dynamics of tensions inherent to this visual - pictorial device in its early applications and formative origins. Generating the sense of awe were: *a)* a frame cropped to maintain the sensation or illusion of the endless continuity of the scene or object inspiring sublimity. The overwhelming sublime impact – whether of the Alpine scene or of the massive unpredictable crowd – was the outcome of an apprehension of awesome vastness: the overwhelming instigator of sublimity being splayed out against *b)* an unbounded silhouette *or horizon line* – an association to a yet larger, sublime entity. In counterbalance, the visual maintained *c)* a distance of apprehension, safe from the overwhelming force, coupled with *d)* an elevated viewing point commanding a perspectival or foreshortened

scene with a clear distinction between foreground and background. Between countervailing constellations of forces a tension persists; the distancing devices maintain potential for rationality in the face of what is perceived (by those constructing the distance) as a ubiquitous, unfathomable force.

Later variations witnessed shifting emphasis. Arthur Mole's photographic tableaux already register one such variation: the three dimensional illusion of the deep sublime space is flattened to produce the impression of a flat surface using three dimensional compositional elements [revisit figure 5.12]. Yet early cinema brought on its own response to crowd sublimity. For one, the overlaid compositional quality which Bosse lends to the emblematic figurine of the king encompassing the crowd in the 1651 frontispiece, unfolds as a durational sequence in Leni Riefenstahl's *Triumph of the Will*. As Susan Sontag notes,

> [in] the manipulation of movement and stasis in the fascist choreography … [an] alternation occurs between ceaseless motion and a congealed, static, 'virile' posing"... Riefenstahl's film establishes its irregular rhythm as fast tracking shots of the crowd are cut with Hitler as icon and effigy, both the fixed point around which the action revolves and the eroticized object of the look.[199]

Furthermore, and even beyond propaganda films, the crowd was customarily captured in the 'long shot' (or what is also known as the 'extreme wide shot'): a sequence filmed from a distance using a still or panning camera equipped with a normal-view or wide-angle lens. 'Long shots' emphasize detachment; they tend to preempt spectator involvement, and are often used to establish an 'objective' or judgmental tone in the film narrative. The conventional utility of a 'long shot' is to locate objects or events in a context; it is a stepping back of sorts. Hence, it is no less significant how a 'long shot' portrays a viewed crowd against the horizon, recalling – with emphasis – the association with the sublime. Traces of such cinematic features as the detached, elevated distance of the wide shot coupled with the cropping inductive of limitless, overwhelming

[199] Quoted in Brigitte Peucker's "The Fascist Choreography: Riefenstahl's Tableaux", *MODERNISM / modernity,* vol. 11, number 2: p. 282.

Figure 5.13
left An etching showing a scene from a 19th century Diorama in Britain
right Nicholas Poussin, *Landscape with St Matthew and the Angel*, 1640 [source: www.the-athenaeum.org]

Figure 5.14 A still from King Vidor's *The Crowd* (1928).

extensiveness may be found in King Vidor's *The Crowd* (1928) [figure 5.14].[200] But instead of the patriarchic figure of the emblematic motif, repetition takes over as a descriptor of the faceless crowd which Johnny Sims, the main protagonist, struggles to remain a distinct individual within (or rather against). The emblematic icon does rear its head, however, in early cinema; several crowd scenes in Fritz Lang's *Metropolis* (1927) frame a figure atop the crowd of gathered workers and against a dramatically elevated horizon line.

Yet perhaps the Panoramic Tradition of crowd representation had its most widespread impact during the first half of the twentieth century from within the print-centered public sphere. In fact, the foldout pages of renowned Italian publications, such as *Rivista Illustrata del Popolo d'Italia,* proved to be an important site where the Tradition came onto its own. Indeed, in the 1937 Sicilian crowd panorama [figure 5.15 top], one can immediately glimpse the structural features of this graphic construction as demonstrated in they above discussions: the elevated viewpoint at a detached distance from the oceanic mass of bodies, themselves splayed against the horizon line of the bay. Yet more subtle moves are at work. In his archival research at the Archivio Luce in Rome, Schnapp alights on the surprising discovery that the crowd photographs splayed across the foldouts of the *Rivista Illustrata* were actually not photographed using a rolling lens (atop a stable camera box and stand), as the technology already allowed at the time, but were constructed as photomontages: discrete "tiles" each taken from a point (or more, always elevated) [figure 5.16]. Stitching the tiles together to produce a seemingly seamless image, involves graphic intervention by the *monteur* to treat incongruencies between the images, particularly the distortions created by the lens at the edge of each frame. [201] One infers from Schnapp's discussion that such a strategic choice was but a means to allow more

[200] Early Hollywood Westerns also portray Indians in ways reeking of such treatments, which points to intriguing parallels between the treatment of urban crowds and 'noble savages' – to structures of exercising control through visual and pictorial regimes, generally speaking. An interesting contrast may also be found in Lewis Milestone's *All is Quiet on the Western Front* (1930) between long shots of fighting men in combat, and the intimate close-ups as combatants confront each other's humanity in the confined spaces of the ditches or dugouts so characteristic of World War I. A similar effect of reversal also occurs in the very final sequence, as the close-range image of the slain soldiers - superimposed over their own graves – turn to look at the camera and the viewer. The detachment of the long shot is set in relief by the acknowledgement of the close-up even across the divide of the cinematic screen itself.

[201] Schnapp, "The Mass Panorama" (2002): p. 256-278

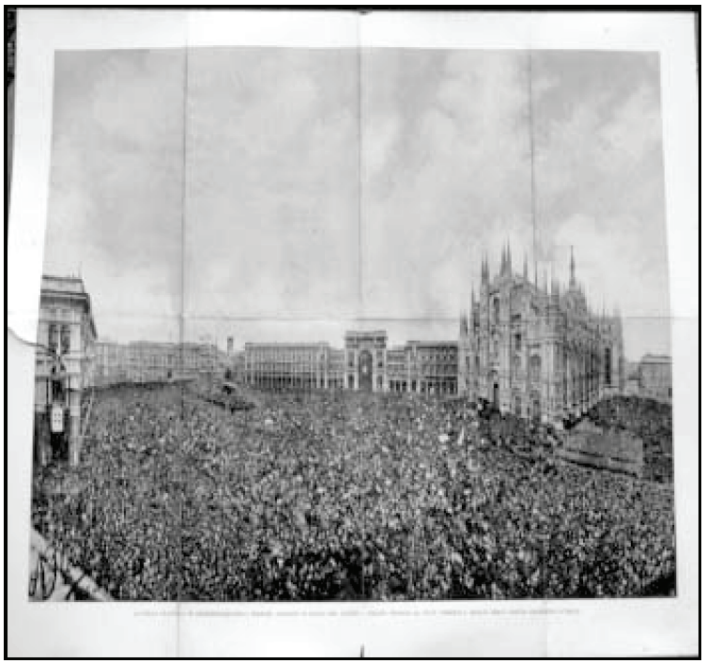


Figure 5.15 *top* Panoramic photomontage of a mass rally in Palermo, Sicily, 1937; photographer unknown; published in Rivista Illustrata. *bottom* Panoramic photomontage of a rally in Milan's Piazza del Duomo, 1930; photographer unknown; published in *Rivista Illustrata*. [after Schnapp, "Mass Panorama", 2002]

Figure 5.16 Hitler's visit to Naples, 5 May, 1938, photomosaic, by Zagnoli; *top* photomontage published in *Rivista Illustrata*. *bottom* original photographic 'tiles' [after Schnapp, "Mass Panorama", 2002]

control and potential manipulation over the image in Fascist propaganda. Schnapp, in fact, claims a more direct genealogy for such photomontages to the panoramic paintings of the nineteenth century (in Dioramas) than to the photographic documentary techniques alike that of George Bernard and Eadweard Muybridge.

Indeed, preserving the dueling impressions of overwhelming awe and rational distance, Fascist Italian propaganda-artists heavily manipulated crowd imagery. For a 1930 mass rally in Milan's Piazza del Duomo, also published in *Rivista Illustrata,* the tiles were stitched together to effect a distortion in the proportions of the square, thus imparting the sense of a more extensive gathering. An even starker case is the panoramic assemblage portraying Hitler's 1938 visit to Mussolini's Napoli. Comparing the original tiles to the published photomontage, Schnapp uncovers numerous editing manipulations: "tiling, cropping, cutting, pasting, masking, even airbrushing".[202]

> What has been edited out of the image are a series of "distractions": gaps in the crowd, electrical cables rising up to the top of the various lighting and loudspeaker towers, military groups parading at opposite ends of the Piazza, … [203]

Such moves effect a more contiguous crowd mass, uninterrupted by urban artifacts. In fact, also effaced from the image were "a fleet of destroyers shrouded in the mist of the Bay of Naples", to place the mass gathering with its backdrop of grand classical buildings more clearly in an unmediated depiction against the horizon. Furthermore, and alike the Milan rally photomontage, assembling the individually-shot photographs into panoramas involved studied distortions. The assemblage of the Naples 'tiles' splayed open the configurations of urban-square and significantly "pull[ed] the horizon line forward".[204]

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202 Ibid: p. 258.

203 Ibid: p. 259.

204 "[P]ulling the horizon line forward" is Schnapp's own assessment in "The Mass Panorama" (2002). The resolution and quality of the published photos are too poor to qualify that, but I think that since the height and angle of photography has not changed across the different photos, "pulling the horizon line forward" means: while assembling the individual shots of the panorama, instead of collapsing the different points from which each is taken (supposedly one point!) onto each other they combine into an invisible line or a more complex shape. The effect is that the actual scene itself seems 'flattened'! Such repeated allusions to the horizon in different

To recap then, the Panoramic Tradition came packaged with a set of graphic and spatial devices which structured the act of viewing the crowd (and which were not necessarily all deployed conjointly). On one hand were devices which emphasized the crowd's sublimity: an expansive device to further the overwhelming (oceanic) impact of crowd; as well as a symbolic association with the horizon. On the other hand were devices that maintained a rational distance of apprehension and control: the introduction of shape and/or order to keep the crowd in check, and a resolute distancing as well as an elevated view-point. This separation promoted a detachment between the observer and the observed spectacle, which may also be formulated in social terms as a detachment of class and power. Workers dominated the masses of the modern urban crowd; the propertied and authoritarian classes usually inhabited the viewpoint of spectatorship, whether from across the barricade or, more often, on the pages of the printed press which directed its messages primarily to the middle class. Indeed, such an elevated, detached viewpoint was consecutively adopted by the ruling classes, later by the bourgeoisie and even later by the Fascist state (e.g. in Italy and Stalinist Russia); it was a position not only of engagement but also of control.[205]

Immersion: Challenging the Panoramic Tradition

That the Panoramic Tradition and its arsenal of devices did permeate the Soviet milieu is indisputable. A plethora of graphic works of various genres can be listed as evidence for this infiltration, spanning from the early post-revolutionary years, but gaining much momentum and magnitude from the early 1930s as Stalin's ascendancy proceeded unchallenged [see figure 5.17]. Emblematic iconography of Lenin, Stalin and other Marxist leaders abounded; detached and elevated viewpoints came in droves. Yet, in distinction from the Fascist panorama, Soviet works forfeited the specificity of cultural identity; while the Italians were more

manipulations across several centuries signal its crucial significance, which explains the urge to address its presence in the work of the Soviet avant-garde as will be demonstrated in Chapter-7: "To See a Crowd, To See Like a Crowd".

[205] The crowd's indigenous setting of the city saw applications of this tradition in the nineteenth century. Compare Hausmann's boulevards and the viewing of a crowd that they afford, to the narrow Parisian streets they replaced. The former produce deep views that expose (i.e. rationalize) the crowd while grappling with its sublime impact; the latter would produce fragmented views of the large crowd as it winds its way around the city.

eager to amass the multitudes in a setting that evoked memories of Roman grandeur and Neoclassical pride, the Bolsheviks argued for a more international solidarity among working class peoples of all cultures. One can even glimpse design graphics which partake of this Tradition, thereby also illustrating the point that traditions of crowd representation provided established pictorial conventions onto which crowd design tasks were later negotiated, and from which design ideas emerge. Natan Altman's design drawing, executed to illustrate the celebratory installations in Petrograd's Palace Square for the Russian Revolution's first anniversary, bears some unmistakable resemblances to the Panoramic Tradition, albeit from a more elevated perspective, using a vanishing point in depth and displaying but an empty square [figure 5.18].

But alike the foldout in Fascist Italy, it was the revolutionary propaganda poster which evolved into the primary site of contention over the conventions of visualizing and addressing crowds in Soviet Russia. Its all too frequent and inexpensive production for all too frequent mass events, and its educational role amongst a largely illiterate population – all this primed the poster to assume a pivotal role in shaping the Soviet response to the Panoramic Tradition. Additionally, Soviet propaganda posters during the 1920s were one main domain of practice available at a time when the European blockade, the civil war and economic difficulties precluded other, far more costly forms of production. This helps explain why one finds posters by a wide range of artists and designers from the period. Yet not all such artists, designers and producers can be accused of subscribing to, or adopting obliviously, such graphic devices. Implicitly or not, Soviet artists of all walks were charged with addressing their inheritance of pictorial conventions for visualizing crowds, particularly the Panoramic Tradition: either to endorse them, or to labor to find alternative 'seeing' conventions. And this was precisely what Soviet avant-garde artists generated. From a position of *immersion* in the fervor of revolutionary activity, issuing from a will to integrate into a classless society, some members of the Soviet avant-garde sought – first of all - to lower the viewing point as well as to collapse the distance of viewing. And it is to the theme of immersion in revolutionary posters that the argument now directs its attention.

El Lisstizky, *Untitled* [Lenin], 1930 photomontage

Figure 5.17 A collection of posters and paintings exemplifying the emblematic motif characteristic of the Panoramic Tradition in the post-revolutionary Soviet Republic. [source: Tupitsyn, *El Lissitzky: beyond the Abstract Cabinet*, 1999.; online sources]

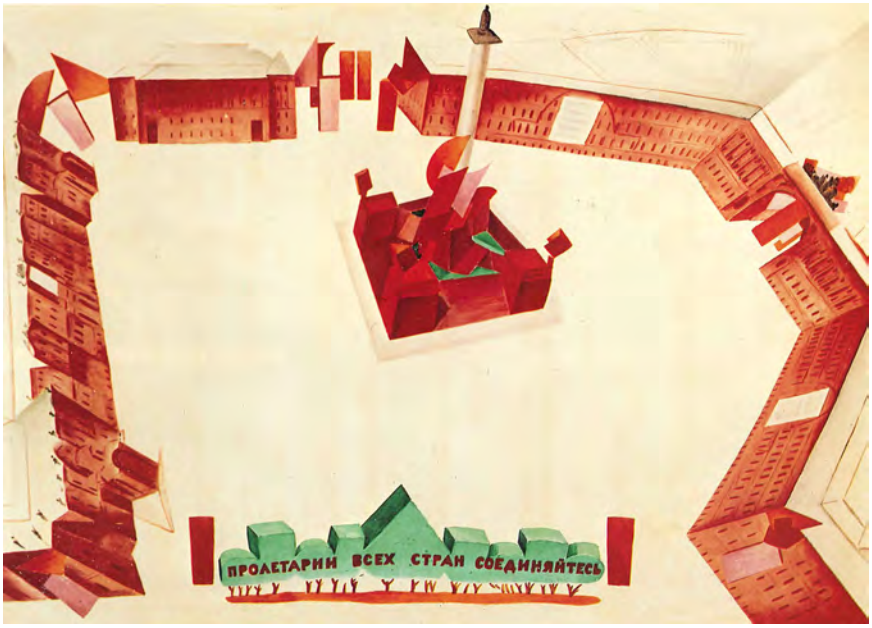

Figure 5.18 Natan Altman's *design for the celebratory installations* in Petrograd's Palace Square for the Russian Revolution's first anniversary, 1918. [source: Cooke, *Street Art of the Revolution*, 1990]

A propaganda poster (artist unknown[206]) celebrating the second five-year-plan demonstrates an unmistakable deviation from the graphic constructions of the Panoramic Tradition, but while also remaining caught in some of its trappings [figure 5.19]. Drawn from a low point-of-view (in fact, almost as an elevation), the organized crowd parades to the gesture of an oversized Lenin, all diagonally ascending the drawing surface. The poster maintains the emblematic motif characteristic of the Panoramic tradition, yet its significance to this argument lies in how it posits the new constellation of graphic issues which emerge around immersion as a strategy. In this rather literal version of immersion, the viewer's point-of-view is placed very close to the mass of bodies which make up the crowd. With immersion arise graphic issues of fragmentation; the crowd may not be viewed extensively and its sublimity may be thwarted. Yet the drawing treats of this problem through the device of layering; the massiveness of the crowd comes across not through exposing its vastness from above, but effected through layering its marchers, banners, rigs and background building structures into the depth of the drawing surface. An impression of slight tilt upwards may be discredited because while rigs, plants and buildings pile up in the background, the marchers' heads align in depth. Even a slight tilt, were it applicable, would not have delimited the immersion; it would have felt like a slight tip-toeing on the part of the viewer, as recurs in some historic photographs from the revolutionary year 1917. Moreover, while depth is suggested by the background layering of rigs, plants and structures in an almost orthogonal manner, depth is also given by the marchers' lines not in perspective but in oblique projection. Perspective – in fact, even generic foreshortening - is totally discarded above the diagonal of the drawing in favor of a more uniform mode of seeing; the viewer may be construed as watching the crowd as if from the sidelines, as one moves along with the marchers and the five-year plan up the incline. An alternative reading regards the oblique projection across the surface of the drawing as the synchronic, collective visuality by yet another crowd.

[206] A copy of the poster [figure 5.19] was obtained by the author from the Russia/CIS Collection at the Hoover Research Institution, Stanford University.

One also notes the conspicuous disappearance of a horizon throughout the drawing; the masses of bodies, rigs and buildings are layered too close to permit viewing beyond. The poster's crowd is not set against this symbolic horizon line with its semantic allusion to universality and the overwhelming extension of nature; but rather framed against its own potential accomplishments of industrial and constructional artifacts – furthermore, against its own constituents of bodies. Production imparts associations of rationality, rather than the connotations of inscrutability and irrepressibility regarded from the detached distance of rational composure.

Of particular significance in this poster is its diagonal. Instead of being merely a compositional device which parallels the dynamic component of the rectangular frame, the diagonal device performs two relevant functions. First, as an inclined ground plane (and setting aside the zealous connotations of progress and labor), it evokes kinesthetics as a theme closely associated with the crowd – a theme which recalls earlier discussions on Meyerhold's Biomechanics, and which will recur in later discussions. Note how distinctions arise between the marching bodies as a result of their distinct ethnic and professional garbs being morphed in the act of ascension. Second, the diagonal also demarcates a sharp contrast between two senses of order: the one above the diagonal is organized and rhythmic; the one below is chaotic and incongruent. Above the diagonal, the visual order – while dense and sublime – is explicit; the direction suggested for the eye to move along is clear: upwards from right to left with the march, and in depth-and-upwards along the staggered accomplishments of the Five Year Plan. Below the diagonal, the eye finds it more difficult to demarcate each of the various episodes made up of graphically overlapping vignettes, as well as to discern a direction of reading the overall narrative (if any exists). But setting aside the ideological zeal associated with such an interpretation, the more relevant impact of this distinction in graphic organization is to put to question the duration of reading graphics, with its attendant foci of attention. Expanding the sequence of reading (versus simultaneity) was one major innovation of Fascist propaganda posters within the Panoramic Tradition across the crowd or across several crowd images occupying different foldouts, as Schnapp points out. A Fascist crowd panorama was usually portrayed in context of a sequence of other images

below the diagonal: foreshortening, narrative, diachronic reading.

immersion: layers synchronic reading, diversity vs. order

emblematic figure mainatined

Figure 5.19 Artist Unknown, Propaganda poster for the Second Five Year Plan (probably c1928-29).
[source: the *Russia / CIS Collection*, The Hoover Institution, Stanford University]

Figure 5.20 Gustav Klutzis, Propaganda Poster *We'll Fulfil the Plan of Heavy Tasks*, 1930.
[source: Klu´t`sis, *Gustav Klucis: Retrospektive*, 1991]

(processions in neighboring cities, agitations, … etc.) leading up into the mass crowd scene as a pseudo single-take climax. In the Italian foldouts, the effect of extended duration maintained attention onto the sweeping crowd mass, and away from its particular constituents. In contrast, the duration of visual reading above the diagonal in this Soviet poster [figure 5.19] is short – almost instantaneous or near-synchronic, since it pictures one event. The effect is set in relief against the chaotic scenes below the diagonal: the eye takes more time and expends more effort gleaning the different narratives from the seemingly independent vignettes. In fact, above the diagonal, the diachronic development of the Five Year Plan is foregrounded by the synchronized march of the crowd members. The crowd is outside time, it is suggested – the time of composition, narrative and everydaylife. As condensed in duration as it is, the reading of the poster suggests a similar instantaneity; the reader and crowd share the 'moment'. Beyond this initial apprehension, the eye remains engaged for a while in distinguishing between the different crowd members: in their different professions, genders and ethnicities. Attention is turned to identifying their particular aspects: their professional tools and attachments, their costumes, ethnic give-aways, even their head-gears and hair-styles – and the distinctive transformation in their postural body language as they belabor the ascension. Distinguishing individual aspect within collective organization: a feature crucial to the structure of co-visibility and co-presence in Soviet crowds, as Chapter-8: "Dynamic Crowds, Abstract Machine" will argue.

Another poster [figure 5.20] by artist-propagandist Gustav Klucis pursues a less literal formulation in exploring immersive crowd representation to challenge of the Panoramic Tradition - although many of the characteristics discussed above do persist. In this 1930 poster, *We'll Fulfil the Plan of Heavy Tasks,* palms of hands array together in one ensemble along the diagonal of the rectangular poster against a red background (or foreground?), intermingling – within the thicket of the mass thus created – with faces. Palms and faces layer densely atop and against each other to create the effect of a crowd. The 'feel' of being in a crowd – as a dense, sublime aggregate of bodies, is imparted to the viewer, alike in the poster in figure 5.19, through the device of layering. Yet two important distinctions surface here. For one, foreshortening is indeed employed to provide depth, albeit in such a way as to invert normative foreshortening. The larger

palm occupies the background, while progressively smaller palms layer on top and 'closer' to the viewer. Faces progress in an inverse sequence, enlarging from the central innards towards the poster corner, so that larger faces are 'closer' to the viewer. In fact, faces at the poster corner are bigger at the upper right than they are at the very corner; the faces' progression is distorted to one side. Palms and faces foreshorten in reverse progressions to each other, effecting a dense thicket composed of two intermingled, mutually-countervailing streams. Yet faces receding towards the poster's center are never sizeable enough as to compete with the effect of the palms climaxing into the 'deepest' background. In fact, the poster composition is dominated by the largest palm (Stalin's?) especially since it is the one with the only silhouette against the red colored background, as well as its series of smaller palms. It is the inverted foreshortening of the palms which dominates the composition. The poster delimits foreshortening by subduing it to its own inversion: a progressive enlargement *into* the depth of the surface.

The viewer's attention is immediately arrested by this unfamiliar, warped space of the poster. This spatial uncertainty is furthered by a few other devices. A dark silhouette extends from the largest palm diagonally towards the lower right-hand corner in what passes for the outline of a lower-arm – and inside which most of the other palms and all the faces are contained. Yet one cannot ascertain whether the composition, in this corner of the poster, floats above the red plane as a foreground thereby remaining in the same plane as the large palm itself; or whether, conversely, the composition here recedes inside into the depth the drawing surface in yet another warping effect. The two palms whose fingertips venture outside the dark silhouette do not visually resolve this to satisfaction. In context of the warping confirmed by the conflicting foreshortenings, the eye is now primed to include other deformations and twists; these two palms effect further warps on both sides.

In other words, the warped space evoked by the poster engages the viewer's cognitive, critical attention to discern the ongoing play – more so because of the uncertain nature of such distortions. The space vibrates between different – even conflicting – readings, much like the non-objective world of Malevich's Suprematist

paintings, and far removed from the ordinary space of everydaylife which the viewer inhabits. What confirms this latter quality, about the departure afforded by the space of the poster from normative space, are a few more observations. For one, the horizon remains absent; the main scene of interwoven hands and faces – despite its incongruence - is too thick to permit a background horizon to or a clear silhouetting effect to emerge. In line with the previous poster, this negation of the horizon preempts associations with irrational, unfathomable sublimity. Yet here, in the context of the warped spaces of Klucis' poster, this device additionally twists the very space of the observer sideways. The diagonal tilt rotates from the viewer's own horizon line; it reframes the act of viewing and induces the observer to (figuratively or conceptually) lean or, at least momentarily, to disconnect from his/her own visual cone and immediate space.

In more than one way, this play on distortions and reframing the field of vision emulates the subjective experience of being in the midst of a dynamic, active crowd. Currents of movement, change in viewpoints, shifting depth of field, as well as a certain urge – perhaps even an obligation - to shift one's own viewpoint as does this poster's viewer. Alike the previous poster, but with transformed and/or different devices, Klucis' poster orients one to engage the crowd's constituents; it is an exploration of the rich, visual qualities of its mass of bodies at different scales. At the scale of the broader patterns of crowd performance, one's eye cannot help but remain ensnared in tracing the variant alternative contours of the crowd: the lines and curves connecting different palms, faces and palms to faces. One becomes concerned with discerning the particular implied contours of this crowd. At the same time, one's attention is drawn to the closer scale of individual components. Faces in Klucis' crowd do face onto the observer (unlike the profiled marchers in figure 5.19), and the palms are open towards him/her. Furthermore, one notes that the crowd thickets are not defined by full, or even near-full bodies, but rather by fragments. Fragments or close-ups simulate close proximity rather than detachment. Yet they also defamiliarize the scene; the close-up - especially of hands and faces – was a cinematic device of early film employed to heighten 'mental attention'.[207] One can even argue that, alike the first poster, this one offers a collage of synchronic instances, without a diachronic

[207] T. Sheehan, "Wittgenstein and Vertov: Aspectuality and Anarchy", *Discourse*, 24(3) (2002): pp. 95-113.

narrative. The faces, gazing back in the general direction of the observer, do not occupy one and the same space, but rather peer back each from his/her own individual spatial moment. This promotes focusing on each face for its own qualities and posture – much alike snapshots or discrete incidents.

Similar play on instantaneity characterizes several series in Aleksandr Rodchenko's early photographic work. Although they do not belong to the propaganda poster genre which, as discussed above, comprised the avant-garde' primary graphic medium in challenging the Panoramic Tradition, Rodchenko's photography series contributes a number of important issues. They evidence how other pictorial practices were engaged in the challenge. Furthermore, Rodchenko's early photographic practice advances the discussion on presence in particularly significant ways. In his *AMO* photography series (published in *Daesh'*, 1929; see figure 5.21)[208], human hands and heads intermingle with machine parts to enunciate subjectivity integral to, or defined by, the industrial process of production. Yet the fragmentation also manages to resist conforming to a linear scenario or a timeline – even that of the production process. Not unlike the instantaneity suggested by the two posters discussed above, each of Rodchenko's frames is an instant that cannot be tailored into a narrative. Fragments do not even cohere into any sense of recognizable fullness even at the conclusion of the production process, when Rodchenko juxtaposes a laborer's face, a recognizable entity, next to yet another: the product of his labor, an automobile. Dickerman suggests that, through this and other devices, Rodchenko's work resists commodity fetishism by denying the product (the automobile), the production process (including human hands and machines) or the photographic image itself (his own work) the prospect to acquire stable, uncritical projections of social relations.[209]

Rodhcenko implements similar moves: defamiliarization, fragmentation into 'instants' and resistance to narrative and commodity-fetishism - in yet another photographic series: the Vakhtan Lumberyard series,

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[208] Leah Dickerman, "The Propagandizing of Things", in *Aleksandr Rodchenko* (edited by Dabrowski, Dickerman & Galassi, New York, Museum of Modern Art, 1998): p.85.

[209] Although, as Leah Dickerman herself noted, Rodchenko's machine close-ups sometimes verge on the sensual, and suggest desire as an undercurrent.

1928 [figure 5.22]. Here, however, he adds a few crucial techniques that mark his short avant-garde photographic career, stunted by coercive Stalinist practices of ostratization by 1931. Fronting the back of the lumberyard worker at odd angles, Rodchenko's photographs evoke a strong *presence* for the viewer – as an overlooking eye, but perhaps even as a body hovering against the photograph's surface, looking over the worker's shoulders and twisting in order to complement his (productive) movements. Here, photography's conventional 'point-of-view' becomes in a sense: embodied. Although the feeling of the sublime evoked by massive numbers of people is hard to argue here, a sense of collectivity is evoked as the production process is 'witnessed'.[210]

To sum up: Integral to this *immersion* in posters, photography and propaganda art are a number of pictorial qualities. For one, it comes with an emphasis on *presence* – a pronounced awareness on the part of the observer towards the pictured crowd members or figures in the depiction as well as towards the depiction itself. This was achieved through a number of graphic devices, foremost among which was a bias towards capturing an instant (or a set of discrete instants) – a synchronic description rather than an unfolding narrative. Another device involved a fragmentation of the visual field, which in turn effects defamiliarization, exploited in cinematic devices such as the 'close-up' by Vertov and Eisenstein, and others. The ambiguity of cropped, zoom-in frames generates a state of heightened visual awareness – alertness on the part of the observer to pictorial properties of shape, color, light and shadow - which prevents submission to the image as a *notion*. As discussed above, Rodchenko exploited such devices along with unfamiliar viewing angles to resist commodity fetishism in several works; self-awareness in front of a work (a painting, photograph, advertisement …etc.) maintains the viewer's critical sensibilities. This self-awareness was frequently enhanced by endowing crowd pictorials with a certain 'taughtness': a compositional surface-tension constructed from the relations between alignments and shapes across the surface. Tense surface order

[210] This pictorial immersion seems akin to the Italian Futurists' allocation of a work's viewing point within the movement – as part of the experience of movement that describes the work.

Figure 5.21 Aleksandr Rodchenko, *AMO Series*, 1929.
[source: Dabrowski, Dickerman & Galassi (ed.), *Aleksandr Rodchenko*, 1998]

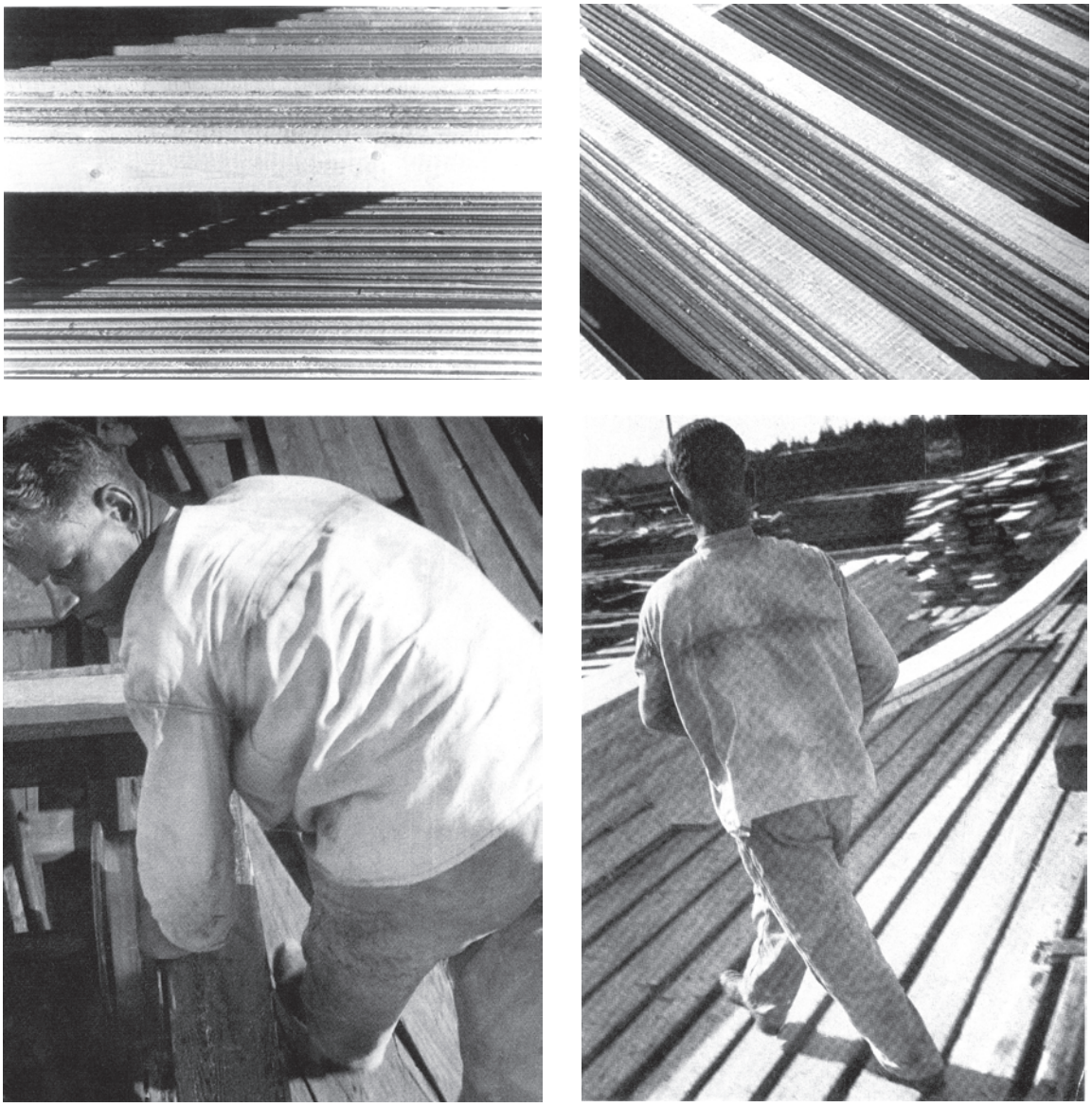

Figure 5.22 Aleksandr Rodchenko, sample frames from the *Vakhtan Lumberyard Series*, 1930.
[source: Dabrowski, Dickerman & Galassi (ed.), *Aleksandr Rodchenko*, 1998]

engenders a sense of presence in the observer, which is made even more emphatic in depictions with close-up human figures such as Rodchenko's 1928 Vaughn Lumberyard series where a precarious nearness to a body (figure 5.22) makes an observer inadvertently – and unavoidably – strongly aware of his/her own body. The immersion is rendered flesh; the presence 'kinestheticized'.

Another significant pictorial property of the immersive position in crowd-visualization is suppression of the perspectival viewpoint and the delimitation of foreshortening. This may have come in reaction to a contemporary reading of perspective as the situated visual projection of the individual, bourgeois eye. Alternatively, it may also have been an attempt to evoke visual readings of crowd sublimity alternative to the unfathomable immensity characteristic of nineteenth century readings. Layering in depth evokes sublimity but from an immersed viewpoint; the crowd is imagined to be extensive but still rationally apprehensible through the surrounding crowd members. Moreover, and not unlike Meyerhold's prescription of viewing crowds from an elevated, oblique vantage point (discussed above as well as further below in this same section) – the portrayal is of a more objective nature. Unlike foreshortening, which comes with diminishing scale, layering may depict figures equal in size (as in oblique projection). It may also resort to defamiliarization through reverse foreshortening as in Klucis' 1930 poster [figure 5.20] – as means to alert the viewer's senses.

Attending such tactics is a redefinition of the role of the graphic construction *vis a vis* the crowd condition and its observer. Pictorials of the Panoramic Tradition pretended to (objectively) represent the crowd – to perform a seemingly innocuous visual mediation between the crowd and its detached viewer. It posed itself as a truthful projection, perspectival or radial, to a viewer who is always absent from the distanced, elevated viewpoint of depiction – a viewer who is actually rendered visually removed and socially detached by the very distance and angle of viewing. Instead of representation, the avant-garde' alternative depictions came to *exemplify* sensations and thoughts of immersion within the crowd. They attempted to evoke in the viewer the emotive and cognitive experiences of being in the crowd as rational and generative. On one hand, the

inner experience of the crowd - heretofore irrational, inscrutable and enigmatic – now becomes available, comprehensible and illuminated. On the other hand, it also becomes part of a generative discourse; graphics of immersion render possible acts of emphasizing, reorganizing and transforming the crowd from within. As alternative conventions, they open the crowd to the act of design. As Chapter-7: "To See a Crowd, To See Like a Crowd" will argue, it was this role of exemplification that architects seized upon when translating to their discipline.

Note that the readings offered above intentionally avoided engaging the symbolic associations of the works' components, such as the connotations of labor which the palm evokes in Klucis' poster.[211] This position stems primarily from my concern to examine the new pictorial problems posed and the graphic devices explored by the artists - rather than the specific semantic content of the works. The above graphic explorations are, after all, but a threshold into examining the conventions of architectural drawings in Chapter-7: "To See a Crowd, To See Like a Crowd". An emerging tradition of immersion thus constituted the main thrust of the artists' resistance to the Panoramic Tradition, and acted as an underlying framework for the architects' own interventions. They put forward a different aesthetic issuing from the primary substance of the crowd: its mass of bodies. To reiterate an earlier argument, traversing terrain across disciplines - translating from art traditions to architectural conventions - is wary walking, as the next chapters will testify. It requires, above all, to reorient oneself regarding where to hunt for such translations – what to look for. Hence, instead of exclusively seeking portrayals of human figures and gatherings – an expansive and legitimate topic of paintings and propaganda posters, but quite scarce in architectural drawings, especially plans – one should seek the other properties which allow immersion to obtain: flatness, fragmentation, viewpoints or treatment of the horizon-line. More often than not, human figures are implied rather than explicitly depicted in architectural drawings, which are more focused on the physical environment that wraps around them. As content shifts in emphasis from art to architecture, the translation

[211] Gustav Klucis used the palms of two laborers which he photographed in two earlier works – perhaps in preparation for this poster, and for which he executed two versions only one of which is discussed here. Source: Gustav Klu´t`sis, *Gustav Klucis: Retrospektive,* Herausgegeben von Hubertus Gassner, Roland Nachtigäller (Stuttgart: G. Hatje, c1991): pp. 248-9, Plates 221-4.

may be sought in issues of form and convention. Immersion connotes not only stronger cohesion between viewer and crowd, and not merely a dethroning of the detached and distinct perspectival viewpoint of the Panoramic Tradition, but also a flattening of perspective altogether, since all what a viewer sees, in a state of immersion, are masses of bodies occluding the building as well as other bodies. Layering replaces perspective as the graphic language of negotiating depth; additionally, the crowd is not seen (as in the Panoramic Tradition) *against* a horizon-line with its connotations of unfathomable immensity, but rather as crowd layers against yet more crowd layers. Sublimity, generated in the Panoramic Tradition through overwhelming expanse, is transposed here to conditions of overwhelming but rational magnitude, borne of an inability to delimit the crowd layers from a position of immersion. The apprehension of sublimity is transformed from a graphic of distance to one concerned with mass.

Additionally, one may also begin to detect a 'spatial bias' emerging from the above discussion of artistic tradition, together with earlier arguments on configuration (see Chapter-5, *Crowd Sorting and Organization*). One should expect that the problem in architecture design had become to qualify co-visibility through generating situations of intense immersion within a synchronic space or within a configurationally-shallow spatial system. A spatial system with pervasive encounters of the immersive kind performs differently from one with detached viewing. One should indeed seek such a system as a focus of inquiry; and it is in the graphic conventions of drafting such a system that one should anticipate some revelations about the new framework of 'seeing'. Here, once again, revolutionary theatre provides a precedent for this conflation of co-visibility and graphic conventions. It is with such an exemplar that I conclude this chapter and section, to examine the architects' responses next.

PART II: THE ARCHITECTS RESPOND

CHAPTER 6

Premise

Still regarding the framework of 'seeing' - as a set of graphic conventions upon which design moves are negotiated - as the pivotal in challenge the crowd design problem, Part II proceeds by somewhat reversing the sequence followed in the preceding chapter, which articulated the crowd design problem. It is in the wake of clarifying the architects' graphic responses in Chapter-7: "To See a Crowd, To See Like a Crowd", that the other design problems and responses would be cast in a new light. Problems of configuration – as the foundation for collectivity - occupy the next chapter, Chapter-8: "Dynamic Crowds, Abstract Machine"; challenges of the kinesthetic space of intersubjectivity – the problem of other bodies – are dealt with in Chapter-9: "Kinesthetic Space: Intersubjectivity and the Problem of Other Bodies"; the fourth and perhaps the most elusive problem of the architectural object follows, in Chapter-10: "The Problem of the Object, The Materiality of Architecture", with a discussion of the nature of objecthood within the crowd's space of intersubjectivity. The four chapters unfold as four interconnected but quasi-independent essays – a quality which evolved from the distinctive focus of each argument. The final and closing Chapter-11: "Gregarious Space: A Theoretical Framework for the Aleatory States of Collective Consciousness" synthesizes an interpretative reading from such distinct arguments, offering theoretical reflections on their implications - individually and collectively - while asserting the central thesis contribution.

Among the various Soviet avant-garde movements, focus will be centered on the Rationalists: their primary leader and founder Nicolai Aleksandrovich Ladovski as well as the group ARU (Union of Architects and

Planners) founded in 1927. Occasional allusion will be made to the work of other prominent Rationalists such as Vladimir Fyodorovich Krinsky, as well as other Rationalist groups, such as ASNOVA. The argument will focus on the *Palace of Soviets* Competition as the central concern; yet it will also draw on professional work by Rationalist designers, as well as on students' work from the Rationalist studios at INKhUK's VKhUTEMAS. Moreover, the discussion will refer to other architects and movements: whether to other Soviet avant-garde (especially the Constructivists and Suprematists, particularly to the *Palace of Labor* entry by the Constructivist Vesnin Brothers and to works by Ivan Leonidov and Kazimir Malevich). Comparisons will also be conducted to classicists and traditionalists from within the Soviet circles, such as Boris Iofan's winning entry to the Palace of Soviet competition; or to the European avant-garde such as Walter Gropius and Le Corbusier, whose work will prove to be of particular significance as a contrast to the Rationalists'.

Again, the following argument takes as its foundation the Soviet avant-garde architects' responses to the four challenges constitutive of the crowd design problem. However, the argument's objective is to transcend such a foundation; the attitude towards the work of the Soviet architects is one of 'seeing through' or 'seeing-beyond' rather than seeing 'in-the-manner-of'. The nuance of the task ahead requires further articulation; it is neither as broad nor as straightforward as it may seem.

The Nature of the Task Ahead

To recall an earlier argument: rather than merely reconstructing the architects' intentions in response to the crowd design problem, this thesis primarily seeks to extrude the rationale proposed by the architects' design moves to its limits and beyond - in order to enact the theoretical framework which follows *logically* from infilling the gaps between their fragmentary attempts, their aborted projections and even what they never contemplated. In a sense, the arguments in the following chapters seek to construct the theoretical space wherein such design tactics reside, or which they evoke into being. Yet this 'logical extrusion' and the

attendant 'theoretical extension' themselves demand further qualification. How may one discern the logical implications of manipulating form and space – of, fundamentally, an aesthetic? Here, the logical extrusion is guided by a specific purpose: to exercise informed speculation on what forms of social-solidarity accrue from design moves – what potential collective values may emerge from them. Fundamentally, arguments in the following chapters seek to extend *systematic* and *reconstructable* bridges into social issues attending the architects' spatial and formal moves. Such a proposition rests on an assumption that architecture - its morphology, its space and form, its phenomenal qualities, and even (or particularly) its design drawing – each carries within its very grain structural components of the social and the political. It is primarily the logic of such usually-invisible seeds which the argument seeks to extrude.

Coming chapters will defend this assumption for the elements of Architecture, each in its respective place. What I want to do here in this chapter is to exemplify the validity of such an assumption by illustrating how – and in what sense - the architectural design *drawing* commands such a structural grain of the social. This explication heralds the next chapter's discussion of the 'framework of seeing' and the problem of graphic conventions. Yet it also bears non-trivial implications on method – on what data to seek as primary, what data to deem secondary, and on the methodological procedures of handling such data; and hence it is timely at the juncture of this Premise. After all, the data are but drawings. For this, a short detour is due.

Graphic materials come in different forms, genres and techniques – with distinct pictorial intelligences. As related as activities of painting, sculpture, and photography are to architecture and design, there still persist significant demarcations of conventions among them. Still more detached are such activities as commercial photography and propaganda posters, which were also part of the repertoire reviewed here - especially when examining crowd representations. Despite the early Constructivists' efforts to unite all in one art of Production, crucial distinctions persevered. Negotiating the different forms of pictorial intelligence which constitute this thesis' graphic repertoire, an important objective is to specifically demarcate techniques and

procedures dealing with design drawings from other graphics. This stems from a position which conceives of design activity as rooted in a unique mode of seeing; a moment possessed of its own epistemology.

To elaborate: A design 'moment' is one at which a peculiar mode of 'seeing' unlocks qualities of the object(s) and/or space(s) under scrutiny – or imposes extraneous qualities upon them - placing them within a field of potential transformations. It unlocks possibilities for transmutation and mutability. The design moment is also one where various qualities of object(s) and space(s) are brought together – synthesized and/or reshuffled. What happens to such qualities, not as they resolve a problem, but as they engage each other? Do they change in nature; does new meaning emerge?[212] Defining the design-moment through the potential for transformation and/or synthesis[213] acknowledges the ill-defined nature of design problems, where the problem-definition shifts with different solutions. In this scenario, design artifacts, including drawings, act as frameworks structuring the ensuing ambiguity of design-thinking. Such artifacts then become at once the site for the designer's generative ideas, as well as the researcher's equally creative in-depth interpretations.

This mutability, in fact, is a generic quality of graphics and is activated by viewing subjects. Richard Wolheim's notion of *seeing-in* helps illustrate this. *Seeing-in* – in contrast to the representational *seeing-as* is a primal (biologically innate) aptitude that enjoins a viewer to project, approximate or visually-morph any surface markings into recognizable shapes (round or square or other …) and identities (a boy or box … etc.), even if that surface was never intentionally marked to represent anything. Wolheim's *seeing-in* is thus logically pre-representational, or as he puts it, a "half-way house to representation".[214] Surface-markings excite seeing something, rather than nothing, but such that different viewers (or the same viewer over time) would see different things; the surface thus remains vibrating its tentative shapes. In other words, according

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[212] Thus, it comes as no surprise that what troubled – above all else - early Soviet avant-garde designers from the 1920s was precisely the mode of synthesis they should adopt in their revolutionary struggle: *composition* or *construction*. Each mode represented a way of seeing, knowing and conditioning the world.

[213] *Transformation* and *Synthesis*, I claim, are not taken to be sufficient but only necessary descriptors of the design act.

[214] Richard Wollheim, 'What the Spectator Sees', in *Visual Theory: Painting and Interpretation*, edited by Norman Bryson, Michael Ann Holly & Keith Moxey, New York: HarperCollins (1991): p. 109.

to Wolheim, the mutability of graphics is embedded in the viewing subject's evolutionary development; neither intention nor design are even necessary to provoke it. According to Ludwig Wittgenstein, however, the moment of design-seeing is a pregnant one which fuses mutability and idea, perception with thought. As will be discussed in Chapter-8: "Dynamic Crowds, Abstract Machine", Wittgenstein articulates aspect-perception, using a duck/rabbit Gestalt diagram [refer to Figure 5.2], highlighting the alternation in seeing-as 'duck' or seeing-as 'rabbit'; as one emerges, the other disappears. This simple graphic sponsors two different, and mutually exclusive, readings of a single contour-line. Wittgenstein coins this shift 'aspect-dawning', which, while seemingly exceptional, is but an intense moment of what underpins normal perception or 'continuous-aspect'. Yet this intense perceptual experience does not connote thoughtlessness. In fact, aspect-dawning commands the subject's visual attention in what Wittgenstein describes as "half visual experience, half thought". Aspect-perception is accompanied by an interpretative frame – a form of thought instantiated and performed simultaneously and indivisibly with the act of perception. Thought permits perception to happen, but neither precedes nor follows it.[215] The graphic's mutability is no mere visual trick, but signals a shift in mindset.[216]

But what kinds of thoughts attend the observation of graphics, especially the more complex and unique forms of surface-markings employed in design? One species of such thoughts pertains to the nuance of representational instances one experiences when beholding graphics more generally, particularly *seeing-in* and *seeing-as*, whose distinctions have been approached from distinct viewpoints by E.H. Gombrich, Richard Wolheim, Rudolph Arnheim and others. Building largely on Arnheim's work, Gabriela Goldschmidt's research proposes the sequence of design-thinking to unfold through dialectics of modalities.[217] She

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[215] For a discussion of *seeing* and *aspect*, see Ludwig Wittgenstein's *Philosophical Investigations*, translated by G.E.M. Anscombe (New York: Prentice Hall, 1958): pp:193-229. Thomas Sheehan also discusses *seeing-as* and *aspect-dawning* to provide an interpretation of the close-up as a of Dziga Vertov's cinematic toolkit; see T. Sheehan, "Wittgenstein and Vertov: Aspectuality and Anarchy", *Discourse*, 24(3) 2002): pp. 95-113.

[216] The duck/rabbit diagram is a simple, even reductive one, which occupies a much lower rung as a symbolic form compared to drawings addressed earlier. In terms of perception and thought, no further claims may be made for such a simple graphic which is only cited here as an elementary example. However, a case has been made for manifestations of aspect-dawning as used in the early days of cinema by directors such as Dziga Vertov; see Sheehan, "Wittgenstein and Vertov" (2002).

[217] Gabriela Goldschmidt, "The Dialectics of Sketching" *Creativity Research Journal*, 4(2) (1991): pp.123-143

observes how, in design-sketching protocols, "figural, gestalt argumentation" (what she defines as *seeing-as*: explorations of shapes and relations between shapes), alternates with non-figural arguments (*seeing-that*: investigations into the nature of entities that shapes represent) to structure a design-thinking process. On such two alternating pivots, the process unfolds in dialectic with each modality offering "clues" to be built upon by the other modality.[218] Goldschmidt notes that design-sketching – hinging as it does on "interactive imagery" - "introduces a special kind of dialectics into design reasoning that is indeed rather unique".[219] Besides this dialectic o*f seeing-as* and *seeing-that*, this unique design-reasoning also consists of s*eeing-through* the drawing into some larger structure of types, patterns, metaphors or sequences of which the drawn elements count as subsets, Goldschmidt argues. This observation draws on Arnheim's diagnosis of shape-perception as "the grasping of generic structural features … Seeing a fire is always seeing fireness, and seeing a circle is seeing roundness".[220] In other words, a drawing promotes theoretical thinking through conceiving of abstract types, or conjuring an array of comparable phenomena.

What I want to suggest here is that besides the mutability of structured ambiguity, alongside the indivisible thought-perception dyad, and beyond dialectics and theoretical thinking – another modality of thought embedded in design graphics concerns the 'social'. That the socio-political resides in the markings of a surface is given, at a very primal level, by Wolheim's diagnosis: recognizing figures and shapes in surface stains stems from an evolutionary survival tactic. At the higher ends of the symbolic spectrum, and especially in the Soviet case where graphics were consciously explored as social laboratories, the design-drawing surface may collapse several forms of sociability. Even if we set aside for a moment both drawing content and the communicative devices of graphic conventions, the design-drawing is a visual instigator of subjectivity through its categories of scale, viewpoint, orientation, and other syntactical qualities[221]; it subtly

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218 Goldschmidt, "The Dialectics of Sketching" (1991): pp.123-143

219 Ibid: p. 140.

220 Rudolph Arnheim, quoted In Goldscmidt "The Dialectics of Sketching" (1991): p.127

221 The impact of such categories is argued by Yves Alain-Bois particularly in the course of his discussions of El Lissitzky's work. See: Yves-Alain Bois, "El Lissitzky: Radical Reversibility", *Art in America*, 76, 4 (Apr 1988): pp.160-181; and Yves-Alain Bois, "From minus infinity to plus infinity: Axonometry, or Lissitzky's mathematical paradigm" in *El Lissitzky: architect, painter, photographer, typographer* (Eindhoven: Van Abbemuseum, 1990): pp. 27-33.

demands from its viewer to construct a narrative of social placement: to situate him/herself within, or against, the social givens or tensions which the design drawing embeds. And, as discussed in Chapter-5 "The Crowd Design Problem: Formulation", a drawing's evoked sensations may also exemplify an imaginary subject's emotive state; the drawing may elicit its impact by providing an emotional clue, model or challenge to which the viewer is prompted to respond. In other words, the dialectics of perception, thought and emotion which the drawing evokes simultaneously comprises what György Kepes calls the "forming process" or the "plastic experience" of the image or drawing – i.e. the "dynamic experience of integration … shaping sensory impressions into unified, organic wholes"[222] - accompanied by an implicit socio-political formation.

This is not necessarily an issue of drawing-content; it is, rather, a structural property of the marked-surface. An interesting instance of early Soviet avant-garde history illuminates the point further. The vibrant debates of April 1921 between members of Obmokhu (Society of Young Artists) on composition versus construction questioned whether one can methodologically construct a drawing which does not discriminate background from foreground, while simultaneously positing that the design drawing may implicitly structure equality in ensuing spatial-making (and hence social relations), as well as somehow impart a cognition of parity to its observers. To emphasize: for this discussion, the relevant import of the 'composition versus construction' debate is that drawings and pictorials inform the way we think about the world around us – including our social system; not as mere analogies or representations, but as categories of thought. Drawing, space and society are intricately linked through one continuous stream of thoughts. Compared to other graphics, an

[222] Gyorgy Kepes, *Language of Vision* (Chicago: Paul Theobald, 1944): p. 15; see also Kepes' discussion of external and internal forces in "Part I: Plastic Organization" (pp.16-43). His discussions on the "Rediscovery of Basic Plastic Forces" and "Integration of the Plastic Forces" (pp. 98-106), and "Final Elimination of the Fixed Perspective Order" (pp. 107-14) furnish helpful arguments and examples of the evocative qualities of the drawing's basic categories as well as historically contextualize them within the early modern period under investigation in this thesis. Also, Kepes' section, "The Psychological Process of Making" (pp.194-9) extends links form the plastic process of formation into the social dimensions of making "images". However, his analysis of the "created image … [as projection of] emotional necessities" here remains too broad to be useful here. I take exception to his insistence on framing these "emotional necessities" and "desires" as merely attempts to "organize the chaos of … psychological space" (p.194), and to his unexplained assumption, in this section and elsewhere in the book, that the image represents primarily, or at least so prominently, attempts to control and/or emulate nature rather than to deal with the contingencies of the social order.

(architectural) design drawing is when such a stream of thoughts is more self-conscious and self-reflective. A design drawing is, in fact, the initiation point for constructing subjectivity and intersubjectivity.

Methodological Principles

Hence, in the following chapters, reading into the socio-political thickness of the drawing is considered a methodological imperative - as probing into an ontological condition of drawings, the primary material of analysis. This partially explains why, in this section of the thesis, the primacy of the design drawing is observed over other graphic materials even when addressing the conditions of crowds. Rather than analyzing crowd situations captured in, or reconstructed from, photographs as the primary graphic records, it is the architectural drawings of Soviet and European architects to which attention turns. As discussed before, the thesis research questions are concerned with the import of architecture rather than a morphology borne of no design intention. But it is also the structural social property of a design drawing – its uniqueness as a spatial statement of political thought - which lends the explanation more ground. Design drawings, concerned with crowd problems but also generically, are *more elementary* units of analysis. Real crowd situations, or ones captured in photographic records, are actually complicated by the conflict between spatial design logic and how users inevitably inflect such a logic. In other words, analysis of the crowd design drawing is a prerequisite for analyzing actual crowd conditions, and a necessary theoretical foundation for tackling crowd situations in later projects.

Thus, the investigation will take as its primary evidence the repertoire of submitted materials (drawings, models, photography ...etc.), unsubmitted sketches and study models, as well as related work from the architects' wider œuvres - while relegating as secondary the architects' stated intentions declared in publications, reviews or even written in the submitted competition reports. This position also stems from a desire to uphold methodological consistency. Just as the argument insisted earlier that the medium

specificity of space is imperative for defining the problem as posed by society, seeking the architectural response through the filters of the spatial-construct remains fundamental to the argument. In fact, quite often, conclusions from 'reading' drawings and spatial settings will be employed to explain statements and not vice versa; an example of this is how Ladovski's statement "space … is the actual material of architecture" will be explained using the Rationalists' *Palace of Soviets* Competition drawings and his OBMAS students' demonstrations in Chapter-9: "Kinesthetic Space: Intersubjectivity and the Problem of Other Bodies", and Chapter-10: "The Problem of the Object, The Materiality of Architecture".

Dealing with graphic materials as such measures of truth statements and the prime-movers of the knowledge-generation process requires considerable scrutiny of their pictorial qualities. The question now is what methodological techniques and procedures to perform upon them in order to probe their socio-political depths? Method is an issue of particular intricacy in this research project. From the outset, the working assumption was one of "formulation in the strong sense": instead of applying a way of thinking, the research process seeks to discover a way of thinking.[223] As such, method constitutes an integral component of the thesis formulation itself – itself an object of investigation. Rather than predetermine a particular method, I hereby set a number of working principles with which to initiate the methodological inquiry.

The foremost methodological principle deliberately returns to basics. It consists of a deceptively simple activity: the persistent, pervasive, and reiterative visual scrutiny of the graphic research material. To borrow indicative terms from Nelson Goodman, all drawings selected for analysis here are assumed to be at least dense notations – if not altogether replete. Not only is this assumption justified by the design and artistic decisions which went into their constitution (all artworks addressed here, after all, are complex artifacts and were selected for that reason), but also by the synthetic nature of the graphic medium itself. What I mean by this is that a drawing's surface, frame, tone and color – demand of the author to resolve issues of design

[223] John Peponis, "Spatial Construction of Meaning, Four Papers: Formulation" (The *Journal of Architecture* Volume 10, April 2005) pp.119-33.

(anticipated or not); the 'graphic surface' relentlessly poses questions about the content being addressed. Its questions may also transcend issues of content. As argued in Chapter-5, *'Seeing' Crowds: The Challenge of Immersion*, and as will be discussed in Chapter-7: "To See a Crowd, To See Like a Crowd" – the graphic and spatial media of a design or architectural drawing are not totally commensurate.

Approaching such material will not proceed from the detached distance of a pseudo-archaeological position, considering them as untouchable relics – or, more precisely, as 'finished' works. Instead, the method of analysis assumes a more involved attitude: in some cases re-drawing the Soviet graphics, in others treating them as permutations within a larger set of possibilities. In other words, the analysis consists of indulging in generative formulations based on, or starting from, a Soviet avant-garde drawing, in an effort to discover the theoretical extension the drawing belongs to. The emphasis in such generative experiments will not be on contrasting the selections which the architects actually made to those they eliminated – i.e. an exercise in illuminating original agency. Rather, experiments and analyses will be set up to emphasize theoretical generalizations. Moreover, and more often than not, the operating theoretical baggage will be *brought to* the artifact of analysis (the drawing, the submission, ...) rather than only emerging from it. Syntactical analysis, after Hillier and Hanson, assimilates the Soviet avant-garde' spatial configurations. Placing Biomechanics, and the architects' response to it, within a comparison of symbolic languages of density and repletion will owe at least as much to Nelson Goodman as to Meyerhold himself. Placed within a given theoretical framework, the Soviet drawings are used to test the theories, and probe their limits.

Occurring passively as a near-obsessive gaze at a drawing, or more actively through manipulating scales (blow-ups), tone and/or color, and through framings or cropping devices, this 'sustained-looking' is obviously no uncommon activity in art and architectural criticism. One finds it in approaches as distinct as Wollflin's, Frankl's, Baxandall's and Evans'. In this work, it served to cement the commitment to the drawing as the primary source, and to set the mode of diagnostic description to a rigorous wavelength. Michael Baxandall

has a telling name for this critical activity of sustained-looking: "pointing"[224]. He describes his practice of inferential criticism as grounded in an act of pointing, where the gazing critic does not merely note general perceptual reactions to a work, but engages in excavating insights embedded in its constitutive elements and constructive techniques. Baxandall conducts this pointing probe mostly in the passive mode (sharp and insightful as they are) - with occasional active manipulations of the paintings he discusses; as when blurring the focus while photographing Picasso's *Portrait of Vollard*, and his diagrams for Piero della Francesca's *Baptism of Christ*.[225] What I propose to do is to develop more active techniques of manipulations, which as a strategy gravitates this work more towards Robin Evans' mode of diagrammatic reconstructions. My objective here is not to claim a contribution that is inevitably trivial. Rather, the point is that active manipulations lend themselves more aptly to reenactment and repetition by other observers, and so approach the "sociable", pseudo-scientific quality which Baxandall himself exalts in inferential criticism as "… an aesthetico-historical experiment …".[226] And this is the reason why basic activities of sustained-looking, pointing and such are mentioned here at all; it is not to proclaim allegiance to a genre, nor merely to locate this treatise among discourses of art criticism. Rather, I attempt to advance their deployment into *explicit* and *repeatable* graphic procedures. Repeatability is laudable not only as a sounder method, but also because it extends a substantive bridge to what will prove to be a core element of the thesis findings – to the Rationalists' own concern with procedures of re-enacting emotive responses to space and form that are repeatable and re-constructable. Repeatability was a prime objective of the Rationalists in their deployment of graphics as well as in their construction of space. This allows one to begin drawing more structural parallels between research content and method.

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[224] See Michael Baxandall's "Introduction" to *Patterns of Intention: On the Historical Explanation of Pictures (*New Haven: Yale University Press, 1985).

[225] Baxandall, *Patterns of Intention* (1985): plates 29, 56, 60-62.

[226] Ibid: pp.136-7.

The above discussion qualifies the task ahead. After tiptoeing through the intricate discussions on what constitutes the architects' response, Chapter-11: "Gregarious Space: A Theoretical Framework for the Aleatory States of Collective Consciousness" will evaluate what 'way of thinking' emerges from applying such beginning principles to the Soviet work as research materials; it will probe what epistemology this research project provokes into being.

CHAPTER 7

To See a Crowd, To See Like a Crowd

Preface

A ‘framework of seeing’ involves a set of shared conventions - routines of seeing as well as codes of interpreting what is seen. While diffuse among the social stakeholders who conjured them into being, these conventions are more articulately composed in elaborate artworks such as in theatre, painting, and posters – and where also they may best be probed. This, in essence, was what Chapter-5: “The Crowd Design Problem: Formulation” argued, formulating the Soviet artists’ responses to the different challenges of the crowd problem. In architecture, such elaborate conventions are embodied in the very fabric of space and form, and this, inevitably, is what this investigation seeks to uncover. Yet it is in architectural drawings that such a framework should be initially prodded, as the artifacts of closer kinship to artistic formulations. Simultaneously, architectural drawings also provide the basic graphic platform onto which architects negotiate design moves. As such, architectural drawings may be investigated as hinges between artistic conventions and architectural space and form.

Even as such a pivotal crux, one cannot legitimately assume that architectural drawings simply copied theatrical, painterly or photographic elements, their compositions or even their conventions. Rather than mere customization, ‘frameworks of seeing’ undergo translation across disciplines of thought and practice, and are in the process reformulated. A most obvious example addresses a central concern here: the

depiction of crowds. Pervasive in the practice of modern architectural drawings is a striking disinterest in illustrating the human figure. Particularly, drawings of the projective type, more common since the Renaissance, eschew depictions of the body. In fact, and as Robin Evans has indicated, drawing the human body within competing graphic systems (projective or other) proved to be a prime challenge, as different methods generated different effects of the body's dynamic nature.[227]

In other words, architecture drawings eschew the depiction of the principal component of the artifacts discussed in Chapter-5, *'Seeing' Crowds: The Challenge of Immersion,* as formulations of the crowd design challenge. For the most part, the crowd goes missing in architectural drawings, especially in plans where graphic depictions of the body lose even the tentative utility they possess in other drawing types: mainly the graphic evocation of scale. Architectural drawings are more focused on exploring the physical, corporeal environment and, less frequently, the volume and space generated between corporeal elements and as consequence of their arrangements. It should thus come as no surprise that depictions of the mass of bodies that make up a crowd are rare even in Soviet drawings of the period under study. It is by the inertia of their historical development that architectural drawings implicate human bodies in ways other than direct depiction, even when the architectural design ideas revolve around such bodies. Therefore, one should anticipate that architectural drawings inflected the set of conventions charged by contemporary Soviet culture in response to the new crowd phenomenon.

This is but an instance of a well-rooted and fundamental distinction within architectural practice: between spatial design moves and their graphic depictions; between spatial manipulation and pictorial intelligence; and consequently, between designing for crowds and seeing crowds. The hypothesis maintained here is that, while the two activities are intricately and functionally connected, they remain incollapsible onto each other. The main pragmatic objective of architectural graphics is to describe space, form and their

[227] Robin Evans, "Chapter Four: Piero's Heads" in *The Projective Cast: Architecture and Its Three Geometries* (Cambridge, Mass.: MIT Press, c1995): pp.123-178.

transformations. However, the pictorial retains some distinctness in the thought-process, partially as part of its own resilience as a medium, but also – and to no small extent – as part of the ambiguity of representation itself: of translating surface-marks into physical space or vice versa. Therefore, one should anticipate indirect, complex translations between the graphic properties of architectural drawings and their attendant design moves in physical space.

To uncover the framework-of-seeing, therefore, one has to seek a different set of clues. Besides probing explicit portrayals of human figures and gatherings, infrequent as they are, one should also seek such pictorial properties as would allow immersion, mutual-visibility and diffused attention to unfold within the crowd and to be inscribed within the physical environment, and/or the pictorial properties of the drawing such as flatness, fragmentation, attention or eradication of the horizon-line. For architecture, graphic conventions act indirectly; it is with similar indirectness that their clues should be sought.

On the other hand, it is perhaps a fortuitous collusion of history that architectural drawings of the early Soviet period may be legitimately probed for clues to the new framework of crowd-visualization. Architectural design drawing and the different arts of the time (painterly, theatrical, ..etc.) – whether of their own accord or influenced by contemporary political developments – were asking of themselves questions akin to those posed by the revolution to society: questions of subjectivity (individual vs. collective), point-of-view, depth and background, as well as material production). In other words, architectural representation itself goes to the heart of the 'thicker' problem that the crowd manifests; namely, collectivity. It is thus not incongruent that Soviet architects of the time repeatedly advanced numerous drawing techniques concerned with questioning established graphic conventions. Hence, as early as 1921, we find numerous examples of such graphic probes: El Lisstizky's *Prouns* attempted to transcend the limitations of the single viewpoint of bourgeois perspective; Karl Ioganson's and Aleksandr Rodchenko's graphic constructions questioned the redundancy of the background; Ivan Leonidov's gouache drawing technique, evolved from his Suprematist

beginnings, defied the notion of illusionary depth. Architectural experimentation proceeded in its graphic as well as its spatial fields, almost as if in quasi-independent tracks.

Hence, while realizing the thorny complexity involved, I will still examine an architectural drawing as an exemplar of what early Soviet avant-garde architects developed as alternative conventions for visualizing crowds. In what follows, ARU's (Union of Architects and Planners) three-dimensional drawing [figure 7.1], submitted as part of Phase I of their *Palace of Soviets* competition entry, will be dissected as the primary artifact of evidence, buttressed by arguments from other graphic experiments mentioned above such as Lisstzky's *Prouns*, Ioganson's and Rodchenko's graphic constructions and Leonidov's gouache drawing technique.

Justification for selecting ARU's drawing as a focus for the argument begins with a documented historical fact. This specific drawing was among the few selected by the Soviets' Construction Committee and Soviet authorities as part of an important article significantly titled "How the *Palace of Soviets* Should Be". Published in *Brigada Khudozhnikov*, the article announced the outcome of the preliminary competition phase and served as part of an invitation to several architects around the world to participate in following phases [see cover, figure 7.1 *bottom right*].[228] Available literature does not articulate the particulars of how the selection process took place; yet the fact that this drawing was included in the document which introduced the Palace competition to architects alike Le Corbusier, Walter Gropius, Auguste Perret, Hannes Meyer and others, and was meant to recruit Frank Lloyd Wright and Richard Neutra to partake in the competition's second phase, signals its particular significance for the Soviet jury. Effectively, this drawing may be regarded as one exemplar of what the Soviet authorities were charging architects of the second phase to formulate with - or through.

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[228] The article "How the *Palace of Soviets* Should Be" was published in *Brigada Khudozhnikov* 1, no 7 (1931), and is referenced in Jean-Louis Cohen's *Le Corbusier and the Mystique of the USSR: Theories and Projects for Moscow 1928-1936*, translated by Kenneth Hylton (Princeton University Press, 1992): p.168.

ARU (Union of Architects and Planners: N. Beseda, G. Krutikov, V. Lavrov, V. Popov & A. Deineka), *Palace of Soviets* Competition Entry (1931);
Phase I, Three-dimensional Drawing (source: Cooke & Kazus, *Soviet Architectural Competitions 1920s-1930s*, 1992).

ARU's Three-dimensional Drawing: closeup

ARU's Three-dimensional Drawing,
publication in Brigada Khudozhnikov, 1931
(source: Cohen, *Le Corbusier and the Mystique of the USSR*, 1992).

Figure 7.1 ARU's Three-dimensional Drawing is the central artifact of analysis in this chapter

The drawing in question is also one where the crowd is actually portrayed and, as arguments below and in later chapters will demonstrate, the crowd is depicted with particular care and shrewd intelligence. While a rare specimen of its kind in depicting crowds (indeed: in depicting human-figures at all), ARU's three-dimensional drawing displays exceptional care in detailing parade-marchers, even those deeper in the depiction away from the foreground of attention [see closeup, figure 7.1 *bottom left*]. The manner in which the crowd splits up at the Mass Hall's threshold into three-dimensional linear branches marching down the ramps then up again, the ensuing vibrancy breathed into the crowd routine and the slight misalignments in rows and numbers attendant to it seem much more pronounced than building elements and facades. Indeed, close examination shows that the crowd is what endows the drawing with its sense of depth. With its under-detailed building masses and lack of urban context in the background and around, this oversized drawing (46 ½ x 46 ½ inches, or 118 x 118 cm) seems, mainly, a rare graphic record of the crowd itself. As such, the drawing provides an exceptional opportunity to examine a Soviet architect's explicit intentions when depicting crowds. Simultaneously, the ways in which the drawing addresses its non-crowd components (such as buildings, ground, sky, and urban elements) as well as graphic technique, reveals much about how other drawings address similar graphic problems in relation to an undepicted, implied crowd.

A final validation for centering the investigation in the present chapter on this particular drawing is that it was employed as a spatial design tool. As this and following chapters will establish, the drawing negotiates issues of crowd sorting as well as specific conceptions of space. Hence, while illuminating the framework of seeing, ARU's drawing will also be employed as a filter to screen the various spatial design moves used by different Soviet architects towards enacting this visual framework in space.

Tense Constructions of Depth, Negated Horizons

A peculiar play on depth, background and surface marks ARU's drawing. Despite being a three-dimensional drawing, ARU's graphic depiction of a parade ground for their *Palace of Soviets* Competition entry defies conventions of perspective and even generic foreshortening. Inconsistencies plague radial projection throughout the drawing. Converging lines (resulting from the foreshortening of its parts) do not meet at anything remotely resembling a vanishing point or a horizon-line [see figure 7.2 for an overlay of possible converging lines]. Even allowing for the inaccuracies which the employed gouache technique introduces in a drawing (more on this below), as well as the inevitable distortions which accompany image reproduction from the original drawing document for publication purposes – even allowing for all this, the discrepancies are too great for the eye to reconcile, and for the mind to avoid reading intentionality into. In fact, the drawing seems to be constituted by regions or fragments; each fragment, along with its associated set of foreshortened lines, converge towards their own individual 'vanishing point'. Yet even these incongruent 'vanishing points' and 'horizon lines' are somewhat ambiguous and undefined for each fragment of the drawing.

This suggests a deliberate denial of radial projection as a viewing device – an expected position (if a negative one), given period associations of situated perspectival viewpoints with individualistic bourgeois mores. But, recalling Gustav Klucis' poster *We'll Fulfill the Plan of Heavy Tasks* discussed in Chapter-5, *'Seeing' Crowds: The Challenge of Immersion*, even generic foreshortening also seems belied. Although crowd figures quite clearly shrink in size as distance from the viewer increases, depicted building forms do not significantly diminish in size as they recede in depth towards the drawing center [figure 7.3]. Floor heights, especially in the background tower, remain too ambiguous to allow a visual comparison with their counterparts in the foreground; in fact, floor-heights in the background seem bigger. Only a shallow sense of depth emerges from the two tall buildings due to occupying the drawing's middle-ground and background respectively – a depth sensation that is quite subdued in the composition of building masses. In fact, one

may argue that the distortions observed above are all rather muted or muffled; I will revisit this observation below.

This is strongly enforced by another effect, but which begins to suggest the drawing's richness. This oversized drawing on light-brown paper does not distinguish between sky and ground; they both remain as the base color of the paper (with only insignificant white blots signifying dirigibles). Had it been marked for material or flooring grid, the ground would have overwhelmed the drawing in suggesting - or rather demanding - an overarching order or something that binds the drawing fragments together. Indeed, sky and ground are only distinguished from each other by a barely-discernible pink band and a set of horizontal lines in the one sequestered portion where their meeting seems unavoidable. If one removes the crowd figures (along with the parked vehicles occupying the lower right corner of the drawing) [see figure 7.4], the ensuing effect is that of objects floating or hovering in near weightlessness. While layering more or less clearly demarcates the Mass Hall from a stair structure infront of it, the tenuous relation between the two main building forms evokes heightened visual tension which precludes reading the building masses as one coherent composition. A peculiar alignment of the lower-floor parapets of the two main masses, despite their different heights and variant distances away from the observer, complicated by the tension between triangular forms where the two masses meet on the drawing surface (see figures 7.5 and 7.6). All this leaves one with a tension alternating between flatness and depth, heightened by a similar tension between the play of scale distortions observed above: between middleground and background building towers, and their pastel-like, quasi-transparent quality. In fact, whatever forceful sense of depth the drawing possesses issues primarily from the foreground crowd's marching formations.

Furthermore, a 'horizon' – in its possible variations and meaningful connotations - is comprehensively negated from the graphic composition. The continuity of the background color precludes a visual assignment of a horizon (where sky and ground or building silhouettes meet). As explicit is the lack of a silhouette line or skyline. Building edges do not contrast sharply or protrude from the sky background;

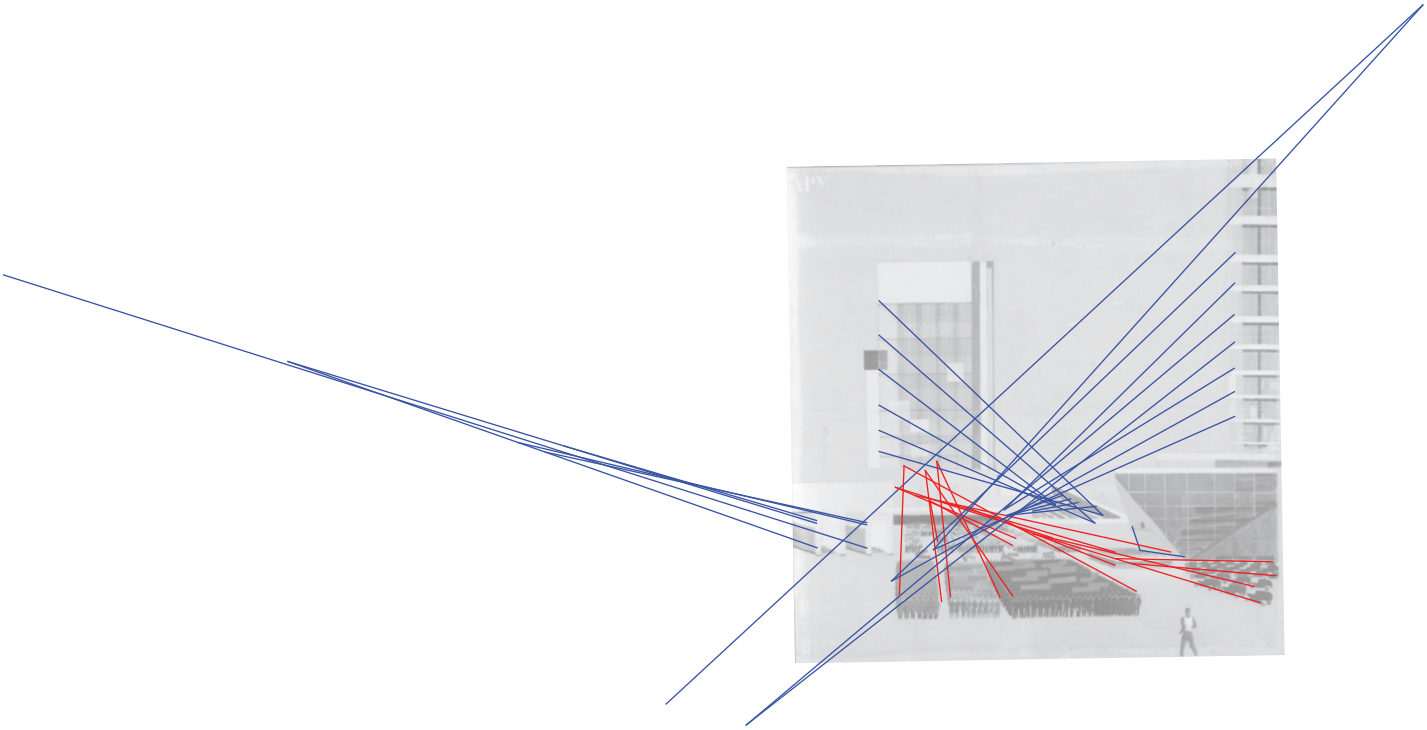


Figure 7.2 ARU's Three-dimensional Drawing does not possess consistent radial projection from a single viewpoint; rather, the drawing seems deliberately distorted: fragmented and splayed.

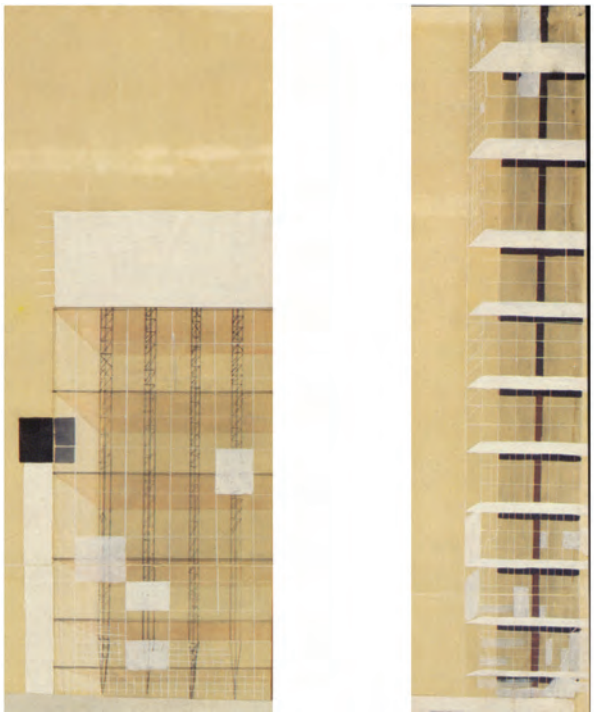


Figure 7.3 Juxtaposing the two building towers (at drawing scale) reveals the apparent inversion of scale. *left* background tower; *right* middleground tower

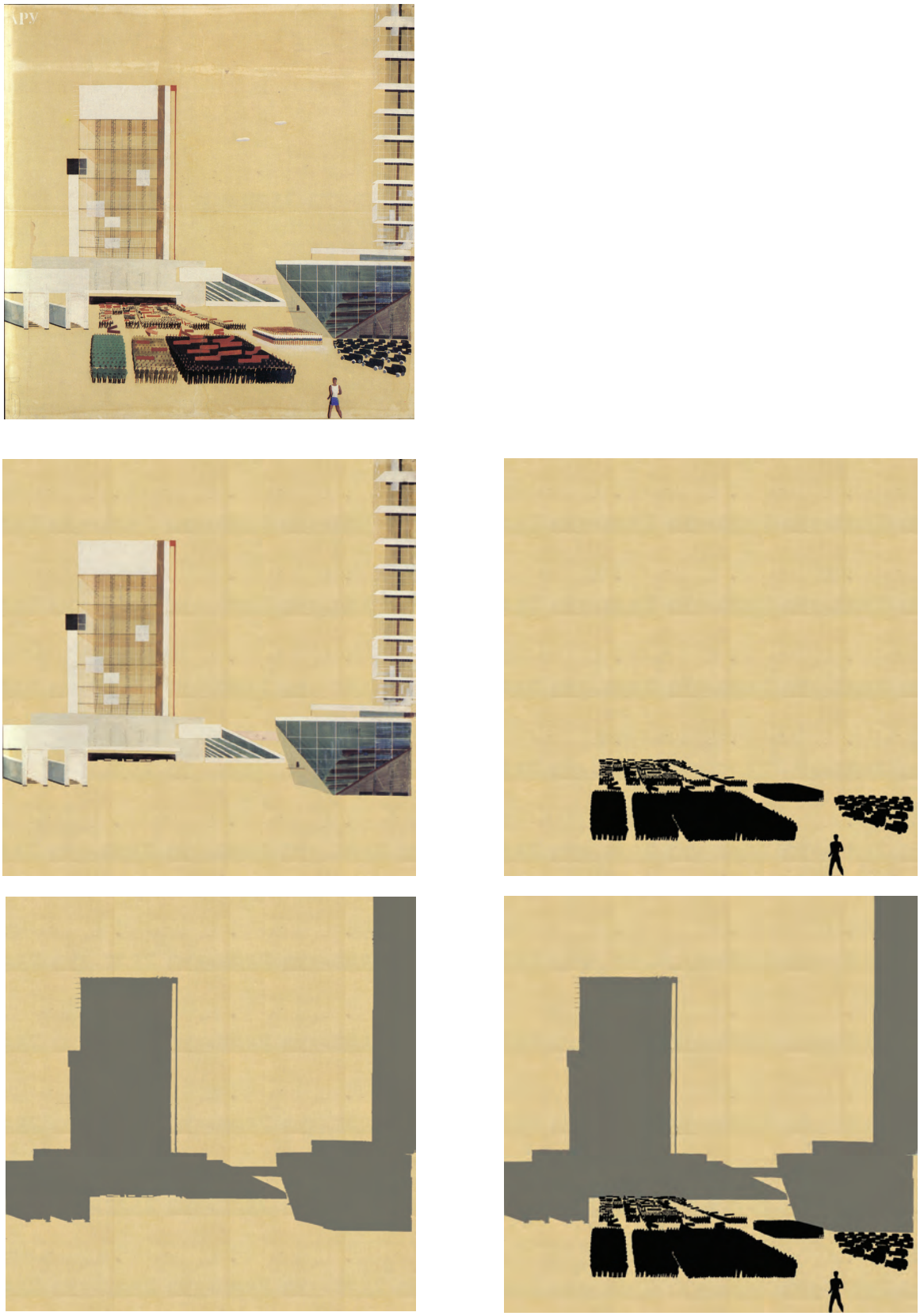


Figure 7.4 Studies in illusionary depth in ARU's three-dimensional drawing. Despite its distortions, it is the the crowd which furnishes depth, while building the near-flat masses hover against the drawing background.

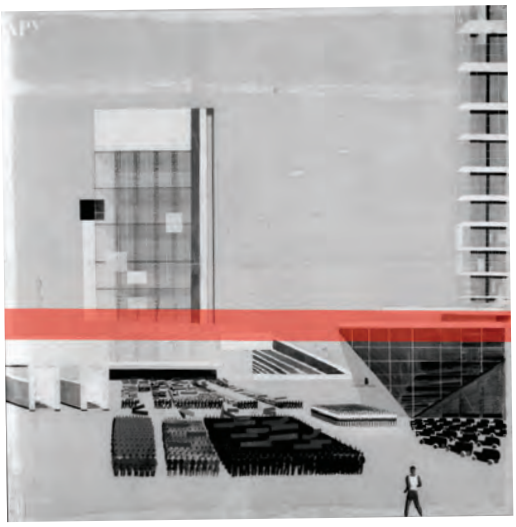


Figure 7.5 Alignment between building parapets at different depths invokes visual tension between flatness and depth.

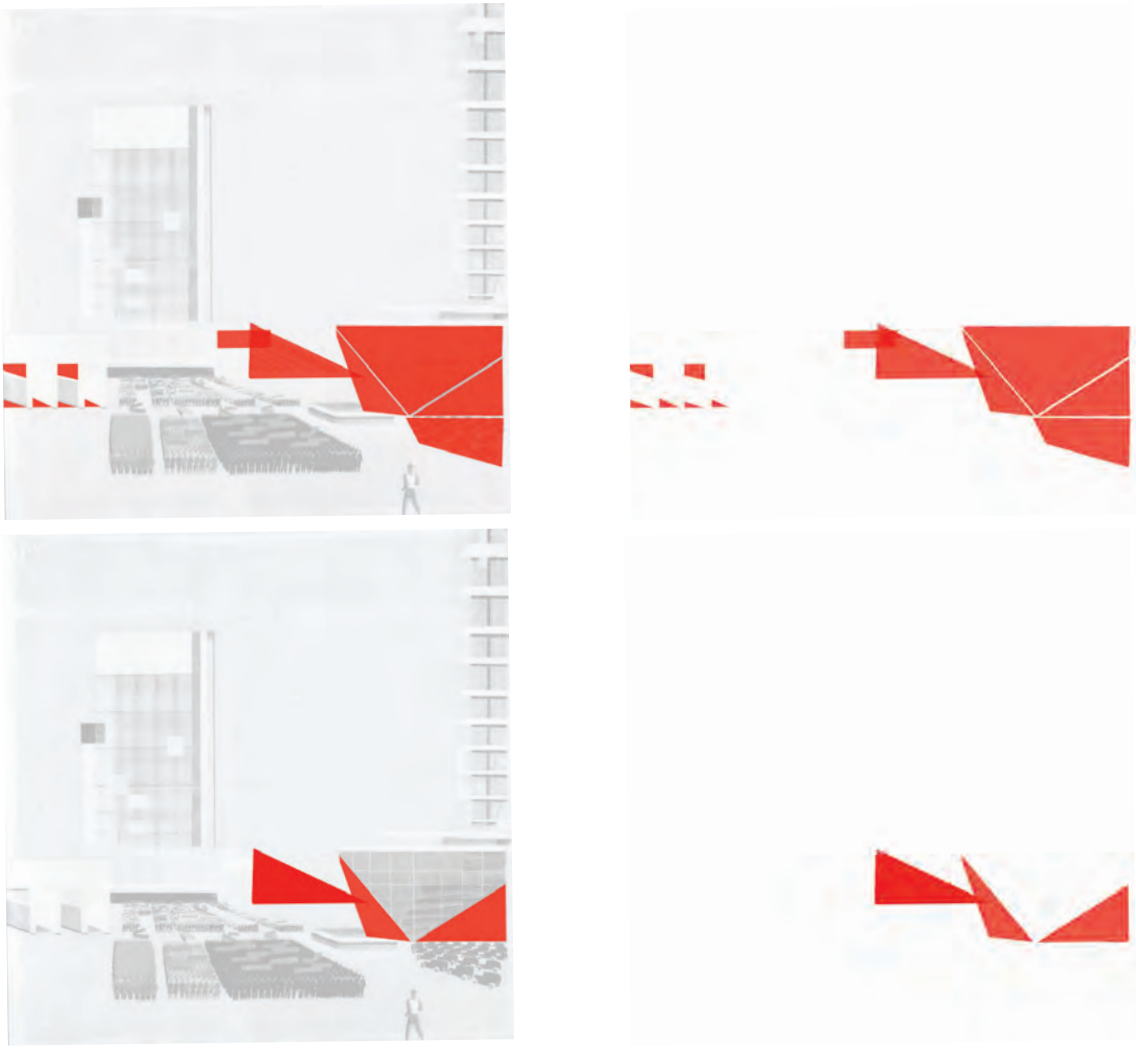


Figure 7.6 The juxtaposition and distribution of (explicit and implied) triangular shapes at varying depths confirms the visual tensions alternating between flatness and depth.

instead, they overlay its light brown yellowish color in a flat manner. Contrast this to a perspective drawing in Boris Iofan's (in collaboration with Vladimir Shchuko and Vladimir Gelfreikh) winning entry for the *Palace of Soviets* Competition [figure 7.7]; here the whole scene is set against a strongly demarcated horizon and building silhouette which also serve to diminish Moscow's urban fabric in the background. [229] But while Iofan's perspectives register Moscow's skyline in order to overpower it, ARU's three-dimensional drawing, looking down the main parade axis, detects no urban presence in the background although the site is in the heart of Moscow. Nor may a 'horizon' – as a graphic horizon-line in perspective drawing aligning all vanishing points of the situated observer - be implied from the projection of forms, as previously discussed. No coherent reading of forms yields a comfortable center of foreshortening. Thus, in contravention to the Panoramic Tradition, the crowd is not visualized against any suggestion of a horizon. Specific associations of the sublime, as promoted by the Panoramic Tradition, are shed in this negation. Instead, and not unlike similar formulations by contemporary artists in the Soviet Union and Europe, the scene partakes of an infinite spatial extension – an alternative evocation of the sublime. The moving crowd, despite the definite hint of foreshortening, marches into a space unbounded by the limits of a horizon, or the constraints of gravitational pull.

Negating the coupling of the crowd to the horizon finds its application in spatial manipulations across Rationalist entries. ARU's parade ground penetrates through their Mass Hall on axis as demonstrated in their plan and layout drawings [figure 7.8]. Despite the potential for framing the entry threshold as a grand, sublime view against the horizon (especially through a vertically proportioned frame), the ARU team's solution is an opaque frame - a rather insignificant, dark horizontal band signifying the Mass Hall's rather timid entrance. Interestingly, ARU's submission eschews a perspectival view from the southern bank of the

[229] This is consistent in Iofan, Shchucko and Gelfriekh's depictions of the Palace across different drawing types and across different phases of the competition; figure 7.7 displays only a handful of examples. Setting the sandstone building color against a solid blue sky in the main perspective shot bespeaks a stark, emphatic contrast; bird-eye views dedicate a significant portion of the composition to a horizon defining a carefully-rendered sky; similarly, street views evoke a dramatically toned celestial expanse; even the Mass Hall interior connotes the horizon in the dome's lower datum line. The point is that, in the favored winning entry, there is a recurrent attempt to depict Soviet crowds and artifacts against the myth-making effect of the sky. The sky, in its variant graphic and spatial connotations, allows the Stalinist Soviet myth to attach associations of sublimity not unlike those of the Panoramic Tradition.

river which many competitors favored [see examples figure 7.9]. This would place the marching crowd in the drawing's middle-ground with the river surface as an horizontal foreground, and framed against Moscow's skyline. For one, Le Corbusier adopts this view; yet characteristically he goes a step further. In a sketch taken from the riverside, he includes the Kremlin ensemble on one side, compared to his proposed *Palace of Soviets* on the other side [figure 7.10 *bottom*]. In doing this, he captures a rare Moscovite quality. With the lower parts of its buildings screened by high brick walls, the Kremlin proclaims its urban presence, as an ensemble, through strong articulation against the sky – a feature that the Church of Christ the Savior, demolished to construct the *Palace of Soviets* in its stead, also possessed. True to his famed sensitivity, Le Corbusier glimpsed this quality and captured it in the way his structures rise above the 'fray' of Moscow's fabric to articulate similar play against the sky. At an early stage of his design process, Le Corbusier even considered placing a '*grande muraille'* – "a long and thick wall formed by contrasting box-like forms parallel to the Moscow River"[230]- as the principal design move to unify what was otherwise a series of local decisions on each of the program sets [figure 7.10 *top left and right*]. In his final design submission, Le Corbusier's elevated ramps and walkways played a similar role: to screen the base of the building and assign visual emphasis to the play of forms and symbols conjured against the sky. Elevated in a large terrace above street-level, Le Corbusier's main mass crowd is integral to this deliberate composition attaching it to the sublime. In contrast, ARU's crowd partakes of no similar grand framing against horizon, sky or river. Besides the disrupted framing, the juxtaposition of the Small Auditorium's diamond-shaped mass to the Mass Hall's rectilinear forms – and in such a way that alignments are difficult to draw between them – diffuses all alignments that may suggest a horizon datum.

A few important conclusions may be drawn here. In terms of depth then, the overall effect resulting from ARU's drawing is one of forced shallowness, or rather of a tension (subtle as it may be) between the illusionary depth of the foreground forms and a background that seems to advance forward, flatten out and

[230] Cohen, *Le Corbusier and the Mystique of the USSR* (992): p. 170.

Figure 7.7 Boris Iofan, Vladimir Shchuko and Vladimir Gelfreikh, *Palace of Soviets* Competition (1933), Fourth Phase, winning entry. Different depictions of the Palace consistently pose the composition against the horizon (in its different meanings), silhouttes or connotations of the sky. Even the Mass Hall interior recreates the horizon through the lower rim of the dome [see *lower right* image]. [source: www.utopia.ru and other online sources]

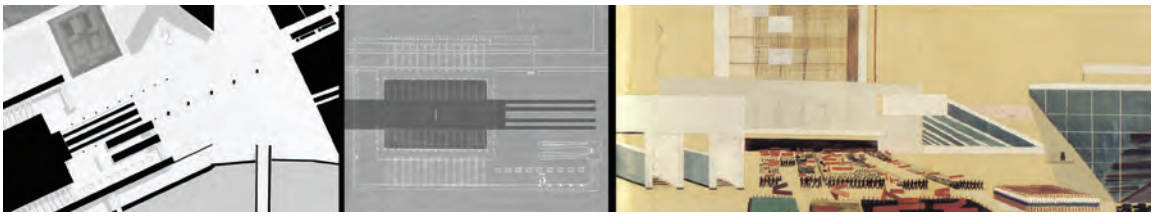
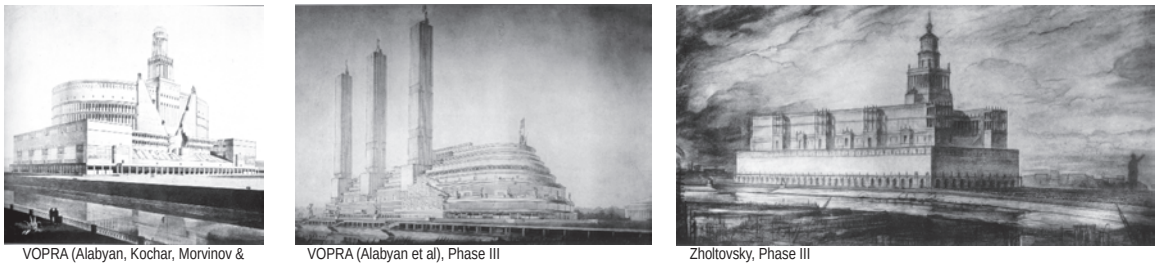


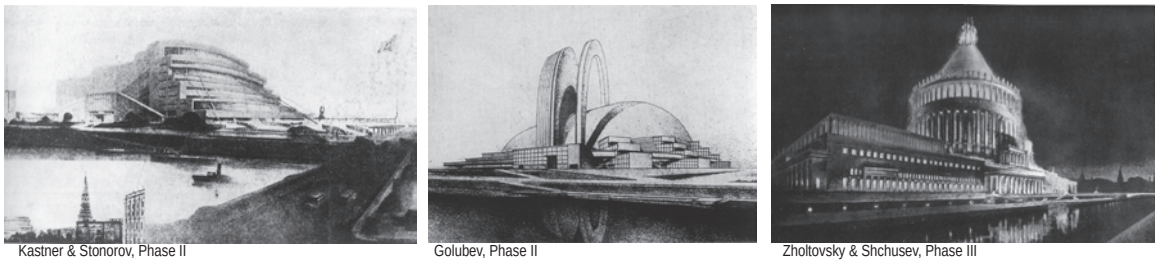
Figure 7.8 ARU's axial entry is de-emphasized in their three-dimensional drawing.



VOPRA (Alabyan, Kochar, Morvinov & Simbirtsev), Phase I

VOPRA (Alabyan et al), Phase III

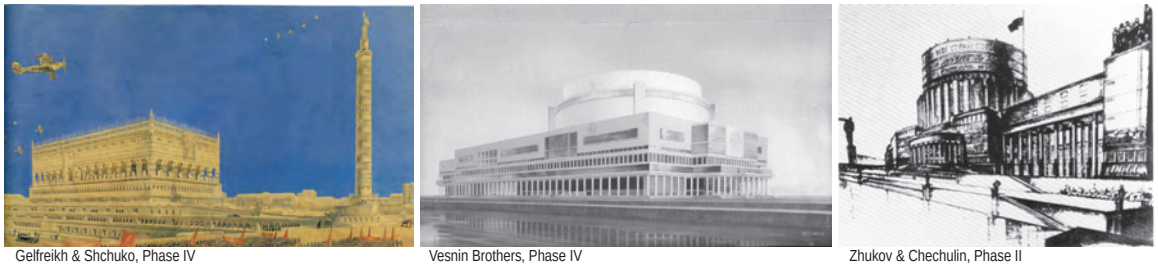
Zholtovsky, Phase III



Kastner & Stonorov, Phase II

Golubev, Phase II

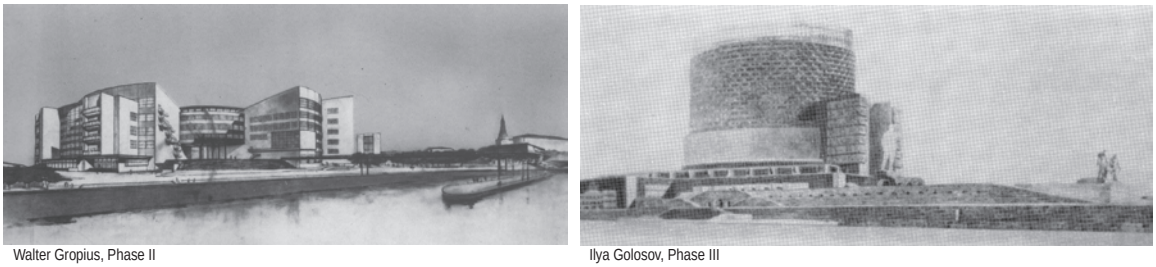
Zholtovsky & Shchusev, Phase III



Gelfreikh & Shchuko, Phase IV

Vesnin Brothers, Phase IV

Zhukov & Chechulin, Phase II



Walter Gropius, Phase II

Ilya Golosov, Phase III

Figure 7.9 Perspective drawings by multiple competitors in the *Palace of Soviets* Competition showing the near-identical pictorial structure: the proposed building and crowd in the middleground are sandwiched between the river in the foreground and the sky in the background.

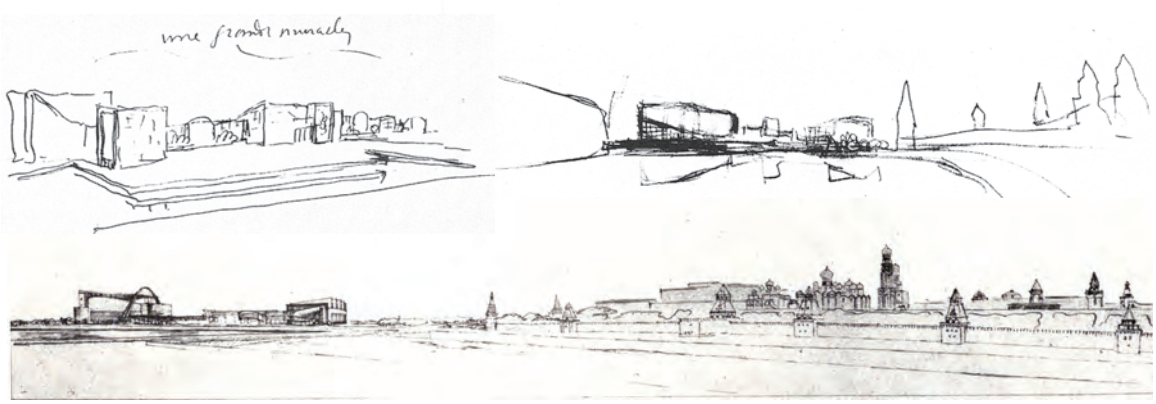


Figure 7.10 Le Corbusier's sketches for "une grande muraille" and two riverbank views. Note how his Palace frames new icons against the skyline in response to the Kremlin towers while lower floors disappear into the everyday city.

is rendered vague and hazy. Depth evoked by the inconsistently foreshortened crowd formations (and the tentative layering of building masses) competes with the shallowness advancing from the graphic background. Moreover, non-generic alignments between masses and figures in the foreground, middleground and background entangle all such 'grounds' in a weave-like, fluctuating movement between the different layers. Rather than allowing the illusionary space of foreshortening (fragmented as it is) to completely overwhelm the drawing's impression, the drawing's graphic 'presence' is retained. We remain in the presence of a drawing; the devices of flattening and interweaving negate a comfortable resolution of the quasi-illusionary foreground into a background.

Pulsating Background, Hovering Masses

Alongside depth, the drawing thus problematizes *background* - the very notion of the graphic background. When analyzing theatrical performances from early revolutionary Soviet festivals, James von Geldern noted how stage sets possessed a similar arrangement: a shallow stage depth, rendered even shallower by the blandness or darkness of the background. Von Geldern likened such sets, as constructed for V. E. Meyerhold's play *Mystery-Bouffe* (written by Vladimir Mayakovsky, 1918; compare set design in figure 7.11 *left*), to the effect of a Russian religious icon [figure 7.11 *right*].

> Russian Orthodox ritual is conducted in a shallow space in relief against a vertical iconostasis. Movement is rhythmic, regulated by choral chants, and the iconostasis is flat, depthless. The artistic simplification suited to eternal principles is often accompanied by a loss of the third dimension: essentials are thrown into stark relief against a flat background. Flattened and idealized against the backdrop, action takes on new significance.[231]

Von Geldern explains the allusion as an attempt to re-calibrate historical time; placing foreground stage events of the revolution against a visual background conjuring mythical time allows a freer mix of

[231] James Von Geldern, *Bolshevik festivals, 1917-1920* (Berkeley CA: University of California Press, c1993): p.50.

references. It was against such visual backgrounds in different 'mystery' plays, that re-enactments of the Bolshevik uprising of October 1917 was seamlessly sequenced with acts from the Paris Commune, Central-Asian heroic revolutionary feats but also events even more disparate as ancient Greece and Noah's deluge.[232] It was thus that the revolution's historical affiliations were retrospectively re-forged in numerous festivities. To some extent, ARU's drawing partakes in such a tradition; the mass of soldiers and athletes march into this shallow space. In other words, the drawing's background and relative flatness allow the designer - and more generally, any viewer – to perceive the massive crowd (the people, the proletarian masses) as set against this mythical time which permits mutations of reference and hence permutations of identity.

Yet this analysis would forfeit much if arrested here. While ARU's drawing may affiliate with the pictorial tradition of the Russian Orthodox icon, it departs from it in other significant respects. As argued above, framing against a horizon is negated. Instead of marching towards a horizon, ARU's crowd almost floats into the drawing depths – into that light-brown haze continuous in the background from 'earth' to 'sky'. Indeed, without shadows cast on the ground (even though some shadows are cast elsewhere in the drawing) the buildings themselves seem to hover. Additionally, close inspection reveals that this oversized drawing is dotted with seemingly hovering objects: barely visible white dirigibles in the upper right-hand quadrant; the speaker's balcony attached to the foreground building; that building's rear mass; the horizontal rectangular prism attached to the background building's platform; and the patches of white on that building's façade.

Besides (or perhaps rather than) the Russian Orthodox Icon, this approaches the non-objective qualities of Suprematist paintings [see example, figure 7.11 *right*]. Interestingly, *Mystery-Bouffe's* stage-set was influenced by none other than Kasimir Malevich himself, who designed its first iteration in its 1918 Petrograd

[232] Von Geldern's argument unfolds throughout Chapter Two "Revolution and Festivity", in *Bolshevik festivals* (c1993).

production.[233] The impression of ARU's drawing is one where unexpected or unusual (visual) rules of kinesthetics and gravity apply. Thus, this drawing should not be taken exclusively in terms of its 'object' properties. Much like a Suprematist painting, it is an arrangement of hovering forms – or forms emphasized as planes (frontal planes) – with color partaking in the effect through subtle variations of white and beige against the yellowish light-brown color of the drawing paper. Besides the malleability of time-perception that is generated by the shallow depth and the background's *ganzfeld*, and which helped re-locate the revolutionary crowd in mythical time, another mutability is at work. Seeing the crowd in context of a reduced gravitational effect evokes kinesthetics as a conceptual category with which to visualize the crowd – as will be argued in more detail in Chapter-9: "Kinesthetic Space: Intersubjectivity and the Problem of Other Bodies". Ivan Leonidov's plan for the *Narkomtiazphrom* competition 1931 [see figure 7.12 *middle*] bespeaks similar denials of the sensibility of weight. Resting against a background which similarly advances, the building shapes exhibit no 'thickness' as projections of three-dimensional forms. For some shapes, they may equally sink into the drawing surface or hover above it; for others, the potential to slide sideways is given by the noticeable absence of precise sharp lines as a consequence of gouache application. The effect is subtly enforced by the trees drawn rotated as if in elevation imposed on a looking-down plan.

It is against the unmistakable presence (even thrust) of the drawing's background – and not through its denial via illusionary space – that perceptions of depth are conjured. The agency of the background here seems to be a belated response to the controversy, among the avant-garde artists in April 1922, over the redundancy of the background in composition.[234] But instead of attempting to eliminate the background as Nicolai Ladovski proposed and Ioganson executed, ARU brought the background into perpetual play.

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[233] E. F. Kovtun and Charlotte Douglas, "Kazimir Malevich", *Art Journal: The Russian Avant-Garde*, vol. 41, No. 3 (Autumn, 1981): pp. 236. The set design in figure 7.11 I by Viktor Kiselyov and from the 1921 production; source: The Global Performing Arts Database http://www.glopad.org/pi/en/record/digdoc/1168 (accessed August 26th, 2008). Although Meyerhold is reported to have criticized Malevich's 1918 set as too "painterly", the influence on Kiselyov's later set remains in the dark background and the layering of forms against it.

[234] Maria Gough, *The Artist as Producer: Russian Constructivism in Revolution* (Berkeley: University of California Press, c2005): chapters 3 & 4.

Figure 7.11 *left* A model of Viktor Kiselyov's set design for *Mystery Bouffe* second production (1921), written by V. Mayakovsky and directed by V.E. Meyerhold [source: www.meyerhold.org];
right A religious icon from the Russian tradition, *Virgin* c.1502 (Tretyakov Gallery, Moscow) [source: Weitzmann, *The Icon*, 1982].

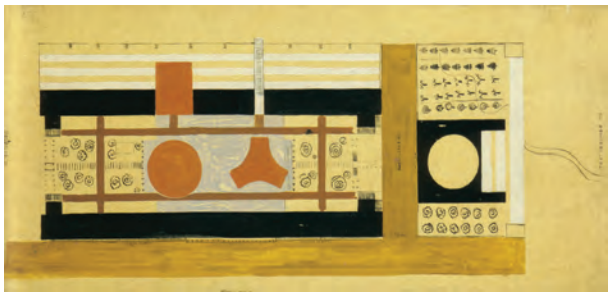

Figure 7.12 *left* Kasimir Malevich: *Suprematist Composition* (1920s); *middle* Ivan Leonidov's Layout for the *Narkomtiazphrom* Competition submission; *right* ARU's three-dimensional drawing for the *Palace of Soviets* Competition submission.

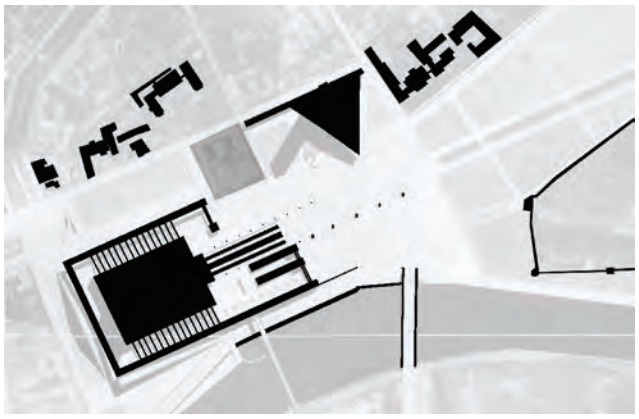

Figure 7.13 A mass plan of ARU's *Palace of Soviets* proposed scheme in context of surrounding urban fabric showing the indefinitiveness of the parade ground.

How may the activation of the background inform crowd-visualization? While it seems a particularly painterly property, indirect spatial and formal moves ensue. One pertinent property is exemplified by Liubov Popova's stage-set design for Meyerhold's *Magnanimous Cuckold* (1922). Against the evenness of the light-field which Meyerhold imposed equally on both stage and auditorium, Popova employed color to evoke variant sensations of depth and three-dimensionality on stage. Another treatment of background in spatial compositions may be inferred from ARU's scheme itself. Instead of creating the building background as a strong material mass (as in, for example, Boris Iofan's entry), ARU's background is nearly immaterialized, even if still as strongly emphasized. Building masses encircling the crowd do not dominate its assembled bodies. They remain spatially fragmented, besides being depicted from such angles as to confirm such incoherence. It is difficult to conceive of building masses surrounding ARU's parade ground as one coherent enclosure [see figure 7.13]. Instead, the layout is an assortment of forms, elements, and fragmented alignments which are activated by (and during) the presence of the crowd and the order it brings.[235]

Immersing the Observer

ARU's different drawing fragments, 'misalignments' and the lack of a clearly demarcated horizon-line induce a further effect. It is as if the drawing's observer moves up-and-down as well as sideways in order to shift into 'correct' viewing positions. Not unlike some Cubist paintings, the drawing surface simulates a moving observer - viewing from multiple points-of-view. But while a Cubist painting fragments the viewed object to a large degree, and pronounces – quite emphatically - sensations of motion and fragmentation, this ARU drawing muffles its motion or veils its fragmentation effects. Distancing the fragments from each other contributes to diluting the distortions and the collage effects that come about as a result of juxtaposing

[235] The next chapter –Chapter-8: "Dynamic Crowds, Abstract Machine" – will argue this point in more detail. ARU's *Palace of Soviets* building-masses do not define an enclosure per se. Spatial definition – or rather *spatial conception* - issues from the crowd as, and when, it amasses around the main axis of movement. Building-masses, in effect, constitute a background to the crowd's action.

fragments from different viewpoints as well as two-dimensional shapes in tension with each other. The distance of negative spaces, especially in a relatively large drawing like this one (46.5”x46.5”), mitigates sharp effect. What affirms this veiling effect is that the overall negative space (the ground) does not alternate with the contiguous mass of objects (building masses and crowd clusters: the *figure*) as figure 7.14 demonstrates [see *lower row*]. The relationship between figure and ground is stable in this drawing.

Yet conversely, while the drawing’s ‘gaps’- where the background rears its presence – work to muffle the fragmentation into a covert effect, a counter-force works to strap together the disparate pieces. An interstitial surface order, acting across the square drawing field itself, conjoins the drawing fragments into a tense unity that just barely masks its fragmentation [figures 7.14 and 7.15]. The drawing’s square surface is subdivided into segments using such alignments between its components and depicted shapes as incongruent with their spatial relations. For one, the line that joins the top of the two building platforms also bisects the square drawing field into two segments. The lower segment is where forms stand out in sharper relief; it is also the zone where the crowd figures and mass are concentrated together with the viewer’s position. The upper section is where forms tend to read more as planes with varying degrees of transparency, with a visual effect of subtle, vibrating depth, complemented by the understated three-dimensionality of the floor-plates behind the translucent façade - and which curiously disappears as the distance of viewing increases. This barely-visible, subtle order is brought to an effect of ‘surface tension’. That same line, which depicts the background mass’ platform-top and aligns with that of the foreground building platform as well, represents, on one hand, a flagrant flouting of perspective drawing, but on the other hand, a confirmation of deliberate intention on the part of the designer. This alignment can only be from a very specific height and viewpoint, or a non-generic viewing position. Far from being an isolated decision: another tense alignment relates the lower edge or ground-line of the Small Auditorium to the uppermost line of the cluster of marchers in dark uniform (see figure 7.15). In effect, the two largest, darkest shapes on the drawing surface with the sharpest contrasts to the background color, are aligned in a tense relation; inclined in the same direction, the two oblique quadrants induce a sense of dynamism across the surface, while evoking a tenuous uneasy

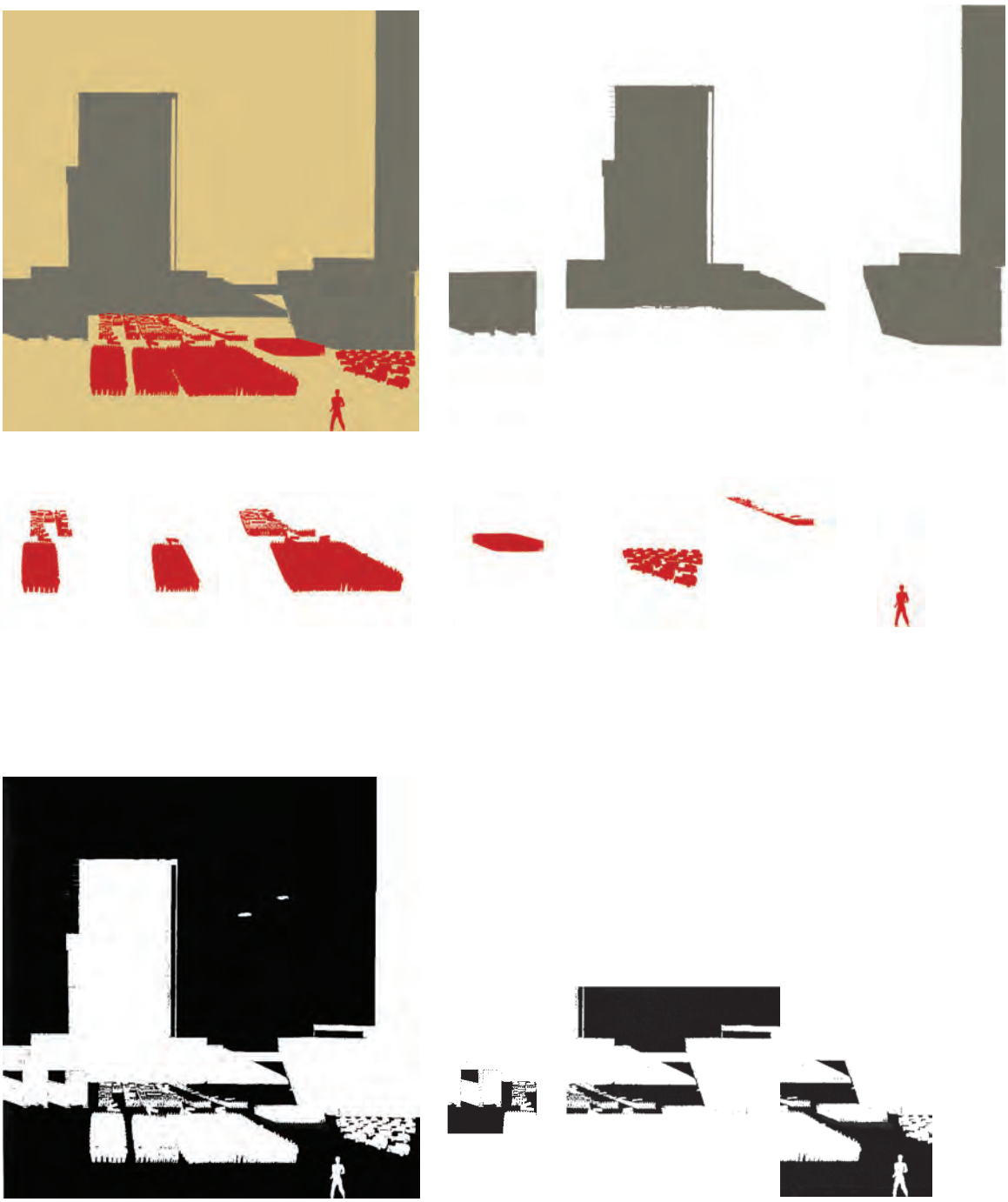

Figure 7.14 *upper and middle rows* A breakdown of ARU's three-dimensional drawing into its component fragments: building forms and crowd clusters.; *lower row* Negative space gaps mask the tensions between shapes.

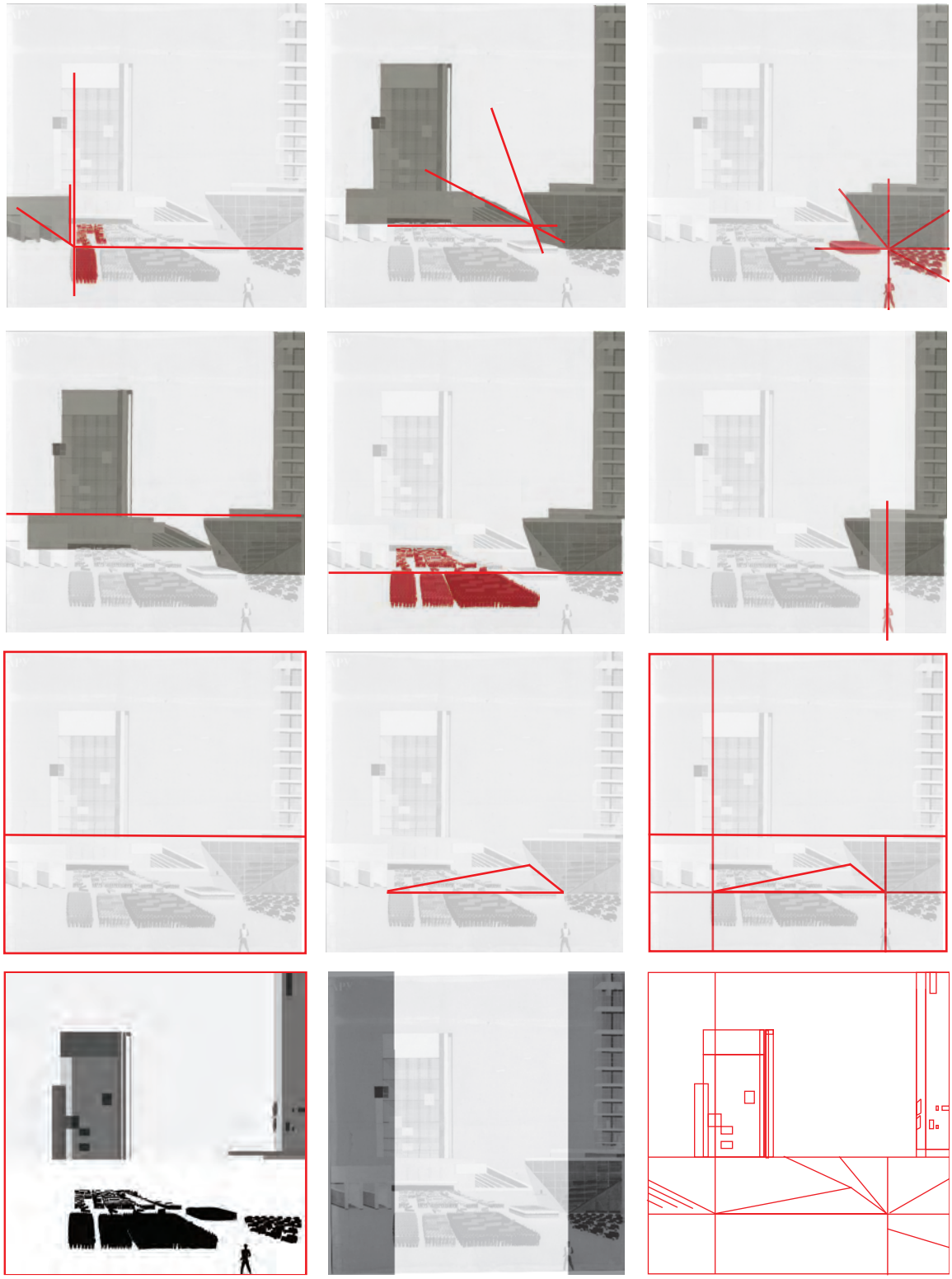

Figure 7.15 Alignments between drawing components (incongruent with their spatial relations) evokes a structure of surface tension. Translucent building planes in upper section vibrate in depth.

lower row left horizontal alignment drawing segments in terms of two treatments of depth
lower row center vertical alignments generate an effect of folded surface
lower row right the compiled structure of surface tension.

balance between them. Moreover, the edge of the Mass Hall tower extends down to align with the edge of the leftmost cluster of marchers. Almost symmetrical with this alignment is yet another: the implied vertical line connecting the triangular building's base to the singular athletic figure in the lower right, creates another source of tension with his head.

In-between such alignments, a series of 'angled convergences' further enforce the surface tension. From the left: the curiously angled staircase comes to a head against lines and alignments extending from the crowd clusters. Across the drawing surface, and almost symmetrical to this last point, is another tense point ensuing from the convergence of the Small Auditorium's pointed base, the (again) curiously angled parked-vehicles and the cluster of standing athletes. A third, even more pronounced, convergence occurs where the edge of the Small Auditorium's chamfered mass in the middleground only slightly touches the edge of the background atrium: yet again a non-generic viewpoint that partially veils the horizon line and partially occludes the historic building sitting onsite right behind the secondary auditorium [see ARU's layout figure 7.13].

To what then do all these observations on depth, background and surface add up? ARU's three-dimensional drawing (and to some extent Leonidov's *Narkomtiazphrom* layout) evokes multiple tensions. For one: the tension between the directional depth strongly suggested by the marching crowd versus the hovering building forms suspended in a drawing space that does not distinguish between sky and ground. Additionally: the vibrating tension between the mask of alignments on the drawing's surface, versus the unevenly foreshortened forms contained within the drawing's depth. Furthermore: the subtle, but unrelenting, tension between the drawing's background (forcing its way forward, and affirming an unmistakable presence through the hovering kinesthetics it evokes) and the drawing's surface. Besides pronouncing the presence of the drawing's background, its 'surface' is also evoked – if rather obscurely. This tense surface order engenders a counter sense of presence in the observer, not unlike the effect

evoked by Aleksandr Rodchenko's *Vakhtan Lumberyard* series, 1928. As the drawing's observer: just as one becomes attentive to the drawing-background's intense presence, one is alerted to one's own presence as the drawing's surface-tension intrudes into one's space. Self-awareness in front of a work (a painting, photograph, advertisement …etc.) maintained the viewer's critical sensibilities, Rodchenko and Mayakovsky argued - a resistance to commodity fetishism.

Such tensions, as the eye cannot resolve, offer the viewer and/or designer multiple, distinct venues to read the work: to empathize into the drawing and enter with the marching crowd, to read into the layers of forms and planes into the depth of the drawing, or to read as a Cubist painting from shifting viewpoints. While such venues are legitimate and could advance meaningful readings, what I want to focus on as a starting point for the next section is one shared thread: the discussed tensions evoke *presence* – a rich array of qualities and kinds of *presence*.

Theoretical Reformulations: Components of the Framework of 'Seeing'

Hence, the 'framework of seeing', as graphically reformulated by ARU within the confines of an architectural drawing, may be summed up in four components. The crux of this reformulation asserts that, instead of addressing problems of crowd visualization through representational narratives of immersion, co-visibility or shifting attention, ARU opted to formulate the 'framework-of-seeing' through redefining graphic conventions. More specifically, these drawing conventions involved the drawing-viewer's subjectivity in the subtle visual and kinesthetic sensations which the drawing itself evokes as an artifact. Thus, this design-drawing behaves as a device re-orienting the viewer's senses, and as a subtle instigator of his/her psychological sensations in preparation for the design act that s/he partakes in. The following discussion articulates the four components as well as extends the argument from graphics to the spatial design moves which they afford.

First and foremost, the architectural drawing's customary function as a representational device for form and space – as a depicter of the illusion of such form and space, as well as their potential transformations – is shared (even overshadowed) by another function. In its graphic construction, the architectural drawing comes to *exemplify* qualities of that space; it turns its attention to evoking sensations and constructing perceptions inherent in the described or imagined space. Besides projecting the space's dimensionality in the spatial continuum, and besides suggesting its functionality and afforded behavioral patterns, the drawing *qua drawing* transmits the space's *emotions*. It emerges as an exemplar of the space's psychological charge.

The architectural drawing attempts to stand in relation to its observer in ways similar to how the space relates to its own observer, immersed in its effects. Empathy for one echoes empathy for the other. By doing this, the drawing – as a graphic construction in its own right – transcends being merely a vehicle for space and form, and comes to inflict its own presence on the observer. It foregrounds the space it shares with its observer in the observer's attention. In other words, the drawing promotes *presence* (and, consequently, co-presence) itself as a design issue. It comes to demand that the juxtaposition to another body or artifact be acknowledged and addressed. This is the second component of ARU's graphic reformulation.

The drawing's *presence* is felt primarily through the tensions evoked by alignments and juxtapositions on ARU's drawing surface, by a peculiar evocation of the background, as well as multiple treatments of depth (as discussed above). Its graphic tensions suggest discontinuities and disjunctures in the designed space, although not necessarily of the same exact nature. The connection between the spatial and the graphic domains will be discussed in more detail below; it is important to note here that each retains a measure of independence, even while recalling each other.

Third, qualities of tension and discontinuity – whether in space or in drawing – perform another function, which may be considered structural to the new 'mode of seeing' constructed to counteract the Panoramic

Tradition. Effectively, the drawing supports an optical routine of 'shifting attention' by preventing the eye from settling into a resolved composition. While not too pronounced so as to utterly dissuade viewing, the technique of masked graphic tensions urges the eyes to 'move along' - to continue 'sliding' across the drawing surface without resting anywhere specific. Graphic technique is also buttressed by compositional content in ARU's three-dimensional drawing. As the crowd, the principle gauge of depth in this drawing, marches into the illusionary space it suggests, its axis of movement terminates anti-climactically at the indescript small dark rectangle of an entrance to the Main Assembly Hall. What would have readily qualified as the graphical focal-point of the drawing is de-emphasized. As a satisfactory resolution of the graphic composition is denied, the eye continues roaming, only to further engage the tensions discussed above. This graphic technique begins to translate Meyerhold's theatrical ideas of shifting attention into architectural drawing conventions.

Political Reformulations: Crowd Space

Before discussing the fourth component of the 'framework of seeing', two related questions beg attention here. What design strategies are such graphic techniques seen to scaffold? Implied in this question is yet another: what is the nature of that 'scaffolding' - what relationships obtain between the drawing's graphic conventions, components and composition on one hand, and the properties it scaffolds in physical space on the other hand?

To address the first question, a few examples begin to make the case for a strong drawing-*cum* -space connection. Ideas of shifting attention in drawing find their counterpart in alike spatial maneuvers to construct a field of view where the eye is prompted to continuously roam. Early glimpses of this are evident in the Vesnin Brothers' 1922 entry to the *Palace of Labor* Competition. Already, attempts to morph the curvilinear geometry, with its inherent centralized and hierarchical attention, display themselves in the

multiplicity of centers which the Vesnins generate. The shape of an assembly hall affords clues for where an attention locus may occur. Displacing the potential center of attention from the hall's geometric fulcrum, the Vesnins assertively de-emphasize the latter through using an elliptical plan [see plan and section, figure 7.16]. Possessed of multiple centers or foci, the ellipse already suggests a dispersion of attention; yet, furthermore, the Vesnins place the emphasis of the seating arrangement away from the 'middle' center (the strongest point), and onto a competing side focus. Meanwhile, this middle center of the ellipse is signaled only via the apex of the trussed roof. Additionally, opening up the large hall to the smaller one shifts the center of attention even further afield and into an oblique direction.

Yet, although multi-centered, the Vesnins' diagram of attentional foci still tends more towards being a static (if tense) arrangement rather than evoking a dynamic typology. It depends on competition between, and shifting focus among, static points. It was up to later developments to evolve more dynamic modes of shifting attention. In ARU's submission to the *Palace of Soviets* Competition, as well as in work by Nicolai Ladovski's entry to the Synthetic Theatre Competition (Sverdlovsk 1932) [figure 7.17], one glimpses such distinct formulations of the dynamic kind within a synchronic space. A linear performance space extends an exterior parade ground into the space of assembly, while splitting the spectators into two or more main stalls. Facing each other while also overlooking the stage between them, this arrangement affords the potential for audience members to scrutinize each other as they simultaneously observe the performers. Instead of a single focus of attention onto the stage as in Le Corbusier's Mass Hall scheme, or even the multiplicity of static points as in the Vesnins' *Palace of Labor*, the configuration here embeds simultaneous, multiple foci. At a fundamental level, it inscribes attention onto a *line* (or lines) instead of a point or even an array of points [see diagram, figure 7.17]. De-emphasizing curvilinear geometries which tend to generate implied static points, ARU's and Ladovksi' rectilinear geometry attaches attention to dynamic formal elements (long lines, open vistas, …etc.); it attends to movement with its stronger connotations of kinesthetics. This arrangement also begins to favor spatial configurations which emphasize the frontal display of spectator's bodies to each other, while affording axonometric views of the performance area as a

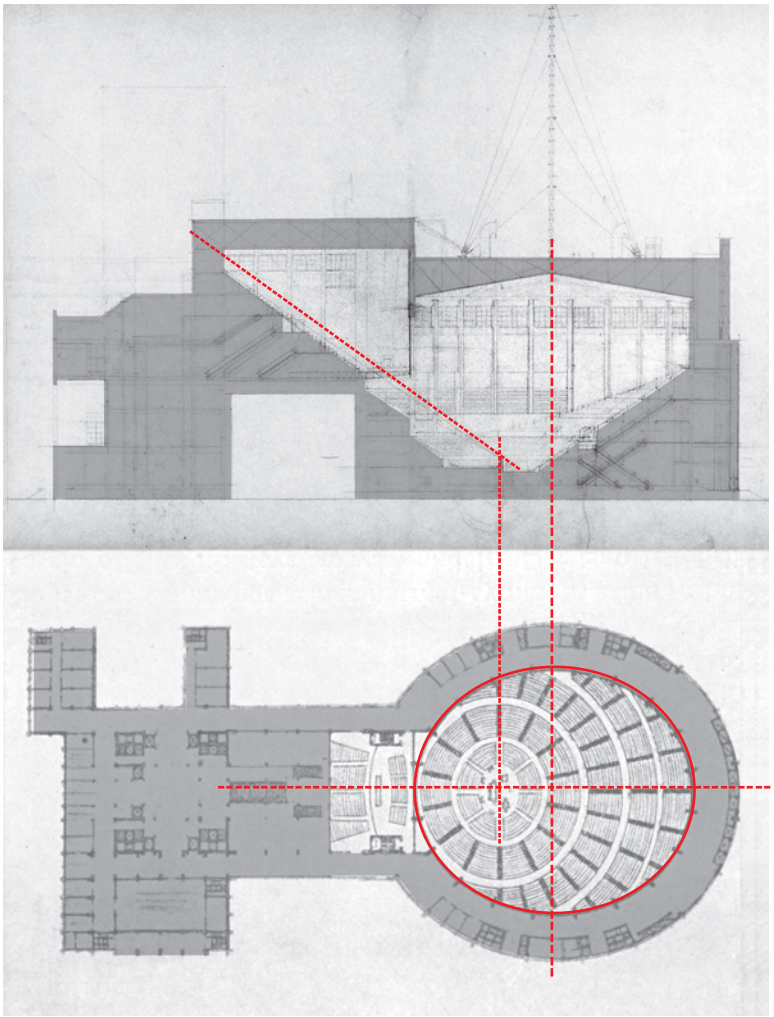

Figure 7.16 Vesnin Brothers, *Palace of Labor* Competition Entry, 1922 (Third Prize):, Plan and Section: note the de-emphasized elliptical center, and the expandable assembly hall.

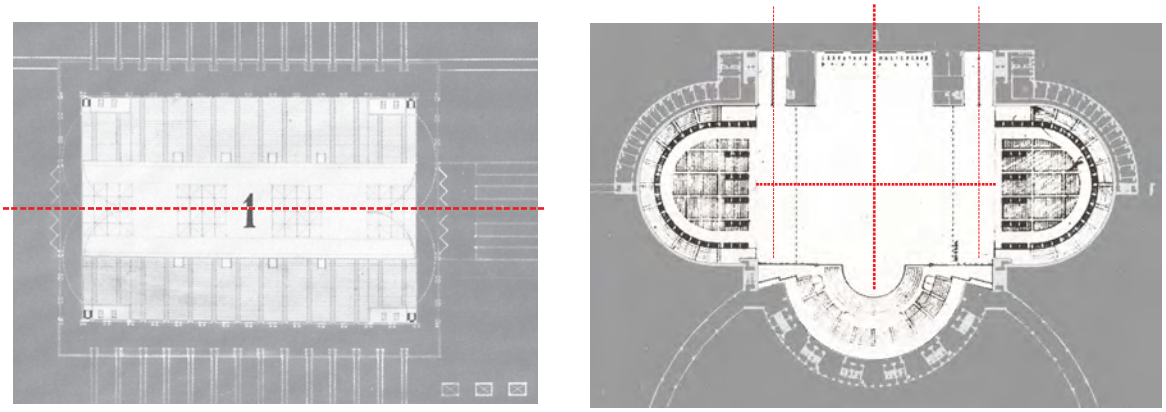

Figure 7.17 lines of movement and attention
left ARU, *Palace of Soveits* Competition, Moscow (1931).
right Nicolai Ladovski, (Multipurpose) *Synthetic Theater* Competition, Sverdlovsk (1932).

whole. Also true to Meyerhold's doctrine, ARU and Ladovski's schemes pronounce an important feature: the visual observation of the plan arrangements of the 'stage' area, which involves registering the spatial relations between performers as integral to the mass performance.

In this example, the relationship between graphics and space remains primarily analogical. The mode of shifting attention that the drawing promotes does not suggest, let alone structure, the specific modes of attention in the spaces of Vesnin's, ARU's or Ladovski's entries. Notionally, the one mutually evokes the other, but does not proffer the system of notations, or even visual techniques, from one to the other. A linear focus of attention is neither drawn nor implied in ARU's three-dimensional drawing as part of its graphic techniques.

Another kind of scaffold involves the translation of visual techniques into space. In a related chain of effects, the drawing's particular graphic tensions and discontinuities suggest specific sensations of discontinuity in space. ARU's spatial configurations structure a field of co-visibilities that is uneven (as the next chapter, Chapter-8: "Dynamic Crowds, Abstract Machine", will argue in more detail) – not unlike the fractious graphic view captured in the drawings. Unlike Le Corbusier's space which promotes smooth visual flow, ARU's visual field is designed to be irregular, through using a collage of close-ups and distant views ('deep shots'). This affords a stronger sense of attention and presence. With pronounced presence comes a sustained alertness in the observer (of both drawing and space). This theme, in turn, finds other manifestations in the design scheme. As will be demonstrated in Chapter-9: "Kinesthetic Space: Intersubjectivity and the Problem of Other Bodies", such alertness also marks the experience of marchers in ARU's parade ground, and assembly-attendees in Ladovski's Mass Hall, where slightly curved surfaces preempt the moving body from resting into an unconscious rhythm.

To emphasize: the connection here is more than merely analogical. On the one hand, there are the drawing's graphic discontinuities, particularly its surface tensions visually alternating with foreshortened

depth, the latter also vibrating against depth through layering, as well as a sense of hovering weightlessness overcoming the sense of grounding which attends the depiction of building masses. These discontinuities promote an observer's eye to move, across the drawing surface as well as into its depth, in an uneven and incessant manner. On the other hand, the space which this drawing suggests is one where corresponding discontinuities would spatially come to operate. A dynamic crowd effects a visual field which abruptly juxtaposes deep views to close-ups, while its movement on curved ground surfaces preempt indifference to surroundings. In a sense, this is the generic condition of an uneven or a moving crowd; it is also the outcome of the manipulation of building elements, and the placement of building artifacts, around the observer as part of a design strategy. In ARU's design for the parade ground, as marchers walk down the curvilinear ramps then up again, they open rather unexpected gaps in the visual field. Distant crowd members suddenly come into view, juxtaposed with close-ups from nearby bodies.[236] Space, alike drawing, conjures a state of alertness. Yet the visual field's fractures are further exasperated by placing the sharp triangular form of the Small Auditorium along the parade ground. The building's oblique edges and surfaces generate sudden breaks and transitions in the visual field, whereby, again, close-ups and deep views are juxtaposed in sharply alternation.

In other words: beyond analogy, the drawing exemplar serves connotative sensations to be employed in conceiving of co-visibilities in space.[237] It also serves as an apt overture into one final way through which ARU's drawing scaffolds design strategies in an even more structural way – and which, I posit, thereby coheres the picture of the fourth component of the 'framework of seeing'. If one re-examines ARU's three-dimensional drawing closely, one reaches the conclusion that the drawing is actually more concerned with depicting the negative volume inhabited by the crowd, rather than with depicting the physical building masses, or even the spatial volumes occupied by the physical buildings. By rendering the artifact using the

[236] The effect is not unlike recurrences of Aldo Rossi's collage sketches where foreshortened (hence enlarged in scale) small objects or fragments of objects pose next to distant large objects (hence diminished in scale), all seen as nearly equal in size from a viewpoint that disallows differentiation in height.

[237] One can even venture to speculate that the drawing offers particular notations to work with in shaping the spatial discontinuities. Verifying this speculation, however, would require a rigorous study in future.

technique of gouache and white ink on colored paper (trace paper or brown [craft?] paper), the building surfaces somewhat dematerialize [figure 7.18]. Shapes, which have the potential to delineate a tangible, corporeal mass disintegrate as the lines con-firming them are rendered secondary by the unevenness of the gouache application next to the line. Besides this non-conformity of color to line, gouache - and to some extent water-color, as used in other drawings by Ivan Leonidov - tends to extrude above the drawing surface, further divorcing the techniques of line from those of tone and color. The diffuse, translucent quality of the applied color and the overall effect of the applied patches seem to be less the depiction of the physical buildings reflected back from the drawing, and more the volume negatively defined against them. The in-between spatial volume is the object of depiction, not the physical masses.

This observation casts in a new light Nicolai Ladovski's statement that space is the "fundamental *material* of architecture"[238]. This can now be understood as no metaphoric play on words, but as a statement of design intent - a re-orientation of emphasis. The following three chapters will elaborate on the nature of the space advanced by the Rationalists; however, suffice it here to state that Ladovski, and the Rationalist school in general, directed their attention to space as, primarily, the relationship to other bodies (and secondarily to artifacts). What ARU's three-dimensional drawing is concerned with depicting is *that space 'around', 'within' and 'of', the crowd*: the gelatinous medium which the crowd actively shapes with its movements and through which it mediates its presence with the building artifacts. Hence the purely pictorial device of defining an enclosure (where there is none) but such that it envelopes the crowd. Despite that the extension between building-masses in ARU's scheme is very loosely enclosed in plan, its depiction in the three-dimensional drawing attempts – through peculiar, non-generic viewpoints and alignments – to evoke a sense of enclosure, if only at one corner (achieved through layering) [see figure 7.19]. The drawing shifts emphasis to this space as the field of crowd agency.

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238 Nicolai Ladovski, quoted in Khan-Magomedov's *Pioneers of Soviet Architecture* (1987): p.189; also quoted in Catherine Cooke's entry, "Ladovski, Nikolay (Aleksandrovich)", the Grove Art Online. Oxford University Press, *http://www.groveart.com/* (accessed May 16, 2006); my italics.

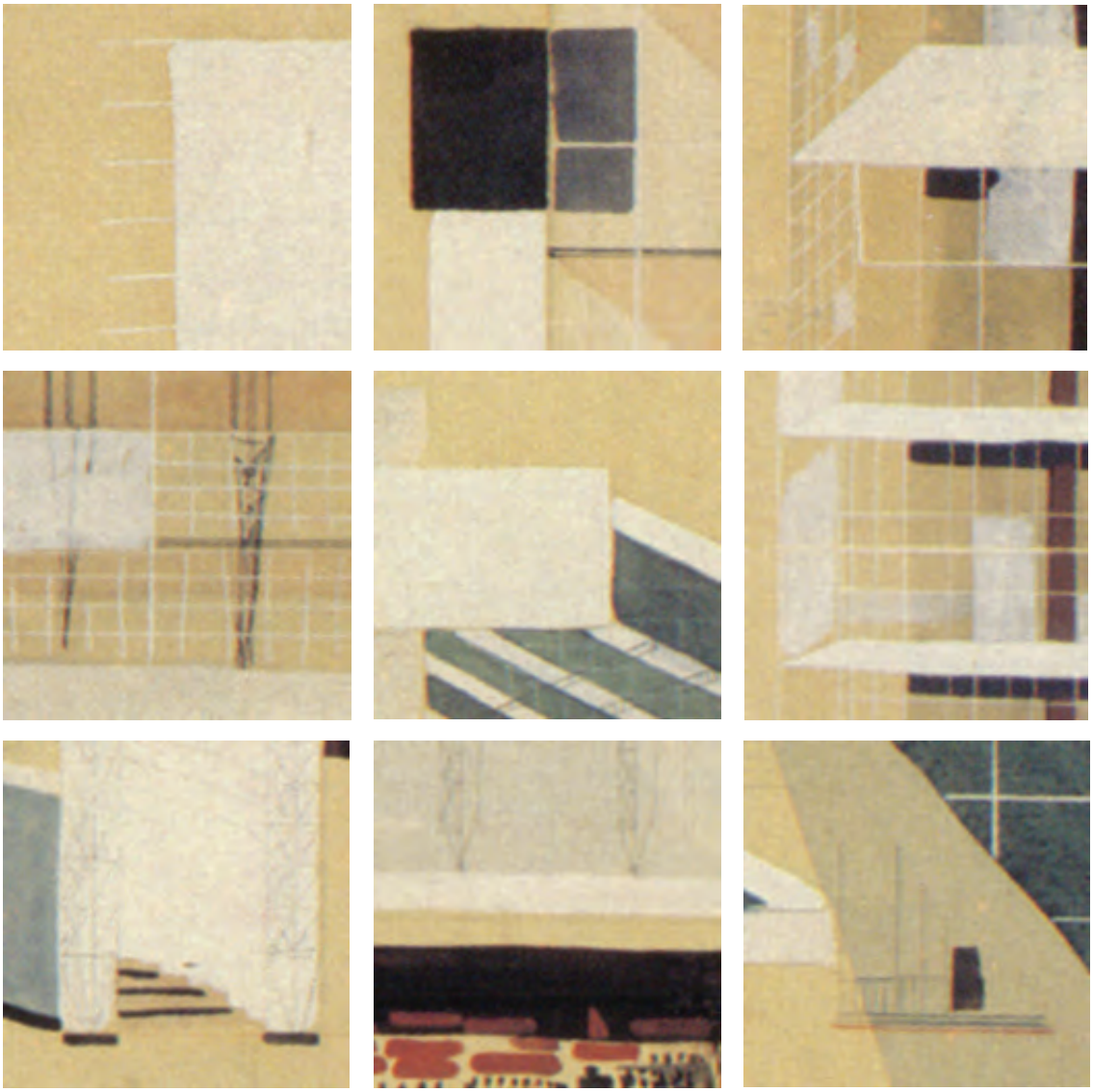

Figure 7.18 Closeups from ARU's three-dimensional drawing: the gouache technique application dematerializes masses.

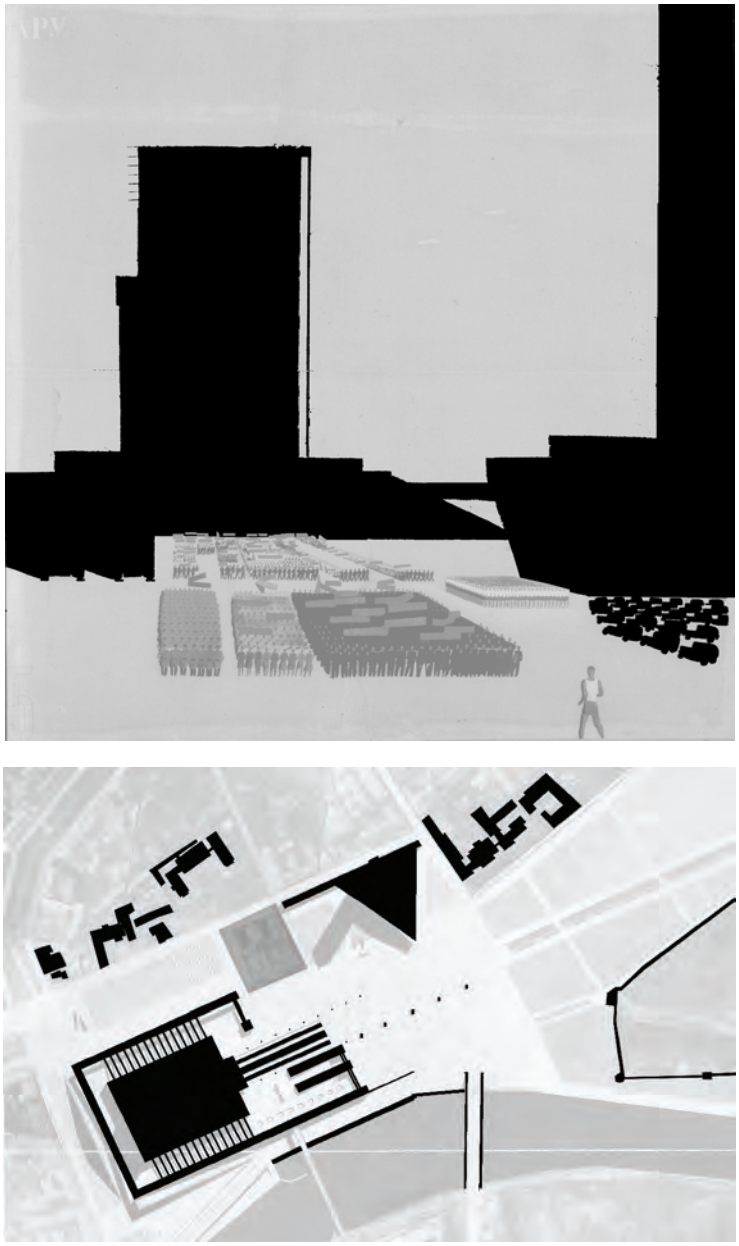

Figure 7.19 The sense of spatial enclosure in ARU's 3-dimensional drawing is starkingly more emphatic than their building arrangements afford.

Indeed, ARU's three-dimensional drawing poses the question – the core design problem - as: what conceptions of space do crowd bodies generate? And what roles do physical artifacts play in such spatial conceptions? The drawing also charts some possible responses. One such response seems to suggest this spatial field in its European early-modernist sense: as the force-field of effects conjured by shapes and kinesthetics (effects which, in the Rationalist doctrine, may be gauged and rationalized into an economy of emotions). But instead of the uniform and subdued sensations of empathy evoked by the linear building forms surrounding the space, it is the crowd formations which evoke the empathetic field. And it is the obtrusion of the Small Auditorium's massive weight and sharp triangular shapes which warp (and thereby render visible) this field as the building mass hovers above the marching crowd formations [figure 7.20].

But ARU's depicted spatial field possesses subtler qualities which discern its uniqueness. In number, in graphic surface-area as well as in tonal emphasis (through sharper contrast), orthogonally-drawn flat planes dominate the drawn building forms. Note how, in ARU's three-dimensional drawing, it is the frontal relation to the Mass Hall structure along the linear field of the parade ground which holds primary significance. Even three-dimensional masses, such as the Small Auditorium's base to the right and the stairs to the left, seem folded-out in half-profile projection. The impact of this orthogonality, or in more generic terms: flatness and frontality, are two interrelated effects; it pronounces the space of the drawing's observer along with its psychological charge, and it posits drawn objects in this relationship as undistorted, workable artifacts.

Emphasis on orthogonal projection in this drawing echo broader leanings in Rationalist graphics towards flat, planar 'faceoffs' with depicted objects, particularly since the mid-1920s - as demonstrated by drawings executed in Ladovski's Basic Course studio at VKhUTEMAS as well as in some of Krinsky's work.[239]

[239] This shift to frontal compositions can be detected by reviewing the Rationalist œuvre in Khan-Magomedov's encyclopedic tome *Pioneers of Soviet Architecture* (New York: Rizzoli, 1987): particularly pp.118-9, pp.122-3 and pp.128-9. In earlier Rationalist works, the contour-line perspective was the device of choice – but then again, a particular contour-line perspective. It displayed a situation of 'presentation': the artifact under study (whether a building or otherwise) poses in the drawing frame as if being offered to the viewer. It was a situation of relating to the observer rather than a building or artifact set in a context. Additionally, more often than not, Ladovski's students spilt the drawing plane vertically in half, fitting the corner of their building under-study along that line, while splitting the display of building's facades across it. It was an early acknowledgement that the space under investigation was that of

Depicted artifacts were turned to face the observer directly and were posed as parallel to the drawing plane [figure 7.21 *left*]. In a 'Demonstration of Mass and Weight' [figure 7.22], student Komarova depicts her artifact in contour-line, unrendered perspective, but then complements this with rendered orthographic projections. Noteworthy is the half-profile elevation on the top-left of her drawing sheet. It signals an attempt to view the artifact's several faces simultaneously (i.e. three-dimensionally) while maintaining frontality to all its sides. Another exercise from the mid-1920s on the 'Demonstration of Frontal Surface Composition' appears in the Basic Course [revisit figure 7.21 *right*]; while a specialized exercise, it demonstrates that interrogating surfaces and planes as constructive of a specific kind of space was contemplated in the Ladovski's Basic Course. What this turn to frontality achieves, I contend, is an identification with the space which the observer occupies in-front of the drawing. Unlike the illusionary space of perspective and even the axonometric, which create an *alternative* to the observer's surroundings, flat projection collapses such an illusion onto the drawing surface, thereby enhancing the sense of presence - the here and now which any drawing evokes to some measure. Besides enhancing the sense of presence as the third component of the 'framework of seeing' as discussed above, the Rationalist technique, advances this further by projecting the space of the observer into the drawing rather than allowing the illusionary space to negate it completely. Devices such as the translucency of tones and hues with their effects of *seeing-as* and *seeing-through*, and the Suprematist-like play on depth using color, complement frontality by maintaining continuous engagement with the observer's perception. This sustained engagement sets up the *potential* for the psychological experiment - which the architectural drawing is enacted to perform - to proceed. The drawn components of buildings and streets are not objects independent of the observer, but the outcome of the observer's space 'colliding with' or 'intersecting with' such objects.

Moreover, ARU's spatial field of frontal planes is a space populated by *measurable* elements depicted through orthogonal projection – a device which harkens back to the composition versus construction

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immediate occupation by the drawing's observer. The turn to frontal drawings and orthographic projection occurs around the mid1920s, where the depicted artifact was turned to face the observer directly and to be posed as parallel to the drawing plane, occurring through orthographic projection or sometimes through less rigorous methods

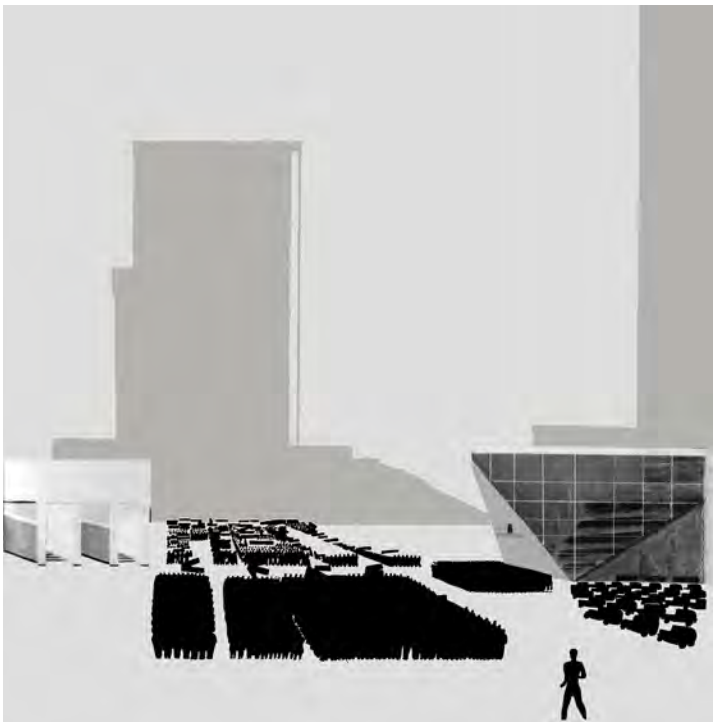
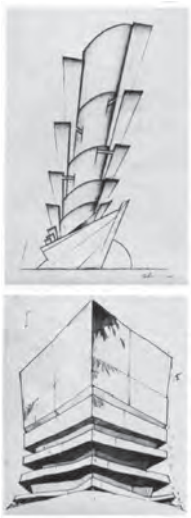
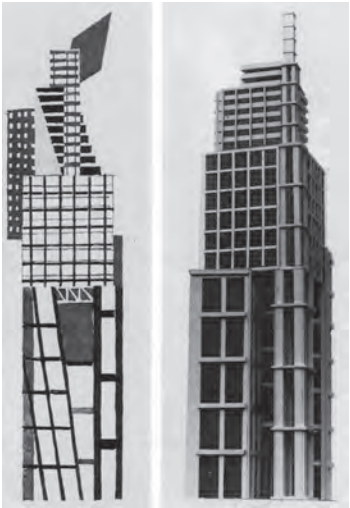


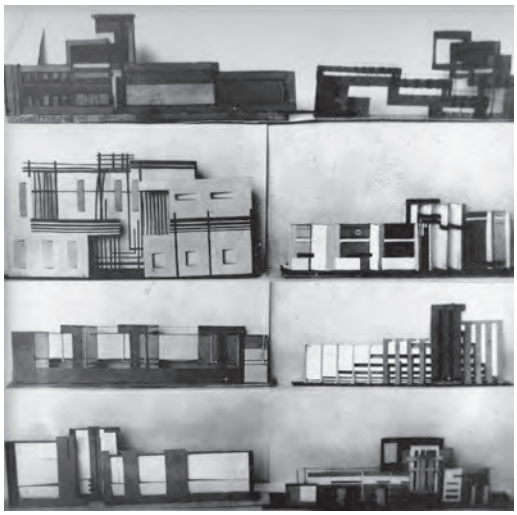
Figure 7.20 As flat planes recede, the crowd engages adjacent building forms in mutual force-field tensions. Crowd formations perform sweeping dynamic movements against angled building arrangements and hovering masses.



Students Lamstov (above) and Korzhev (below), Abstract Task in demonstration of Mass and Weight, VKhUTEMAS, OBMAS, N. Ladovski's Studio, 1921.



Krinsky, Skyscraper Project, Headquarters for the Supreme Soviet for National Economy, Vesenkha, Moscow, 1922-3; elevation and model.



Student work, Task in the demonstration of Surface, Basic Course, "Space" Discipline, VKhUTEMAS, OBMAS, mid-1920s.

Figure 7.21 A subtle shift to frontality: *left* from early experimentations in three-dimensional depictions, the Rationalist œuvre came gradually to boast more frontal pictorial compositions. Krinsky's deceptively flat elevation translates into a tension in the tower design between planes and volumes (see model); *right* the Surface Demonstration Task suggests the problematization of flatness in constructing space .

[source: Khan-Magomedov, *Pioneers of Soviet Architecture*, 1987]

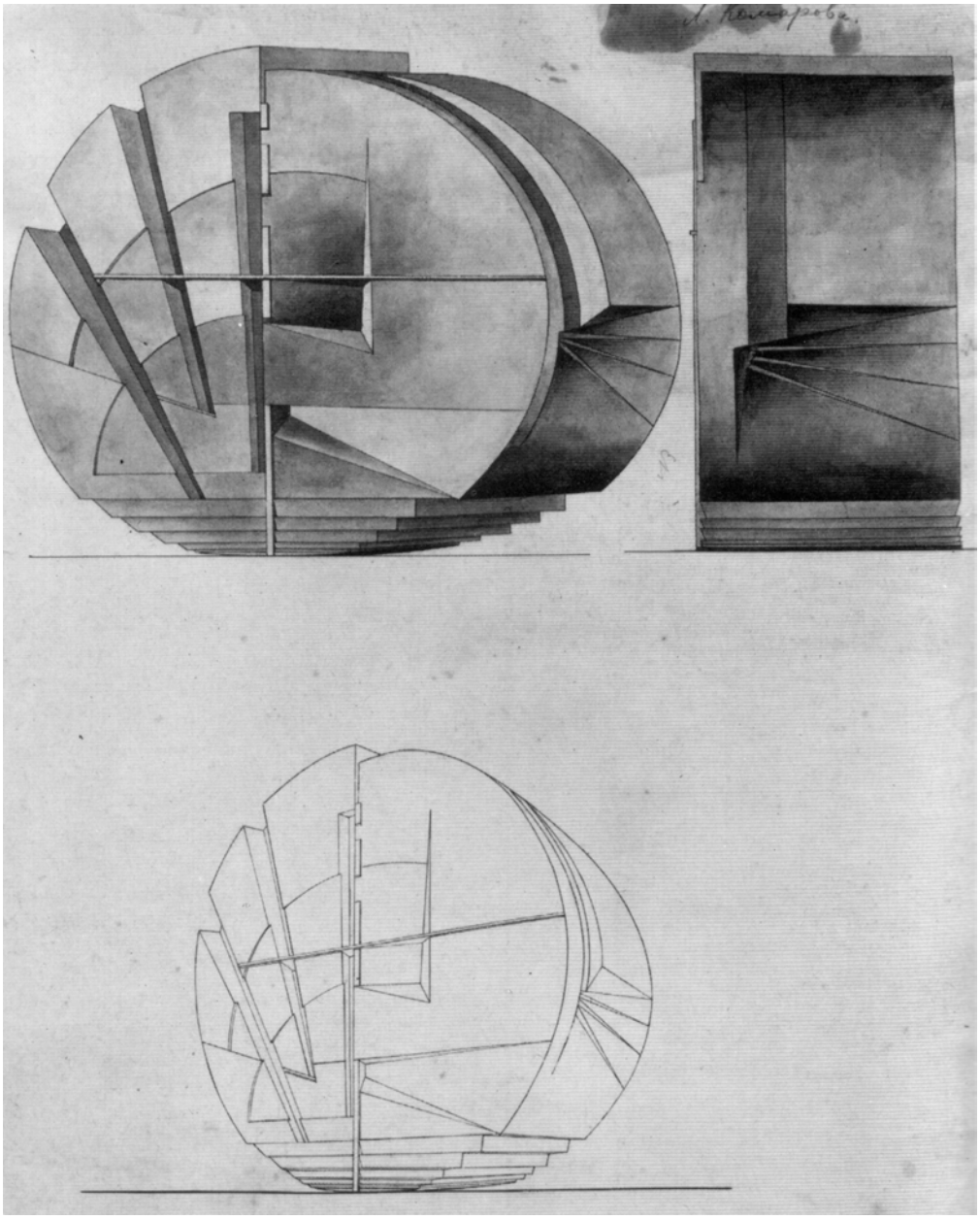


Figure 7.22 Student Komarova, *Abstract Demonstration of Mass and Weight*, Nicolai Ladovski's Studio, Basic Course at VKhUTEMAS, 1922-23. (source: Khan-Magomedov, *Pioneers of Soviet Architecture*, 1987)

debates of 1921.[240] In these debates, some advocates of construction, prominent among whom was Karl Ioganson, renounced radial projection used to construct perspective illusions. Instead they proposed to explore visualization through the conventions of orthogonal projection driven by two beliefs: a) orthogonal projection represented artifacts without distortions – to true measure; and b) it is the visual language of the worker who builds and manufactures from the blueprints of construction documents and workshop drawings. So, instead of the deformed complexity of foreshortened shapes in radial projection, the Soviet avant-garde called for orthogonally-projected drawing such that the viewer's imagination may engage in reconstructing and transforming the objects under scrutiny to realistic proportions.[241] A scene can thus be constantly regarded as subject to calculated intervention and reasoned reconstruction; it lends itself more to being a 'workshop' drawing, rather than to being regarded as an exhibited work – an artifact to *work-on* rather than only to *gaze-upon*.

And hence it is not implausible to follow El Lisstizky in wondering if this kind of 'working' drawing is best engaged laid out horizontally, as if on a worktable - rather than vertically, as if a painting on a museum wall.[242] Drawing on Suprematism, the orthogonal planes of this work-drawing evoke depth qualified by infinite extension *above* and *below* its surface. Moreover, and due to the treatments of its ground and background as discussed earlier in this chapter, ARU's depicted space is characterized by a heightened sense of weightlessness. Sensations of hovering are further pronounced if the drawing is observed laid out on the flat horizontal surface of the work-table in the observer's own physical space - more so than if seen pinned up vertically. Vertical display creates a contradiction between the weightlessness in the drawing and the observer's own inescapable feeling of gravitational pull. In contrast, horizontal display annuls the paradox.

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[240] See Maria Gough's *The Artist as Producer: Russian Constructivism in Revolution* (Berkeley: University of California Press, c2005): pp.21-60.

[241] The acquired skill would not be unlike that possessed by fifteenth century painters and their clients who could, according to Michael Baxandall's argument and with relative ease, visually decompose a complex figure or scene into measurable primary volumes (cubes, spheres, cylinders, …etc.) based on their experiences in commerce. Soviet architects attempted a comparable feat by delineating artifacts and spaces in terms of their measurable views in orthographic projection – the language of construction documents and workshop drawings.

[242] Yves-Alain Bois, "From minus infinity to plus infinity: Axonometry, or Lissitzky's mathematical paradigm". In *El Lissitzky: architect, painter, photographer, typographer (*Eindhoven: Van Abbemuseum, 1990): p.32.

While the human mind would correct for the reorientation to still regard the drawing in terms of categories of up versus down, the emphasis has shifted. The infinite spatial extension into (and extrusion from) the flat plane of the drawing surface engages the observer's space more directly and within a productive thematic. The relationship to 'physical' space extends from the pictorial space of the drawing to engage the observer's space after its own endless and weightless fashion.

Hence the fourth component of the framework-of-seeing, where the drawing shifts emphasis onto a *structural* engagement with space. On one hand, the fourth component implies that the drawing re-orients vision to seek *that* space generated by the crowd rather than shaped by physical objects in context; and it urges vision to seek *that* space *as seen from within* a crowd, rather than sculpted by a crowd but seen from without. It probes *that* crowd's field of active agency as a space of infinite extension (structured by neither foreshortening nor gravity) wherein the observer-space is immersed, simultaneously and logically. Above all, it conceives of architectural space as a site of production – and as later chapters will argue, the *first* site of production and of constructing the relations of production. It is this space of the crowd whose emotion the drawing exemplifies, whose forms of presence it puts forth and whose modes of shifting attention it structures.[243]

Philosophical Reformulations: (Inter)subjectivity

To conclude this chapter, I would like to identify particular qualities of the Rationalists' graphic framework of significant consequence to later chapters. ARU's drawing, I contend, provides clues to two key philosophical issues posed as part of the political question of modern architecture: the problematics of subjectivity and intersubjectivity.

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[243] Note that this drawing, where the crowd is actually portrayed, anticipates other drawings where the crowd is not depicted; for instance, Leonidov's plan for *Narkomtiazphrom*. ARU's drawings serve to clarify the emerging conventions of seeing.

As discussed, Rationalist drawings, and spaces, come with a psychological charge. The drawing exemplifies the psychological effect which space evokes. Artifacts acquire significance on the drawing surface primarily in the course of engaging the observer(s)' attention and emotions. The Rationalist drawing pronounces what the subject comes to know in the course of experience: its experience of artifacts in the drawing, its experience of the marked surface of the drawing, and experience of itself – its self-reflection as a result of experiencing drawing and artifact. Hence the drawing's deep concern with presence: with the observer's presence in the here and now of witnessing and experiencing the marked surface and its content. Concerned with the psychological charge in general, and with presence in particular, ARU's depicted space prods the viewer's *subjectivity*.

But rather than passively submitting to the objectivist conventions of graphic projection, where the depiction remains independent of the viewer's consciousness, here the viewer is prompted to think and, more significantly, to *feel* (kinesthetically and emotionally). The contours of this sensorial, emotional terrain is not unbiased, however; this is not a case of 'free', unstructured reading, but more in the vein of Umberto Eco's *opera aperta*. The Rationalist drawing enunciates a bias towards collaged and folded visual fields and unexpected co-visibilities. It affords a multiplicity of viewpoints and viewers per drawing; it extrudes space into an infinite extension, which permits sharing with even further horizons and other subjectivities. It directs attention towards (crowd) kinesthetics, and the bodies that process such kinesthetics; in fact, it begs the question: how do we experience other bodies? In sum, the Rationalists' graphic framework promotes *intersubjectivity* at the same time as it prods subjectivity.

It is here, I believe, that one begins to articulate the Rationalists' ideas of emotional economy[244] beyond their roots in Munsterberg's psychology. Relocating the act of perception of space (exemplified in the drawing) within subjective and intersubjective mappings, begins to transpose the whole process of spatial production

[244] Catherine Cooke, *Russian Avant-Garde Theories of Art, Architecture and the City* (London: Academy Editions and Architectural Design, 1983): pp. 178-9.

(from drawing to making) structurally into the realm of the “consciousness of men”: a realm of emotion and thought, rather than the exclusively materialist domain which canonical Marxism and Leninism advocated. This begins a thread of propositions I will follow in later chapters, where arguments will advance the materialist conception of production itself into the terrain of human emotion. I will use this thread to demonstrate that the Rationalist drawing helps construct a non-alienated, and non-alienating space - an antidote to the alienation which still resided in Historical Materialism.

CHAPTER 8

Dynamic Crowds, Abstract Machine

Preface

This chapter turns its attention to the assortment of design challenges regarding configuration within the crowd design problem. To reiterate the twofold questions formulated at the end of Chapter-5, *Crowd Sorting and Organization*: what variations on forms of conviviality and architectural treatments across the spatial-system engender a classless equitable collectivity? And: what other forms of conviviality are implied by the Rationalists' and other architects' submissions - what socio-political formations do such design moves point to?

In this chapter, arguments proceed in three main, consecutive types: preliminary *observations* ease into more articulate *insights* which, in turn, lead to more rigorous *reformulations* employing reconstructive mappings, quantitative analysis as well as interpretative readings. The first set (Reframing Observations) amount to introductory annotations which serve to question lingering assumptions about early Soviet architecture, as they also begin revealing the design strategies employed by the Soviet Rationalists in their submissions to the *Palace of Soviets* Competition, particularly in response to the problem of crowd conviviality in its generic form. From this, more articulate insights into the components of the *Conviviality Matrix* in the Soviet Rationalist schemes are formulated in the next section - particularly the natures of co-presence and co-awareness. Next, the argument reflects on the theoretical implications of the Soviet design

strategies (Theoretical Reformulations: The Dynamic Crowd). It argues that, in effect, the Rationalists' intense considerations of crowd movement advance an alternative foundation for the configuration of space – one rooted in collective occupation and gregariousness. This comes as a departure from notions of isolation and control which exemplify a far more pervasive trend in modern spatial practices. Instead of discrete enclosures (whether demarcated or implied) as the building blocks of space, the Rationalists advance a fluid continuity punctuated by variant rhythms and patterns of intersection. Through reconstructive mappings of ARU's crowd, this first reformulation gauges (qualitatively as well as quantitatively) the crowd's properties of equivalence, interdependence of action, attention and information flows. Moreover, a second reformulation (Experiential Reformulations: Texture of the Visual Field) tenders the hypothesis that such fluid configurations afford a distinct field of co-visibilities: one that promotes aspect-dawning and pervasive heightened attention. This hypothesis will be further developed in Chapter-9: "Kinesthetic Space: Intersubjectivity and the Problem of Other Bodies". In closing, the final reformulation (Political Reformulations: Architecture of Presence) argues that what logic extrudes from the Rationalists' numerous design moves amounts to an *architecture of (intense) presence*, and which acts as a basis for a political regimen heavily dependent on direct encounter.

Design strategies rooted in graphic attempts to visualize and explore co-presence (demonstrated in the previous chapter) are further examined here. In fact, the argument reveals a kinship to cinematic techniques of (metric and rhythmic) montage in constructing the quality of experience in Rationalist space. Throughout all phases of the argument, comparisons to Le Corbusier's entry to the *Palace of Soviets* competition will prove particularly constructive. The clarity with which his expansive drawing œuvre articulates his ideas, and the breadth with which he addressed the given design problems provides a welcome foil to the Soviet ideas. Methodologically, the argument returns to Space Syntax theory, using the ideas gleaned from the Soviet entries to pose some fundamental questions about the nature of space.

Reframing Observations

The argument begins by charting a rather oblique course. To circumvent lingering misconceptions towards Soviet thought, it seeks to reframe the very perception of the Rationalist submissions, and to disavow pervasive assumptions underlying them, by engaging Le Corbusier's submission as a comparative foil. Entries to the *Palace of Soviets* competition by the Soviet Rationalists, particularly ARU (Union of Architects and Planners) and Nicolai Ladovski, bear an unmistakable dissimilarity to Le Corbusier's [see figures 8.1, 8.2 and 8.3]. What they propose are not merely variant spatial arrangements and formal treatments with some indirect social impact, but rather substantively different views of spatial systems and how these are meant to generate social collectives. Cursory reading of Le Corbusier's and the Rationalists' entries affords an impression of their conviviality frameworks as polar opposites. Seemingly, Soviet entries spell a recipe for collective demagogy and mechanical solidarity, while Le Corbusier's submission apparently enunciates a 'grassroots' society of more diffused authority and organic solidarity. [245] Le Corbusier's crowd depictions bespeak dispersed consciousness as practiced in urban everyday life; in their informal dispositions and fluid movement, they guarantee recurrently refreshed presence to different users. Le Corbusier's proposed physical setting – with its dispersed spaces, *pilotis* grids and outward-facing flows – affords such a sense of informality and dispersion. It is very tempting here to stamp Le Corbusier's scheme as one that weaves co-presence from the substance of everyday consciousness. It is similarly tempting to surmise that his strongly visible grids, as well as the clear axial formal arrangement (coupled with strong formal elements) make for a strong potential for clear cognitive mapping: i.e. robust co-awareness. As compelling is a consequent appeal to frame the Soviet Rationalists as Le Corbusier's antithesis: rigid, formal crowds, with weak properties of co-presence and co-awareness in their spatial experience.

[245] Qualifications of solidarity employed here are Emile Durkheim's. See Emile Durkheim's *The Division of Labor in Society*, translated by George Simpson (Glencoe, IL.: Free Press, 1947).

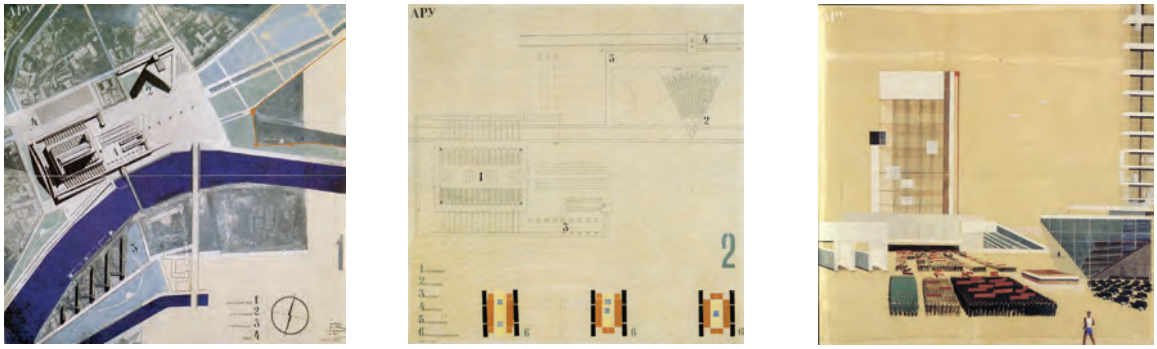


Figure 8.1 ARU (Union of Architects and Planners), *Palace of Soviets* Competition Entry (1931); Phase I, Layout, Ground Floor Plan and Three-dimensional Drawing. (source: Cooke & Kazus, *Soviet Architectural Competitions 1920s-1930s*, 1992).

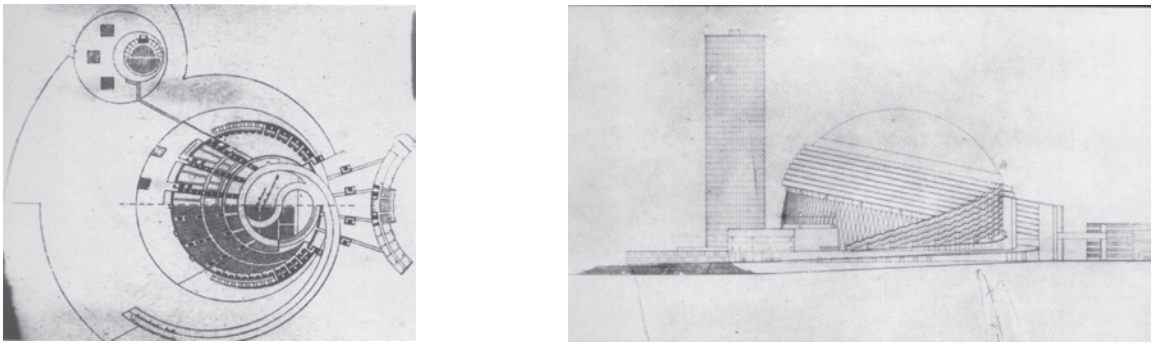


Figure 8.2 Nicolai Ladovski, *Palace of Soviets* Competition Entry (1931); Phase I, Floor Plan and Elevation. (source: Khan-Magomedov, *Pioneers of Soviet Architecture*, 1987)

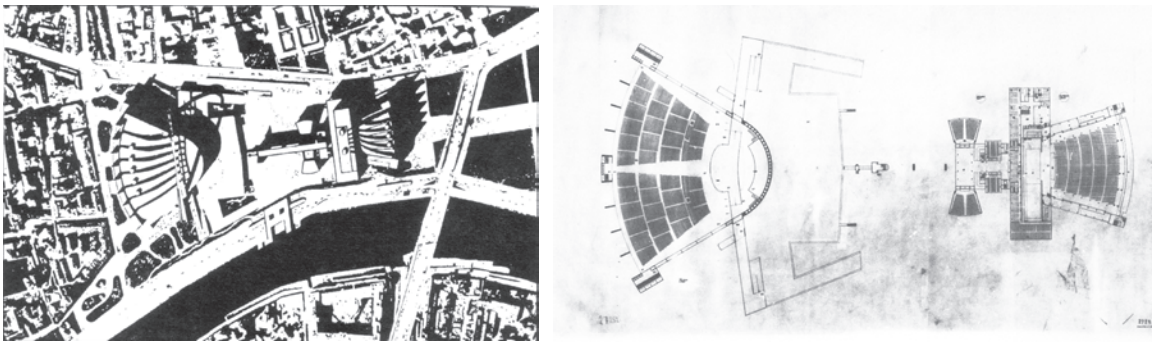
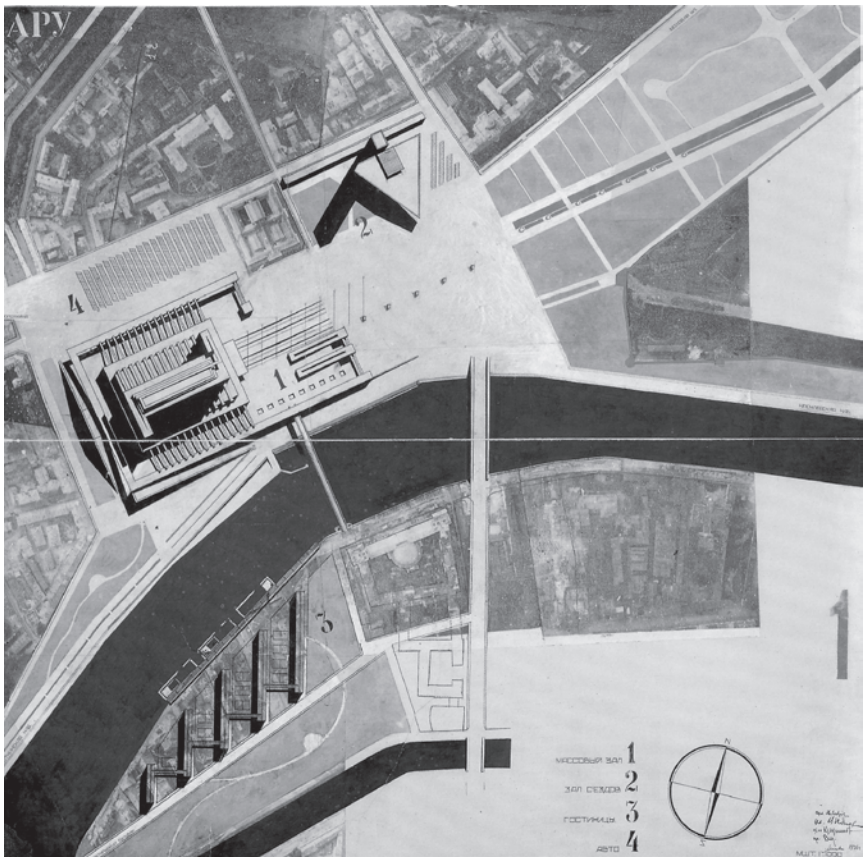


Figure 8.3 Le Corbusier, *Palace of Soviets* Competition Entry (1931); Phase II, Layout (source: Cohen, *Le Corbusier and the Mystique of the USSR*, 1992) and Upper Floor Plan. (source: Fondation Le Corbusier. *Le Corbusier Archive*, 1982)

Yet closer inspection unearths different insights. Although the above readings carry some veracity, deeper scrutiny reveals that Rationalist schemes had as their main focus to structure a framework for deliberate, significant encounters: 'thresholds' frequent enough in the overall spatial system; moments intense enough to allow facing, acknowledging and recognizing others as bodies are posed to each other frontally, in profile and three-quarter profile - not only frequently, but also *suddenly;* as well as schemes intelligible enough to permit comprehensive mapping of *others* in the overall system. What they sought was an *intense* form of co-presence that transcends everyday-life to weave a form of sociality heavily dependent on spatial (as opposed to trans-spatial) encounter. A number of observations and arguments legitimize this assertion. Let's examine the entries again, along with the assumptions summarized above.

One observation concerns the order of gregariousness in the different entries. Whether in plans, layouts or three-dimensional drawings, the case holds: Le Corbusier's gatherings are envisioned as informal and distributed; the Rationalists' crowds are ordered and composed. For Le Corbusier, crowds are an aggregate of small groups casually milling around spaces, with no overall movement scheme. In layout, this translates into a set of dots dispersed in formation but also diffuse throughout and across spaces; his clusters (where they occur, as in the eastern plaza) are amorphous – they do not pronounce massive formations. Within small gatherings of three-to-ten persons, individuals assume personalized postures and gestures; no conformity seems required. Contrastingly, Rationalist entries depict large crowds organized into clusters of rows with preordained movement directions. Individuals largely follow their respective group formations, particularly in movement trajectory. In fact, Rationalist plans shun explicit crowd depiction, assuming – or so it seems - its obviousness in given spatial traces, seating arrangements and geometries [see figure 8.4].

This much is indisputable. However, zooming into ARU's depicted crowd members reveals a different, finer grain. Largely maintaining alignments and overall cluster formations, the architects were careful to draw the marchers - on this large scale drawing (46½ x 46½ inches; 118 x 118 cm) – with not infrequent variations on



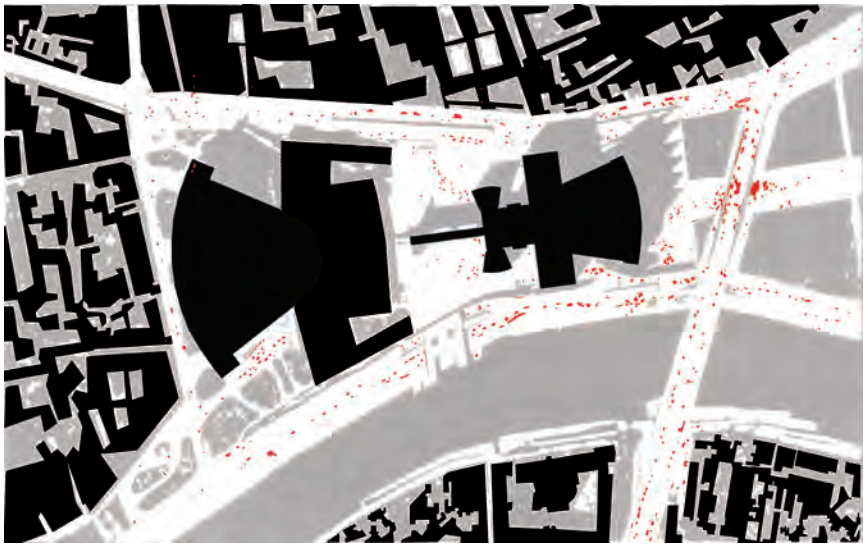


Figure 8.4 *above* ARU (Union of Architects and Planners), *Palace of Soviets* Competition (1931); Phase I, Layout: emphasizing main masses and organizing order. No crowd depiction is registered even at zoom-in scale.
below Le Corbusier, *Palace of Soviets* Competition (1931); Phase II, Layout: emphasizing masses and organizing. Crowd depiction is highlighted in red dots.

Figure 8.5 *left* ARU (Union of Architects and Planners), *Palace of Soviets* Competition (1931); Phase I, three-dimensional drawing studies (for original, source: Cooke & Kazus, *Soviet Architectural Competitions 1920s-1930s*, 1992); *right* Le Corbusier, *Palace of Soviets* Competition (1931); Phase II, Perspective in main foyer area, studies (source: Fondation Le Corbusier. *Le Corbusier Archive*, 1982)

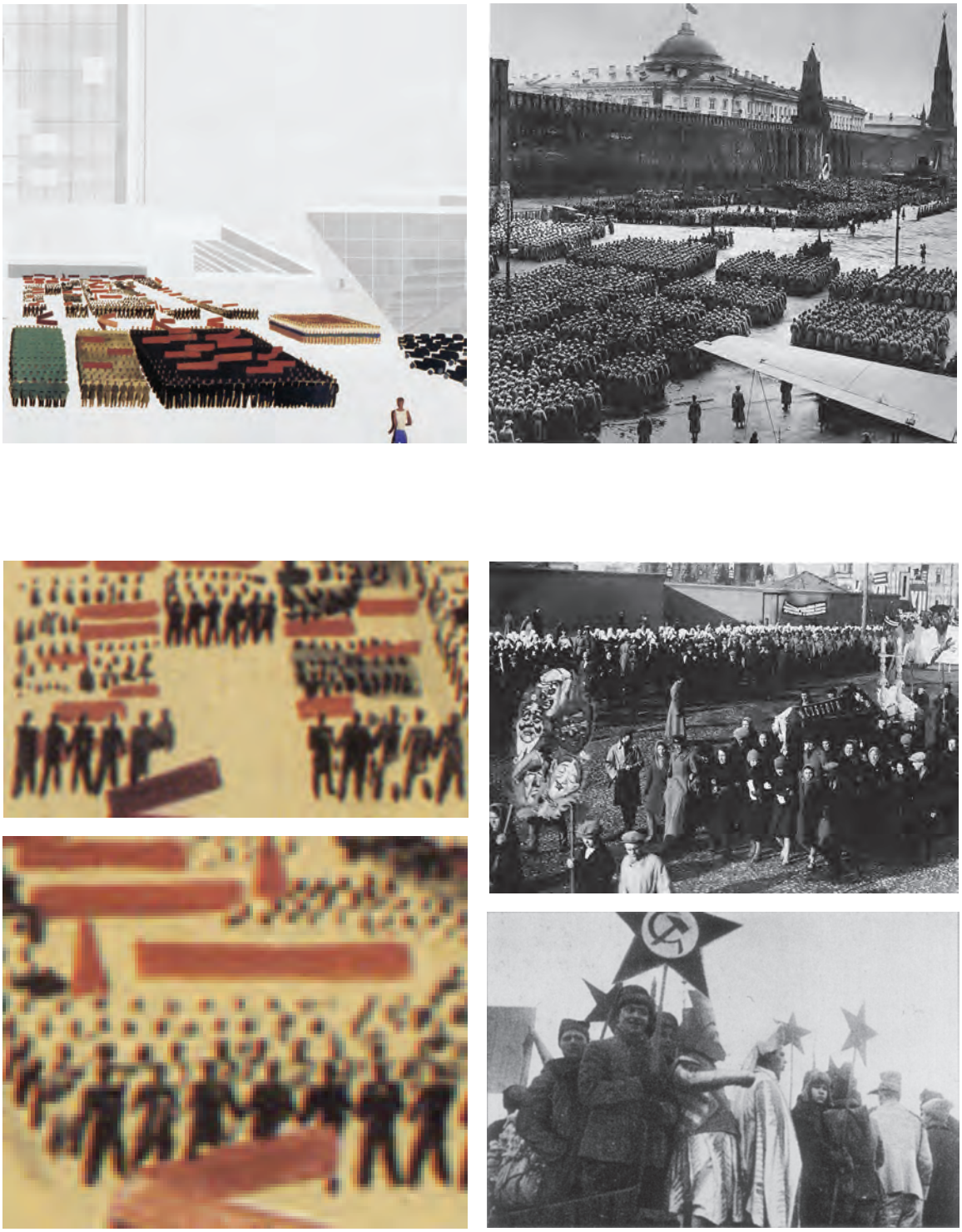


Figure 8.6 The highly controlled organizations of crowds displayed in the top views posssess a looser grain in close-ups (middle and lower rows). *left* ARU (Union of Architects and Planners), Palace of Soviets Competition (1931); Phase I, three-dimensional drawing studies (source for original: Cooke & Kazus, *Soviet Architectural Competitions 1920s-1930s*, 1992); *right* Scenes from street celebrations of the Twelfth Anniversary of the Russian Revolution, Red Square, Moscow 1929. (source: Cooke, *Street Art of the Revolution*, 1990)

gestures, postures and even occasional misalignments [see comparisons between ARU's and Le Corbusier's depicted crowds as formations and closeups, figure 8.5]. In contrast to their seemingly predictable global order, individual crowd-members seem capable of local variations not inconsistent with overall formation. Regimented order is not employed as an end in itself, but as a framework within which the informal crowd imposes nuance. A model for such parades may not be sought in military marches, but in crowd formations of the early revolutionary years. Catherine Cooke documents such early crowd events from Mayday celebrations and October Revolution Anniversary commemorations [figure 8.6; also revisit figures 4.10a and 4.10b].[246] Note how informal body-gestures were; how loose the overall arrangement of bodies within each crowd-cluster was. As relatively-organized as such crowds came to be in the early 1930s, they were still a far cry from later Stalinist formations, let alone the fascist German crowds glorified in Leni Riefenstahl's 1934 *Triumph of the Will*. Beyond magnitude (crowd numbers and degree of organization), the difference is one of kind – in the nature of the crowd itself. This signals a first caution on passing swift judgment on the Soviet entries from large scale examination. Additionally, it intimates necessary discretion in judging the form of co-presence involved.

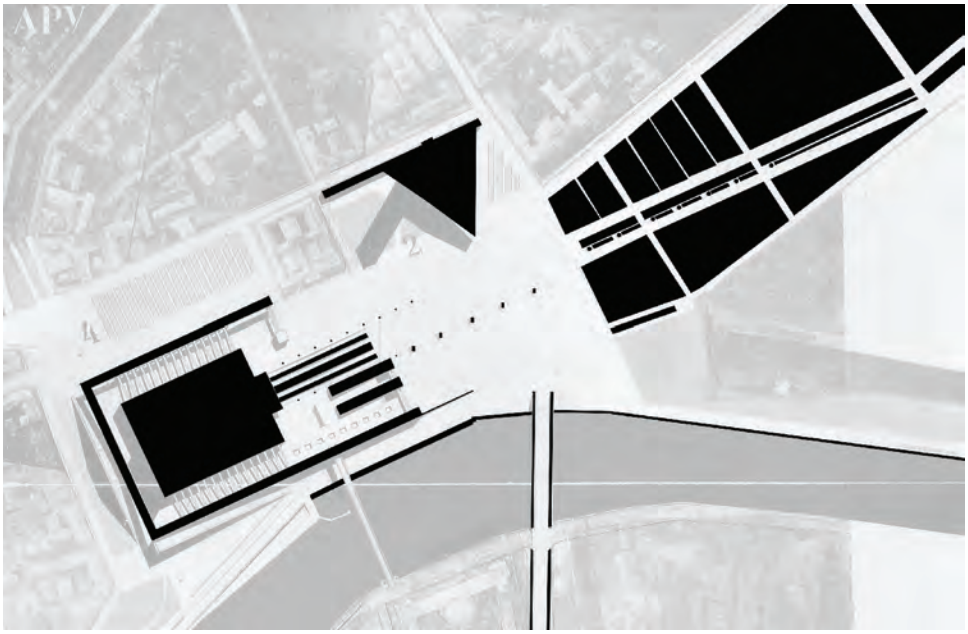
A second observation concerns proposed spaces and how they relate to the organization of depicted crowds. Rationalist spaces are strongly ordered around clear axes quite explicitly marked and signifying unambiguous movement directions. In both schemes, ARU's and Nicolai Ladovski's, as crowds approach the Mass Hall, they are channeled into ramps that greatly administer movement; movement and co-visibility are heavily inscribed in form and space. In contrast, Le Corbusier's movement system lacks an intelligible center. His drawing catalogue illustrates that, after iterative struggles with overall layout, Le Corbusier eschewed centrally integrated configurations, and chose instead a system segmented into a series of juxtaposed spaces centering on an elevated, 'dead-end' walkway [see figures 8.7 and 8.8]. The crowd's movement and intelligibility are divorced from the central axis of the two assembly halls. Instead, the crowd's procession is relegated to the sides, and only activates the central axis at the end of the journey

[246] Catherine Cooke, Street *Art of the Revolution* (London: Thames and Hudson, 1990).

and not in its course. His spaces, in fact, bespeak decentered diffused flow. Also evident from his drawing catalogue is the fact that Le Corbusier shunned the one-point perspective – which would have emphasized, more strongly, unidirectional movement – in favor of two-point perspectives which confirm the dispersion as they diffuse directionality [figure 8.9]. In contrast, ARU's scheme furnishes the crowd, while marching as well as its static assembly, with one and the same axis of intelligibility and movement.

To develop such primary intuitions of the dynamics of the spatial systems, let's consider how different schemes relate to the city. Consistently, Le Corbusier's main building entries face outwards onto the city rather than inwards onto main spaces within the site. In fact, Le Corbusier's entry treats the site for the *Palace of Soviets* as yet another set of intersections in the city, with connecting views and fluid motion all around. Le Corbusier's building complex faces and addresses itself externally to the city on all sides; building facades seem to be more 'frontal' as they face east and west away from the site's internal events. The aesthetic treatment of his side (northern and southern) façades simulates section-like extrusions stifled by building envelopes as they abruptly encounter the city outside [figure 8.10]. His elaborate solutions for vehicular and pedestrian flows around the perimeter of the Palace site and within its bounds, display a concern with everyday-life activities as the infrastructure of encounter: a concern with resolving intersections as flows rather than encounters, put differently [figure 8.11]. A setting for fluid movement, the scheme's physical environment promotes and facilitates instrumental practices connected to quotidian urban life.

In comparison, Rationalist designers viewed the site as the western flank of the Kremlin and Red Square ensemble – with their connoted symbolism and associated mass activities. Rationalists' buildings turn their backs on surroundings to the south, west, and north; they neither align with nor face them. ARU's urban plan, drawn in exceptionally intense relief with dark emphatic shadows, stands out sharply against the mangled aerial photography of urban surroundings. While Le Corbusier's site-plan emulates the city grain in its graphic techniques, the Rationalists' layout depicts it as if refuse to be replaced [figure 8.12]. While Le Corbusier sought continuity of spaces, activities and physical elements with the urban context, ARU



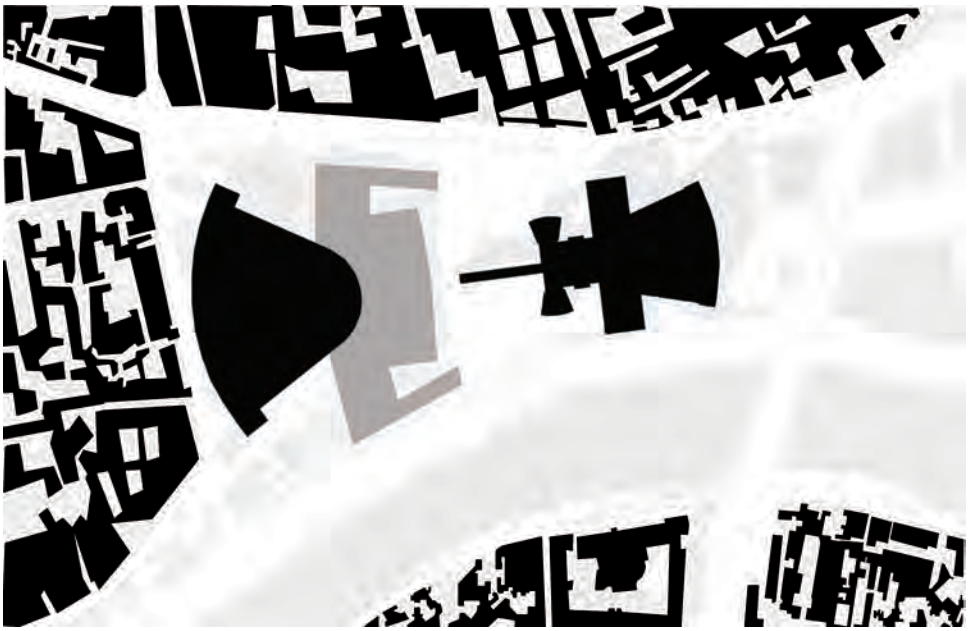
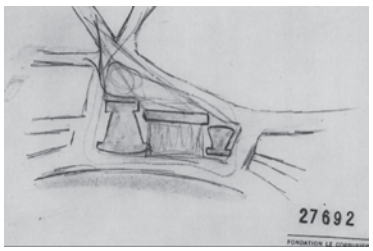
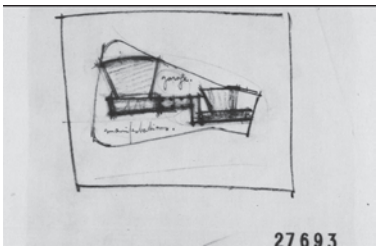


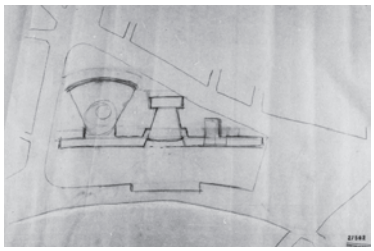
Figure 8.7 *above* ARU (Union of Architects and Planners), *Palace of Soviets* Competition (1931); Phase I, Layout. The scheme is organized around a clear axis extending from the Kremlin's marching grounds;
below Le Corbusier, *Palace of Soviets* Competition (1931); Phase II, Layout. The grayed area attached to the Mass Hall is an elevated platform on which the crowd assmebles. Two centrally aligned masses lend the platform and the whole site an ambiguous organizing device.



undated early sketch



undated early sketch; note the designation of “manifestations” by the river bank, south of the Mass Hall.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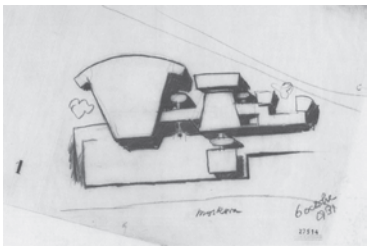
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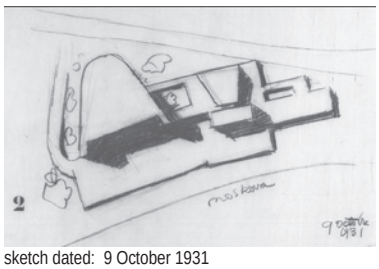
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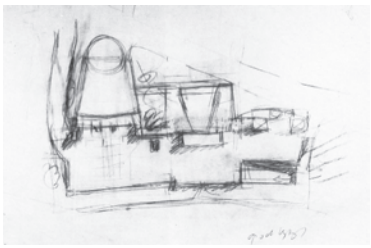
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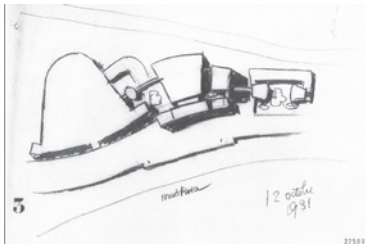
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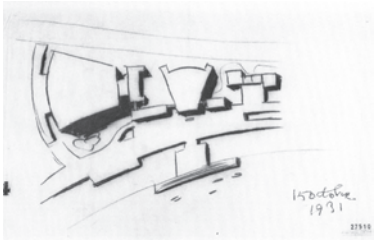
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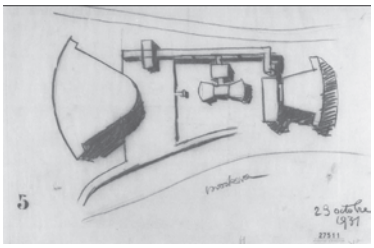
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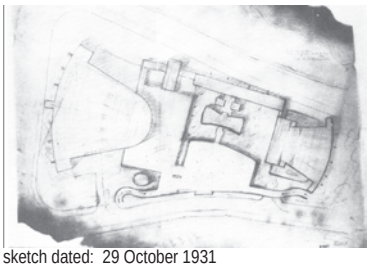
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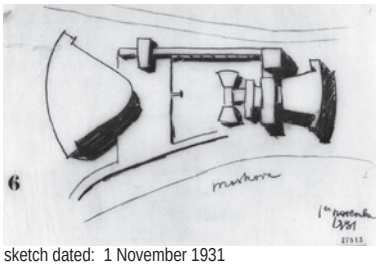
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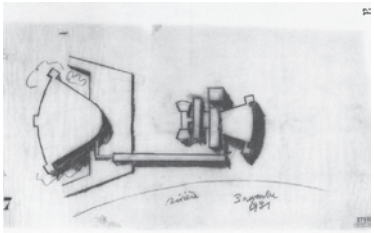
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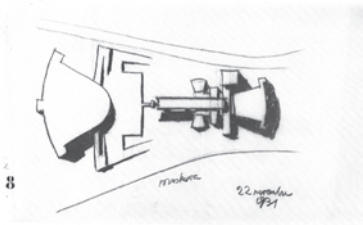
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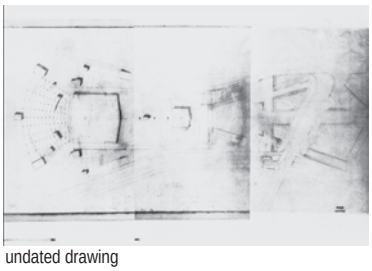
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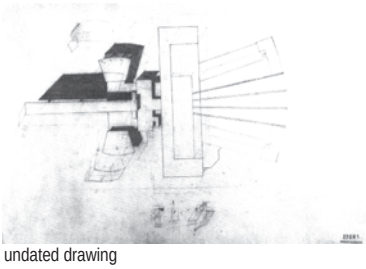
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Figure 8.8 Le Corbusier, *Palace of Soviets* competition entry (1931). Sequential scheme development from a decentralized configuration to one centralized around a formal axis. [source: Fondation Le Corbusier. *Le Corbusier Archive*, 1982]

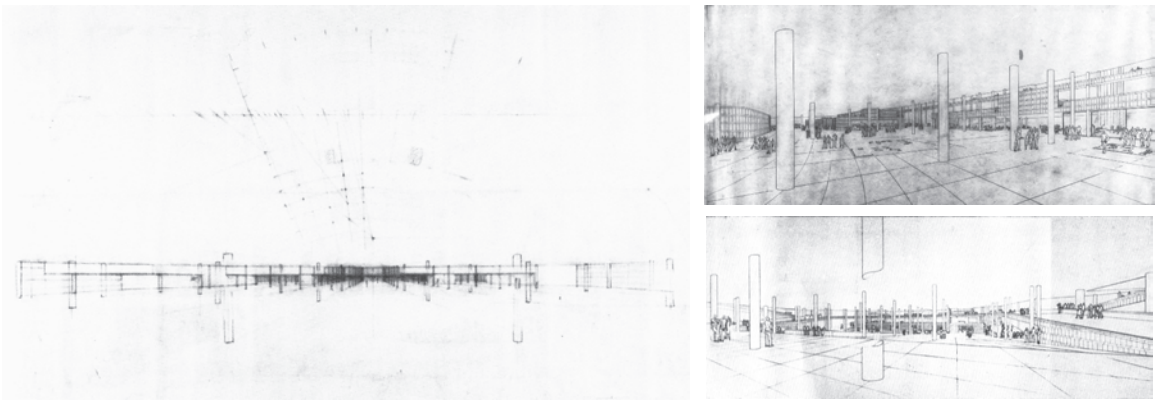


Figure 8.9 Le Corbusier, *Palace of Soviets* Competition (1931) Phase II. *left* one-point perspective, unfinished and unsubmitted; *right* two-point perspectives; submitted. [source: Fondation Le Corbusier. *Le Corbusier Archive*, 1982]

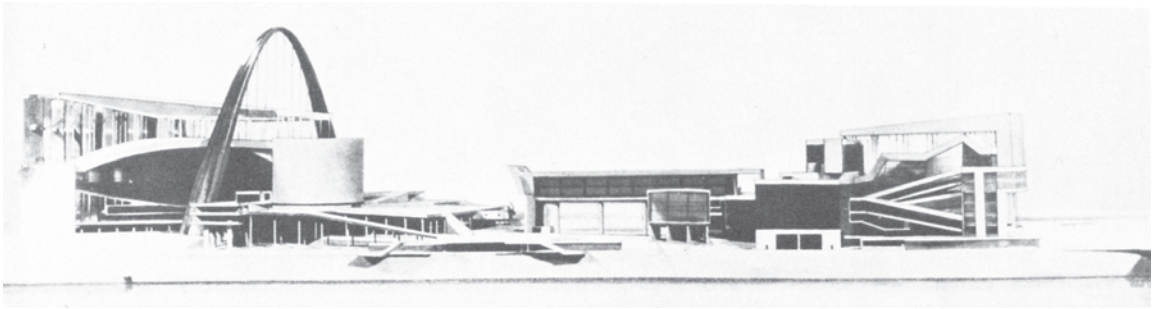


Figure 8.10 Le Corbusier, *Palace of Soviets* Competition (1931), Phase II. Southern Facade from the Moscow River [source: Fondation Le Corbusier. *Le Corbusier Archive*, 1982]

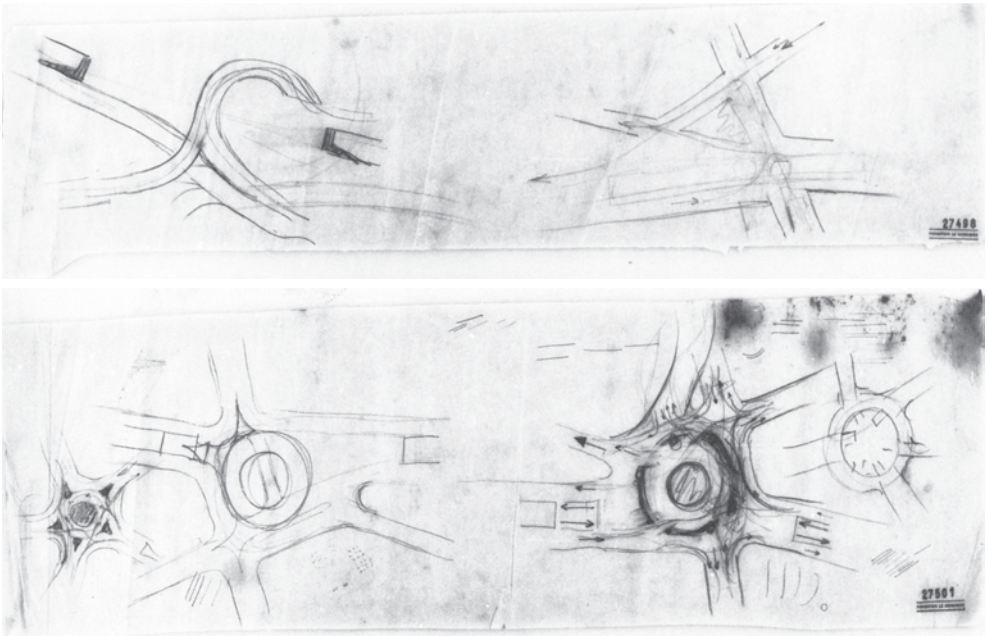


Figure 8.11 Le Corbusier, *Palace of Soviets* Competition (1931), Phase II. Sketches reveal a conception of movement intersections as primary problems of flow rather than encounter opportunities. [source: Fondation Le Corbusier. *Le Corbusier Archive*, 1982]

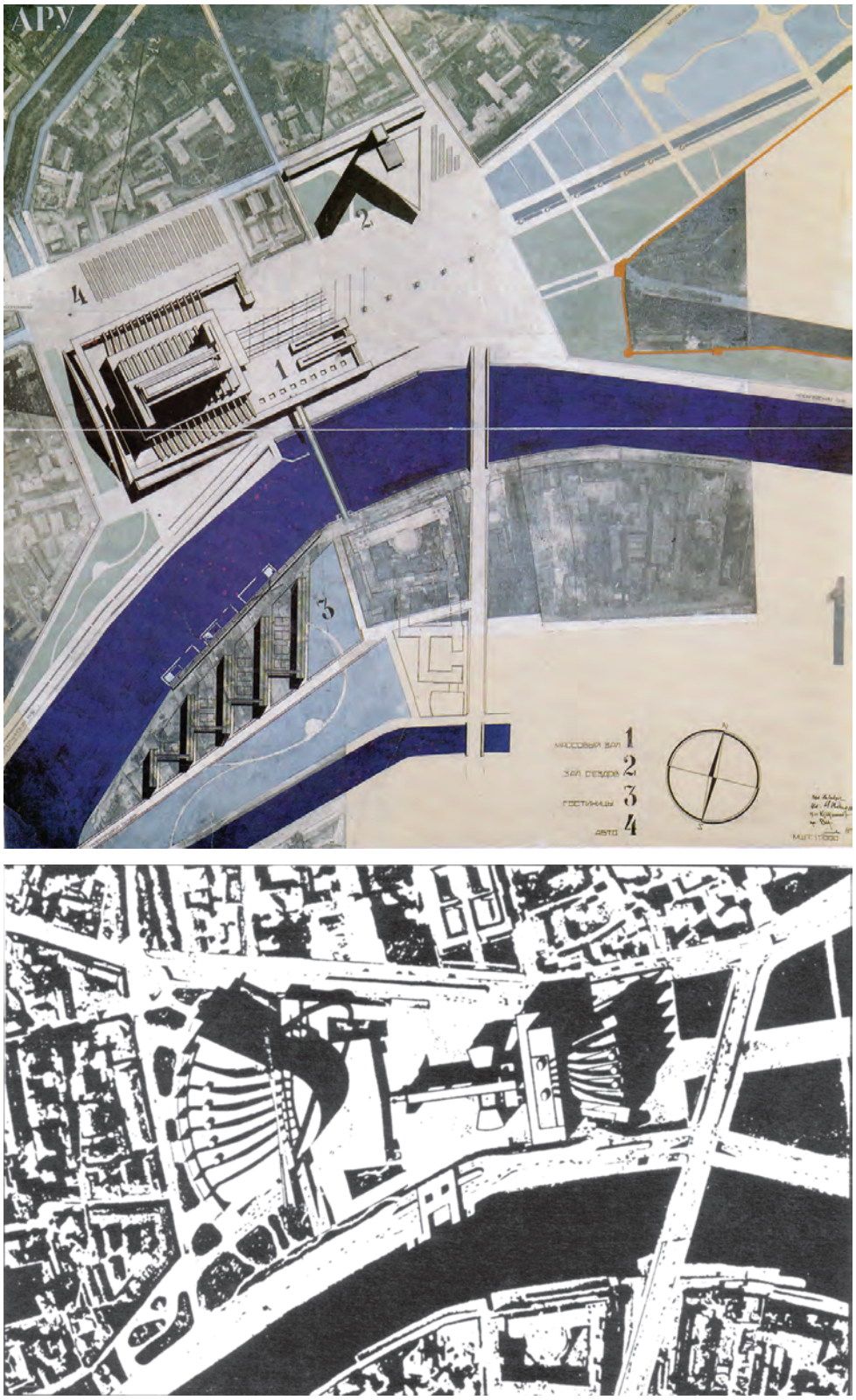


Figure 8.12 Differences in graphic depictions of the city by ARU and Le Corbusier suggest different underlying attitudes towards the existing urban fabric. *top* ARU (Union of Architects and Planners), *Palace of Soviets* Competition Entry (1931); Phase I, Layout. [source: Cooke & Kazus, *Soviet Architectural Competitions*, 1992]. *bottom* Le Corbusier, *Palace of Soviets* Competition Entry (1931); Phase II, Layout [source: Cohen, *Le Corbusier and the Mystique of the USSR*, 1992]

regarded their proposal through a filter of exclusion and a strategy of clear demarcation from surroundings. ARU's three-dimensional drawing, looking down the main parade axis, detects no urban presence in the background or anything resembling Moscow, while that same axis aligns with the street running alongside the Kremlin walls to join its parade ground [revisit figures 8.1, 8.4 and 8.7]. The assumed crowds are distinct from the city multitudes. The collective that Rationalist entries mine is less the collective offered by everyday city activity, and more the collective - alike that which took part in the 1917 revolutionary events - intentionally assembled in a chosen location for explicit purposes.

To explain the Rationalists' motivation for this turn away from the existing city, I would liken their composition of (interior and/or exterior) spaces to a (perhaps temporary?) parenthetic field within which the self-consciousness of the crowd may develop. It is parenthetic in two senses of the term. Historically, this was a moment where Soviet society was far from amalgamated into a cohesive collective. Consisting of a diverse admixture of peoples, ethnicities and regions, class consciousness was not adequately developed to furnish a firm foundation for everyday-life. The city outside the mass building was a site of incohesiveness to be not only barricaded but also regarded as itself in need of radical transformation – as itself a field for future action. As attested by the contemporary debates over urban development, the city presented a problem in need of radical address.[247] Despite their fierce differences, both the Urbanists (who argued for a relatively dense city and a developed countryside) and the Disurbanists (who sought to dissolve all differences between city and country, following a verbatim Marxist interpretation, to suggest a vision not unlike Frank Lloyd Wright's Broadacre City but with communal living) - both groups agreed that the city of the late 1920s and early 1930s does not proffer the physical infrastructure conducive of a cohesive communist society. This negative definition and an attendant lack of problematization underscored the competition brief's ambiguity on the Palace's relationship to the urban fabric, as discussed in Chapter-4: "The Crowd Design Problem: Primary and Secondary Sources"; hence, the conspicuous absence of

[247] The Urbanist versus Disurbanist polemic is discussed in Anatole Kopp's *Town and Revolution: Soviet Architecture and City Planning, 1917-1935*, translated by Thomas E. Burton (New York: G. Braziller, 1970). See also Catherine Cooke's *Russian Avant-Garde Theories of Art, Architecture and the City* (London: Academy Editions and Architectural Design, 1983).

depictions of the city in submissions to the *Palace of Labor* as well as the *Palace of Soviets* competitions.[248] However, the marginalization of the city in ARU's drawings bears different signs. While the existing surrounding city received meager attention, the 'urban' – the quality of urbanity – received heightened consideration within the confines of the site. It is in this sense that the Rationalist position constitutes a parenthesis - a radical beginning from which to redefine the surrounding urban context in different terms. What distinguishes the Rationalist position are the spatial qualities they confer on their parade-grounds and building interiors in their different schemes.

Beyond the contingency of the historical moment, the detachment also stemmed from an objective property of the building-artifact that the Rationalists (and many other Soviet avant-garde) realized. To recall an earlier argument: the genesis of the crowd's architectural problem consisted of transplanting the mass crowd from the exterior expanses of the city to the enclosure of the building – from one artifact into another. One significance of the building is that it affords the fine-tuned manipulation of social relations – far more than the unpredictable city allows; it does not constitute a major leap of logic to move from this observation to an inference regarding the building and its confines as a condensed field extracted from the urban continuum – as a heightened presence. Indeed, and as the massive scale of several projects for Communal Housing and public buildings from the period indicate, the intense cauldron of the building soon began encroaching on the city itself. Buildings were splayed across city blocks, ingesting property lines and urban streets within their fold.

The main point to be derived from both historical and objective arguments is that the Soviet design culture regarded buildings as constructive of transformative social relations - as productive of the new Communist solidarities, rather than reproductive of the status quo. As a design corollary, a building was conceived as a field qualitatively different from its 'uncontrolled' urban surroundings. In fact, and as later arguments will

[248] See Chapter-4: " The Crowd Design Problem: Primary and Secondary Sources" for a discussion on depictions of the city and urban fabric in submissions to the *Palace of Labor* as well as the *Palace of Soviets* competitions.; particularly subsections: *Third Silence: the Building and the City*, and *Conclusion: The Tragic Vision of the Supreme Building*.

demonstrate, one discovers in Rationalists' schemes, especially the interior of Ladovski's Mass Hall and ARU's parade-ground, how the design strongly demarcates 'interiority' from exterior conditions. The demarcation at issue here is not one of thick boundary walls or opaque facades. In fact and quite remarkably, ARU's parade-ground boasts weak and discontinuous edges; its spatiality is not defined by enclosure. Instead, what will prove to be striking about the Rationalist schemes are their deliberate attempts to distinctly qualify the interior's *aesthetic language* from its surroundings.

Forms of Conviviality: Insights into Gregarious Thresholds

Protracted as it may be, the above preamble primarily served to challenge our current way of regarding the early Soviet legacy, whether in architecture, literature or even social theory. Entrenched as we are today in a culture that fetishizes individualism, divining the complexities of collectivity and the implications of a commitment to gregariousness may easily elude us. It was thus necessary to shift perspective sideways before probing deeper. Yet the preceding section also served to extend the first threads tracing the *matrix of conviviality* suggested by the Rationalist spatial systems - threads, in fact, which point to a radically distinct conception of spatial configuration borne of gregariousness. But I get ahead of myself; this soil requires some tilling first.

To reiterate the derived intuitions: while Le Corbusier acknowledges and accepts urban everyday-life around the Palace as a model, ARU seeks to create a reality alternative to it. Connecting strongly only to the Kremlin and its immediate ceremonial surroundings, ARU's scheme expands this zone to overtake the city. ARU's crowd depiction foretells the image of a cohesive (if somewhat loose at the local, personal level) collective whose global movement and stasis (somehow, vaguely - for now) corresponds to the structure of the spatial organization. Whether globally as a system or locally within individual spaces, Le Corbusier

structures space after a distributed, dispersed schema, much in the image of his depicted crowds as well as analogous to his own mode of graphic representation.

Observations concerning the construction of encounter thresholds amongst individuals and groups furnish constructive hypotheses on the nature of co-presence. Le Corbusier's elaborate solutions for movement through and around the site [see figure 8.11] disclosed an overwhelming interest in generating group flows *past* each other. Le Corbusier treated movement as traffic, crossings as intersections - rather than as meeting-points; movement interdependence here is rather weak and perhaps altogether trivial. Co-presence in Le Corbusier's scheme is, in fact, of generic quality: a continuous aspect that bears little potential to introduce – even intermittently – moments of 'aspect-dawning': moments when the subject's consciousness is awakened to actively acknowledge others beyond mere concession, as discussed in Chapter-6: "Premise".[249] And his scheme does little to transcend that generic co-presence. Neither spatial setting nor crowd-formation in this field of incessant flows suggests highlights against which one may sense 'other bodies'. Fields of columned grids hold little or no clue to the significance of variant metric distances; the closeness of others does not impart additional information (socially), while distant gatherings are but small clusters in a uniform grid that diminishes capacity for discerning aspect.

In contrast, Rationalist entries are intent on creating moments of significant concurrence: they evoke mutual visual relations and coordinated action. In fact, ARU's three-dimensional drawing captures, above all, a mass encounter: a moment when numerous clusters of individuals from different companies are poised to observe each other in parade [figure 8.13].[250] The design move introducing the linear ramps into the parade ground instantiates this mass encounter to occur. Marchers stop; they negotiate priority of movement, sequence of numbers and company; they observe others at different angles (frontally, in half or three-

[249] See also Ludwig Wittgenstein's *Philosophical Investigations*, translated by G.E.M. Anscombe (New York: Prentice Hall, 1958): pp:193-229. Thomas Sheehan also discusses *aspect-dawning* and continuous-aspect; see T. Sheehan, "Wittgenstein and Vertov: Aspectuality and Anarchy", *Discourse*, 24(3) 2002): pp. 95-113.

[250] More specifically: a moment of pause in the parade while the ramps sort and siphon on-ramp marchers, before others access the ramps.

quarter profiles, and from the back) and at different heights (up and down the ramps). The crowd-sorting ramps also occasion the next encounter inside the Mass Hall, where the reshuffled companies and resorted numbers realign into columns and square clusters observed - on both sides of the parade ground (now stage) - by the stalls, themselves observing each other across the Mass Hall space [see figure 8.14, *top*]. In Ladovski's entry, such encounter moments are also intense, while – additionally – in-between journeys suggest action interdependency in tandem with high co-visual display from a plethora of viewpoints. The curved-ramps display the parade-crowd to itself, to others inside the auditorium and on the streets. Curvilinear geometry renders complex the rather simple configuration of spaces. Parading marchers would need to coordinate movements going into the dual curvilinear ramps and, from there, into the Mass Hall or around it. Marchers would also see each other from a variety of vantage points: from the back following others, sideways from high up, looking down from the encircling ramps onto amassed crowds in the plaza and those just ascending the ramp, and face-to-face when encountering seated audiences within Mass Hall [see figure 8.14, *middle*]. For each of ARU's and Ladovski's crowds, a single point of entry into the Mass Hall promotes one collective experience (spatial experiences are focused and shared) of emerging into a space. Everyone already inside that space sees, acknowledges and confronts whoever enters – as group and/or as individual – together.

For both Rationalist crowds, the fine-grained patterns of 'mutual-seeing' (co-visibility) and highly nuanced coordinated actions (co-action or interdependence of action) are integral to design intention and to the structuring of space. Co-presence, the observation of others, is heightened by the frequent occasions of encounter, and the myriad moments of surprise exposure and necessity for negotiation. I will provide more definitive measures of co-presence later, but what I want to establish here is that, at the fine-grained scale of individual bodies within the crowd, the patterns of encounter are crucially significant to space construction in Rationalist schemes. The crowd, even at this personal or 'local' scale, is central to configuration.

Rationalist regard for the ''togetherness' programmed for the *Palace of Soviets* as a *socially and spatially meaningful* event also applies to the global scale. Both Rationalist schemes situate the required parade-ground in their spatial hub. Using curvilinear geometry, Ladovski forks the main spine into multi-pronged ramps accessing Mass Hall at multiple levels but at the same point. ARU's parade-ground occupies the central linear spine extending through the Mass Hall and beyond, to bind inside to outside building space. Moreover, this spine, made up of a linear sequence of events, presents an unambiguous reference for mapping the whole system. The crowd's processional movement and encounter (its cohesion) are what constitute the backbone of the spatial system, and in such a way as to remain a highly intelligible system for crowd-individuals to map [see figure 8.15 *for a comparison between ARU's and Le Corbusier's spatial organizations*].

Achieved through simple design moves at the global level, such subtle formulations of co-awareness may better be emphasized through yet another comparison to Le Corbusier's dispersed presences and distributed configuration. Volumetrically, his spaces are too segmented to allow consolidation into a large space for large rallies or parades. His spatial system's desired hub, the raised terrace-like platform just east of the Mass Hall, where crowds are expected to congregate, is located away from crowd concentrations, 'natural' movement routes and most building entries. Attendees of events in the two large halls would more likely arrive and leave through fore-spaces disconnected from the raised platform, assumed to be the main crowd congregation locus at the center of the site [revisit figures 8.3 and 8.7]. While the *pilotis*-space beneath the Mass Hall building provides for continuity throughout the scheme, auditoria spill audiences outwards to blend with urban crowds, thereby feeding into the generic co-presence and diffused co-awareness that mark everyday-life. In fact, Le Corbusier's spatial system consists of a set of distinct expanses (explicit or implied), either isolated from each other or connected to others (mostly outdoor ones) via thin thresholds (merely a plane to be crossed, as occurs across the central overhanging bridge), or 'thick' ones which distribute people over a large number of entrances (as occurs at entries into both assembly halls) [figure 8.15]. For Le Corbusier, people appear in main spaces (the raised platform, the

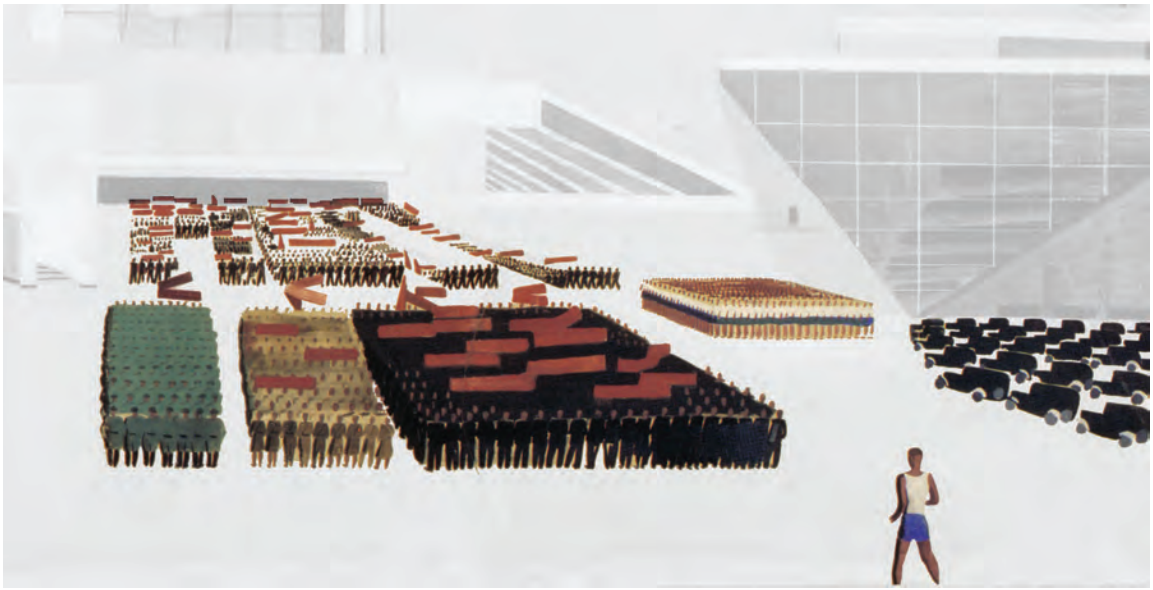


Figure 8.13 ARU (Union of Architects and Planners), *Palace of Soviets* Competition Entry (1931); Phase I, Closeup from Three-dimensional Drawing showing mass encounter.

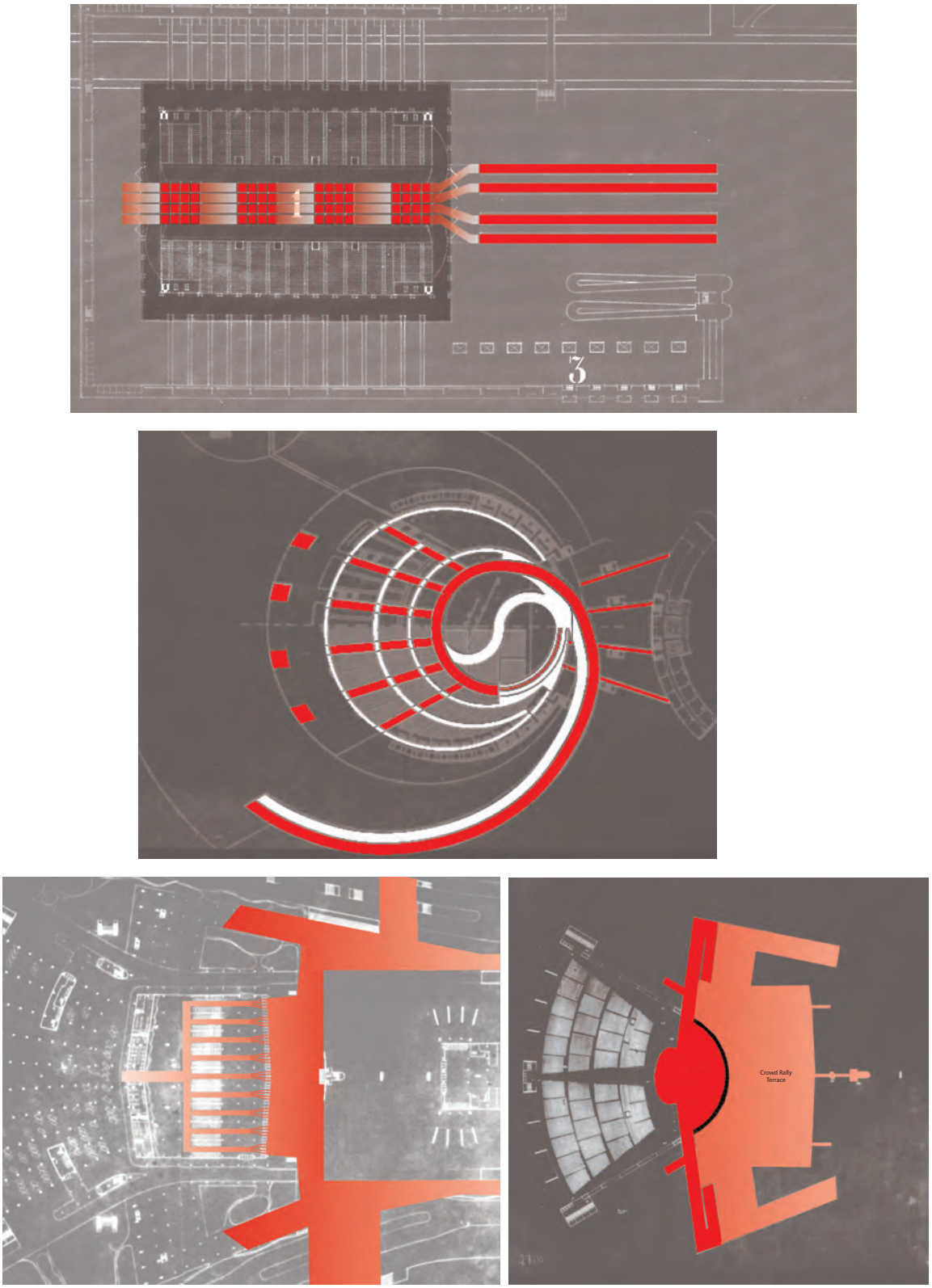
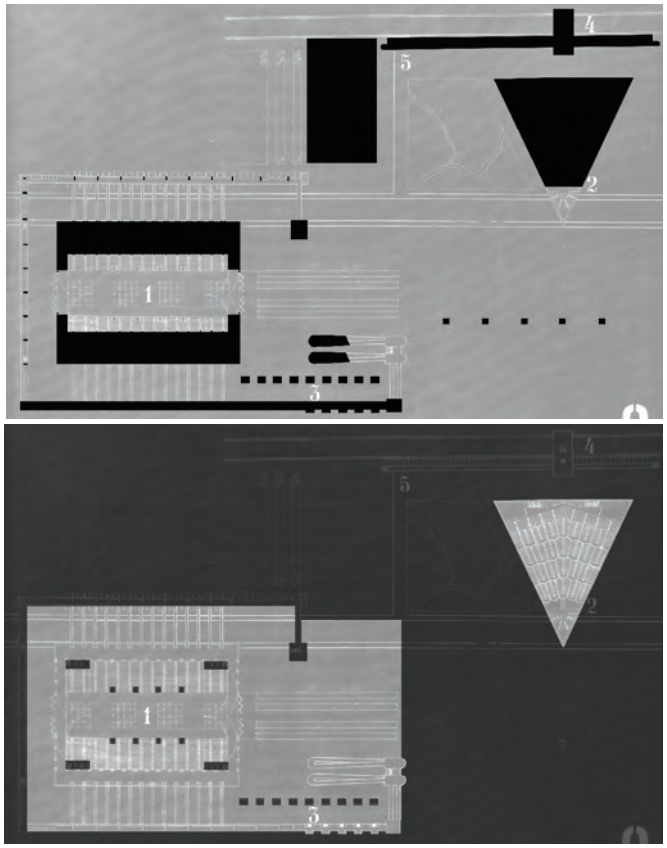
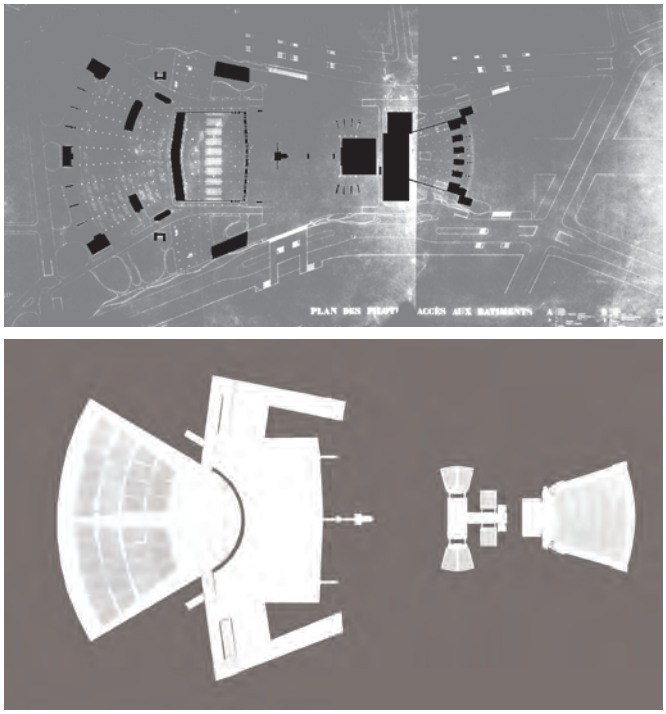


Figure 8.14 showing main movement into the Mass Hall in each competition entry
top ARU (Union of Architects and Planners), *Palace of Soviets* Competition (1931); Phase I, Ground Floor Plan
middle Nicolai Ladovski, *Palace of Soviets* Competition (1931); Phase I, Floor Plan. Procession forks into two adjacent ramps (red and white) which enter the Mass Hall at the same point, but at different heights.
bottom Le Corbusier, *Palace of Soviets* Competition (1931); Phase II, Ground and Upper Floor Plans.



ARU (Union of Architects and Planners)



Le Corbusier

Figure 8.15 main crowd congregation spaces: blackened areas are where crowd assembly, qua crowd, is not possible.
top ARU (Union of Architects and Planners), Palace of Soviets Competition (1931); Phase I, Lower Level Plan (recon.) and Ground FLoor Plan. Crowd space flows contiguously with a clear sense of direction.
bottom Le Corbusier, Palace of Soviets Competition (1931); Phase II, Lower Floor and Upper Floor Plans. The pattern of crowd spaces is segmented into implied, discontinuous enclosures of limited size.

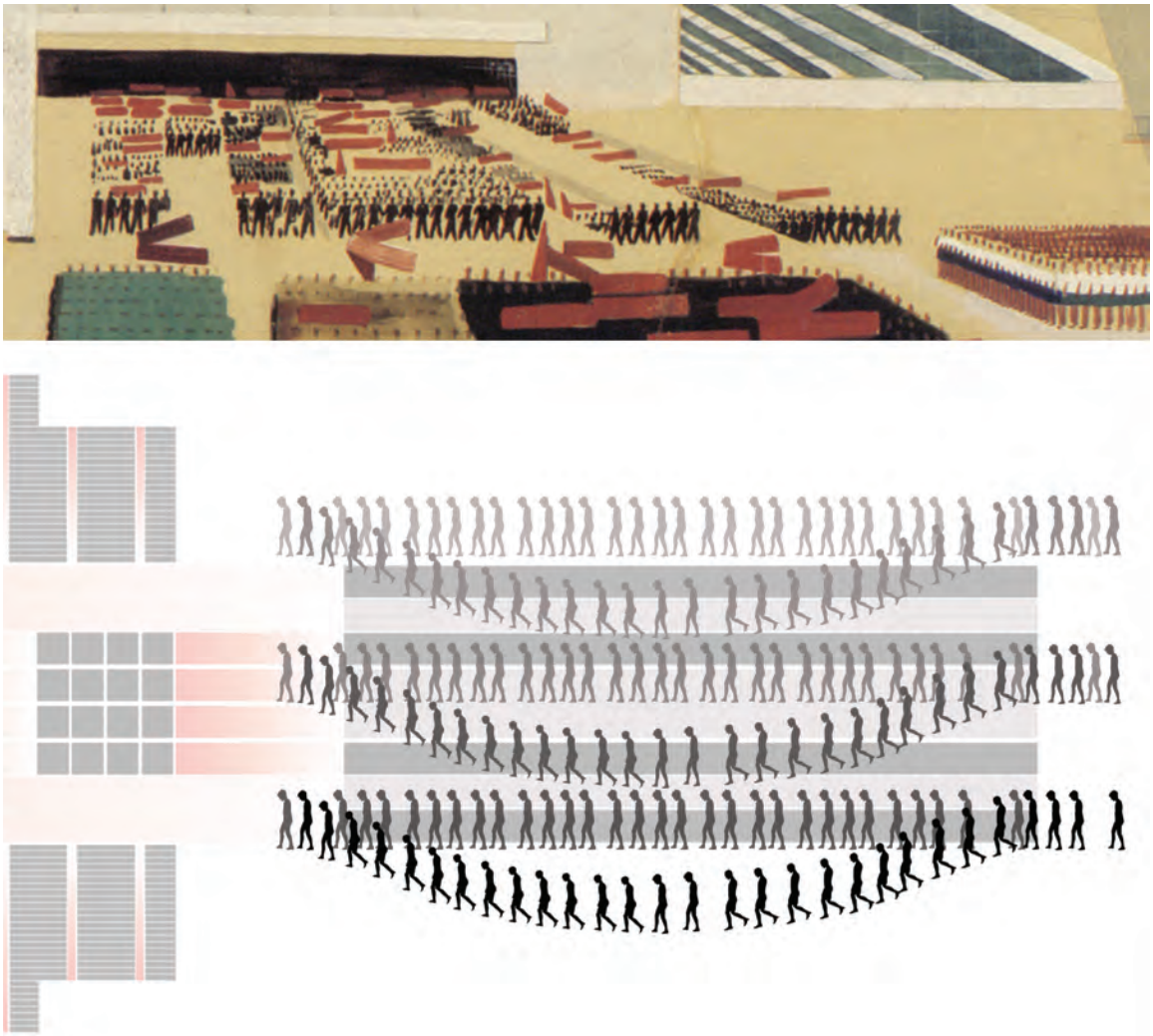


Figure 8.16 ARU (Union of Architects and Planners), Palace of Soviets Competition (1931); Phase I,.
top cropped closeup from the three-dimensional drawing showing the sorting of companies;
bottom a sectional reconstruction of the ramps.

Mass Hall and the Small Auditorium) through more than one threshold – which contributes to the prevailing sense of distribution [see figure 8.14, *bottom*].

Hence, co-awareness in Corbusier's scheme is rather ambivalent; the act of mapping incohesive. Axial arrangement centered on a physical form, and coupled with spatial dispersion, generates weaker potential to map the distribution of *other-bodies* in the system. Oriented outwards towards the city, most visitors are ill-poised to regard the overall system except from behind a large building mass [revisit figure 8.15]. In fact, it is 'strangers' (in the city beyond) who get a more comprehensive view of the spatial system and may thus reconstruct it more easily as they read movement across the section-like façade [refer to figure 8.10]. Although the grids and the *pilotis* space may arguably help strengthen the potential for mentally mapping the overall physical system, one may counter that such clarity is offset by the lack of qualifiers to predict where other bodies and gatherings would be – to mentally-construct relations that instigate encounter. Le Corbusier's scheme enhances 'awareness' (of the building), but diminishes co-awareness (of other bodies). The system of physical spaces and that of crowd movement are detached from each other: the former does not strongly afford the latter or retain its memory. Hence, subjects may only map co-awareness for areas of close proximity.

Of crucial significance in the above discussions of co-presence and co-awareness is the inference that crowd dynamism (its flows, reshufflings and encounters - and even its self-consciousness while moving and encountering) is central to the structuring of space. Note that a dynamic crowd is not only one which executes a displacement across space (as in a parade, a march or other similar formation), but also one which may reconfigure or reshuffle its own internal parts without displacement. It is the mapping of the dynamic-crowd which motivates the configuration of space. In turn, this configuration's challenge is to maintain the crowd *qua* crowd: its cohesiveness and other qualities of co-presence, co-awareness, co-visibility and interdependence of action – whether at the local or global scales. It is, after all, a greater challenge for a crowd to remain a (cohesive) crowd when in a dynamic state. An understanding of the

broader issue of the kinesthetics of crowds thus becomes vital. The next chapter (Chapter-9: "Kinesthetic Space: Intersubjectivity and the Problem of Other Bodies") will demonstrate how the Rationalist schemes suggest such kinesthetics as an aesthetic with its attendant emotional economy and as a generative framework for intersubjectivity. It is to the configurational basis of this dynamic crowd kinesthetic that the argument now turns.

In Le Corbusier's scheme, narratives of group-dynamics and flow are hardly significant and sparely constructed. Crowds are rarely meant to *move together* as one big mass or to reshuffle in any *coordinated sequence* (neither consecutively, towards coordinated targets nor in any coherent formations)*;* and when doings so, it is only in the transition – mostly instrumental in nature - from lobby to auditorium or back. Besides the insignificance of the intersection between different crowd flows discussed above, the flow of a single group is not considered as part of a design strategy to further cohere the group or to impart significance about 'togetherness'. Even the potentially-significant event, amassing a crowd of 50,000 people in the raised terrace [refer to figure 8.14, *bottom*], is but a moment or event divorced from a coherent procession; indeed, the marching crowd is divided along two symmetrical ramps on each side of the terrace and which are better exposed to the street than to fellow crowd members or Palace users. Crowd members coming from the parking would have to squeeze the crowd body into narrow linear formations in order to circulate from the foyer to the ramps. Additionally, marchers would have to turn directions many times as they make the journey upwards. And when finally amassed on the elevated terrace, Le Corbusier's submission gives no hint about possible rhythmic variations; the terrace floor plan is a vacant symmetrical shape facing its 'haranguer' across a spatial divide. When 'together', a crowd in Le Corbusier's scheme is usually in stasis, and its individual members remain centered on a focus of attention detached from their midst. They are either being "harangued by an orator"[251], or seated in an auditorium which strictly separates spectatorship from performance as well as permits of little to no exchange between the spectators

[251] Le Corbusier, quoted in Jean-Louis Cohen's *Le Corbusier and the Mystique of the USSR: Theories and Projects for Moscow, 1928-1936,* translated by Kennth Hylton, New York: Princeton University Press, 1992:

themselves – i.e. severely delimits internal reshuffling. In other words, movement and diachrony are immaterial to sustain spatial arrangements of crowds in Le Corbusier's scheme. Movements are as good as synchronous; their sequencing – or unfolding in time – is inconsequential. Le Corbusier's scheme either favors synchrony, or offers diachrony in such dispersion as to hardly afford collective significance.

Compare this to ARU's scheme. As simple as the space of movement may be, its linear axis is composed of segments in sequence, each punctuated by events: physical suggestions of rhythms and intersections with other movement flows. The parade as an event and the parade-ground as a spatial element are no mere circulation elements, but rather employed as crowd-sorters and opportunities to evoke the kinesthetic aesthetic - with significance no less than the assembly halls themselves. Most prominent is the system of four ramps which thresholds the Mass Hall entry, and which reshuffles the crowd companies and clusters as it resolves the intersection in flows. Besides strengthening co-visibility and action interdependence (as discussed above) the ramps render a simple linear movement into a complex wave-like structure which, while preserving the general linear direction, lends it three-dimensional 'thickness' [figure 8.16]. The ramp-system is an event of consequence; the crowd changes qualities between its ends. However, it is not the only such diachronic space, and in fact it should probably be best regarded as a foretaste to what could be done all along the axis.[252] Indeed, the stage inside the Mass Hall already suggests some transformations of the crowd organization.

Collective dynamism– or diachrony rather than synchrony - structures the global spatial scheme of the Rationalist submissions and their experiences. In fact, it seems difficult to analyze the overall plans of the two Rationalist schemes in terms of convex enclosures, when they mainly consist of large spaces (with minor contained ones), interconnected by arteries of movement (unlike Le Corbusier's scheme where enclosures – defined or implied – are juxtaposed one next to another) [revisit figures 8.14 and 8.15].

[252] Recall that the ARU's Phase I of the *Palace of Soviets* Competition was executed earlier than Le Corbusier's Phase II and was meant, I presume, as an ideas competition. Hence, it is not unreasonable to project that the ARU Rationalists would have developed such crowd-sorting ideas further in later phases of the competition had they participated.

Rationalist spaces seem more defined in relation to movement axes rather than by their enclosing shells; some, like ARU's parade-ground, are bound by no enclosure at all. What then defines such a space? To what morphology does it belong? An alternative conceptualization – more firmly grounded in notions of gregariousness and movement – needs to be introduced to better grapple with them. Of this re-conception of spatial systems as fields of collective movement consists the first reformulation of the logic of Rationalist space: its projection into a theoretical framework.

Theoretical Reformulations: The Dynamic Crowd

The challenge now is to articulate such a reformulation in clear spatial and formal terms. To that end: a short detour from submissions by the Rationalists and Le Corbusier is useful here to consider some fundamental theoretical issues of spatial configuration. Spaces of gregariousness, I contend, are logically incommensurate with the notion of a 'convex enclosure' as the normative building-block of spatial definition in Space Syntax Theory[253]. A convex enclosure depends upon notions of *seclusion* and *stasis* as axiomatic points of departure. Convexity is morphologically defined as the full visual disclosure (360 degrees) of a space from any observer's viewpoint situated within it [figure 8.17]. It is the visual field totally controlled by the inhabiting subject, and which allows that subject-*cum*-agent to monitor visual as well as physical accessibility to him/her. In other words, it is a spatial conception fundamentally forged from isolation and control – or the delimitation of co-presence. Convexity also betrays a bias towards stasis over movement. Within the convex spatial volume, any point is by definition identical to all others in terms of disclosure; displacement and diachrony are irrelevant. As part of a spatial system, a convex space suggests a destination, or at least a moment of halting or dwelling. It takes another complementary construct – namely, 'configurational depth'- to fully account for movement across several convex spaces or throughout a whole

[253] Bill Hillier & Julienne Hanson, *The Social Logic of Space (*New York: Cambridge University Press, 1984).

spatial system. Movement, in this conceptual framework, occurs between discrete points. Convexity derives from a volumetric logic; configurational depth from a relational morphology.

A dynamic mass-crowd provokes a challenge to this foundational concept of 'convex enclosure' [revisit figure 8.17]. As a social entity, the formation of a moving crowd assumes a certain gregariousness; the social purposes of a gathering deny seclusion and minimize individual control. Collective behavior is what marks such gatherings. Here, I draw a distinction between a crowd moving together as a contiguous entity, and a group of unrelated individuals moving simultaneously but with no coherence (as in the case of Le Corbusier's *Palace of Soviets* scheme) - let alone stationary individuals distributed in their disparate enclosures of destination (as in the system of convex spaces of a cellular office arrangement).

But the crowd's challenge to the morphological notion of a convex space is, above all, morphological itself. The moving crowd partakes of the 'hard' morphology of space. If a convex space is defined by total visual disclosure, a crowd condition - by definition - denies that. Close-by bodies delimit the field of visibility and physical movement; enclosure – by other bodies - attains a measure of mutability (akin to a flexible 'bubble') as bodies encircling one's own in a crowd fluctuate in distance, shape, visual disclosure of what is beyond, and speed (of displacement in the case of a moving crowd, or reshuffling for a static one) [for graphic descriptions of the *field*, see figures 8.18 and 8.19]. This, after all, is how information, whether about the crowd or about the physical environment surrounding the crowd, is relayed in a crowd situation: bodies read orientation, movement speeds and density from the surfaces and kinesthetics of adjacent bodies. One will adjust one's speed, direction and attention in response to stimuli and inferences from surrounding bodies - less so than in response to changes across physical enclosures. A crowd is the aggregate of such adjacent, fluid fields and their fluctuations.[254] To clarify: there are, in effect, two sets of communicative rhythms at work

[254] Comparisons to a fluid should not be taken as strong metaphors likening the behavior of an overall crowd system to a fluid substance exhibiting some molecular behavior. Crowds at different densities behave differently, and even with those at high densities, the analogy has proven to be awkward. See Roger Hughes, "A Continuum Theory for the Flow of Pedestrians", *Transportation Research Part B* 36 (2002): pp. 508-9.

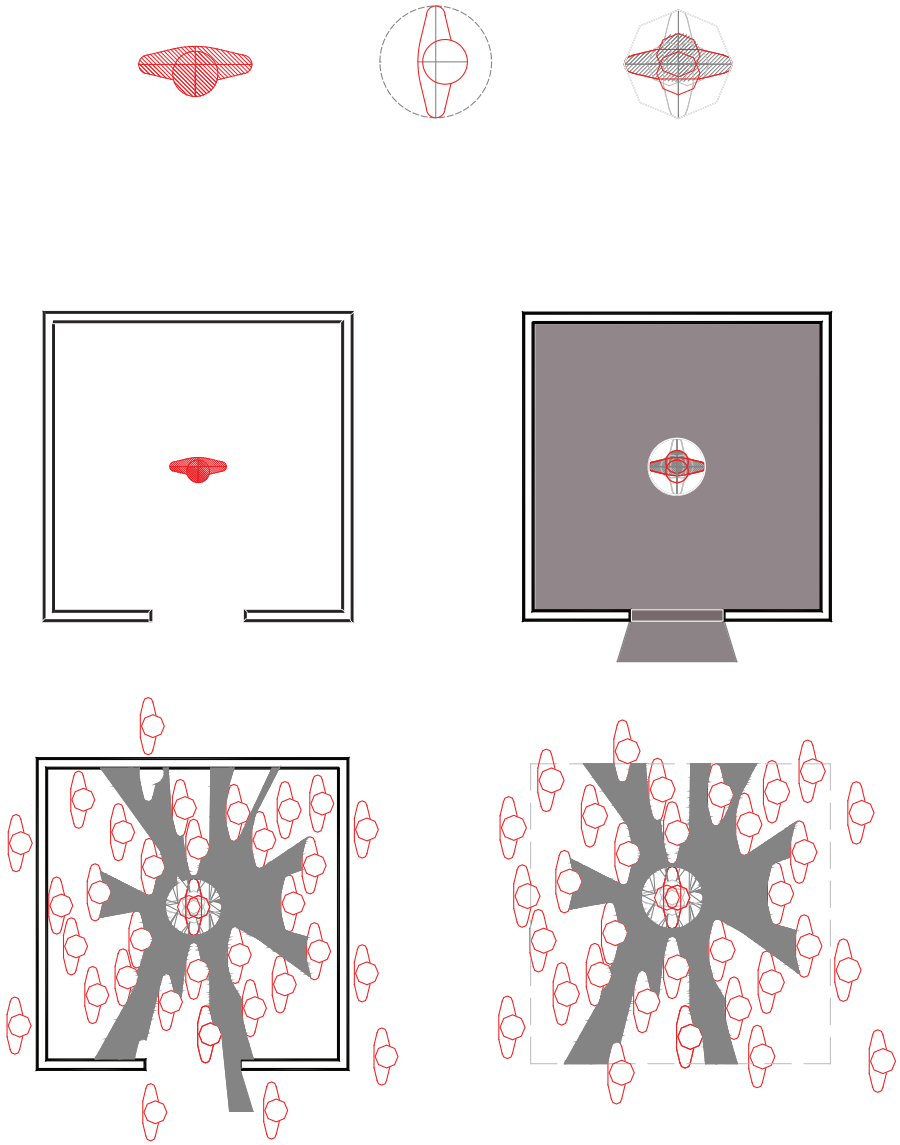
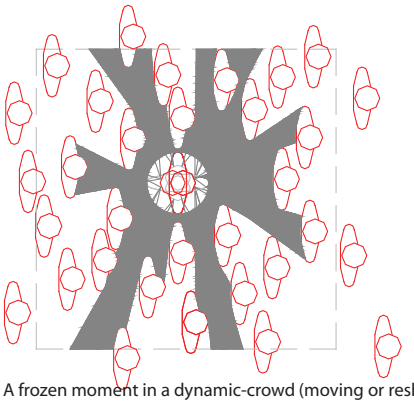
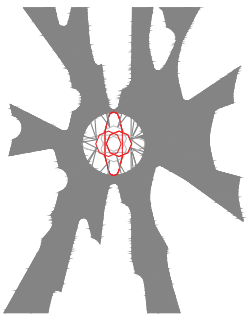
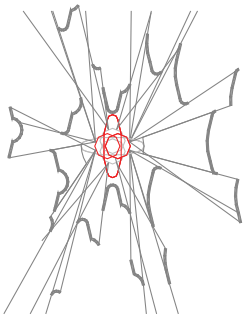


Figure 8.17 The convex enclosure and the challenge presented by bodies in a hypothetical fragment from a crowd.



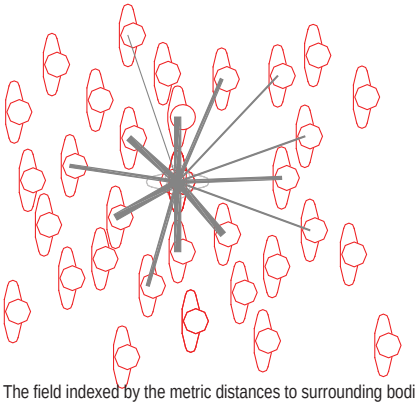
A frozen moment in a dynamic-crowd (moving or reshuffling):
the field of potential perceptions and interactions (spatial-body)

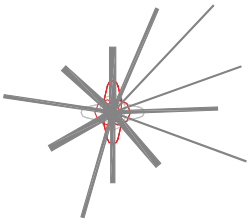




a

The field defined by surrounding body surfaces. This description has the potential to capture kinesthetics registered on adjacent body surfaces, but has proved too complex for present development.

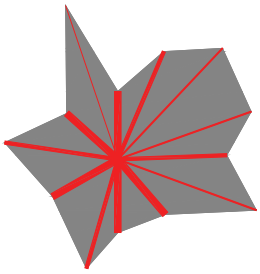




b

The field indexed by the metric distances to surrounding bodies provides a more practical measure. Thicker lines indicate closer bodies, which afford keener peception and interaction.

b1



An individual field

Figure 8.18 Descriptions of the field ('bubble'), the individual building block of crowd aggregation.

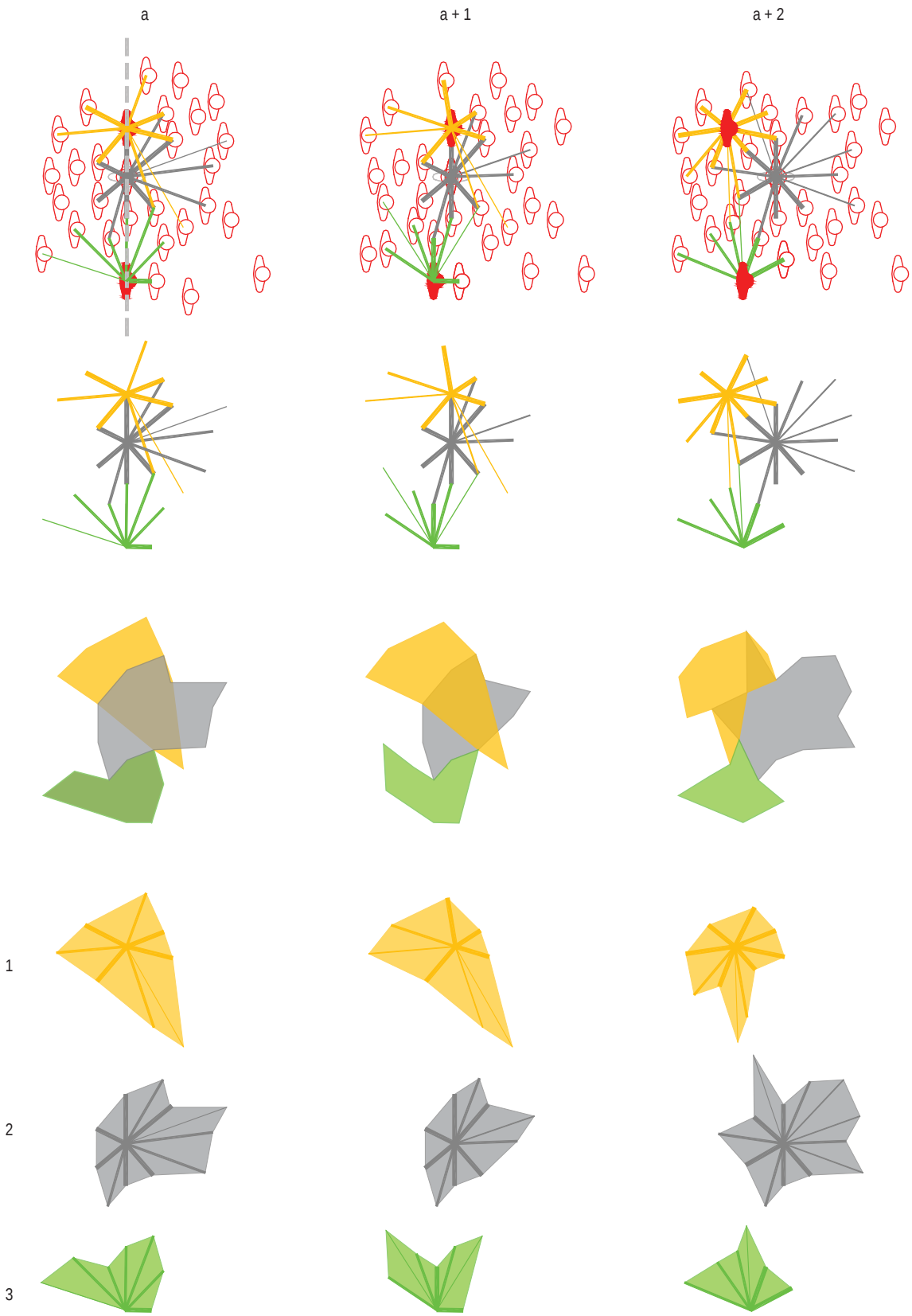


Figure 8.19 A hypothetical case of a dynamic-crowd: three (individual) fields realign as the crowd moves or reshuffle along three instances. The grey and yellow fields enjoy more overlap and interaction: they have potentially stronger co-presence.

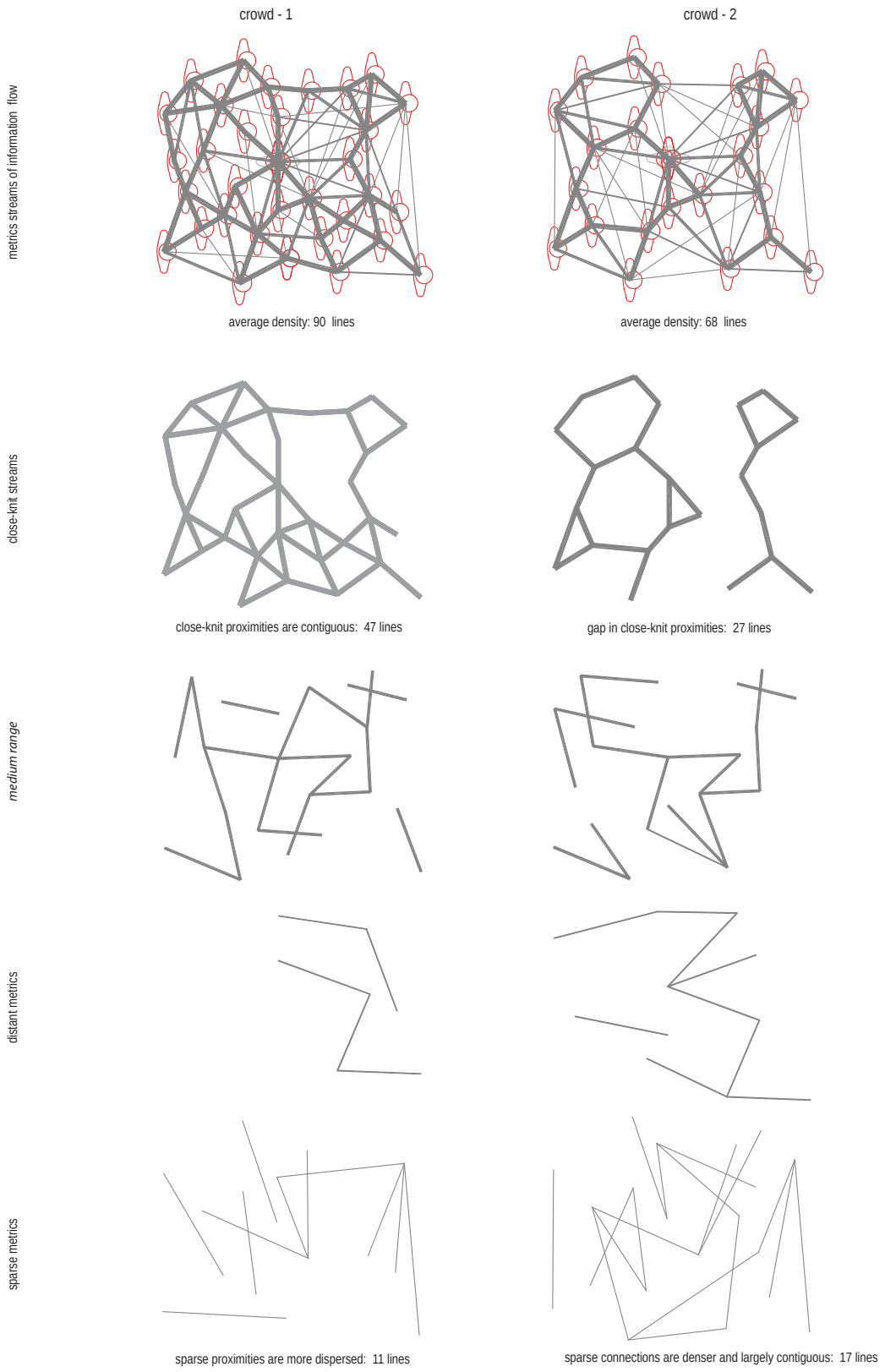


Figure 8.20 Conviviality Index Maps: a breakdown of two hypothetical crowd conditions based on metric proximities; all possible lines of communication are connected, displaying crowd patterns and densities.

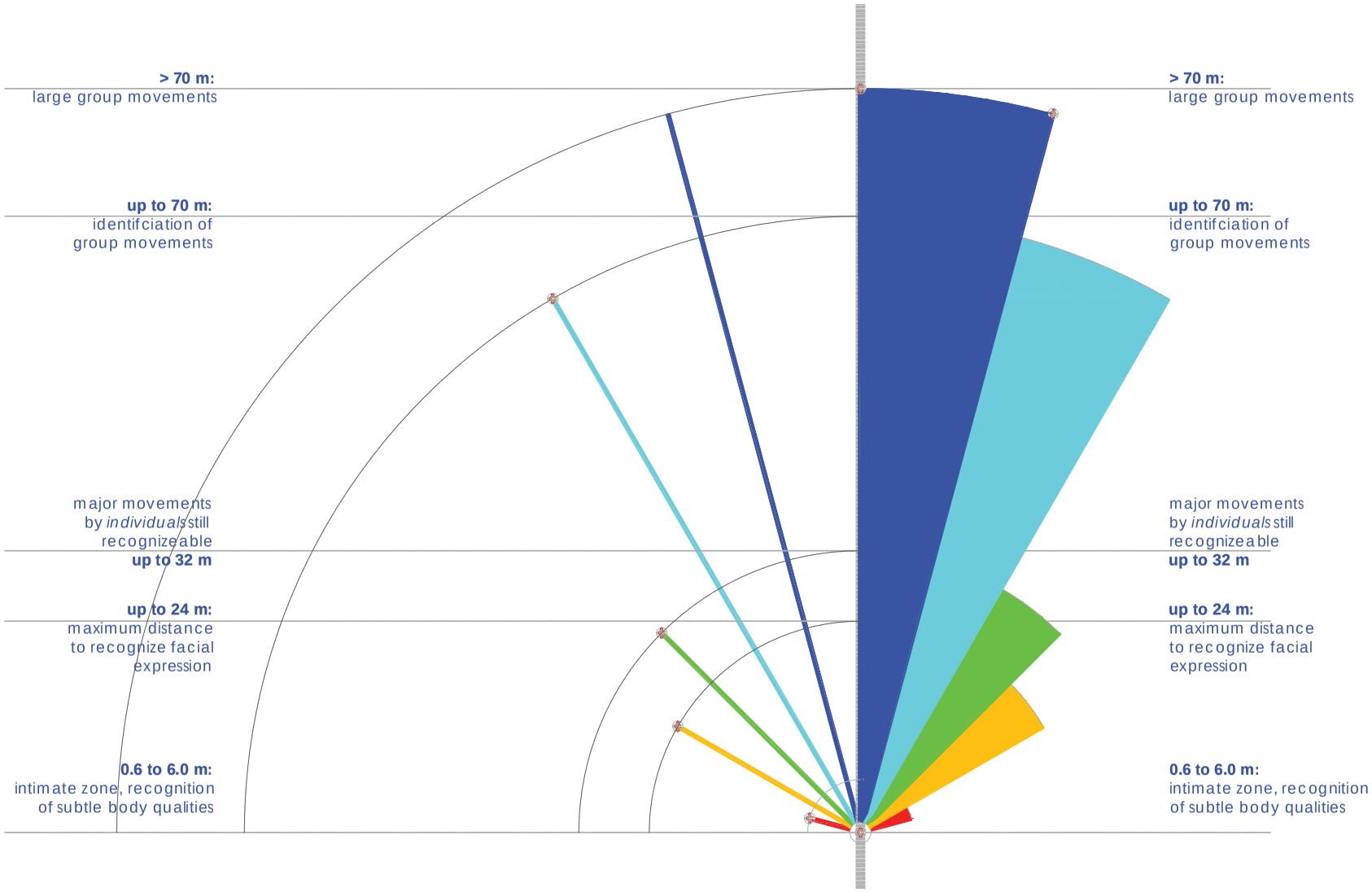


Figure 8.21 Diagram correlating visual perception of gestures and behaviors to metric distance, based on standards employed in theater design [source: Neufert, Architect's Data, 2000]. The same color coding will be used in later figures.

here - two different scales of configuration. First, there are body-to-body rhythms which negotiate kinesthetic exchange and relative positioning within a single field (reciprocal expression from one to the other), while taking into account relay: that a body may partake in more than one field and hence transmit from one to the next. Thus, bodily expressions – modified, morphed and even transmogrified – would broadcast and diffuse across the crowd. In the next chapter (Chapter-9: "Kinesthetic Space: Intersubjectivity and the Problem of Other Bodies"), I will present a more detailed discussion of the workings of this finer-grain, barely-perceptible kinesthetic language drawing again on Meyerhold's Biomechanics. Suffice it here to point out that the aesthetic generated is no mere transmission of instrumental communication, but a proclamation of presence to others. The second rhythm transmits cross-field and across sets of fields. This coarser-grain configuration is what concerns the present chapter, because it is at this scale that a comparison with 'enclosure' is legitimate. It is at this scale of configuration that issues of inscription into physical space become more germane. In figure 8.18, the distinction between the top and middle ('*a'* and '*b'*) mappings of the individual field arrayed vertically on the right-hand column captures the distinction between the two 'grains'. A field delimited by body-surfaces (as in diagram '*a'*) is a more sensitive graphic device, which could potentially map the fluctuations of subtle kinesthetics characteristic of the first, finer grain. An efficient index for the second, coarser rhythm is the metric-only map (diagram '*b'*), which reads as a topological description of the field. A derivative of this coarser rhythm is the n-sided polygon (in diagram '*b1'*), which describes the number of adjacent crowd members, and indirectly offers indications about the density of the crowd system.

While these sinuous micro-enclosures constitute the primary spatial delimitation, building surfaces[255] may partake only indirectly in the definition of space for a typical crowd member. The enveloping mass of bodies occupies one's attention; building walls - the physical environment generally – tend to recede as background concerns, only secondarily (if any) determining sense of enclosure. This is even more pronounced when the

[255] This applies primarily to building walls and roofs. The ground or floor still plays a major role in the definition of space here; this will be elaborated in the next two chapters.

crowd is assembled in one large space, which renders the notion of configurational-depth almost irrelevant; no information about the spatial system is gleaned from observing the enclosing shell(s). The dual notions of convexity and configurational-depth barely inform the dynamics of a crowd in a synchronic space or any crowd space.

How then may one describe configuration for the gregarious space of a crowd? The nature of configuration in a spatial system built of convexity and depth is one of static enclosures arranged in exclusive positions – as a register, in fact, of human and social behavior: the comprehensive visual sweep of an individual not-crowded by any other, but simultaneously the residue of social relations (of collectivity, power, … etc.) negotiated in physical space with an individualistic bias. By exclusive I mean that one enclosure cannot occupy the position of another, and that one enclosure intervenes between others in the system blocking them from each other. In configurations of gregariousness, the unit or building-block – the *field* – is dynamic: it either displaces (in a moving crowd) or deforms (to reshuffle in a static crowd). Moreover, fields may ostensibly dissolve, mix and/or regroup into smaller or larger ones. The only logical necessity for a field is a metric set of conditions: stretching the distance between bodies beyond certain limits disables the perception of, and interaction with, certain bodily characteristics - from the subtle kinesthetics of a single adjacent body, such as gesture and sense of weight (thereby limiting co-presence), all the way to the conjoined group formations at a distance. For a detailed breakdown of the correlation between distance and the propensity for perception and interaction with other bodies to form crowd patterns, see figures 8.20 and 8.21. But, shift as they may, the formations maintain their states as interactive fields across the whole system - with no exceptions if the crowd is to remain in a state of equivalence all through. Hence, the system is more fluid and mutable than a system of physical enclosures; the elementary units may dissolve into each other to form new ones. What marks one crowd system from another, or the same dynamic crowd from one (moving or static) moment to another, are the densities of field formations – indexed by the metric maps of fields [revisit figure 8.19], as well as the rate of change in densities; i.e. the rate of fluctuation in the metric maps, either due to displacement in a moving crowd or deformation-cum-reshuffling in a static one.

Graphic descriptions of such exchange and relay, using metric measures within and between fields, are captured in figures 8.19 and 8.20. I will assign the name *Conviviality Index Maps* to the family of graphics generated in this exercise to map crowd morphology. Such attempts are presented in this thesis primarily as the groundwork for an analytical technique which I intend to develop further in future research projects. However, they already illuminate new observations and point to further measures. The mapping attempted in figure 8.19 is 'subject-based'; it emphasizes the field of perception and interaction (the spatial-body in Lefebvrian terms) projected around each crowd-member. It traces the fluctuation in shape and overlap with other fields. Shape indexes centrality and marginality, while also hinting at visual framing and foci of attention where pointed field-shapes are aimed. Degrees of overlap with other fields indicate the potential for relay and transmission across the crowd system – a measure which carries much promise for a clearer description of co-awareness. Mapping exclusively in terms of the interconnecting lines, and connecting all possible lines of perception and interaction across the system, as in figure 8.20, the graphic turns its attention to the crowd's fluctuating densities and its cohesion patterns – both still grounded in metrics. Mapping a crowd system using the correlations between distance and propensity for perception and interaction, summarized in figure 8.21, would enable informative descriptions of such patterns – as will be attempted below for the crowds in Le Corbusier's and ARU's submissions.

However, this rhythmic configuration confronts the same problem faced by the enclosure: transmission has to occur across fields; or stated differently, one field still intervenes between two others - a human body still has to move around the physical mass of another body (not to mention its subjectivity, which will be addressed later) in order to navigate through the crowd. The problem of navigation may be resolved differently for the dynamic, but still cohesive, crowd; yet, first, an assumption has to be made explicit. In a model undivided crowd, 'hostile' bodies, which would refuse access or passage, logically disintegrate the crowd into more than one cohesive collective and hence are eliminated as logical possibilities here. The quality of boundary mutability allows traversing fields, or fields do reshuffle to permit traversing. In contrast to the system of convex spaces, an inversion is in place; space is 'filled' with the bodies of a crowd, instead

of being an empty void occupied by an individual body, but such that bodies and fields do not disallow reshuffling. Field boundaries can be assumed to be fluid, as well as to register qualities and information from distant bodies and fields; in its very grain, the system promotes co-awareness. But this makes descriptions of the system via discrete steps uninformative. Instead, the system's performance is better described through the temporal fluctuations in densities of the metric-maps of fields.

Yet this leaves one last aspect of this alternative configuration unresolved. How does a crowd system register its ephemeral social relations in physical space? If a social practice of individualism inscribes through enclosure and convexity attended by discrete 'configurational depth', then how does inscription take place for a gregarious system where the spatial experience itself is fundamentally ephemeral and determined by shifting crowd configurations? First of all, one has to remind oneself that inscription is an historical process; simply stated, this means that, adhering to individualistic values, we have practiced certain forms of inscription through convexity and depth for so long it has come to be a habitual spatial practice. Hence, it is not unthinkable that we could similarly learn to inscribe gregariousness as the main register of physical space – and to develop design practices to address it. For clues to what such design registers of gregariousness may be, I return to the Rationalist entries, but first I want to summarize the theoretical findings on the nature of gregarious space. Crowd formations possess a distinctive formal logic, which is the backbone of a different conception of space, I contend. This morphology may be captured through descriptions of rhythms of crowd formations (basic fields and larger, emergent sets). It is the rhythmic organization of the moving mass crowd - its densities and speed fluctuations - which underlies its formal behavior.[256] That the Soviet Rationalist architects recognized this formal logic with such explicitness is possible but doubtful; so far, I have discovered no diagrams or drawings which demonstrate that. Yet it is quite probable that they intuited its principles - at least at some instinctive level and from thence shaped

[256] This description is well borne by recent investigations into crowd simulation; see Roger Hughes' "The Flow of Large Crowds of Pedestrians", *Mathematics and Computers in Simulation* 53 (2000): pp. 367–370; and Roger Hughes, "A Continuum Theory for the Flow of Pedestrians", *Transportation Research Part B* 36 (2002): pp. 507–535; among others. Well defined equations describe and predict aspects of crowd behavior. Yet the crowd morphology outlined in this thesis (this chapter and the coming one) departs from such models by attempting to operationalize social relations through metric measures, and through mapping the fluctuation of the aggregate of metric crowd bubbles. This is by no means a fully formulated quantitative morphology yet; merely its beginnings.

physical space primarily around such principles. But even this is not crucial to the argument. What matters here is the design intelligence embedded in it, and/or that which may now be extrapolated from it. The spatial properties and qualities which follow from such morphology is what occupied their attention, and to which the argument now returns.

If one re-examines ARU's submission yet again bearing above ideas in mind [figure 8.22], one notes that enclosure boundaries in ARU's parade ground are either de-emphasized or, occasionally, totally non-existent. Buildings adjacent to this field do not relate to it as boundaries, but as adjoining, free standing objects. Note how the Small Auditorium's triangular form (the largest building mass on the way to the Mass Hall) distances its longer sides from the parade ground, while pointing its triangular apex towards, and above, it. Moreover, ARU's three-dimensional drawing reveals how the triangular plan translates into a diamond-shaped mass, where not only is this pointed apex lifted up but also the whole form does not present a bounding wall to the parade-ground. Even the seemingly implied edge, suggested by a row of small pavilion-like structures aligned with the staircases (or ramps) along the southern zone of the parade-ground, is not an edge to the marching field but rather a component within it. It is but another marker of crowd flow – another crowd organizer which splits a portion of the marching columns directed towards the stairs or ramps ahead, thereby beginning a lengthy ascent which, as ARU's layout shows, would take them above the structure atop the Mass Hall [revisit ARU's site layout, figures 8.1 or 8.4].

Whether at an overall scale or smaller ones, the parade ground is not defined by acts of enclosing or bounding. Instead, ARU's scheme is organized around one long rectilinear axis, extending from the Kremlin's northern boundary into the parade ground and through the Mass Hall. This linearity is intermittently pronounced or emphasized by the placement of linear and angled elements which instigate, or rather suggest, 'events' at which the crowd may transform, displace or reshuffle. For one, the aligned pavilions discussed above sort the crowd flow, differentiating between marchers into the building and those mounting its surfaces. A more emphasized event comprises the ramps constituting the threshold to the

Mass Hall building. Besides transforming the marching clusters into linear columns, the undulating ramps also introduce rhythmic variations in the third dimension. The system of ramps acts as an *intensified moment* within the linear field – a threshold evoked by locally multiplying, extruding and morphing three-dimensionally the linear rhythms of the linear field itself [revisit figures 8.16 and 8.22]. In other words, the ramps constitute a space within a space – contained within the linear field, while enforcing its linearity. It is a threshold rotated to align with the field it lies within - a celebrated instant within the linear continuum.[257] In addition, a series of linear elements hover above the parade ground – seemingly scaffolds for shading devices. Set obliquely against the other elements in the space, they hint at an underlying attention to the collage of geometries and rhythms at play across the parade ground – even at the level of ephemeral properties of light and shadow.

The play of rhythm continues inside the interior space of the Mass Hall. Three dimensional columns of marchers become clusters once again. But unlike the earlier clusters approaching from the direction of the Kremlin in formations from the same battalion, professional company or group affiliation (e.g. railroad workers, sailors, athletes, …etc.), these are organized as admixtures of the different companies [refer to figure 8.22]. Columns marching up from the ramps and across the flat alleys (in-between ramps) would, once again, reshuffle to find place in the clusters entering the building interior. The interior clusters afford an explicit organization in numbers and significantly inform the crowd flow in the ramps area as their destination. Once inside, sixteen squares make up each of the three marching clusters; each square can house twenty-five marchers (five rows of five, presumably from the same group – see figure 8.23). This makes up a total of four hundred marchers per cluster; or a grand total of 1,600 marchers equally divided between the four clusters: a number quite close to the 1,500 performers which the competition program called for to be accommodated in the Mass Hall's performance area (see Appendix II).

[257] It is relevant to recall here that ARU's scheme under discussion was executed in the early programmatic phase of the competition – a phase meant to explore the program and site, and to showcase ideas to the international contestants in the next phase of work. In other words, it is not inconceivable to regard ARU's design moves as propositions meant to be further developed and generalized throughout the whole scheme in later stages of work. What ARU offered were spatial principles to be advanced.

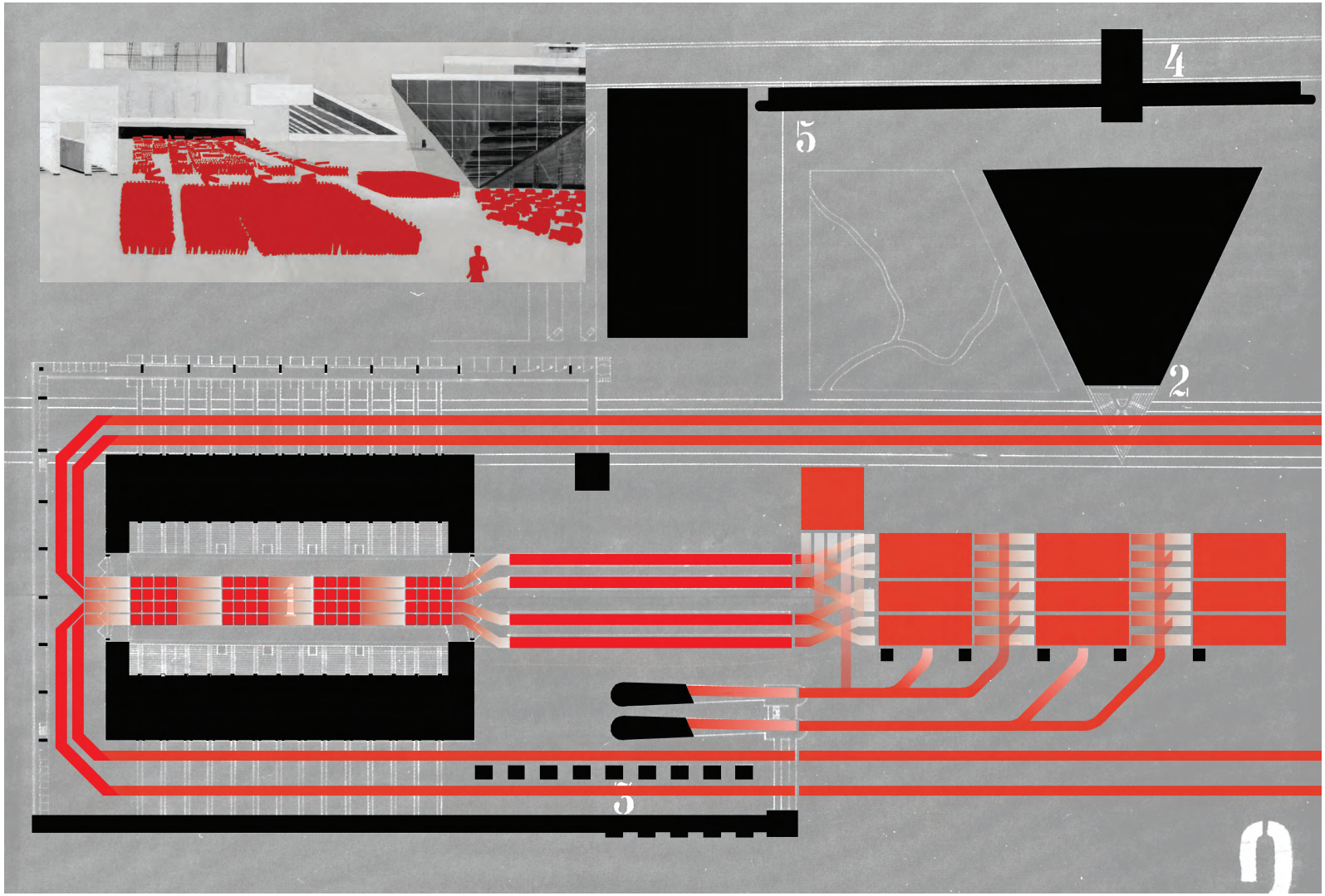


Figure 8.22 ARU (Union of Architects and Planners), Palace of Soviets Competition (1931); Phase I, Lower Level Plan and Three-dimensional Drawing (partial). Inferred movements and encounters of ARU's crowd (reconstruction by the author). Besides displaying overall movement, the reconstruction explains the utility of some elements to the spatial configuration.vv

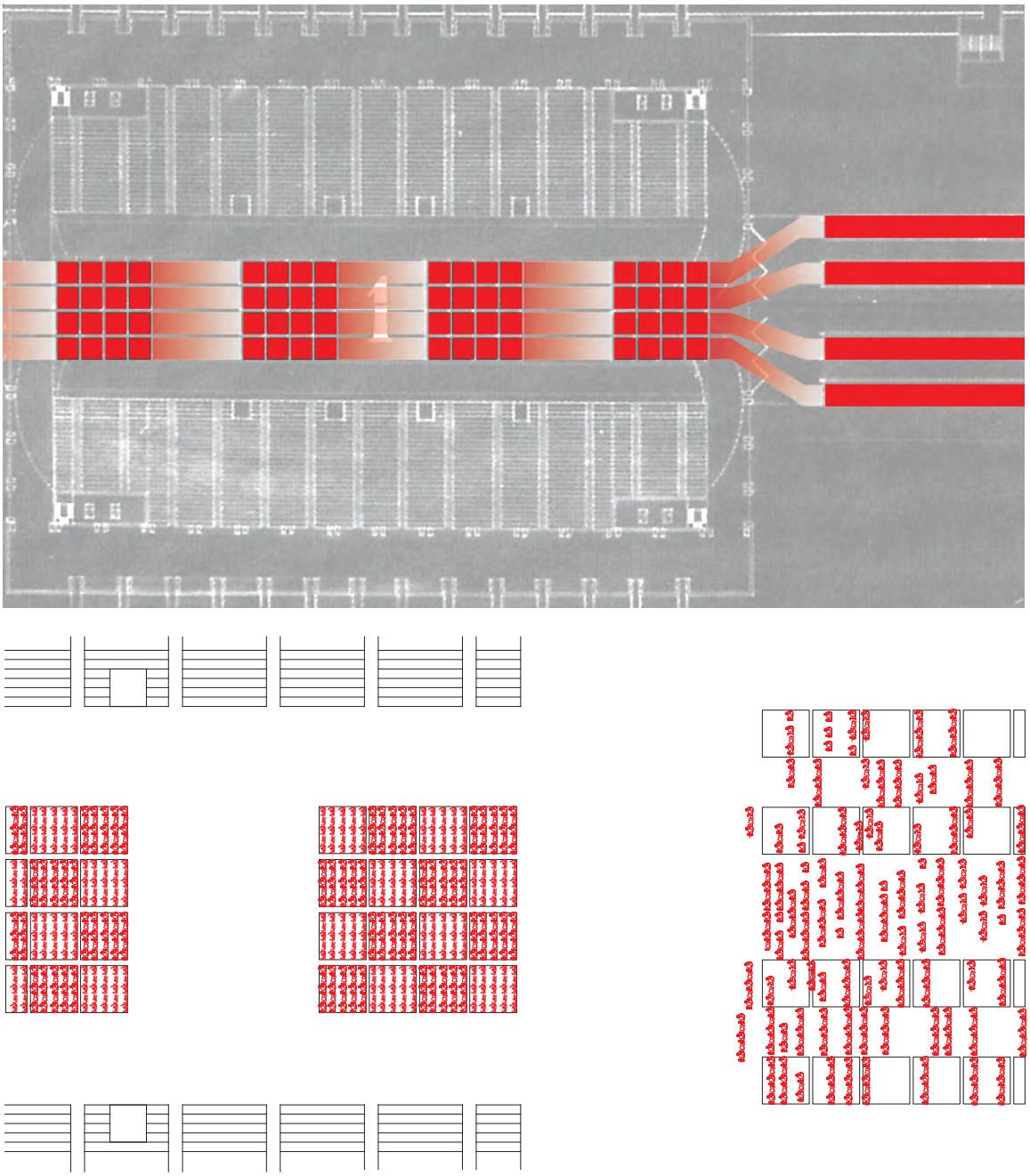


Figure 8.23 ARU (Union of Architects and Planners), Palace of Soviets Competition (1931); Phase I.
top Parade-ground plan (partial): movement from ramps into Mass Hall - sixteen squares per each of the four clusters
bottom Closeup onto the ramp-clusters transition, showing the reshuffling and realignment of numbers.

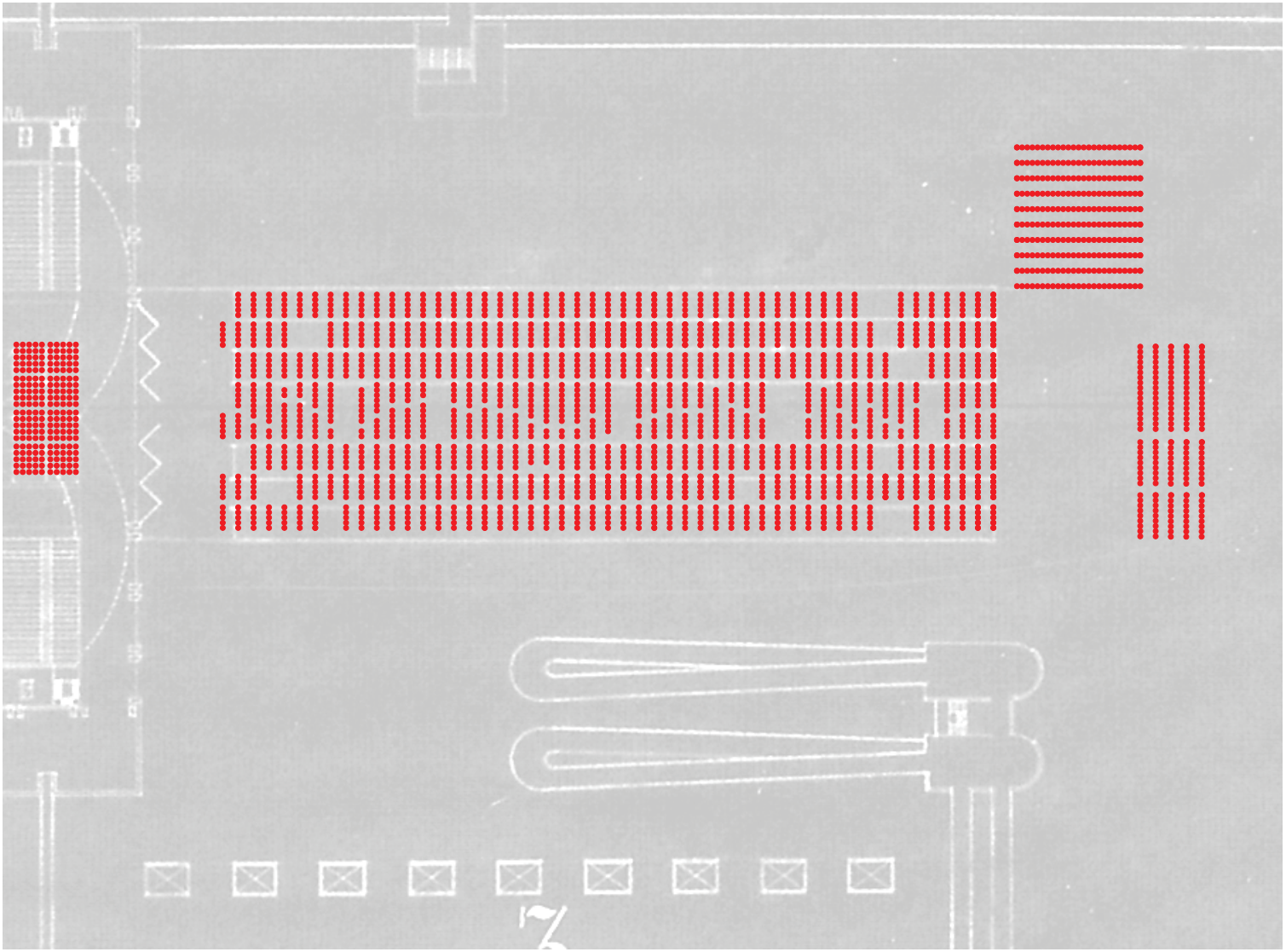


Figure 8.24a ARU Crowd Reconstruction: hypothetical locations of agents for the crowd in a dynamic involving minimum waiting time and incessant flow.

In effect, the configuration one discerns in ARU's parade ground is that of a (linear) field organized as a sequence of suggestive 'events' using (as one significant design device) rhythmic variations. Each event is instigated physically by the placement of objects whose rhythm does not add up to an enclosing border, but remains loose enough to imply 'hints' for action. Some 'events' are more emphatic than others; these involve transformations of the ground surface (alike the set of ramps). Yet each event conjures a different sense of intensity within the continuous (here linear) field where they are introduced – a space implied or overlaid within (not contained inside) a space, as discussed above in the case of the four ramp system. It is perhaps an inherent quality of this gregarious configuration to evoke an aesthetic of transparency as the continuity of the field is overlaid and punctuated by the particularity of a rhythm. As the crowd marches to its own formations (of companies, regiments or other), its rhythms reshuffle to address the local condition. Yet throughout this borderless space, this field – and/or its segments - achieves its true sense of internal coherence when the rhythms of occupying bodies amass in the central field, and whose densities are varied to provide for distinct experiences. When the crowd is unavailable, the rhythmic hints dot the field, I allow myself to imagine, alike some tantalizing ruins. What this offers the space of the mass crowd is twofold. First, it generates a means for spatial definition that does not disappear behind the bodies of other immersed crowd members, maintaining a more easily-perceived device for navigation. In particular, treatments of the ground surface are equally available to all. Secondly, it makes the involvement of crowd activity – primarily that of amassing and collective movement – far more meaningful and significant to spatial definition; it involves crowd-members in the very definition of space itself. Gathering around an axis or a modulated-field enforces assembly while also being potentially more inclusive; within an enclosure, assembly is accidental, or detached from the act of enclosing. Unlike the configuration of discrete convex entities, the mass crowd demands morphologies of flow. Whether it is mass movement, mass perception or mass action, collective behavior precludes (or at least deemphasizes) boundaries in favor of continuity: a fluid space along which 'events' are placed – as accents (or even contradictions) confirming the continuity but not disrupting it.

This reading of ARU's spatial language may help explain the seeming looseness of their urban scheme. Neither its solid-to-void ratio nor its building-to-building relationships pronounce an urban design in any traditional sense, as one would find for instance in an urban scheme *a la* Camillo Sitte. Nor does ARU's cityscape recall the fundamental tenets of Le Corbusier's *Plan Voisin* (1925), where flows are generated around free-standing towers in spatial fields. Here, the (organized) presence of a crowd activates the space.

Placed in an historical context, this also marks another way in which early modernists managed to emancipate architectural space from the enclosure of walls. But instead of Le Corbusier's *plan libre* or the flux of a force field, as in Mies van der Rohe's Barcelona Pavilion (1929), the Soviets spun their spatial conception around the rhythms of a moving crowd as the principal definer of space. Yet, differences dividing the Soviet formulation from the others run deeper than is immediately obvious. Insofar as all three addressed 'movement' as a primary ingredient of spatial definition, they all belong to a modern framework. Yet, a subject's movement in Le Corbusier's system occurs across a space fundamentally forged from isolation and stasis; in fact, the richness of experience in Le Corbusier's design stems (at least partially) from how movement occurs against the grain of enclosures, whether defined or implied. The visual aesthetic of Le Corbusier's space unfolds in sequential, perspectival snapshots which aggregate into a quasi-cinematic effect - *une promenade architecturale* - where the individual moving-subject apprehends the static designed artifact. Mies' space managed to overcome the implicit sense of enclosure as the primary grain of space; but still alike in Le Corbusier's space, visibility stemmed from an individual confronting a rich tapestry of occluding edges.

Experiential Reformulations: Texture of the Visual Field

If the above arguments establish a foundation for describing the distinct morphology of gregarious space in general, and of the Rationalists' crowd configurations in particular, the next argument in this chapter will test

the generative nature of such propositions. Besides further qualifying ARU's space and its conviviality measures (co-presence, co-awareness, co-visibility and co-action, attention and equivalence), it seeks to advance the argument on subjectivity put forth in the previous chapter (Chapter-7: "To See a Crowd, To See Like a Crowd ").

To this end, I turn to the scheme-specific diagrams in figures 8.24a through 8.30, which build on the hypothetical arguments and graphic measures derived via figures 8.17 through 8.21. In other words, the discussion now takes the theoretical postulations of the previous figures to apply them to the contestants' schemes. How do such design-propositions fare against the theoretical arguments – and vice versa? And what else do they reveal?

The mapping procedure followed the technique employed in the hypothetical case illustrated in figure 8.20. Locations of crowd members were denoted by the full turning radius of the human body, allowing for all possible permutations of interaction in the 360 degrees surround. This accounts for, as well as assumes, the crowds to possess some flexibility in individual movement. Agents' locations in the different schemes were reconstructed based on the designers' drawings where crowd figures are depicted or, as in the case of ARU's interior pods, the locations were inferred from the Mass Hall's interior arrangement: its spectator's seating arrangements, performance pods, and parade stage. Next, such agent-loci were connected by all possible permutations of lines of perception and interaction extended to every other agent in the system as long as no intervening body's turning radius or a physical element (such as a wall) occludes one agent from another. A color-coded distinction is thence assigned to each line according to the classifications, based on the linear metrics listed in figure 8.21, to differentiate and visualize the internal patterns of crowd interaction and perception.[258]

[258] This mapping procedure has yet to be developed as an algorithm or through computerized programming. Hence, some of the relations in the system proved to be too complex and / or too awkward for 'manual' graphic mapping (using CAD software). Most

Some procedural issues warrant more clarification. First, for ARU's scheme, the *Conviviality Index* Map was executed for the parade ground only up to the receiving pods or destination clusters [figures 8.24b and 8.24c]. The Mass Hall interior was eliminated from this discussion to facilitate comparisons to Le Corbusier's own marching grounds.

Other issues of procedure are more conceptual in nature. In Le Corbusier's case, his design was studied for its pattern of distribution and intended densities rather than for its full numbers. As in previous arguments in this chapter and elsewhere in this thesis, drawings were taken as an index of design intentions regarding crowds - but within limitations. Full delineation of crowd members and human figures was (and remains) an uncommon practice in architectural drawing conventions; named spaces supposedly impart adequate information and evoke normative forms of assembly. However, because of the nature of the design problem in the *Palace of Soviets* Competition, some delineation imposed itself; designers needed to illustrate how gatherings and assemblies experience their imagined spaces. Each designer's emphasis on specific crowd activities communicated a facet of crowd activity, while betraying his/her own underlying ideological view on crowds. Hence, it is Le Corbusier's diffused crowd, seamlessly mingling with the everyday city, which stands out in his drawings – yet, needless to say, he did design the Palace to accommodate the full 15,000 persons-assembly required to be seated in the Mass Hall, as can be ascertained from his plans. In fact, more figures may yet have been drawn in Le Corbusier's layout, but hid underneath the opaque tones of dark ink which denote the building shadows. Hence, again, one may legitimately extrapolate his design vision for the crowd's patterns and densities from his layout, corroborated by the distribution of human groups and individuals in his perspective drawings. As for the total number of crowd-members, and hence the total number of connecting lines (of perception and interaction), one cannot base arguments on available depictions except regarding the percentages of crowd distributions.

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prominent are the vertical interrelations between crowd-members marching up/down the curved-profile ramps and those on flat ground above. However, surface relations across the field generated as a consequence of the ramps' change in elevation are registered; agents' proximity lines are extended above the ramps. Mapping the sectional relations would significantly pronounce the pattern of intertwining interaction already captured in the current Map [see figures 8.24b and 8.24c]. All such limitations notwithstanding, the Conviviality Index Maps generated remain adequately efficient for this introductory iteration and for the purposes of the argument in this chapter; more maps with advanced tools will be developed in future.

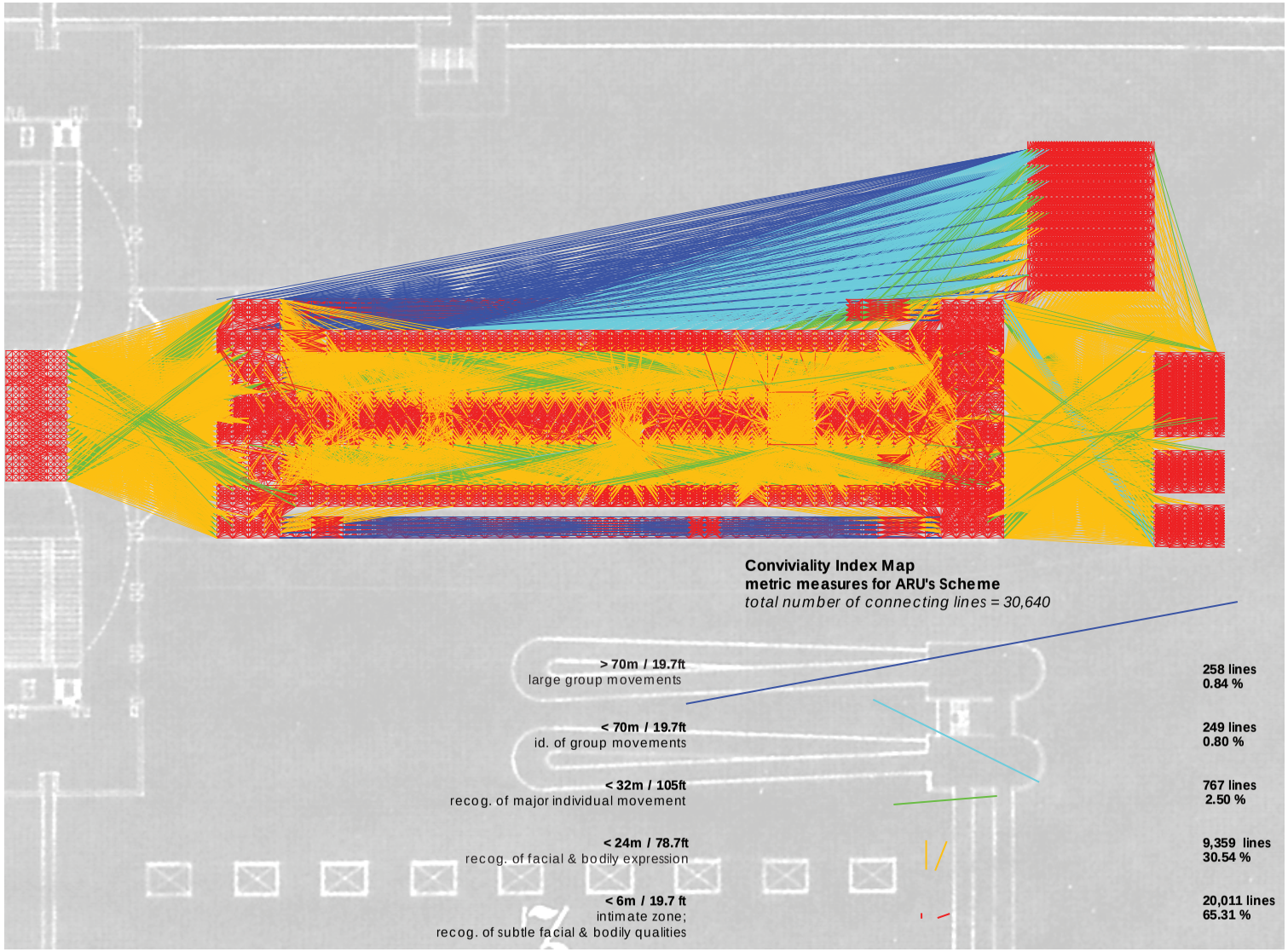

Figure 8.24b ARU (Union of Architects and Planners), Palace of Soviets Competition (1931); Phase I, Plan of Parade Ground. Conviviality Index Map.

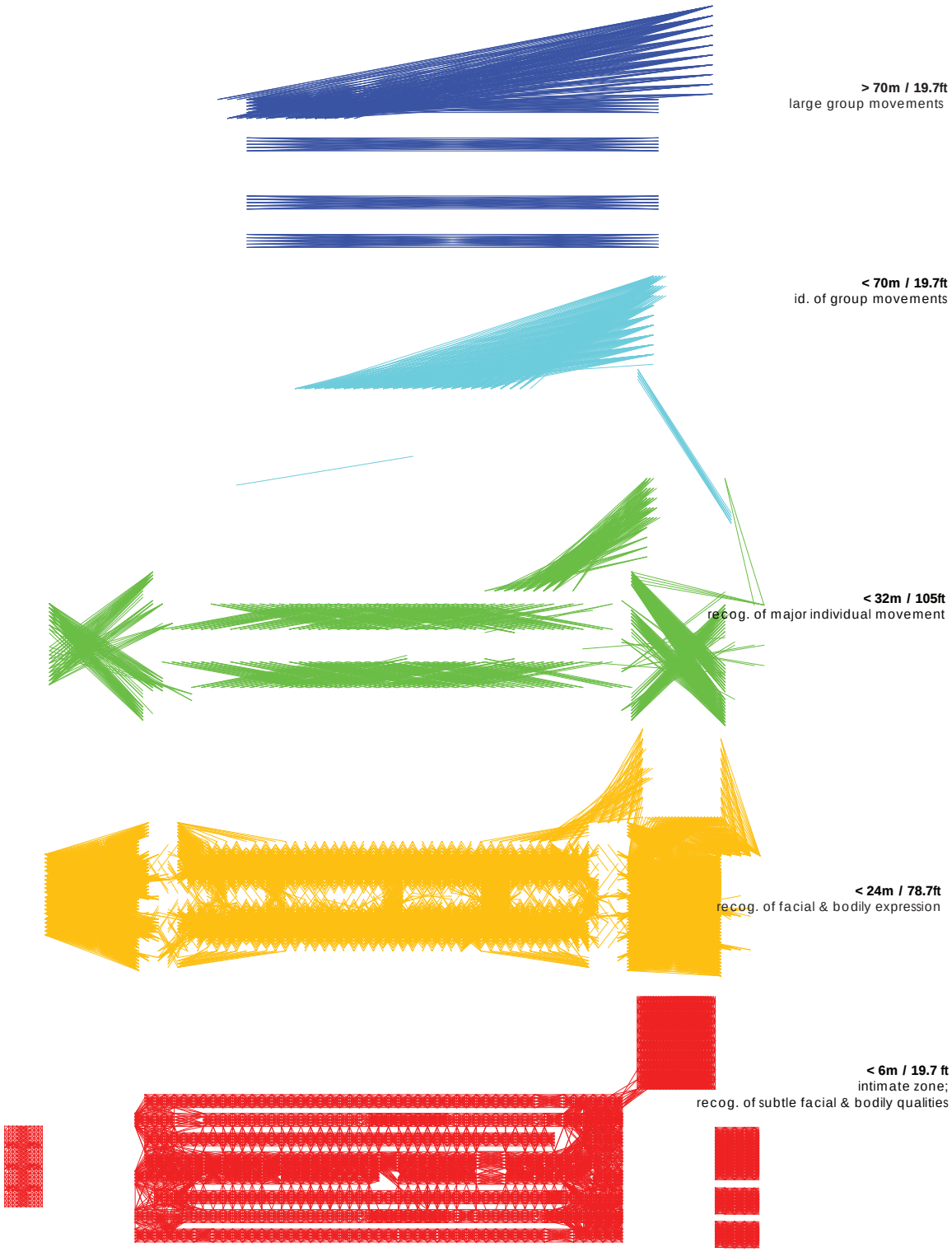

Figure 8.24c ARU's Conviviality Index Map: different layers of proximity. Note how the contiguity gradually increases (downwards) with the closer proximity of the tier.

An important question always attends a diagram or graphic mapping; how does one 'see' such a mapping? If it is not an orthodox representational device – i.e. if it does not strictly reflect or project objects and shapes in the three dimensional extension – then how may it be read generatively? The above procedures may be used to map conviviality whether in a real crowd situation, or as proposed by design intention - as executed below. In either case, what such mappings portend to describe is *not* the lived realities of an existing situation or the proposed schemes (if built), but rather the virtual range of possibilities afforded by the crowd morphologies given in either – possibilities which would be skewed, refined and transformed by the contingencies of culture and lived reality. As such, a conviviality map should be viewed as but an *index* to reality – not reality itself and not its representation. Approaching the complexity and contradictory nature of reality requires adding, and indeed resolving, far more parameters and processes – a procedure that is usually too daunting. However, and as is often the case with any such mapping procedure, the index is adequate for constructing a clear hypothesis on the nature of the real. Mapping from design propositions, as is the case here, has the added advantage of dealing with formulated visions one at a time – rather than wrestling with the many conflicting ideologies which reality, permissive as it is, simultaneously tolerates within its folds. In other words, what the *Conviviality Index* Maps describe (discussed below) should be read as, not exactly how crowds will congregate in Le Corbusier's scheme (if built) or how parades will behave in ARU's grounds, but rather a (still) conceptual space of possibilities for perception and interaction; in fact, as all possibilities for perception and interaction afforded by form and space collapsed in one drawing. Such a virtual enactment, my contention goes, is both necessary and sufficient to qualify configuration in both entries.

Finally, since a crowd is a temporal entity (i.e. its internal patterns change over time as the crowd moves and/or reshuffles), the map generated –the *Conviviality Index Map* – ostensibly captures but one frozen moment in its collective performance. Generically, this is true - and a researcher's or a designer's requisite insight when deploying the Index Map would be to select a significant, representative instant or a paradigmatic moment. This probably applies quite accurately to Le Corbusier's informal crowds; their

patterns fluctuate widely from one moment to another. However, in the case of ARU's more organized crowds, the Index Map is also a temporal chart. To some measure, recurrence of performance is one of the characteristics of an organized crowd.

Yet this temporal dimension has also had a crucial impact on the graphic reconstruction of ARU's crowd for the *Conviviality Index* Map. Rather than plot the locations of crowd members as inferred from ARU's three-dimensional drawing, the crowd was reconstructed in its balanced, representative condition of flow and movement – as a better index of its working morphology. As mentioned earlier, the moment depicted in the three-dimensional drawing is a mass encounter: amassed companies awaiting their turn to access the ramps as these curvilinear inclines sort and siphon marchers towards the Mass Hall. However, this instance on its own is inadequate for the Index Map to capture the complexity of the system and the crucial qualities of movement and flow. Instead, the crowd was reconstructed taking into consideration its primary instrumental objective: it needs to deliver eight rows[259] of five marchers each to the clusters at the western end of the ramps by the Mass Hall entry. Working this logic backwards, the numbers of rows were computed to anticipate continuous flow and minimum waiting time. Accordingly, and as an integral part of the morphology of the crowd, gaps would by necessity emerge in the fabric of the crowd. Gaps account for the differences in speed between marchers on curved-profile ramps and flat surfaces; for the short duration of negotiation which occurs at the two thresholds of encounter (at the head of the ramps and at the Mass Hall entrance); and for the stretches of time necessary for coordination between the different moving columns, particularly when sections of them are temporarily removed from the communication exchange as they march along the troughs of the curved-profile ramps. These emergent gaps, as will be demonstrated, themselves play a critical role in information communication, and in the construction of co-presence. It is the contention here, based on the literature review on crowds (see Chapter-2: "The Modern Urban Crowd"), that

[259] The assumption made here is that the ramp system will be used to its full capacity: all curvilinear ramps and all in-between flat surfaces (or alleys) will be used to sort, filter and deliver 'crowd bodies'. Obviously, this could occur in any number of permutations between rams and alleys.

the crowd itself (as a rational entity emergent from the actions of its rational constituents) would self-regulate to achieve this balanced, but fluid, state of flow, sorting and delivery which the ramp system performs.

Crowd temporality is also one key area of difference between Le Corbusier's and ARU's crowds, which the *Conviviality Index* Map discloses – and which provides an opportune segue into the next discussion. Le Corbusier's informal crowd, mapped in terms of its proximities of perception and interaction, confirms the observations of dispersion and incohesion discussed earlier in this chapter. ARU's map also confirms its far denser and more contiguous properties [figures 8.25 and 8.26]. Yet the maps also reveal significant new attributes and distinctions. The first map discerns Le Corbusier's crowd to be comprised of two main components: medium-sized groups of intimate coherence arrayed in a linear sequence at varying distances from each other; and isolated individuals or very small groups (of two or three individuals) who are emphatically more detached from other formations [figure 8.26]. With detachment comes an enhanced visual field; each detached subject enjoys a scope of seeing others that is more open than if clustered (partially or fully) among occluding bodies. In effect, forms of discrepancy or inequivalence are at work in such a crowd; the capacity to see other crowd members is not evenly distributed, and so is the potential to interact. What confirms this inequivalence is the genus of proximity lines which attend most such detached positions [figures 8.28 and 8.29]. While a few are proximate enough to register within the second (mutual recognition of facial and bodily expression), and the third (the recognition of major individual movement) tiers of observation, most detached positions exchange proximity lines with the medium-sized groups which belong to the fourth (the identification of group movements) and fifth (large group movements) tiers [figure 8.26]. In other words, reciprocity is unavailable; if the detached individual can read group movements, the group cannot perceive his/her individual ones, let alone his/her gestural or facial expressions. A subtle

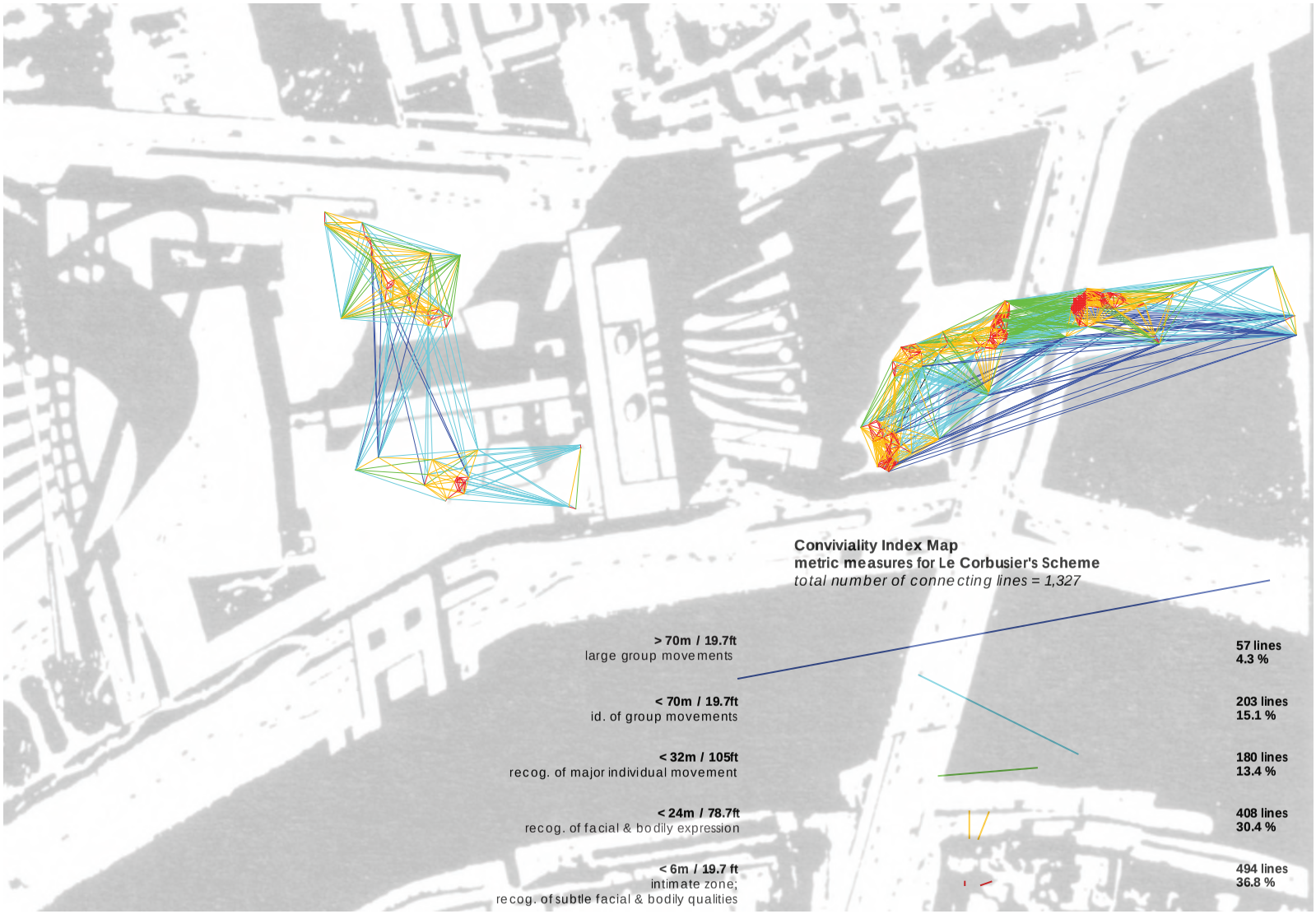

Figure 8.25 Le Corbusier, *Palace of Soviets* Competition (1931); Phase II, Layout. Conviviality Index Map: overall distribution

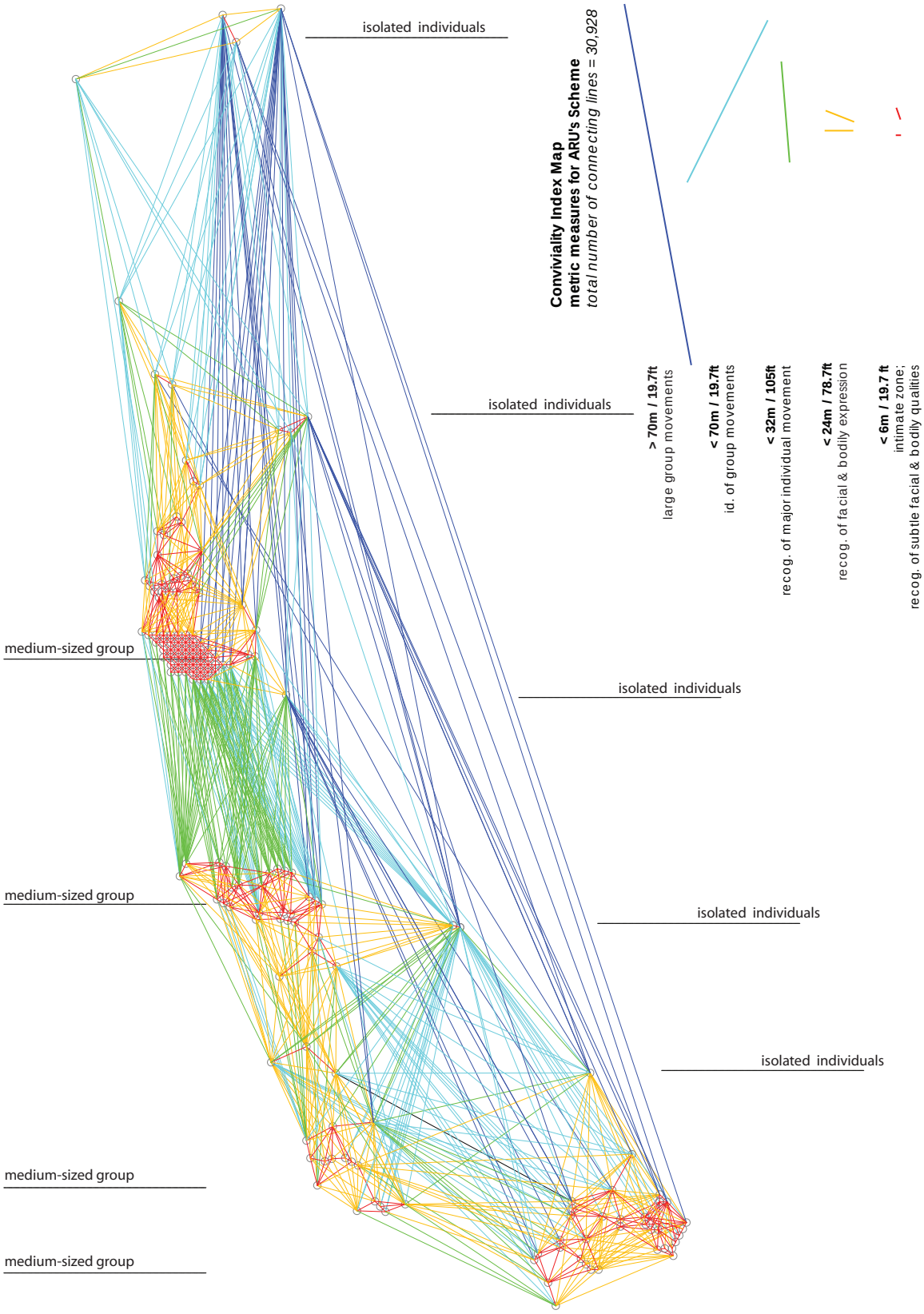

Figure 8.26 Le Corbusier, *Palace of Soviets* Competition (1931), Conviviality Index Map (partial).

panoptical quality is effectively at work.[260] Moreover, this break in reciprocity amounts to a chasm in the communication flows between a crowd's constituents.

Yet the presence of individuals at enhanced viewing positions is not exclusive to the Corbusian Index Map. ARU's own map reveals some such distinctive loci; some occur at the head of each curved-profile ramp as the visual field suddenly opens up (atop, to the sides and across …etc.). Yet again a difference persists. Specific individuals in le Corbusier's paradigmatic crowd remain in the detached positions of visual privilege as the crowd processes; the crowd's constitution is disjointed. Those in ARU's crowd rotate and exchange such locations of privilege [figures 8.27 and 8.30 *top*]. Loci of advantageous visibility are physically inscribed but within generic thoroughfares of common movement. The march across the parade-ground, ramps and Mass Hall promotes the rotation of privileged morphological positions among crowd members. Inscribing distinguished loci along movement paths, ARU's design for the parade-ground mitigates against the intransigence of privilege. Furthermore, such loci of privileged visibility are occupied by small groups and not by individuals[261]; some measure of reciprocity obtains. Additionally, such aleatory loci, attached as they are to rotating occupants, lie at the nexus of proximity lines from multiple tiers; they actually serve to connect and relay communication networks at different scales [see figure 8.30 *top*]. One can imagine each row topping each incline on either side would serve to give surface marchers clues about the speed of movement through the ramp.

Another obvious difference between the Le Corbusier's and ARU's conviviality maps is their distinct densities. Individuals and clusters in ARU's crowd are far more closely knit; proximities of the first intimate tier (recognition of subtle facial and bodily qualities) average about 68.1% of the total connections across the crowd system – compared to some 37% in Le Corbusier's crowd. Note also the contiguous arrangement

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[260] In another context, it would be interesting to probe to what extent such an inequivalence informs the morphology of everyday urban crowds, particularly the Parisian variety on which Le Corbusier probably modeled his perceptions of crowd behavior. Are such detached loci an outgrowth of the *flâneur* writ as structure?

[261] There are in fact no individuals standing alone in Soviet crowds as evidenced by the scrutiny of organized crowd events in period photographs. The only exception to this are crowd marshals, who would be placed in visible locations and at distances adequately revealing their gestures, in order to signal directions (on sequence, speed, …etc) to other crowd members.

in ARU's case, compared to the segregated clusters in Le Corbusier's [compare figures 8.27 to 8.28]. Yet what is further striking about proximities in the two maps [compare closeups in figures 8.29 and 8.30], is their distribution: agents in Le Corbusier's crowd share a distinct cluster of close-knit intimate lines mostly towards their immediate group, with a distinctly different set of proximities (occasionally several tiers removed) towards the next closest group or individuals. There is no in-between loose grain of smaller clusters at close-knit range. An individual in a medium-sized group in Le Corbusier's crowd distribution would face immediate surrounding bodies to one side of his/her own body, while countering distant groups on the other side. This disjointedness results in two qualities. First, it reinforces the disjointedness of communication streams; groups in Le Corbusier's crowd act as filters screening clues from one side of the crowd to the other. Second, what visual fields are generated on each side of an individual in such a group are uniform but segregated; a visual field is uniformly close on one side, and uniformly distant on the other. In contrast, ARU's configuration generates frequent 'events' where an individual crowd-member's visual field is more interlocked with proximate and distant bodies available in one and the same visual sweep – even the same vista[262]. A visual field is dotted with contrasting scales of seeing; what Sheehan, after Wittgenstein, calls: visual moments of aspect-dawning amidst a continuum of generic aspect-perception.[263] Particularly in-between the threshold ramps, the flow of ARU's space is splintered with such unexpected events. The ramp system breaks down the crowd into sliding columns at variant distances; it introduces a complex speed differential between the different rows; and thereby it gives rise to gaps or fissures which due to their small scale, unlike Le Corbusier's crowd, maintain reciprocal communication as well as visually frame crowd members for each other.

Although proximity lines connecting ramp-marchers to surface-marchers are not shown on any of the attached figures, one may still anticipate their impact. As the ramps continue the linear progression of space, their undulations pose bodies and faces to each other from unanticipated angles: from the side, from

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[262] If one compares isovists for the two crowds at given frozen moments, ARU's crowd would generate more spiked isovists where other crowd bodies are the delimiting surfaces, while Le Corbusier's crowd would have more undulating isovists.

[263] Thomas Sheehan, "Wittgenstein and Vertov: Aspectuality and Anarchy", *Discourse*, 24(3) (2002): pp. 95-113.

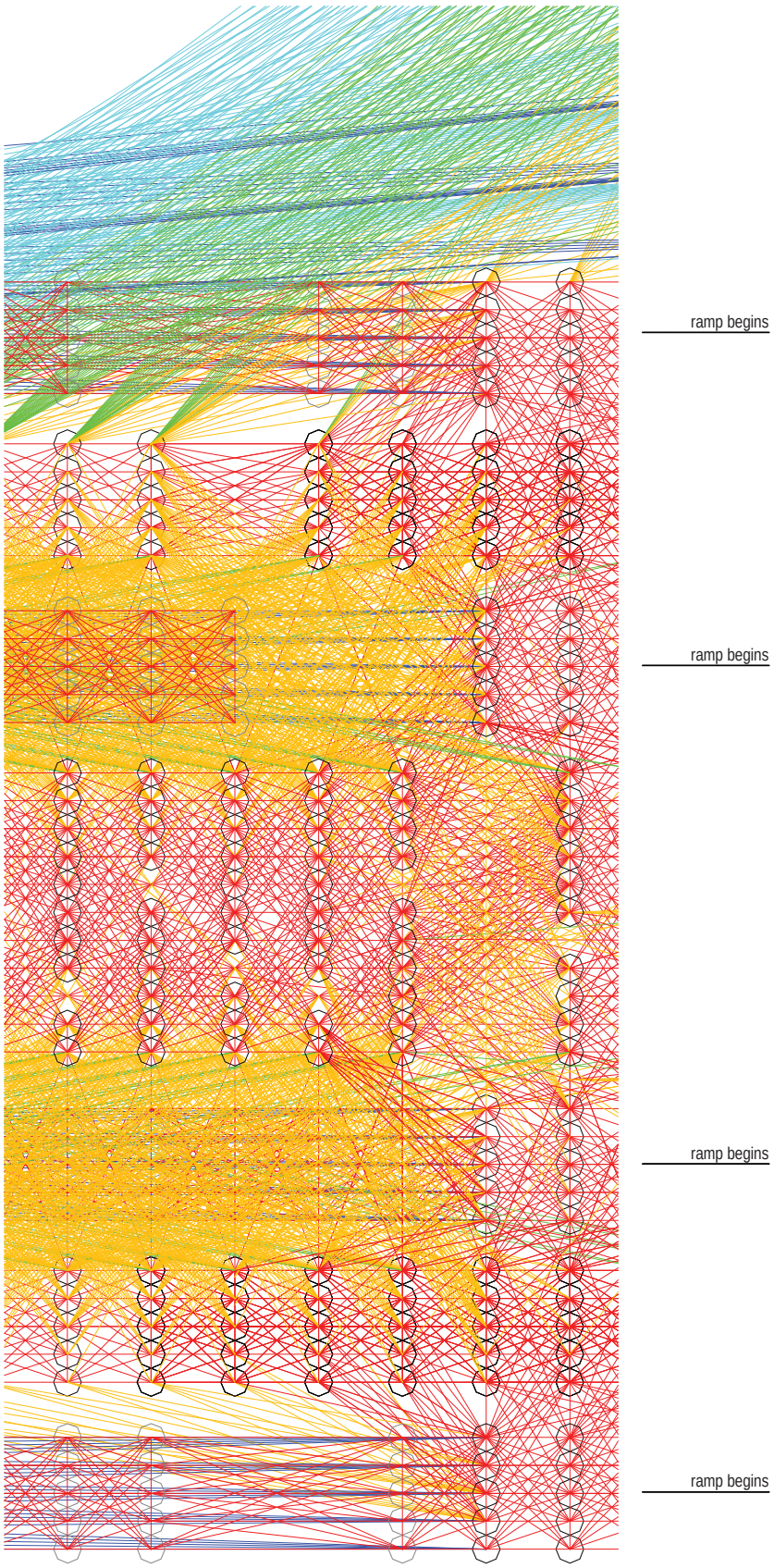


Figure 8.27 ARU (Union of Architects and Planners), *Palace of Soviets* Competition (1931); Conviviality Index Map. (partial).

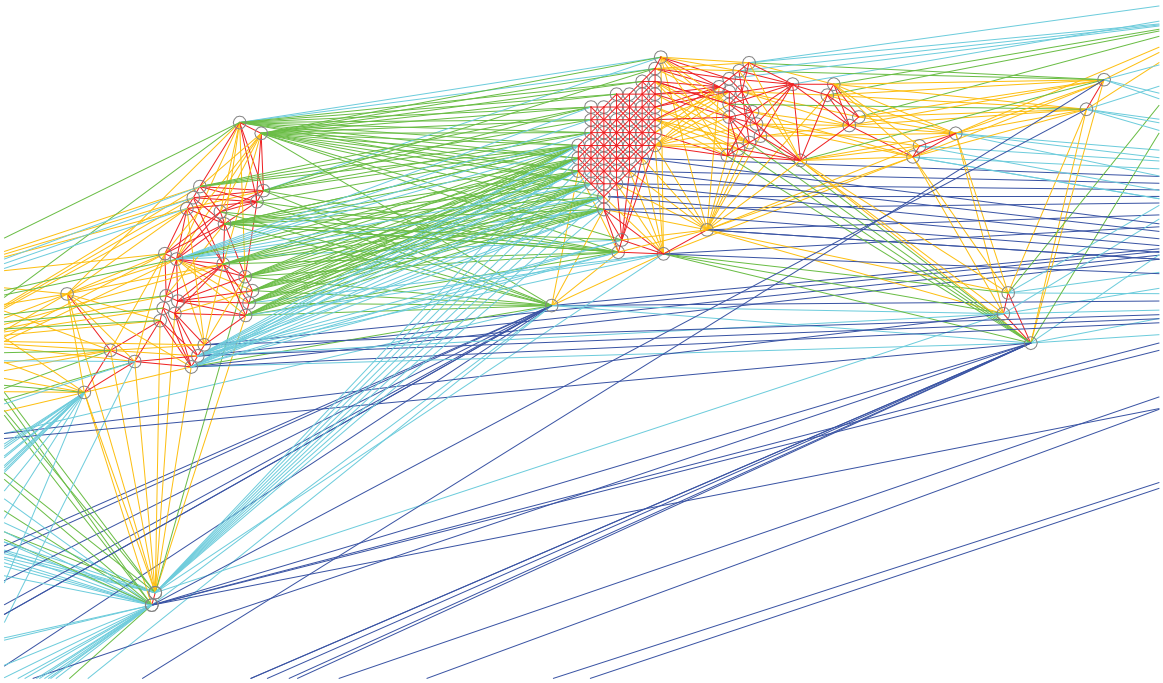


Figure 8.28 Le Corbusier, *Palace of Soviets* Competition (1931); Phase II. Conviviality Index Map (partial): detached positions possess visual scope and unreciprocated recognition of gestures and expressions.

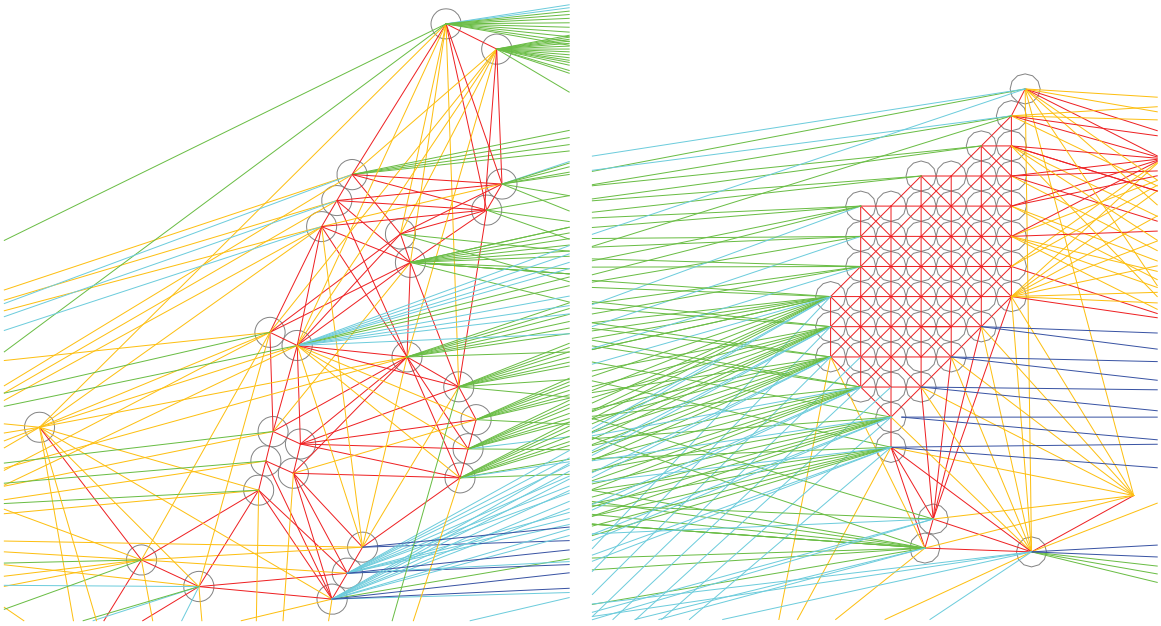
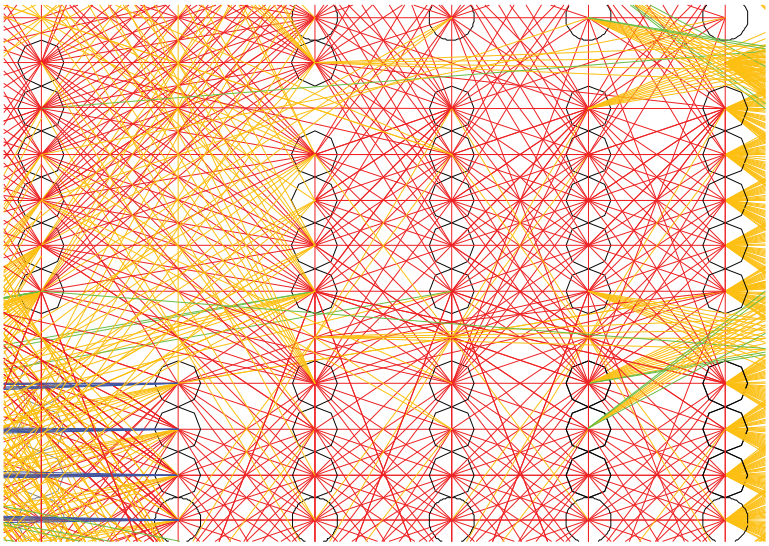
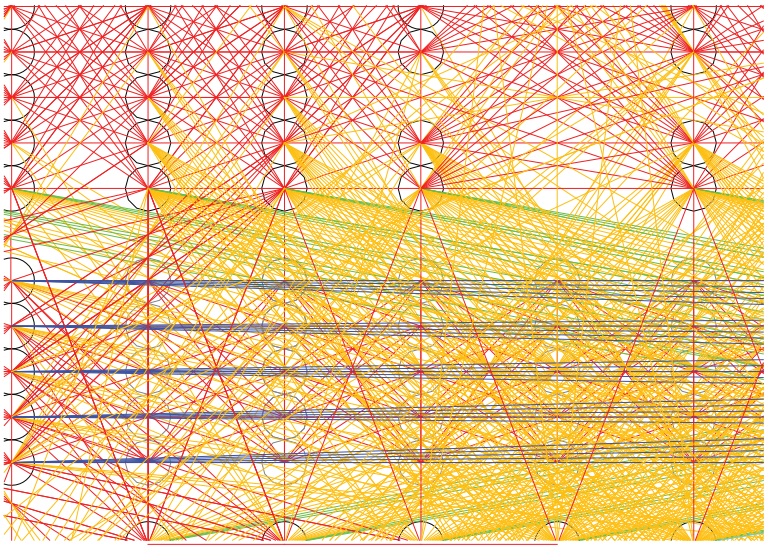


Figure 8.29 Le Corbusier, *Palace of Soviets* Competition (1931); Phase II. Conviviality Index Map. (two partial closeups): information about other clusters is segregated from local information of one's own cluster.

at the eastern end of the ramp system, showing the top of one ramp and one 'alley'.



midway through the ramp system, showing one 'alley' and trough of a ramp.



midway through the ramp system, showing the central, larger 'alley' bounded by two ramps

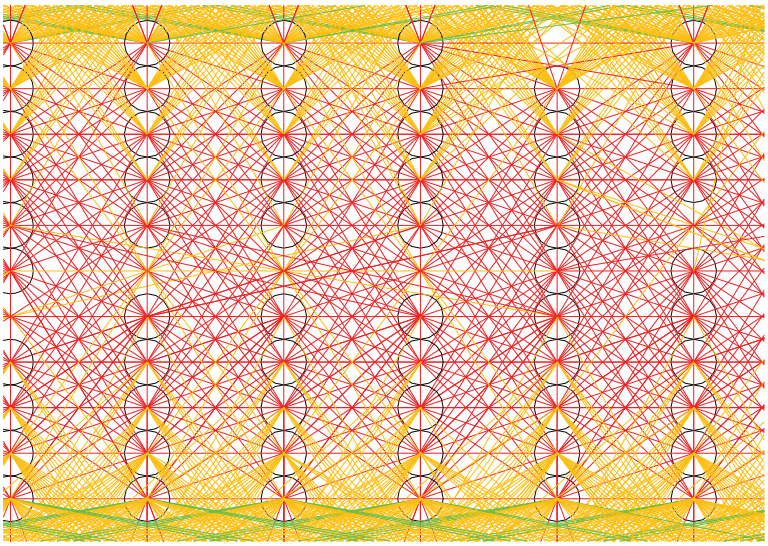


Figure 8.30 ARU's Conviviality Index Map (three partial closeups): showing the interlocking of proximity lines and information exchange.

above and from the back. Faces and bodies would emerge frontally, in profile, in-between-profiles and from the back - as well as from close and afar, above and below. Additionally, the positioning of the ramps and their rather diminutive enclosures relative to the expanse of space around them, allows juxtaposition of two 'scales of seeing' other faces and bodies: one scale inside the ramp a marcher occupies, the other of distant faces and bodies at the medium and long ranges. It has to be stressed that the effect is enhanced not only by the unfamiliarity of the arrayed ramps and their curved inclines, but also by the fact that all this occurs in motion; the observers and the observed are mobile. The strategy is as much a function of the spatial morphology as it is a function of programmed movement.

This jagged, mobile and unpredictable texture of the visual field furnishes an inherent morphological property that denies centering on any single spot. Even if an orator or a screen is introduced (as in le Corbusier's parade-ground scheme) attention may not stabilize into a passive fixation. A range of potential 'distractions' are structured into the field. In ARU's parade-ground this occurs through the device of the ramps; inside the Mass Hall, it is the linear performance space which also doubles as an axis of symmetry between the spectators themselves – again, two distances of viewing collapsed within the same visual field.

To further illustrate the nature of such an experience, I call upon a cinematic metaphor, along with further comparison to the indispensable Le Corbusier. Montage, particularly as employed by Dziga Vertov in *Kino-Eye* (1927), punctures the flow of a narrative or cinematic sequence with close-ups and stills: moments of arrest, heightened attention and defamiliarization. In *Kino-Eye*, this occurs as the flow of messages from the mobile camera are interrupted by close-up stills, for example close-ups of a boy's smiling face or the indiscernible shapes of body-limbs. The effect upon the spectator is one of intense scrutiny and empathy. The still offers a disjuncture from the cinematic flow; it demands a different mode of looking and attention; it involves a change in scale as well as in speed. Yet, the still does not command the screen too long to lose the interest it provoked or to disrupt the flow beyond resumption; the flow of images soon continues. A flow

punctured by sudden intrusions is what characterizes Vertov's sequences; not unlike the 'texture' of ARU's space: moments of aspect-dawning punctuating generic aspect-perception.

Compare this to Le Corbusier's well-known strategy of *promenade architecturale (*although he did not employ it in the *Palace of Soviets*; I refer mainly to its incarnation in Poissy's Villa Savoye, 1936). Also a function of a moving subject, the *promenade architecturale* involves more coherent, more fluid transitions between frames of seeing than what one encounters in a Vertov script, and what is claimed for ARU's ramps. In the Villa Savoye, changes in scale between afar, close-up, and medium range from one viewing frame to another are infrequent, thereby demanding less shifting modes of looking and attention.[264] Even when such transitions do occur, they are not structured to resolve into the duality conducive of continuous-aspect versus aspect-dawning. In fact, Le Corbusier seems more concerned with forging the internal composition of each frame out of various distinct elements, than to zoom in on any particular one. Perhaps as a consequence, no one individual element (or part thereof) possesses such intensity of detail as to invite close-up scrutiny. Additionally, continuity of the single color (white) over most elements seems to suggest to the eye a fluid continuity of movement, rather than to arrest its journey anywhere particular. More significance and emphasis are assigned to the continuum, with elaborate frames composing beginnings, climaxes and closures.

Conceived as textures forged conjointly out of the patterns of movement as well as modes of looking, ARU's and Le Corbusier's grains are quite distinct from each other. In Le Corbusier's script, the eye smoothly caresses the scenes as the body journeys across spaces; in ARU's scenario the eye would experience the rougher texture of fluid sequences alternating with sudden arrests. And the subject of such arrests is the other bodies in the system; the building seems to recede as a background – to account for the sequential fluidity – while leaving the punctuation to be afforded by the bodies and their positioning. As will be

[264] In this analysis, I am particularly comparing to the two photography sequences of the *promenade architecturale* published in Jacques Sbriglio's *Le Corbusier: la Villa Savoye* (Paris: Fondation Le Corbusier, Basel: Birkhäuser Publishers, 1999).

discussed in Chapter-9: “Kinesthetic Space: Intersubjectivity and the Problem of Other Bodies”, the Rationalists further enrich and articulate such punctuation through manipulating the ground plane (the building surface in constant contact with all crowd bodies), thereby conjuring a rich exposé of body movements arrayed across space. Expression is thus ‘enlarged’, in a sense, from the confines of the human face to the overall body.

Political Reformulations: An Architecture of Presence

In closing this argument, I would like to offer a hint about the socio-political implications of the Rationalists’ design moves – a topic to be addressed more comprehensively in the concluding chapter of this thesis.

The Rationalists offer more nuanced insight into the nature of the crowd design problem, and a closer understanding of its objectives. As the bodies of crowd members are inscribed into the underpinning structure of their spatial design (rather than being mere accidents in an already consistent grain and an independently coherent composition), the Rationalists construct an effective design link between space and the dynamics of social solidarity. Activity and program were not severed from the compositional properties of the building artifact as mainstream modern architecture was inclined to do. The building artifact speaks not merely of itself, but of the web of social relations which generate it. And yet, unlike in Neoclassical Architecture: the connection was neither anthropomorphic nor representational in nature. Instead, it attempted to root itself in a generative formal logic.

Rationalist designers responded to the charge of accommodating large numbers of people by exploring an *architecture of presence*: an architecture that acquires its significance from the crowd dynamic, while it heightens the sense of co-presence among its co-habitants. A stronger sense of group-coherence emerges when one receives clues about social relations as well as about the built environment from observing others

in the crowd and from inferring their rhythms; group interdependence is enforced as well as spatialized. The effect is further enhanced as the architecture articulates and pronounces such rhythms. What Freud[265], Faris[266] and others decried as the fallible quality of mobs – namely, imitation (the transmission of knowledge across the monadic members of large gatherings through copying behavior) – is here arguably engrained into an understanding of the spatial structure, but also arguably posed to the crowd members in such a way that stimulates active discernment and not passive perception. Alike Vertov's stills and close-ups, alike Rodchenko's furniture and advertisements, and alike Popova's theatrical sets, the designed artifact and its conjoined perception are meant to stir the observer into active attention. De-familiarization springing from variance in speeds and in scales of perception (i.e. the still and the close-up) within the enacted 'texture' of the visual field would ostensibly provoke a critical dimension to the perceiving-subject's attention.

Finally, arguments in this chapter also suggest that this architecture of presence mitigates the social uniformity implicit in mechanical solidarities. Trans-spatial socialization assumes a measure of uniformity; co-present socialization tolerates more differences or organic solidarity.[267] At this critical post-revolution historical juncture, Soviet society – widely dispersed in geography, but also in material conditions - was engaged in a process of 'self-knowing'. For some, it was a means towards heightened class-consciousness; the proletariat would *really* rise to power only if stronger bonds of solidarity are forged amongst its members, some contended. Others regarded self-knowing as a way of *transcending* class – of forging a classless society. It is to this last category that I believe avant-garde Rationalist architects belonged (based on ideas of the Proletkult to which many subscribed). Class, in bourgeois-dominated societies, is a form of social solidarity which is hyper-spatial in nature; as a social category, it depends on distributed solidarities compensated for with trans-spatial relations. A classless society would mean that solidarity through hyper-spatiality is rendered meaningless; immediate spatial relations (especially co-

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265 Sigmund Freud, *Group Psychology and the Analysis of the Ego* (New York: Bantam Books, 1960[21]).
266 E. Faris, "The Concept of Imitation", in the *American Journal of Sociology*, 32(3) (1926): p. 367-378.
267 Emile Durkheim, *The Division of Labor in Society* (translated by George Simpson, Glencoe, IL.: Free Press, 1947). See also Hillier and Hanson, *The Social Logic of Space* (1984): pp. 18, 220-1.

presence but also co-action and co-visibility) acquire strong significance in the making of this new society. Unlike for Le Corbusier, *solidarity is spatial* in Rationalist entries; social cohesiveness is attempted through the agency of space itself.

The architecture of presence reveals a concern with intersubjectivity; the subjectivity conjured by the drawing as discussed in the previous chapter is conditioned by being shared – or rather channeled through shared experience. The next chapter will articulate how this sharing and channeling occurs.

CHAPTER 9

Kinesthetic Space: Intersubjectivity and the Problem of *Other Bodies*

"… space and not masonry is the actual material of architecture."
Nicolai Ladovski[268]

Preface

As demonstrated in Chapter-5, *Kinesthetic Conception of Space*, the formulation of the kinesthetic conception of space came as one response by choreographers and festival-organizers to the challenge of structuring the amorphousness of mass crowds - not merely for the social purposes of joint celebrations, but also for the objective of generating meaning and assigning significance to such masses. The challenge was one of managing large numbers of people as an *aesthetic* problem; to address the design question*:* how does one generate an *aesthetic from the inherent logic of the crowd*?

Architects and architecture were at the receiving end of such a conception. The challenge to architects lay in adopting the framework – in being furnished with the potential to employ spatial concepts indigenous to the crowd's 'native substance': the mass of moving bodies. To such given choreography of the ephemeral,

[268] Quoted by Catherine Cooke, in her Encyclopedia entry: " Ladovski, Nikolay (Aleksandrovich) " for Grove Art Online. Oxford University Press, http://www.groveart.com/ (accessed May 16, 2006).

how may architects respond, composing - as they are charged to do - the more enduring corporeal forms of buildings and associated spatial experiences? Bodily arrangements and movements activate space while themselves active, but their influence dissipates when absent or effectively negated; then, the physical corporeal space is left 'unattended' by its primary motivation and the logic of its inception. The question remains: what motivates the formal logic of such a physical space? Or, more precisely – if we assume, along with the Soviet avant-garde – that building form and space should draw on the mass crowd as their logic-generator: how may this space respond to its invisible motivation, the crowd? How may architects employ crowd choreographies to shape space and form?

In fact, the kinesthetic conception of space poses to Architecture an intrinsic paradox: while forwarding the crowd itself as the material of formal manipulation, its propensity was to relegate building architecture to the 'background'. Would architects attend to the choreography of amassed bodies, while de-emphasizing the architecture? Are architects choreographers? The flip side of this paradox is also true. If architects address the crowd design problem by negating the crowd as the very source of its aesthetic, the crowd itself is rendered as a background – as a logical excess which contributes little to the emergent formal language of social collectivity.[269] Articulating architectural responses to the crowd aesthetic – responses which simultaneously resolve the problems of the aesthetic and those of social cohesion - necessitates a generative inter-relation. The problem was to conceive of 'architecture' in dialectic with the crowd's choreographies: informed by them, but also generative of them. In a direct and even concrete sense, this challenge also probes some of the fundamental questions which this research project raises: questions of the potential for, and extent of, architecture to partake in the generation of social collectivity. To what measure, in fact, is architecture relevant to the generation of a just society?

[269] In a very real sense, and given their principal role as authors of the physical-spatial armature surrounding the crowd - and not the crowd itself - it seems that the architects' lot is far more convoluted than the choreographers and the theatrical directors from which they received inspiration. Architects are closer, however, to the graphic and pictorial artists addressing the overarching problem of collectivity.

As the previous chapter demonstrated, the Soviet Rationalists did attempt a response to this challenge at the fundamental level of spatial configuration: a spatial unit defined, not by its bounding edges, but through rhythms activating its center(s) and field(s); and a spatial system configured, not as a sequence of discrete enclosures, but as a fluid continuity articulated by variations on the defining rhythms. All this provides but the foundational departure point for architects. What remains to be addressed in the next two chapters pertains to the qualities and experiences of this space of collective action.

In what follows, this chapter argues that the Soviet architects' responses to the kinesthetic space conception and its attendant challenges fall into two basic types. First are design strategies to morph the crowd itself; here, the architect did assume the role of choreographer. Yet unlike the devices of the script, the notation and the rehearsal, which choreography directors employ to manage their formations, Soviet architects looked to the fundamental elements of the built environment as the instigators of crowd motion, and as the constructors of crowd form. The *ground* of the building and the city – such as floors, stairs and ramps: the component of the built environment in direct physical contact with, and immediate kinesthetic impact on, the mass of moving human bodies - became the primary site for design intervention and formal manipulation. On the other hand, walls, columns and ceilings or roofs (the elements of potential empathetic impact) became the secondary constituents of this strategy. In other words, the strategy adopted by Soviet architects issued from a radical dissection of the built environment into its very fundamental and elementary constituents, based on the criterion of direct, involuntary contact with the human body. As a generative strategy, this criterion also tended to yield, not only inventive manipulations of such fundamental elements, but also innovative elements and novel body-artifact relations altogether. Evidence for this will be sought in theatrical set-designs and industrial designs executed by some of the avant-garde architects, and in the design submissions to the *Palace of Soviets* competition by ARU as well as others.

Second, a more profound design strategy addressed what may be conceived as an implicit aesthetic language of interaction between the built environment and the mass of bodies in contact with it. It is the

rhythmic language which the architects' spatial morphology instigates into the crowd's motion (its gestures, postures and displacements). This choreographic language, I contend, was shaped by the Rationalists (as suggested by Meyerhold's theatrical methods; discussed in previous chapters): as *diachronic rhythms* arrayed through the crowd mass in dense notations – kinesthetic rhythms constructive of intersubjectivity.

This chapter will demonstrate *how* the Rationalists achieved this: what design moves were involved. Arguments for above-stated assertions will trace threads from early architectural experimentations in theatre sets to the competition entries. The chapter will also reflect on the theoretical implications of such achievements: on the attendant re-formulations of crowd intersubjectivity as well as on further articulations of the Rationalists' emotional economy. Furthermore, this chapter furnishes another set of basic arguments for advancing the claim that, effectively, Rationalist architecture questioned fundamental ingredients of the very Marxist canon it embodies.

Negations

To state that contestants of the *Palace of Soviets* competition (1931-3) addressed design problems issuing from the basic challenge of accommodating mass crowds, is far from stating that they *all* – or even a majority of them - elaborated on, or even acknowledged, the kinesthetic conception of space promoted by revolutionary theatre and festivals in response to similar challenges. In fact, many architects, either oblivious to the kinesthetic spatial conception or simply ignoring it, pursued other strategies for dealing with crowds and their unmistakable kinesthetic potential. An overview of such strategies illuminates the Soviet avant-garde' approaches by comparison.

As argued in the preceding chapter, Le Corbusier's entry to the *Palace of Soviets* regarded crowds as diffusions of small gatherings distributed around spaces infused with attendant (if dissimilar) qualities of

dispersion. Indeed, Le Corbusier's various depictions – whether submitted as part of the competition entry or documented in his drawing archive – betray disinterest in any concerted kinesthetic property of mass crowds. No drawing by Le Corbusier shows the crowd marching or assembling together in a state of joint attention or action. Even spaces assigned for such mass gatherings (such as the Mass Hall, and the elevated terrace), and which Le Corbusier describes in his competition report at some length[270], go undepicted - as if it is the notion of gathering which mattered but not its potential design properties of shape, geometry, mass …etc. What graphics do exist of dispersed gatherings demonstrate more concern with individual postures and bodily dispositions, rather than with how bodies interact and read together as ensembles [figure 9.1].

Such observations apply to Le Corbusier's spatial strategies as well as to his graphic ones. Alongside dispersed co-presence, Le Corbusier's spatial strategies dissipate the kinesthetic focus of mass assemblies. Le Corbusier's largest mass assembly spaces are raised above ground level, and invariably accessed by spaces that urge dispersion over concerted movement. *Pilotis* spaces precede the Mass Hall for 15,000 spectators, further dispersing them by leading them into the hall through multiple entries. Le Corbusier's exterior assembly space rallying some 50,000 spectators, is also raised above grade - accessed by two symmetrical ramps located on far sides from each other, thereby dividing rather than focusing the parade. Additionally, it is not clear which space(s) the marchers would trek through, and thereby 'activate', in order to reach the main assembly spaces or as they disperse thereafter; there is no clear processional space. Concerted assemblies are conceived as events disjointed from any progressive sequence of movement.

The treatment of individual spaces displays similar dispersion or at best an ambiguity towards the generative potential of crowd kinesthetics, as demonstrated by Le Corbusier's perspective drawings [see figure 9.2]. To begin, in both shots, the crowd is drawn from an aloof distance – which may be legitimately

[270] Quoted in Jean-Louis Cohen, *Le Corbusier and the Mystique of the USSR: Theories and Projects for Moscow, 1928-1936*, translated by Kennth Hylton (New York: Princeton University Press) 1992; p. 170.

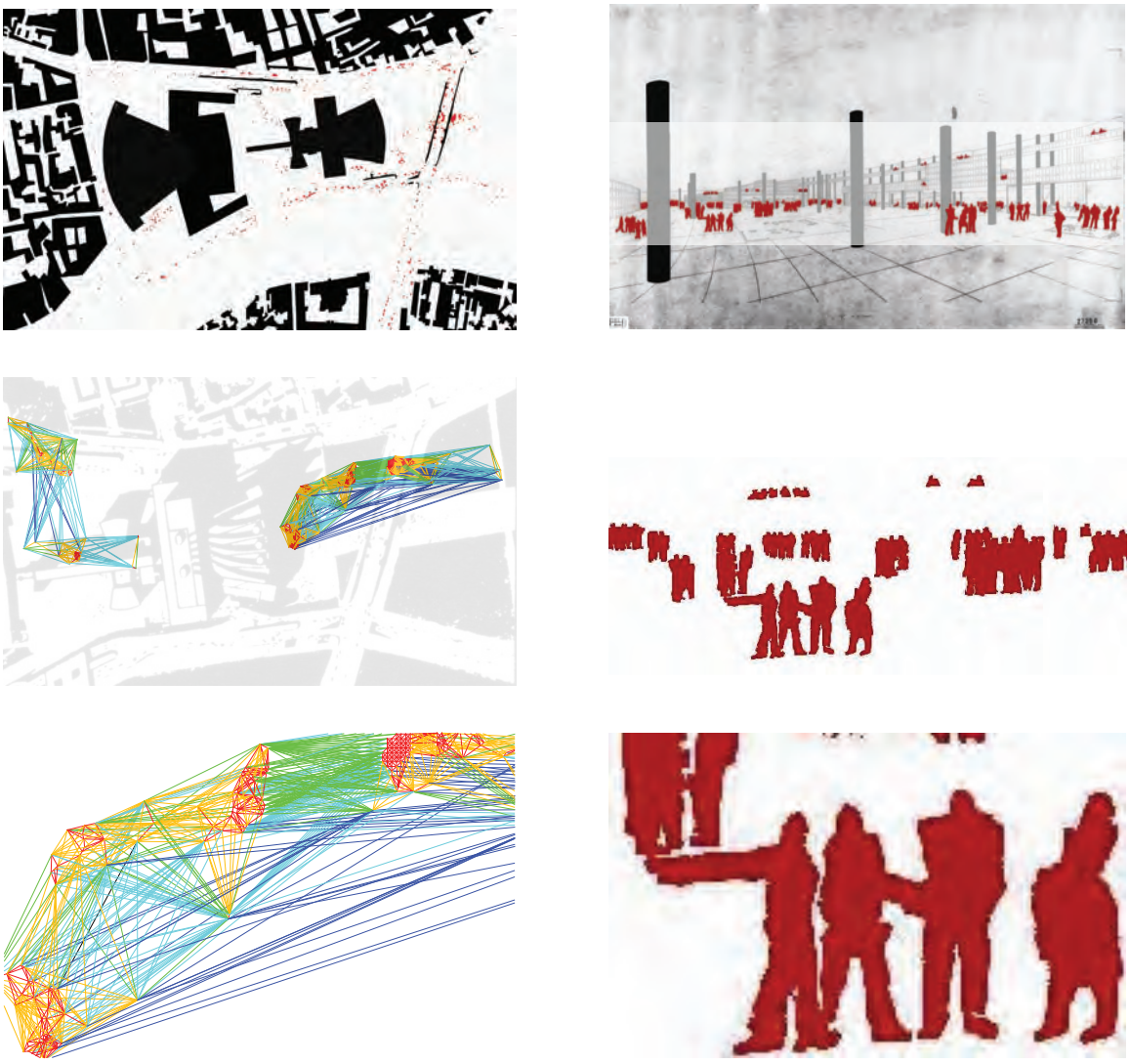


Figure 9.1 Le Corbusier's depictions of the crowd favor distributed arrangements, a concern with flows over interaction, and an interest in individual posture over group dynamics .

read as a detached stance, given the correct radial projection employed (unlike ARU's three-dimensional drawing, where depth is coupled with fragmented perspective). The viewpoint impresses upon its observer a slightly elevated position given the slight downward slope of the ground planes. Regardless of the rendering techniques which Le Corbusier eventually applied to such contour-line perspectives, the depicted ground, ceiling and columns overwhelm the crowd in scale. The ceiling looms as a large, abstracted expanse devoid of forces, order or direction. Both ground and ceiling occupy the best part of the visual field, dwarfing crowd depiction by comparison. In fact, the sense of scale discourages recognition of group formations and any clear sense of 'presence'. Moreover, depicted groups possess no sense of direction or concerted movement, but the ground grids do; indeed any sense of order evoked in the drawing emanates from such ground grids. But instead of exploring the potential of the floor (with its connotations of weight, gravity and rootedness) to emphasize the crowd's innate kinesthetics, Le Corbusier again seems more concerned with resolving instrumental problems of flow and movement. Especially in the perspective drawing depicting the crowd-sorter leading into the Small Assembly [see figure 9.2 *right*], the sharply-defined floor parcels direct crowd-members in geometric divergence and in visual dissociation from each other. (Compare this to floor treatments by the Rationalists ARU and Ladovski as discussed below.)

Yet as some of Le Corbusier's spatial strategies de-emphasized – occasionally even altogether negated – crowd kinesthetics of any kind, other strategies demonstrated adroit approaches which further structure this discussion on architectural responses to the kinesthetic space conception. In parallel to negating kinesthetic impressions generating from bodies, Le Corbusier's treatment of his buildings' corporeal form engaged properties of tension and compression issuing from building structures and materials. Structures roofing the two assembly halls, significant also for framing Le Corbusier's proposal against the sky next to the Kremlin's silhouette, present a tour-de-force of streams of tensile and compression forces. Although illustrated nowhere in Le Corbusier's archive, the Mass Hall's immense arch and frames would frame the mass crowd rallying in the exterior, elevated terrace space – providing a dramatic backdrop to it [see elevation and reconstructed section, figure 9.3]. Similarly, another crowd assembly would also be framed against the

compression frames of the Small Assembly-Hall façade at the eastern plaza (albeit a more transient crowd, and a less dramatic backdrop). In other words, Le Corbusier sought to juxtapose the crowd kinesthetics against the embedded forces within his building structure. The building, one may argue, reflects the crowd's momentum, but also retains it after the crowd disperses. In a scheme alike Le Corbusier's, where crowd dispersion is the rule, retention of force seems like a viable counterbalance. This points to alternative means by which architecture may deal with crowd kinesthetics: employing its own formal language rather than that of the crowd to represent or emulate the latter. But while Le Corbusier's kinesthetic display frames the crowd, its kinesthetic logic does not derive from or relate to that of the assembly of bodies. They remain two disjointed kinesthetic logics juxtaposed against each other, one representing the other, and with the result that one – or the other - always recedes into the background. A foreground-background relationship ensues.

This same duality of logic plagues other entries to the *Palace of Soviets* competition, as dissimilar in approach and strategies to Le Corbusier's entry as they may be. The classical formal language of Boris Iofan's winning entry evokes sensations of heaviness in the physical form of the building [see figure 9.4]. Composed to simulate stone structures of Italian Neo-Classicism (Iofan's preferred style, which he practiced during his 1920s sojourn in Italy), Iofan's buildings boast oversized pillars of concrete encasing building-structure, ducting as well as ancillary service spaces – all made to look as one material mass. But again, the sense of mass evoked is neither generated by, nor generative of, the assembled crowd or its rhythms. In fact, given the immense height and scale, the building as a whole crushingly overwhelms the crowd. Inside the Mass Hall, a datum line (alike a horizon), above the height of the elevated entryway, unambiguously splits the inner space into two sections with distinct treatments. Reminiscent of certain church structures, the upper dome space (where the deity 'resides' in religious enclosures) possesses a more vertical proportion, dramatic lighting whose source would be hidden from seated positions inside the hall, as well as an oculus peering upwards into the plumb hollow of the tower carrying the gigantic statue of Lenin on top [see figure 9.6]. All these effects serve to subdue, indeed crush, the lower spatial stratum of the hall to be occupied by the crowd. This detachment is confirmed by another property peculiar to Iofan's neo-classical language. As

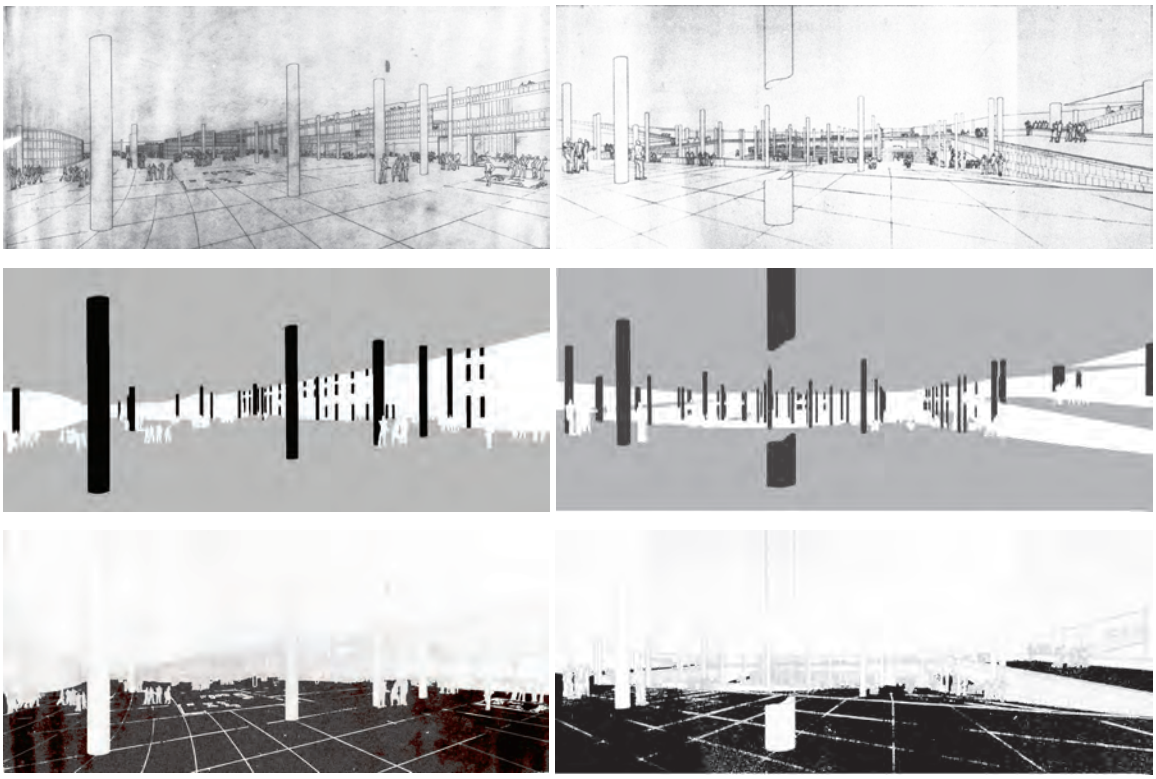


Figure 9.2 Le Corbusier, *Palace of Soviets* Competition (1931) Phase II. Two perspective drawings showing the foyers to the Mass Hall (*left*), and the Small Assembly Hall (*right*) - (source: Fondation Le Corbusier. *Le Corbusier Archive*, 1982). Diagrams demonstrate how crowd groups remain diffused and merely fit within established the scale and directionality determined by the ceiling and floor .

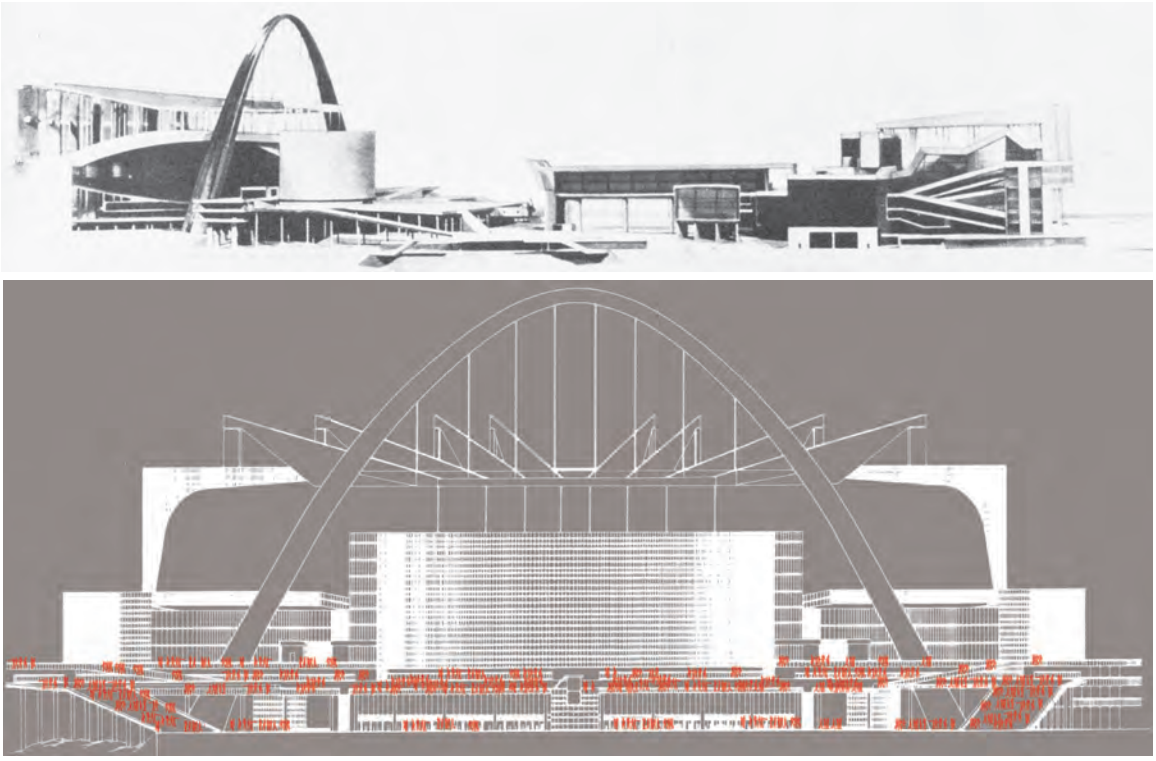


Figure 9.3 Le Corbusier, *Palace of Soviets* Competition (1931) Phase II. above Elevation from the Moscow River; below a reconstruction of the north-south section with crowd groups in place. [based on: Peter Lizon's redrawn section, Lizon, *The Palace of Soviets* c.1993]

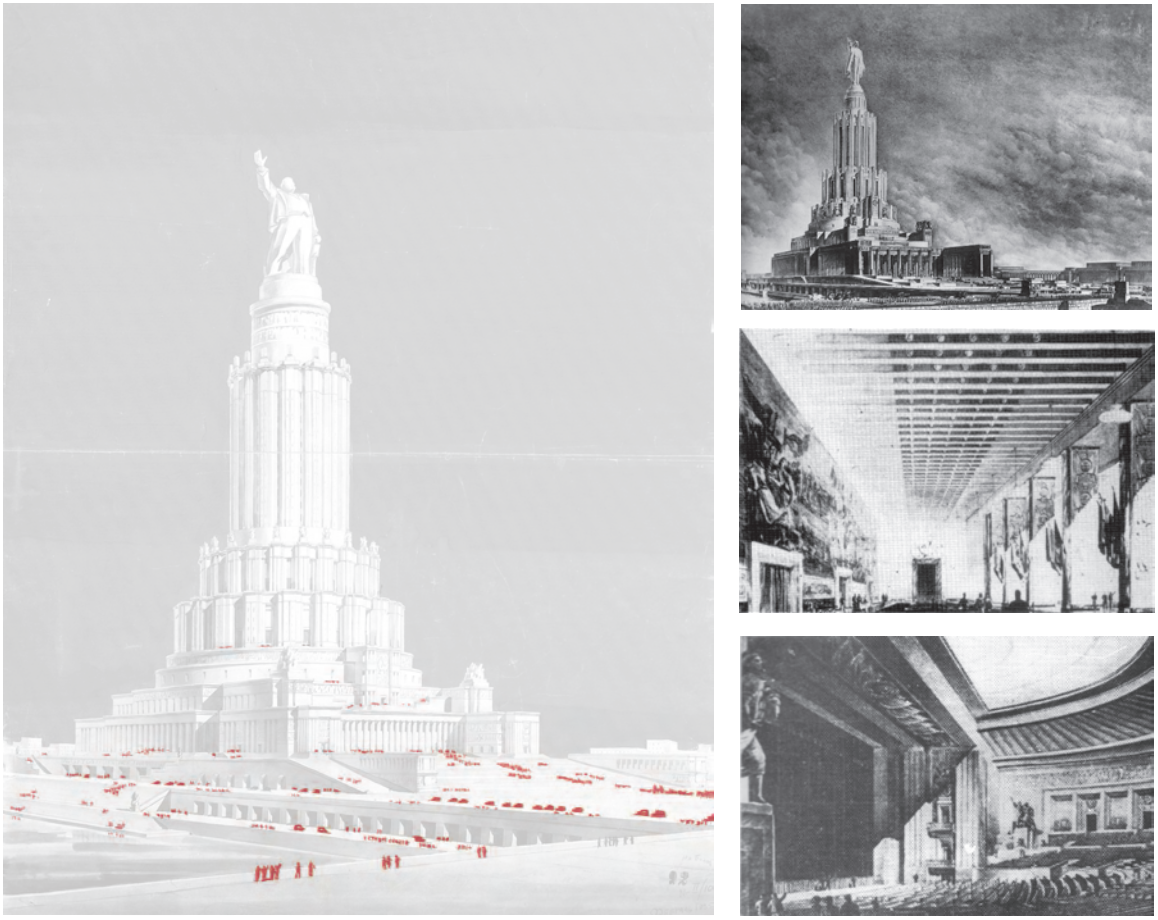


Figure 9.4 Boris Iofan (assisted by Shchucko and Gelfriekh), *Palace of Soviets* Competition (1933), Fourth Phase, winning entry. Exterior and Interior depictions by architects, with crowd highlighted (*left*). [online sources]

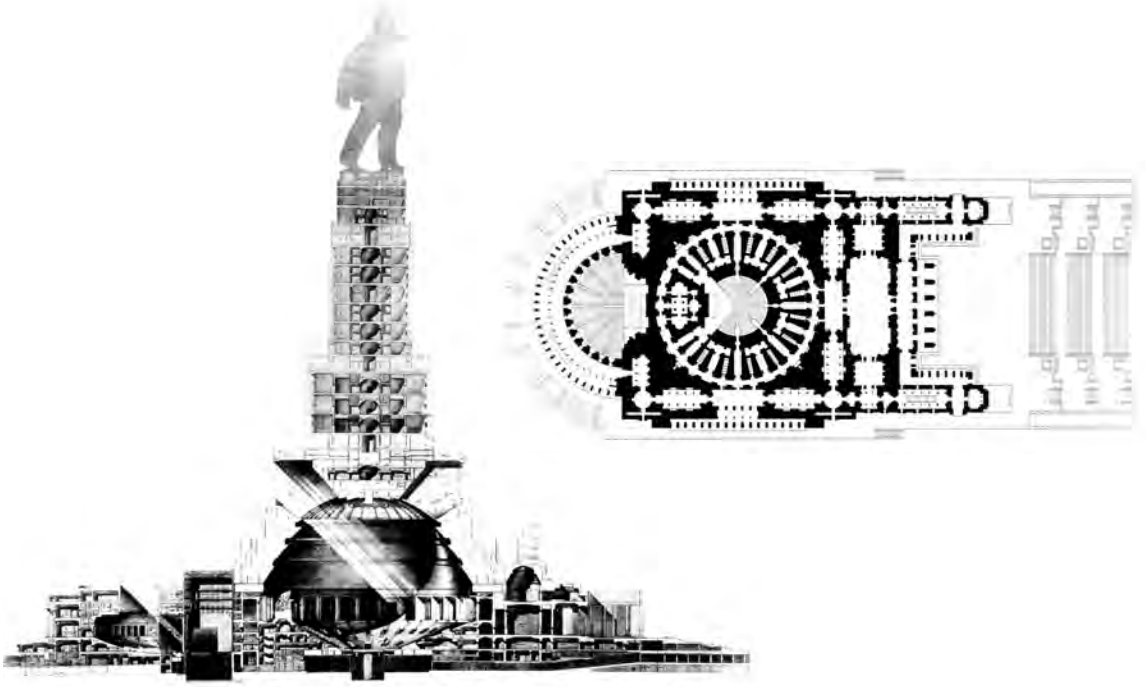


Figure 9.5 Boris Iofan (assisted by Shchucko and Gelfriekh), *Palace of Soviets* Competition (1933), Fourth Phase, winning entry. Longitudinal section and plan. [source: Lizon, *Palace of Soviets*, c.1993]

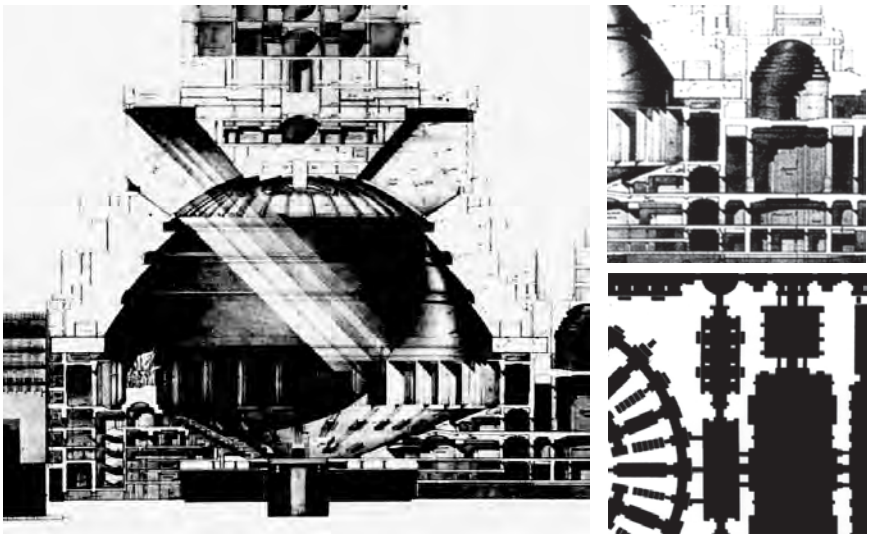
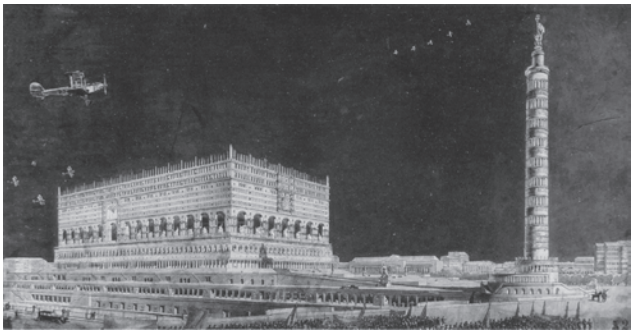
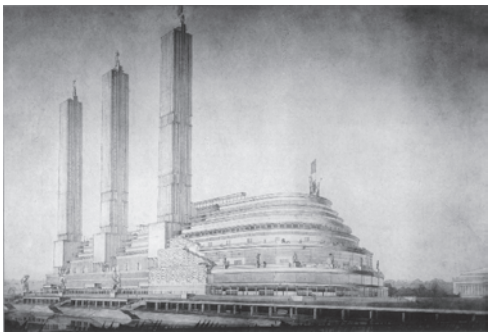


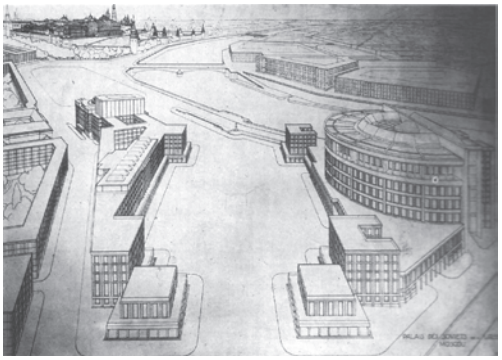
Figure 9.6 Boris Iofan (assisted by Shchucko and Gelfriekh), *Palace of Soviets* Competition (1933), winning entry- post-competition phase. *left* Section through central space; *right* Partial plan and section showing the reciprocal definition of solid-to-void through figure-ground pouche.



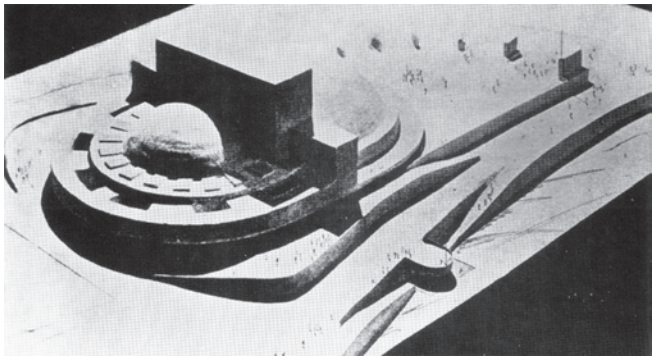
entry by Gelfreikh and Shchuko



entry by Alabyan & Simbertsev

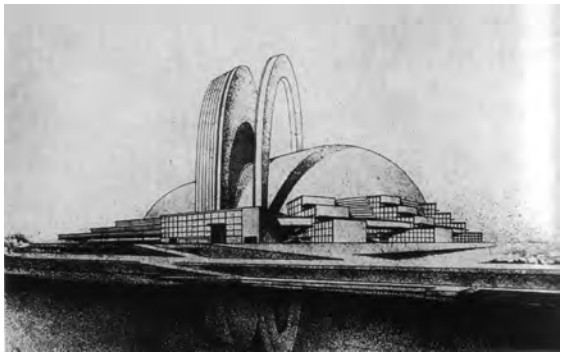


entry by Auguste Perret



entry by Eric Mendelsohn

entry by Hannes Meyer



entry by Golubev

Figure 9.7 Entries by several competitors, *Palace of Soviets* Competition, 1931-4.

physical mass and enclosed void mutually define each other in a positive-to-negative relationship – they seem to prescribe a mutually-balanced, self-enclosed association detached from intruding elements, such as the ephemeral movement of individuals and crowds [figures 9.5 and 9.6]. The building's formal logic is self-defining and autonomous, but also employs a spatial language derived from a syntax of enclosure and containment, rather than the invisible web of relations that emerge from activity and co-presence. Iofan's building manifests autonomy from the crowd, and – given its scale – overpowers it.

Similar arguments can be made for several other entries to the *Palace of Soviets* competition [see figure 9.7]: particularly Vladimir G. Gelfreikh and Vladimir A. Shchuko's as well as Karo S. Alabyan and Vasily N. Simbertsev's' submissions. Auguste Perret's neo-classicist approach centered on one enclosure clearly-defined using surrounding buildings as walls. Configurational centrality is pronounced by the corporeal form and its geometry; axes of symmetry - axes issuing from the building masses themselves - converge onto a point of repose and pronounced hierarchy. In each case, the building's formal language issues from a logic independent of the kinesthetics of the crowd's mass. For some, responding to the crowd was limited to the motivation of instrumentally trafficking the large numbers infront, alongside and through the pores of the building. For others, form and space respond to 'urges' from *a priori* stylistic preferences or theoretical inclinations. For example: Eric Mendelsohn's Expressionist proposal, where the undulating ground surrounding the building platform seems to suggest some concern with kinesthetics, yet the undulation dissipates (as so also does the represented crowd) around the main building mass, itself placed as the centerpiece of the overall composition – an object that 'gathers up' the field. Hannes Meyer's entry elaborates on his aesthetic of negation[271] – negating even the aesthetic of the crowd itself.

In all such instances, a disparity lingers between the crowd and its milieu – a disparity arising from not addressing the problem as implied in the Charge - as embodied in the socio-spatial practices of the day.

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[271] See Michael Hays, "Reproduction and Negation: The Cognitive Project of the Avant-Garde", in *Architectureproduction,* guest-edited by Beatriz Colomina (New York: Princeton Architectural Press, 1988), pp.152-179.

Furthermore, this disparity yields another tension: crowd and building, forged from disparate formal strategies, relate to each other in mutually-alienating modes; foreground-to-background relationships obtain.

Approaches of the Soviet Avant-Garde

It is in contrast to such disjointed logics of formal language and crowd kinesthetics that one may begin to explain the Soviet avant-garde' approaches, which explored variations on employing the crowd's kinesthetic as the generator of formal and spatial languages.

Early versions of this approach are evident in the Soviet avant-garde' responses to related design problems in theatrical settings and industry. Besides exemplifying the architecture in other media, some of the following artifacts also presaged the architecture; they serve as quasi-laboratories and arenas for developing the frameworks of ideas from which such architecture sprang. During the early years of the revolution, scarcity of materials and the dearth of executed projects urged architects to contract work in theatre. Additionally, several early Constructivists, such as Karl Ioganson, Liubov Popova and Varvara Stepanova, adopted the ideological position that their role as artists and designers resided in taking art to sites of industrial production and consumption. Productivist art would change the nature of everyday-life (Russian: *byt*), and – in the process – redefine the socialist object as a transformative agent[272].

In theatre: one encounters a range of responses to the kinesthetic challenge. Liubov Popova's 1922 set design for V.E. Meyerhold's *The Magnanimous Cuckold* exemplifies one important trend. Period photographs, from both the 1922 and 1928 productions of this play, display a very close and reciprocal bond between the set as a construction and the performance of actors' bodies [figure 9.8]. Together, set and

[272] These ideas are discussed by Christina Kiaer in her book: *Imagine No Possessions: The Socialist Objects of Russian Constructivism* (Cambridge, MA: MIT Press, 2005), throughout the book but particularly in the Introduction and in Chapter Two.

body choreographies constituted the performance. An interesting research project for the future would be to reconstruct the design process by which Popova formulated her Constructivist design to respond to the Biomechanics of Meyerhold's group choreographies in this particular play. What were the dynamics of exchange between the two designers? What kinds of drawings did she generate? What is evident from the available photographic documentation are a number of observations which confirm the reciprocal design intentions between set-designer and choreographer. Individually as well as in groups, actors' bodies wrapped around the set's component bars, dangled from its rails, and curled at its surfaces. Bodies morphed their individual shapes and group formations to respond to the set components, resulting in contorted and quite dramatic bodily-postures, as well as complex, even unpredictable formations. Note that the photographs indicate that the set's metric modulation was designed to accommodate the size of a body in various positions. Bodies engaging the set at its different levels and depths generate a wide variety of co-visibility situations (up-down; inside-outside; diagonally across; framed and framing; ...). To recall the argument on Biomechanics from Chapter-5 *Kinesthetic Conception of Space*, it is through such animated bodily formations and group rhythms that dramatic expression of moods and emotions in Meyerhold's theatre took place, as much as (or perhaps even more than) via the facial expressions of individual actors. Many an archival photograph displays groups which, arrayed in some formation, communicate an expression or a set of emotions collectively [revisit figures 5.6 through 5.8, and 5.10]. As an apparatus which incited sustained engagement by the actors' bodies throughout the play[273], Popova's design transcends the conventional notion of a theatrical set as a backdrop to dramatic action. The scaffold-like set, in effect, is a *medium* for transformed, imaginative movement; a medium which replaces the spatial or

[273] While I realize that, here, I describe a performance which I have not witnessed 'play-by-play', neither firsthand nor taped, I believe that the available photographic collections of the two performances legitimately sustains this generalization. Photographs of the performances are available from the following sources:

- The online Global Performing Arts Database http://www.glopad.org/pi/en/record/piece/685 [latest access May 25, 2008]
- Nick Worrall, "Meyerhold's Production of "The Magnificent Cuckold". *The Drama Review: TDR*, Vol. 17, No. 1, Russian Issue, (Mar., 1973): pp. 17-8, 23, 25-7, 31, 33.
- Alma Law, "Meyerhold's "The Magnanimous Cuckold"", *The Drama Review*: *TDR*, vol. 26, No. 1, Historical Performance Issue, (Spring, 1982): pp. 61, 65-71, 73-85.
- Braun, Edward. *Meyerhold: A revolution in Theatre.* London: Methuen, 1995.
- Leach, Robert. *Vsevolod Meyerhold*. Cambridge: Cambridge University Press, 1989.
- Schmidt, Paul (ed.). *Meyerhold at work*. Translated by Paul Schmidt, Ilya Levin, and Vern McGee. Austin TX: University of Texas Press, c1980.

volumetric void itself with constructors of bodily forms and formations; a medium which extrudes the conventional elements of a set usually in direct contact with the body (ground, furniture surfaces, handrails, …) into a multitude of possible contact surfaces and elements at various angles, shapes and sequences thereof.

One finds some echoes of this approach in Varvara Stepanova's 1924 design for sports costumes [figure 9.9 *top*]. Deploying pattern across the group's costumes served to unite the troupe across the space of the building windows, while de-emphasizing gender (and presumably also class), according to Kiaer[274]. Patterns, composed of high contrasts and wrapping the bodies on all sides, essentially masked the bodies – they acted as equalizing veils, "phallic in … form, but distinctively vaginal in … patterning"[275]. However, one glimpses in the one photograph included an alternative reading which does not exclude Kiaer's own insights on the masking of gender and class. Bodies in different postures modify the fabric patterns through warping, bending and folding them. This, I imagine, would be even more amplified in the course of movement. The defining condition of the body is motion, as subtle as it may be sometimes. In effect, body kinesthetics still surface, but through this new agent of contact with the visual field: the pattern. Again, alike in Popova's set for Meyerhold's *Magnanimous Cuckold*, bodies and artifacts reciprocate aesthetic logics. Furthermore, Stepanova employed her patterned fabric designs for the costumes of another play by V.E. Meyerhold, *Death of Tarelkin* (1924), where all cast members donned variations on patterned striped clothing [figure 9.9 *bottom*]. Besides the equalization of class and gender, the striped costumes emulate the ribbed appearance of Stepanova's apparatus-like set pieces against which the comedy unfolded. Aesthetically rather than physically (as in Popova's *Magnanimous Cuckold*), bodies in *Death of Tarelkin* intertwine with

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274 Christina Kiaer, *Imagine No Possessions: The Socialist Objects of Russian Constructivism* (Cambridge, MA: MIT Press, 2005): pp.114-7.

275 Christina Kiaer, "The Russian Constructivist Flapper Dress", *Critical Inquiry* (28 Autumn 2001): p.220. This bears much similarity to the imaginary condition of the sexes in Aleksandr Bogdanov's socialist utopia *Red Star*. For a Martian society, well into its fourth socialist century, distinctions between male and female have considerably eroded in the body physique itself, not to mention attire. Having negated the reasons for women's servitude in the home, and with machines taking on the hard labor of men, socialism in Bogdanov's utopia had drawn closer the social roles of the two sexes. See Aleksandr Bogdanov, *Red star: the first Bolshevik utopia,* translated by Charles Rougle (Bloomington: Indiana Univ. Press, c1984): p.75-6.

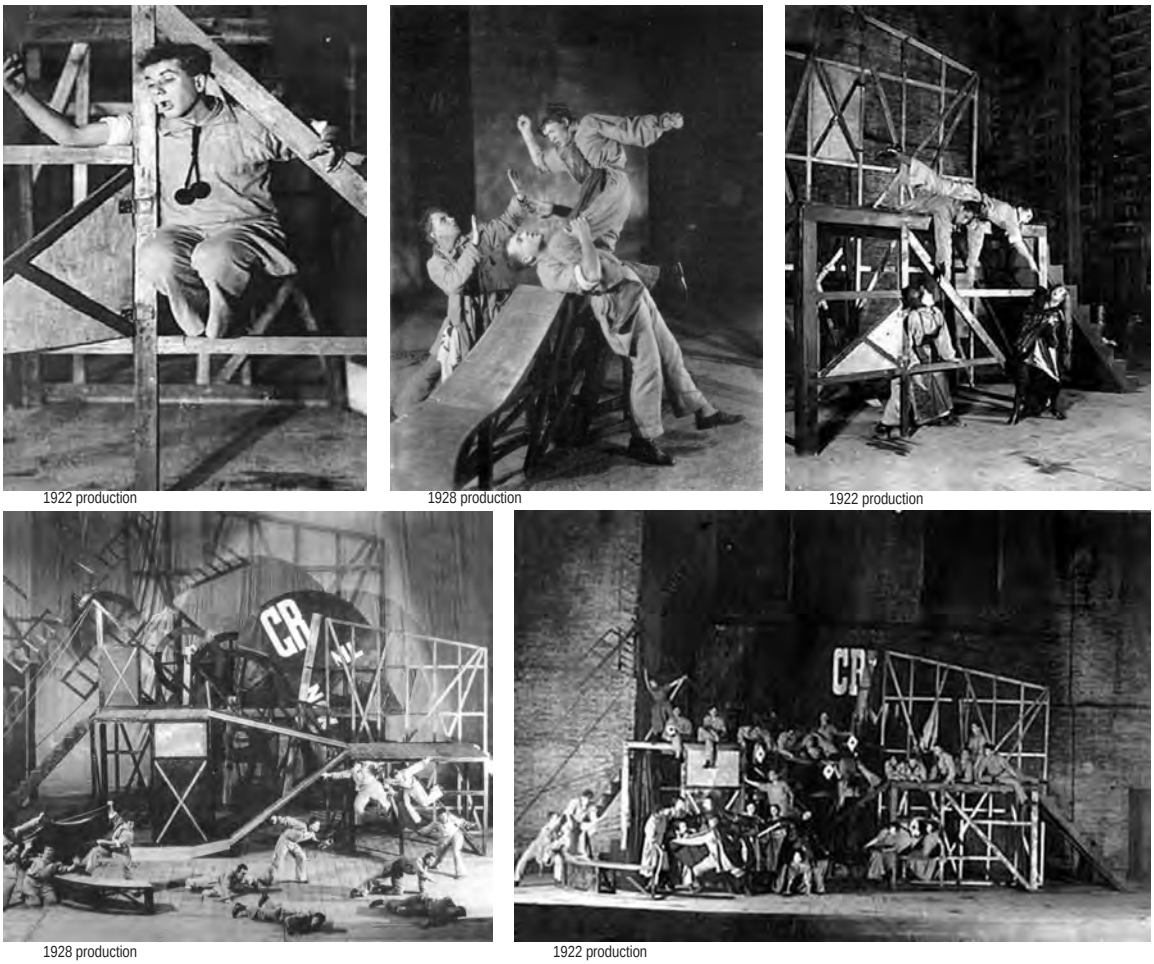

Figure 9.8 Liubov Popova, Set Design for V.E. Meyerhold's *Magnonimous Cuckold* (1922 and 1928 productions); period photographs show the intertwinement of bodies with set construction. [source: *Global Performing Arts Database* www.glopad.org]

Figure 9.9 Varvara Stepanova, top design for sports costumes (1924) [source: Kiaer, *Imagine No Possessions*, 2005]; bottom costume and set design for Meyerhold's *Death of Torelkin* (1924) employed striped fabric for all cast [source: Rudnitsky, *Russian and Soviet Theater*, 1988].

Figure 9.10 Varvara Stepanova, costume and set design for Meyerhold's *Death of Torelkin* (1924); striped costumes emphasize group performance rhythms and echo set's own rhythms. [source for original: Braun, *Meyerhold: A Revolution in Theatre*, 1995]

Figure 9.11 Alexander Vesnin, Set Design for Alexander Tairov's *The Man Who Was Thursday* (1923); *left* set construction occupies the full proscenium; *right* closeup. [source: Rudnitsky, *Russian and Soviet Theater*, 1988].

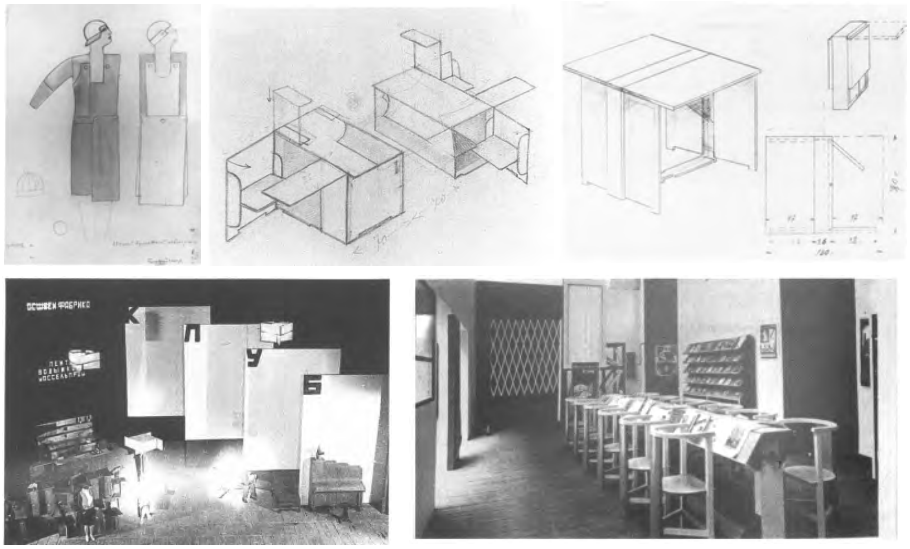

Figure 9.12 Aleksandr Rodchenko, Set for Tereshkovich's *Inga* (1929); *above* Rodckenko's sketches for modern women's costumes and flexible furniture; *below* compare the set for Inga (*left*) to Rodchenko's furniture design for the Soviet Expo, Paris 1928 (*right*). [sources: Barris, ""Inga": A Constructivist Enigma", 1993]; Tupitsyn, *Rodchenko & Popova*, 2009; A.M. Rodtschenko: *Aufsätze, autobiographische Notizen*, 1993.]

their set. At the same time, they also pronounce Meyerhold's group acting; the patterns de-emphasized individuality and amplified rhythms across the stage [figure 9.10].

Alexander Vesnin's set for *The Man Who was Thursday* (1923), may be categorized within the same trend, albeit more ambiguously [figure 9.11]. Note that the play was not a Meyerhold production (produced instead by Alexander Tairov at the Chamber Theater), but still: detectable traces of Biomechanics in available production photographs testify to the pervasiveness of Meyerhold's influence in theatrical circles: a large caste onstage, exaggerated body expressions, and omnipresent group formations. Vesnin's set is usually touted for its formal Constructivist qualities independent of the bodies circulating within its framework. However, as a set which inhabits (indeed nearly replaces) the stage, its habitation by the large theatrical caste also evokes unmistakable connotations to the kinesthetic charge. Indeed, this set occupies an ambiguous threshold between an independence of logic and an exploitation of the crowd body. While coherent as a construction, it still addresses the bodies occupying it in a number of ways. Bodies are framed by the components of the construction, as well as by its dramatic shadow patterns provoked by the set lighting scheme. The set forces bodies to circulate on level ground and tilted ramps, effecting a range of body postures - so much so that actors did complain about movement fatigue. Occupying the set's multiple levels simultaneously, the play captures in a condensed format the ideas of co-presence and co-awareness across a spatial system. More to the point are moments of the performance where theatrical expression issues from actors' bodies – individually or in group formations – as they engage the set's components while walking and climbing through them, or sitting and leaning on them. It is not clear to me from the limited set of available photographs of this play to what extent are such moments of set-body interaction intrinsic to the performance. Yet even when not firmly so, the kinesthetic aspect still retains some impact.

An alternative trend may be seen in Aleksandr Rodchenko's Constructivist set for *Inga,* 1929. Again, this play was not a Meyerhold production; instead, it was directed by Maks Abramovich Tereshkovich. In this case, a substantively different response to the kinesthetic challenge is evident. Instead of propping dramatic

bodily contortions and choreographing group formations, Rodchenko resorted to manipulations that are far more subtle, and served to emphasize the agency and independence of an individual cast member, Inga - the lead character, who stood for the revolutionary subject in general, but more specifically for the liberated female subject. Rodchenko's set [figure 9.12] consisted of a number of hybrid furniture pieces and partitions (desk – table – wall - …) which, manipulated through rotating and sliding components, would morph into one type or another. In the play's spatial narrative, Rodchenko's Inga manipulated the set pieces as she moved about them in control of her life. She handled the set as potentials or possibilities of spatial change – a design strategy which assumed an active, involved participant rather than a passive onlooker. As the set pieces transformed, so did the scenery change and the plot develop. The set recalls some aspects of Rodchenko's furniture design for the Worker's Club at the Soviet Pavilion for the 1925 Paris Expo (pavilion building designed by Konstantin Melnikov). [276]

Besides evincing the pervasive nature of the kinesthetic design challenge (reciprocity between crowd-bodies and artifacts) among the Soviet avant-garde architects, the different attitudes outlined above point to the variety of design problems which emanated from their early investigations. As different as Rodchenko's approach to this problem was, there remains a kernel of similarities to Popova's and Stepanova's. Both approaches advocated activating the subject: activating in movement as well as in engaging subjectivity. In both approaches one sees an attempt to address the banalities of, and alienation inscribed in, the use of everyday-life objects – qualities which preclude any empathetic relation a user may develop with the artifact being used (or made); banality and alienation negate the creative aspects of the acts of using or making, and hence their negative impact on a user's humanness. Rodchenko sought to transform the artifact of everyday use so that it affords, even demands, an active participant - not only physically manipulating the

[276] Roann Barris, ""Inga": A Constructivist Enigma", *Journal of Design History*, Vol. 6, No. 4, (1993): pp. 263-281. The above insight – that the set hybrids (furniture, walls, …etc) perform and express Inga's agency as a liberated woman – stems from reading Rodchenko's sketches for the set against the stated intent of the playwright, Anatolii Glebov, "… to drive the hypocrites… to drive them from those who genuinely relate in a new way to women, to show all the difficulty, all the complexity of the woman's struggle for her rights – here was the task of the play"[Quoted in Barris, ""Inga": A Constructivist Enigma" 1993: p.263. The original may be found at the Glebov Archive, in the Russian State Archives of Literature and Art]. I have not come across a statement of intention by Rodchenko himself.

rather complex furniture configurations, but also cognitively active in imagining its variations as devices to transform one's character and one's social condition. Both Inga and her audience experience the active transformation of space and artifact as integral parts of her character's development. This is a strategy applicable to everyday spatial practice in architecture, as demonstrated by Rodchenko's Workers Club furniture. On the other hand, Popova's and Stepanova's approach defamiliarizes both the body and its physical setting. Their sets and costumes advance the demand for creative interaction with the environment to a more fundamental level – to the movement and posture of bodies and the habits of body-perception. They seek to alleviate alienation in the very basic practices of normative (or natural) movement. Indeed, Popova's and Stepanova's approach should really be regarded as a more profound theoretical formulation of how to address architectural space – to which now the argument turns. And it is their approach (rather than Rodchenko's), which better serves to structure the discussion on the Rationalists' response to the challenge of the kinesthetic conception of space.

Theoretical Reformulations: Building Choreographies, Ground and Body

Bearing such precedents in mind, but also cautioning oneself on the all-too-frequent misunderstandings of direct, literal translations across artforms, the ground is now set to re-examine the architecture of the *Palace of Soviets* competition entries from the standpoint of the kinesthetic spatial conception. If, as discussed above, Le Corbusier employed the structural forces of his proposed buildings in generating aesthetics in such a way as to frame the massiveness of the assembled crowd, his strategy still discriminated between the 'kinesthetics' of 'crowd' and those of 'building'. They remain juxtaposed but independent entities, creating an undeniable dramatic effect. As a design move, this fits within Le Corbusier's broader strategy in his competition submission to inscribe the building – as corporeal physical form – with properties that define his position on handling the crowd design problem, but such that the building competes with, indeed supplants, attention from the crowd. As discussed earlier in this chapter, Le Corbusier's building form

displays a distributed arrangement in its column modulation and compartmentalization of spaces, yet such diffusion is alien to his envisioned crowd's own dispersion. Similarly, its *tour-du-force* arch exhibits tension: a language alien to the assembled crowd's kinesthetics of movement, rhythm, mass and weight. Not unlike the beaux-arts tradition from which he emerged and which he continuously challenged, Le Corbusier's building becomes an independent or a stand-alone object.

In contrast, the Rationalists' design submissions derive their kinesthetic logic from the choreography of moving bodies, alike Meyerhold's Biomechanics and acting choreographies. But while Meyerhold directly instructed and choreographed performers' movements to generate a language of space forged between the rhythmic 'trace-forms' of individual and group movements, architecture choreographs bodies differently. Architects are choreographers only as long as their spaces, forms and furniture *indirectly* induce bodily motion and de-formation. If Meyerhold charged himself to generate this new kinesthetic conception by molding the substance of human bodies in groups, architects are challenged to mold spatial and corporeal forms to provoke, receive and frame (as settings) generic bodily movements: movement through and across spaces, deformation as bodies come in contact with building floors, furniture and fittings, or are incited to gaze and inspect. Architecture morphs kinesthetics by manipulating the everyday activities of displacement (more specifically, walking) across or within a spatial system.

To place generic displacement within an appropriate theoretical framework, I will draw on the theoretical intersections of fields as distinctly apart as dance, sociology and ethnography, particularly the work on Choreometric profiles, action-signs and human locomotion. Such work also builds substantially on the theoretical and empirical body of work which Rudolph Laban and his followers constructed; hence, it is a natural extension to earlier explorations in this thesis.

Together with its attendant minutiae of everyday gaits, gestures and postures, generic movement or displacement makes up a significant portion of a particular society's systems of communication. As

complementary to verbal communication, it partakes in the culture of exchange which characterizes a community; dance is, in some sense, a formalization of this everyday activity in a symbolic form.[277] Information flows across crowd-aggregates, amid conditions of limited visibility inherent to a crowd condition, thus constitute a crucial element of how a gregarious spatial typology performs. This traffic may be cast in terms of two distinct categories. First, 'action-signs' are culturally-codified moves with which we communicate moods, impressions and information to others. These are ephemeral acts with which we complement equally ephemeral verbal-signs. Examples include: the bow in prayer or in Tai-Chi; the act conveys specific signification within certain cultural contexts.[278] A particular species of such 'action-signs' involves actual physical contact; examples include handshakes, embraces and fist-fights.[279] Action-signs may become particularly significant in crowd conditions, but they are far from being the exclusive transmission devices. In fact, they are not of significance here since they are less frequently induced by building surfaces. Also, action-signs are usually performed from stasis, rather than through walking or displacement.

Perhaps more significant – and more ubiquitous - is yet another communication device which, for the purpose of my argument, I will call the 'rhythmic field'. These are non-discursive communication-flows amongst different bodies (co-presence), performed as these bodies 'negotiate' physical objects and settings. A rhythmic field is generated by bodies as they perform diverse, if relatively consistent, activities or behaviors against the surfaces of a building – and thereby pronounce a particularly qualified sense of gregariousness (unified or diverse; repetitive or complementary; …etc.). Most such ephemeral rhythms are generated (and dissipated) as we traverse spaces back and forth through a spatial system – i.e.

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[277] Alan Lomax (with contributions by the Cantometrics staff and with the editorial assistance of Edwin E. Erickson), *Folk Song Style and Culture* (Washington : American Association for the Advancement of Science, 1968): pp.262-3. See also: Alan Lomax's "Choreometrics and Ethnographic Filmmaking", in the *Filmmakers Newsletter*, February 1971: pp. 4-8.

[278] For elaboration on action-signs as spatial codes, see D. Williams, "Space, Intersubjectivity and the Conceptual Imperative: Three Ethnographic Cases", in *Human Action Signs In Cultural Context: The Visible and the Invisible in Movement and Dance,* edited by Brenda Farnell (Metuchen, N.J.: Scarecrow Press, 1995): pp.48-51, and pp.58-73. Also of interest is Williams' discussion of the Agent-Centered Spatial Orientation: pp.52-57.

[279] Not all physical-contact is codified into signs or symbols per se, yet remains significant. For example: the shoulder touch in Muslim prayer.

synchronized by the activity of walking. We perform such acts profusely, incessantly and quite subconsciously. They are not codified as 'action-signs'; but they partake in creating impressions of exteriority or interiority, in communicating accessibility or aloofness - with attendant variations in shape, direction, intensity, measure, …etc.

Although this 'natural' or generic mode of movement in buildings - or simultaneously that buildings induce in our bodies - tends to sink into our subconscious, it is by no means of limited import. As the main mode of generic movement, walking may be stimulated in different speeds, to variant rhythms and accentuated by instances of looking and events of gathering. Different building architectures induce such movement rhythms and events differently. Generic walking on a flat horizontal surface is when our bodies are in their most concerted proportions (walking is a normative condition); whether in standing, ascending or descending, body parts and proportions slightly or considerably deviate from their coordination inasmuch as contact with building surfaces incites. When we sit or engage furniture and/or execute various activities our bodily proportions assume more disconcerted – sometimes even fragmented - proportions. Thus, while more concerted generic-motion - or coordinated choreography – follows from physical dialogue with the ground-plane on which we walk, deformations – whether subtle or intense - occur in contact with other planes and building surfaces.

These observations provide some basis for describing generic kinesthetic choreography within buildings – the inevitable 'white-noise' of everyday kinesthetics and sociability. Significantly: performed by many bodies in a mass-crowd condition, such acts aggregate into rhythmic fields. If typical, similar or complementary, such rhythms cohere into mass compositions. An aggregate of spatial-movements – where individual crowd members' bodies point to, or engage, surroundings - pronounces a particular sense of gregariousness. Choreometric Profiles articulate such formalizations of everyday-life activities, qualified by the forms of flow

and energy exerted,[280] as well as the shapes and spatial planes and volumes employed.[281] Generic movement – in negotiation with building surfaces - is more emphasized and visible in stairs and ramps (as well as in some types of furniture). As architectural devices which, by default, manipulate speed and rhythm, such outgrowths of the ground-plane emphasize kinesthetic effects. The question becomes: to what effects? This is an opportune moment in the argument to return to the Rationalists.

In what follows, I will weave threads of connection between the Rationalist entries to the *Palace of Soviets* Competition and the above discussion on generic locomotion, "structured movement systems" and the choreography of kinesthetics within buildings. Urging such connections is a number of observations on the manipulation of the ground plane in the Rationalist entries by ARU and Nicolai Ladovski.

Let's begin by re-examining ARU's submission. The connection between ARU's Mass Hall and the parade ground occurs through a set of four ramps of unorthodox nature. Sloping down at one end, they immediately tilt back up again; they lead nowhere, underground or above, along the way or within their individual boundaries. They deliver the crowd - assembled as a set of large organized clusters with uniform costume and insignia on the parade ground at one side - to the Mass Hall at the other end as formations of columns, about five body-breadths wide with mixed group affiliations. As such, they may be explained as crowd sorters and mixers – a large scale machine for reshuffling crowd formations. The marchers arrive with their affiliated companies (soldiers, sailors, peasants, sportsmen and sportswomen, and others), only to intermingle with others as small groups of two or three from each company simultaneously enter one of the

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[280] In particular, the profiles developed by Adrienne Kaeppler (and others) were helpful in establishing the connection between everydaylife activity and dance as symbolic form beyond thin metaphorical allusion. See Adrienne L. Kaeppler's "Dance in Anthropological Perspective", *Annual Review of Anthropology*, Vol. 7. (1978), pp. 31-49. Also informative on how "structured movement systems" construct colonial, ethnic and national identities, gender and social bodies is Susan A. Reed's "The Politics and Poetics of Dance", the *Annual Review of Anthropology*, Vol. 27 (1998): pp. 503-532.

[281] Such classifications are founded on Rudolph Laban's theories of movement and choreography, particularly Effort-Shape Theory, developed between 1926-60. For details as relevant to this thesis, revisit Chapter-4: "The Crowd Design Problem: Primary and Secondary Sources", and Chapter- 5: "The Crowd Design Problem: Formulation"; see also Cecily Dell's *A Primer for Movement Description Using Effort-Shape and Supplementary Concepts (*New York: Dance Notation Bureau Press, 1977). More recent research on Effort-Shape Theory, as well as some later developments by Laban's followers, are articulated in: Eden Davies *Beyond Dance: Laban's Legacy of Movement Analysis* (New York: Routledge, 2006).

four ramps or access one of the three on-grade lanes. In mixed droves, they thus march towards further mixture within the Hall, if one extrudes the logic. What confirms the role of the ramps as crowd sorters and mixers is a simple calculation of capacity for the stage pods and their feeder ramps as shown in ARU's plan. As figures 8.22 through 8.24a illustrated, the pods' occupancies amount to a total of 1,600 marchers (close to the 1,500 figure requested by the competition program for stage performers). The self-regulating, variant speeds of movement along ramps and alleys are such that they feed the pods in increments equal to individual lines on the equally-wide pods. Acting as one large abstract machine, the ramps feed the pods a continuous self-regulating flow. Not only does this configuration perform crowd sorting and mixing *efficiently*, but also *overtly* – the process is explicit and may be reconstructed by onlookers in the Mass Hall's stalls and along the marching plaza. Inscribed in the square geometry of the stage pods, and further suggested by the apparent metric correspondence between each ramp's width to the pod's square unit, the transparency of the arrangement and its relative ease of reconstruction adhere to the Rationalists' philosophy on the economy of emotion, as given by their VKhUTEMAS student-exercises [see figures 9.17a and 9.17b].[282]

But if crowd-sorting accounts for the ramps' eccentric unidirectional configuration, yet another peculiar feature of theirs begs further explanation. Instead of conventional linear ramps, ARU's layout and three-dimensional drawing show *curved* inclines; as one curve tilts down, the other symmetrical curve slopes up, in what resembles a wide, inverted bell-curve. As small and insignificant as this detail of ARU's scheme may seem, its conceptual impact cannot be ignored. What prompts this curvilinear articulation? Pretexts of preserving continuity may be countered by the argument that a linear morphology, including two inclined planes and an intermediate flat surface, would retain the crowd similarly uninterrupted. The explanation, I assert, lies in the kinesthetic logic of the curvilinear ramp.

[282] Catherine Cooke, *Russian Avant-Garde Theories of Art, Architecture and the City* (London: Academy Editions and Architectural Design, 1983): pp. 178-9.

Ramps, as discussed above, emphasize and render visible the kinesthetics of generic motion as induced by buildings: displays of rhythm and speed, sensations of mass and weight, coordination of proportion and choreography of body-parts. A linear ramp would certainly bring such sensations to the fore; yet it establishes a uniform speed and a homogenous rhythm, with a regularized exertion of weight – a repetitive choreography which tends towards redundancy, and sinks into the oblivion of the subconscious soon after its initiation [see figures 9.14a and 9.14b for a simulation of ARU's ramp as a linear crowd-sorter]. Following Meyerhold, a linear ramp would still generate a spatial definition forged from the trace-forms of moving bodies arrayed one after the other – albeit repetitively and homogeneously. However, this spatial articulation would forgo another important ingredient: shifting attention. Arrayed repetitively and redundantly, the implied vectors forged of rhythmic movement would tend to form 'backgrounds', thereby negating what the avant-garde desired to accomplish. In fact, such homogenous rhythms would contradict Meyerhold's own original conception of this species of space. Instead of repetitive patterns Meyerhold's space is constituted by movement vectors, pulsating across an ensemble of performers; the movement ripples across the concerted group of performers [see figure 5.7a, for a diagrammatic elaboration on a scene from Meyerhold's *Death of Tarelkin*, 1922; see also figures 5.6, 5.7b and 5.10 for more examples from Meyerhold's theatre].

What a simple curvilinear ramp begins to conjure is just such a complex rhythm. Ascending or descending along the curved surface, the individual body does not settle into a repeatable rhythm of movement, since the body's angle of inclination and gravitational pull change from one step to another. Here, with the ground-surface of contact changing according to a compound formula, the sensation of weight is far more alert - even positively cognizant. Movement, up or down the incline, would require an attention vigilant to its surroundings (whether to the physical tilt and/or the surrounding bodies) for the individual body to manage its bearings. The body is engaged as an active, alert and conscious agent. This also suggests that the body's movements – the restrained strides feeling for the ground and the subtle gesticulations avoiding collision with others – are aimed away from the body towards elements in space. As feelers sensing the

world around and subtly shaping the body towards and around it, such movements are directional and spatial in kind - what Laban's Effort-Shape theory would classify somewhere between *reach space* and *shaping*[283], as emphatically *spatial movements*.

With each individual body thus engaged, the basic rhythmic grain of movement built up for the whole column of marchers is forged of such reaching and shaping. For any given moment, the overall rhythm consists, not of repetitive trace-rhythms, but of a concerted diachrony of movements not unlike what Meyerhold sought to generate through Biomechanics-based exercises and performances. Out of the individual's rhythms an overall choreography is spun to be glimpsed rippling across the crowd from one end to another [revisit figure 9.14a and compare to figure 9.13]. One movement follows another in space and time. What needs to be noted here before developing the argument further is how such concerted diachronic rhythm may be *visualized* and interpreted – aside from being experienced. The ripple of postures and gestures across the descending or ascending column amounts to a display of characters – as if in a demonstration of notation. What is significant here is that such a display, rather than arrest attention on any individual body (either as a center or as typical of the overall), would array or relay attention across the whole group. Instigating this diachronic choreography and its associated attention-shifting is one key relatively simple formal strategy; the ramp is only slightly morphed from the normative: a curve replaces the line. But what happens in more complex manipulations? Careful scrutiny of ARU's available drawing repertoire has so far revealed no similar strategies elsewhere in their *Palace of Soviets* submission; yet the published collection of drawings disclose little about the interior spaces of the Mass Hall and the Small Auditorium. Future archival research may expose further moves of similar kinds. On the other hand, one has to note that ARU's submission came as part of the contest's first and preliminary phase. In other words, what ARU submitted should be seen as a statement of intent rather than a finalized scheme. These principles of design strategies could have been carried to more complex formulations in later phases.

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[283] Cecily Dell, *A Primer for Movement Description Using Effort-Shape and Supplementary Concepts (*New York: Dance Notation Bureau Press, Center for Movement Research and Analysis, 1977): pp.54-64.

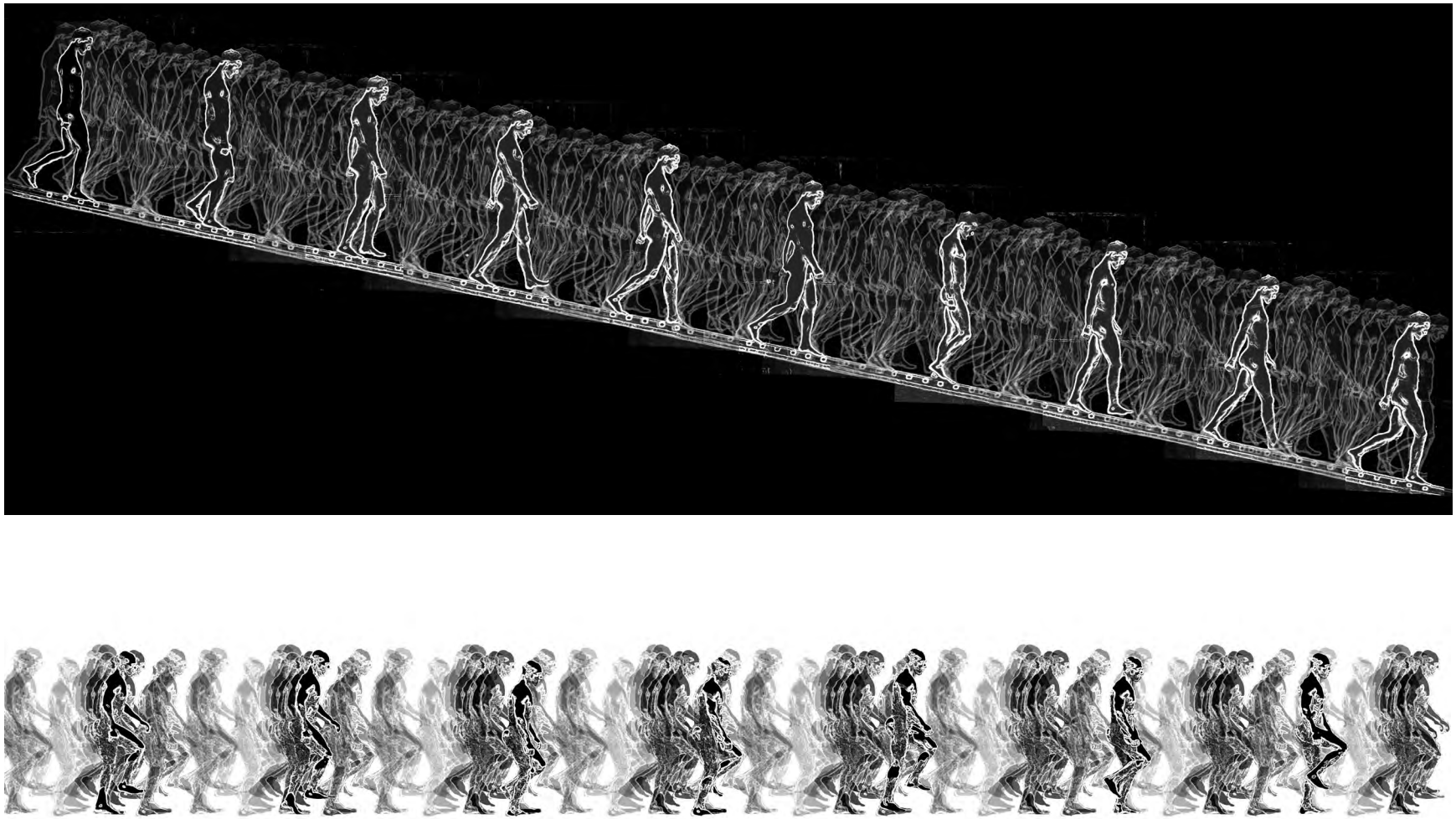

Figure 9.13 Mapping 'natural movment': *below* walking on a flat surface [based on E.J. Marey's Chronophotography] ; *above* down a linear ramp [based on Muybridge's *Photographic Investigations*]

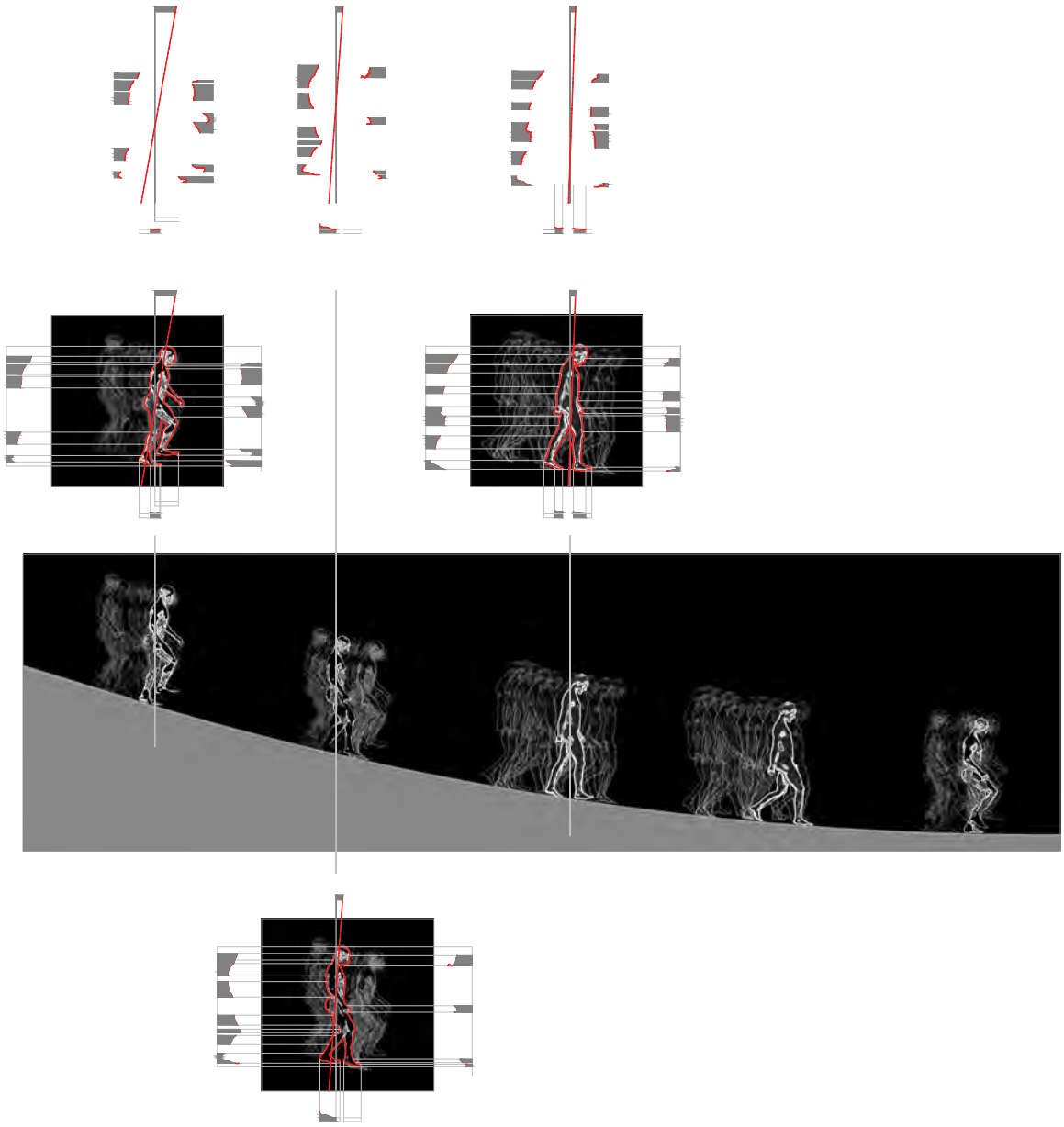

Figure 9.14a Mapping of approximate bodily rhythms for marchers down a hypothetical curved ramp. Each constellation of rhythms is a single body taking one step.

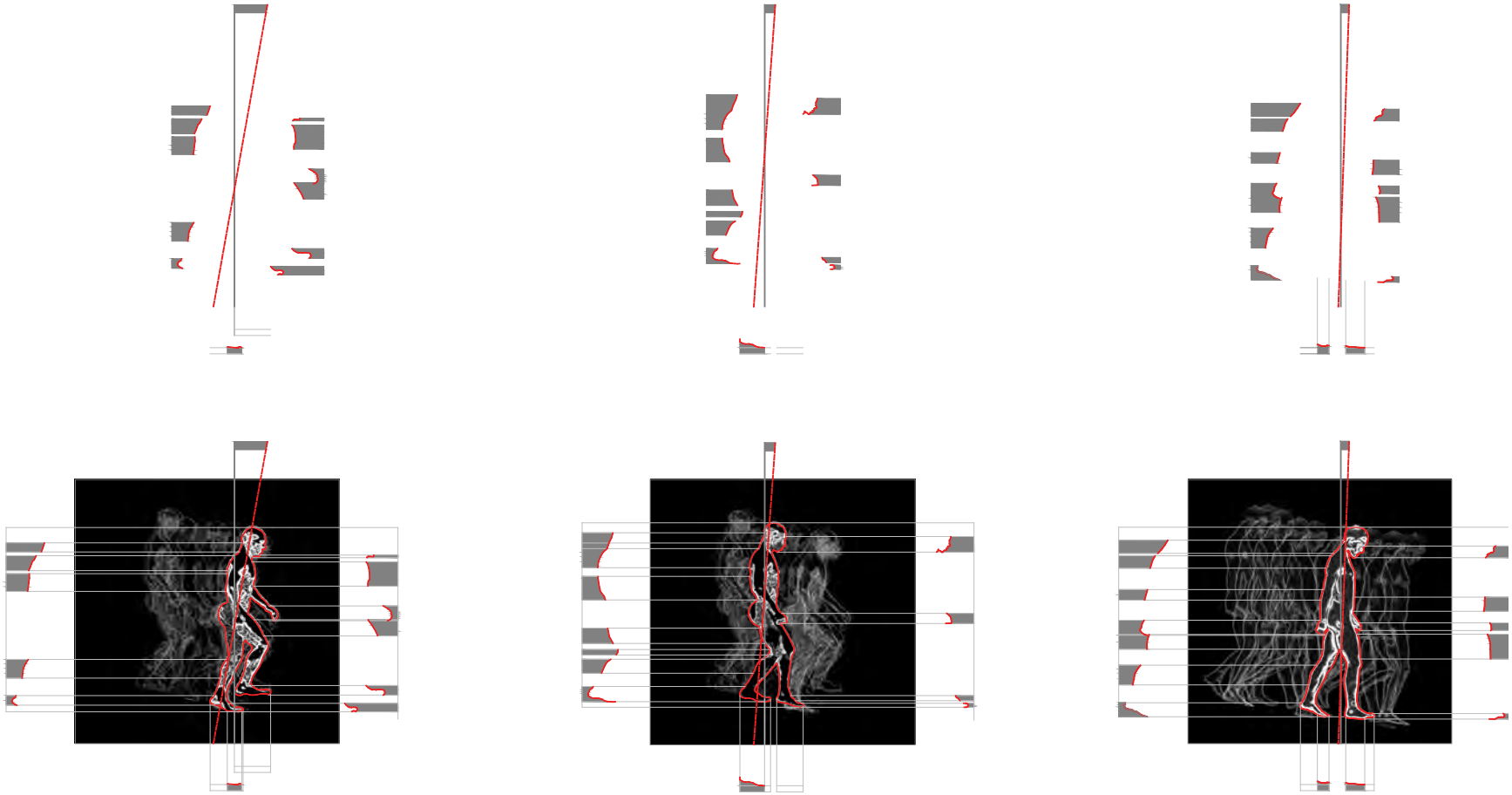

Figure 9.14b Closeup on body-rhythms for marchers down a hypothetical curved ramp. The notation captures the slippage between the single body surfaces; a finer grain of fragmented postures emerges.

However, other Rationalist entries to the first competition phase do exhibit such design moves, in even more complex, more emphatic and more pervasive terms. If ARU applied this choreographic device locally, Nicolai Ladosvki's submission implements it as a pervasive strategy. Ladovski manipulates the ground plane to effect compound forms varying in complexity from a single move deforming an individual building component uni-dimensionally (not unlike ARU's ramp), to far-reaching moves morphing several components together across the spatial system. Additionally, Ladovski's moves range from subtle, barely-noticeable undulations of the ground-plane, to broad sweeps across the Mass Hall. Let's examine Ladovski's entry more closely [see figures 9.15a and 9.15b].

Besides the elevation change for which it is employed, Ladovski's ascending entry double-ramps by which the parade accesses the Mass Hall, also swerve in a large, planimetric circle [figure 9.15a, *top left*]. As marchers climb, they – simultaneously and continuously - swerve to the left. In principle, the effect would not be dissimilar to ARU's ramps: two formal manipulations effect the basic rudimentary choreography of concerted diachronic rhythms. The angle of 'swerve' which each curved ramp forces the body into seems significant enough to generate alert, self-conscious movement. But that is not all. Along its extended curvilinear distance, the double-ramps split into two parallel surfaces, one advancing at a steeper gradient than the other. If turning angle remains constant, effort-exertion in one ramp departs from the other; the choreography of concerted diachrony departs from a uniform rhythm. As the two ramps break into the Mass Hall they diverge even further from each other, apparently leveling into flat planes, one above the other. Another manipulation of the ground-plane in Ladovski's scheme offers insight into how this strategy may yield richer formal and spatial design moves. Attached to the skin of his proposed dome, are a series of eight ramped walkways encircling the Mass Hall space [figures figures 9.15a and 9.15b]. With inclines following the massive dome's tilt, and geometrically organized by its skewed axis (about 12 degrees from the vertical axis), the ramped walkways enforce the general sensation of the space as one large tilted mass and angled volume. Few components in this vast expanse (some 540 ft. or 180 meters in diameter) are planar. As Ladovski's section shows [figure 9.15a, *top-right and cross-section below*], the tilt overwhelms

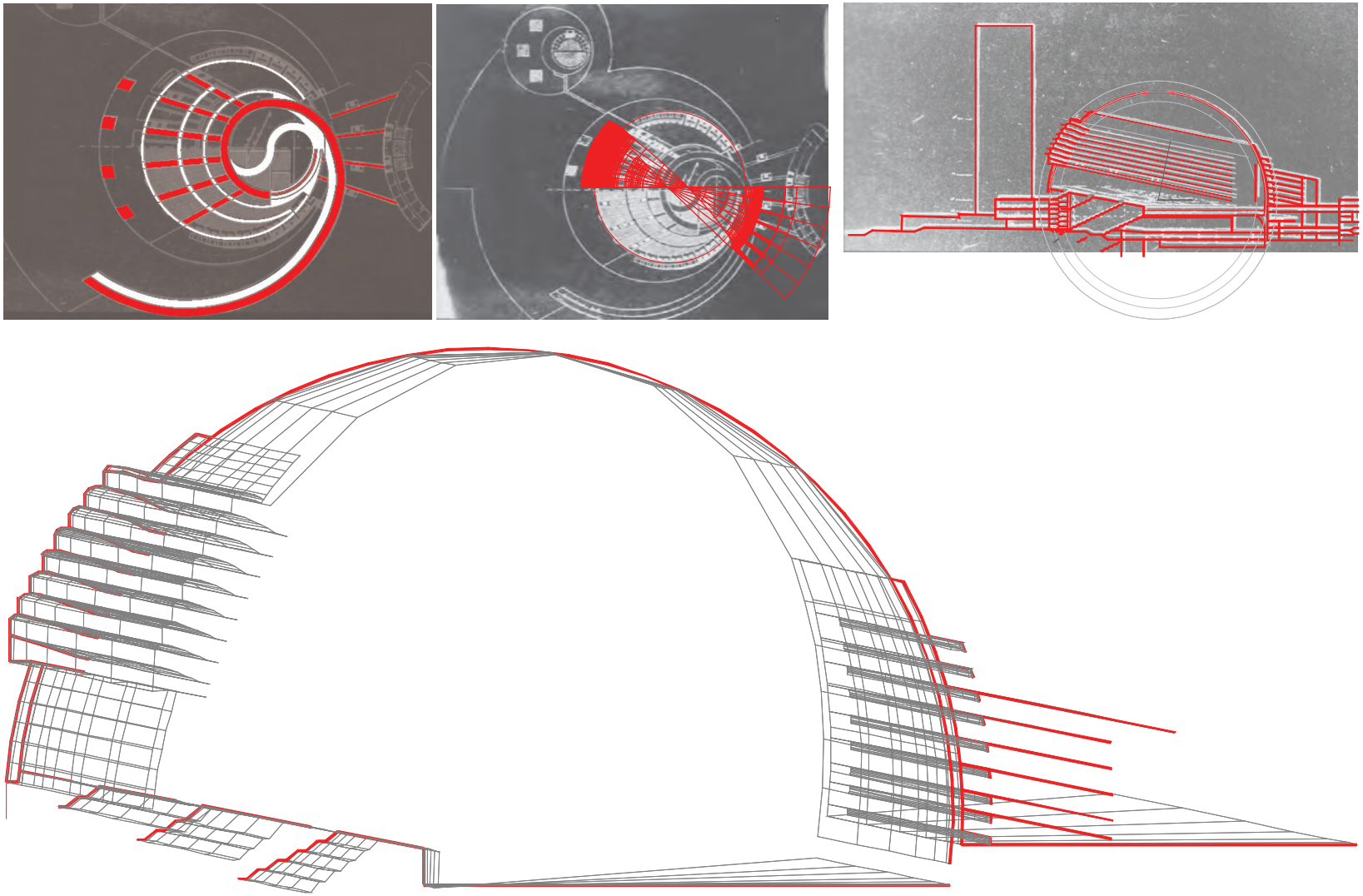

Figure 9.15a Three-dimensional cross-section of Nicolai Ladovski's Mass Hall (*Palace of Soviets* Phase I competition entry), showing the curved ground surfaces and the overall tilt of the mass.

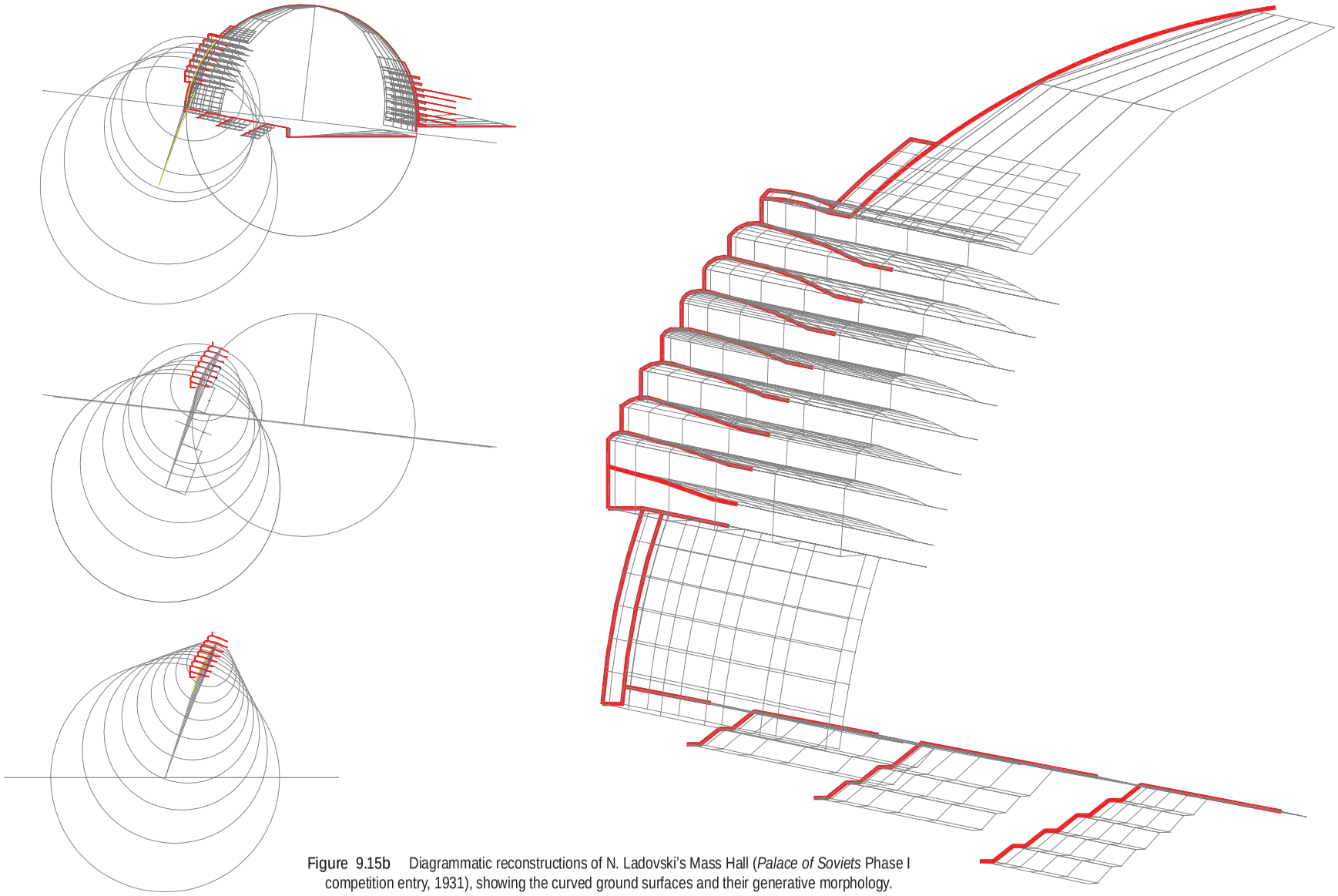

Figure 9.15b Diagrammatic reconstructions of N. Ladovski's Mass Hall (*Palace of Soviets* Phase I competition entry, 1931), showing the curved ground surfaces and their generative morphology.

not only as a sensation, but also as a theme. Not only would one 'feel' a crushing dislocation of weight resulting from the dome's tilted axis, but also because most flooring expanses are themselves tilted and thereby visually emphatic from any standpoint within the spatial volume.

Ladovski employed this strategy of tilting the immense mass and interior volume for the design of mass halls prior to the *Palace of Soviets*. Responding to the design problem of a *House of Congresses of the USSR*, students in his 1928 studio at VkHUTEIN generated variations on this strategy [see figures 9.16a and 9.16b]. In particular, Smolenskaya's scheme [figure 9.16b] acts as a useful foil to her instructor's later entry to the *Palace of Soviets*. Smolenskaya's kinesthetic language stems from a tension between the overwhelming mass and volume of the oblique cube structure on one hand, and the orthogonal geometry of floors and walkways jutting out of the thickened cube-skin. The kinesthetic sense effected by obliqueness is arrested at the volume's peripheries. If one were to observe the massive tilted space from the side galleries and walkways, one would mark a slight discontinuity – an inside versus outside, a here and there. A similar discontinuity would be noted looking from the volume onto the periphery; a sense of edge emerges. In contrast, in Ladovski's *Palace of Soviets* Mass Hall the galleries conform to the overall tilt; the whole space seems possessed with the same flowing kinesthetics. The arrangement of bodies in Smolenskaya's scheme would suffer an interruption in rhythm between galleries and hall – her 'morphology of floors' permits of no gradient of postures, gestures and gaits. In comparison, Ladovski's scheme allows a continuity of the basic language from hall to tilted galleries – a unity upon which he layers variety. Scrutinizing the galleries as drawn in Ladovski's section, one is struck by the observation that they are not only tilted, but their floors are also molded in curves [for enlarged section through the galleries stack, revisit figure 9.15b]. The curve swells up and away from the hall then curves down again towards the dome's outermost skin. Moreover, the radius of curvature varies from one gallery floor to another. It commences with the sharpest warp on the topmost gallery, gradually flattening as one goes down until the lowest gallery seamlessly adjoins the hall's floor. A straightforward explanation of this morphology is the management of sightlines to and from the stage area. For galleries that double as walkways as well as spectator decks, enabling views from atop

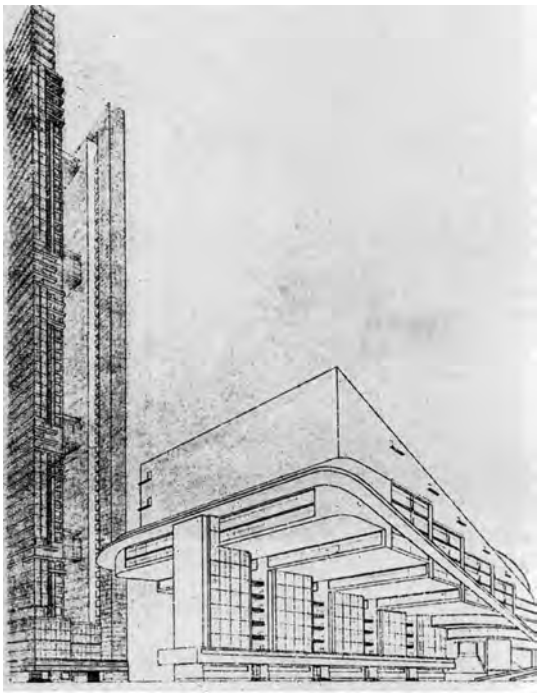

Figure 9.16a Glushchenko (student), Nicolai Ladovski's studio at VKHuTEIN; Design for the *House of Congresses of the USSR*, 1928: Perspective drawing (source: Khan-Magomedov, *Pioneers of Soviet Architecture*, 1987).

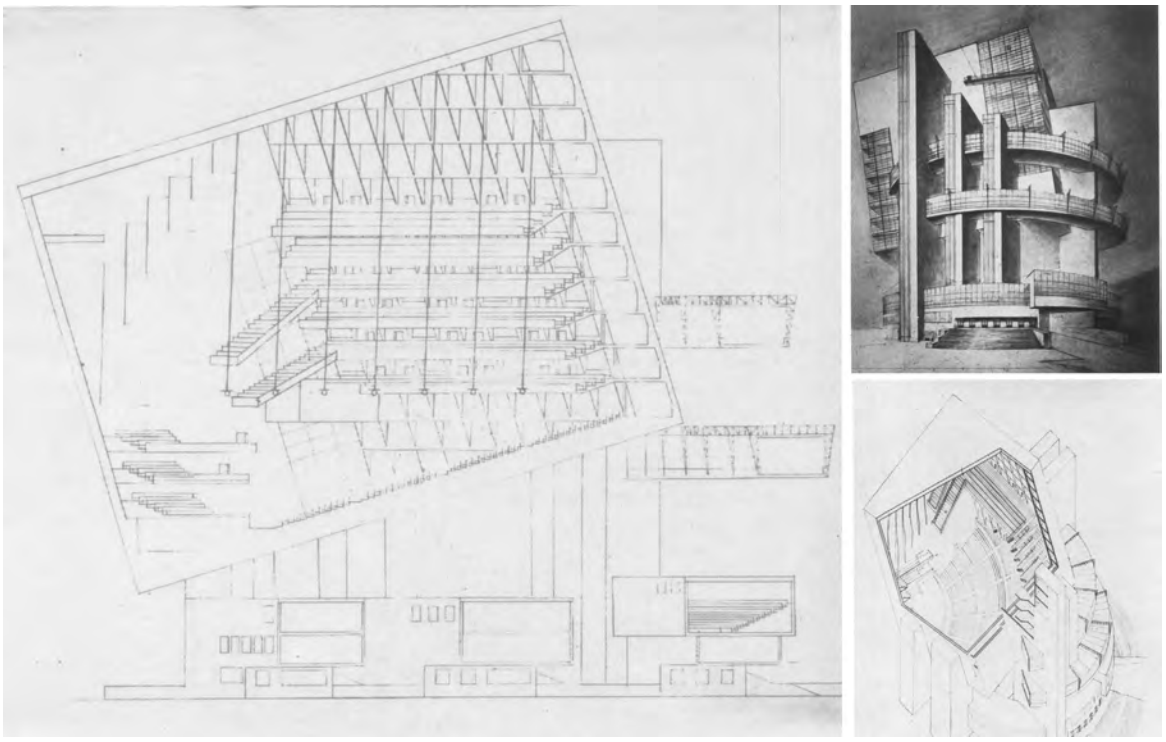

Figure 9.16b Smolenskaya (student), Nicolai Ladovski's studio at VKHuTEIN; Design for the *House of Congresses of the USSR*, 1928: *left* Section; *top-right* Perspective; *lower-right* Sectional-axon [source: Khan-Magomedov, *Pioneers of Soviet Architecture*, 1987].

necessitates tapering the upper decks more than lower ones. An attendant interpretation extends the reading of kinesthetic language pervading the whole space, locally accentuated by moments and events of concerted diachronic rhythms. Ladovski's dual deformation of the individual gallery floors - tilted axis with warped curvature - arrayed vertically to incrementally varying radii from one storey to the next, further explores the possibilities of such rhythms arrayed across space and time. In this arrangement, bodies would be challenged at any given moment to deal with, and adjust to, the gradual undulations of the flooring. Alertness to body disposition and its relation to adjacent bodies, as well as to those tilted to similar inclines across the hall, is heavily evoked.

Even though not marching together in unison, the effect still holds. Ladovski's kinesthetic language is heavily inscribed in the Mass Hall's physical form. The massive tilted dome conjures a field of kinesthetic sensations that is simultaneously crushing and inephemeral. (While it exists independent of the crowd's actual attendance, it still derives from the crowd's logic: the tilt of its seating arrangement – unlike in Le Corbusier's and Iofan's schemes). As noted above, this field sets up an expectation of further kinesthetic play as an integral part of the spatial experience. Whereas ARU's curved ramps were altogether an isolated event amid seemingly negated kinesthetics, Ladovski's is a treatment that is more pervasive as it is cohesive and contiguous.

Political Reformulations: Intersubjectivity as the Problem of Other Bodies

In *Architecture and Disjunction,* as well as in later works, Bernard Tschumi frames the political paradox of architecture, quite appropriately and quite critically, in the language of mainstream modern architecture.[284] Form and program, he maintains, are disjointed from each other in terms of their inner logic; neither form

[284] Bernard Tschumi, *Architecture and Disjunction* (Cambridge MA: MIT Press, c1994). The import of this paradox is not only outlined in the book's first section, "Space", but can be detected throughout the other two sections, "program' and "Disjunction" as well – thereby tracing an historical trajectory through Tschumi's own development.

follows function nor vice versa – the logic of one *does not* and *should not* issue from the other. As long as the two categories remain constructively critical of each other, their dissociation liberates social institutions and spatial practices from reproducing themselves, according to Tschumi; and hence his notion of the *event*. The avant-garde Rationalists offer plausible grounds for a different position on this paradox. Form, or rather the basis of form, does follow from – neither function nor program *per se* – but the qualified kinesthetic rhythms of collective activity as experienced by its performers: what *underlies* function and program. In short, the morphology of space adapts to the intersubjectivity of actions. How so? What justifies such an assertion? And what is the significance of implicating the crowd's intersubjectivity in the political question? Let me articulate responses to these questions building on arguments formulated in this chapter.

To summarize: The chapter's arguments establish, first, that the Soviet avant-garde, whether working on experimental theatrical sets or building institutions, were deeply concerned with employing the crowd mass as the logical beginning of formal and spatial conception, or at least as an important component in legitimizing form and space. In this, they were responding to Meyerhold's kinesthetic conception of space as a provocative offering from revolutionary theatrical performance. Hence, second, the Soviet avant-garde Rationalists attempted to manage the choreography of the crowd by manipulating surfaces in direct contact with the mass of bodies. 'Grounds', in the normative sense of the term but also more broadly construed, assume particular significance in this strategy. A new spatial-formal tactic is deployed: one of 'body and ground' rather than 'eye and wall'. What logically emerges from such manipulations is an aesthetic language – or the foundation for an aesthetic - constructed from the rhythms of bodily interactions between crowd members in the course of movement (marching, walking, leaning, gesturing, 'posturing', … etc.). More specifically, what emerges is an aesthetic language of concerted diachronic rhythms. It is this language which, I claim is constructive of intersubjectivity.

A cinematic metaphor would help illuminate these arguments. In Chapter-8: "Dynamic Crowds, Abstract Machine", the argument deployed the cinematic techniques of the *montage* and the *close-up* to approximate

what imagined visual effect is evoked by the Rationalists' rhythmic configurations in the crowd's movement-field, and their interruptions via the curved ramps. The ramps' visual experience would feature deep immersion, a collage of visual field depths (near and far), as well as phenomena of aspect-dawning and unexpected co-visibilities. Inhabiting the ramps from one end to the other would consist of a narrative of visual encounters – shallow and deep, expected and unanticipated - edited together by each observer. (Such treatments also echo the graphic tensions and disjunctures highlighted in Chapter-7: "To See a Crowd, To See Like a Crowd"). The concerted diachronic rhythms discussed in the present chapter may be compared to yet another cinematic effect: *slow-motion*. This device reveals the minute gestures of interaction and gregariousness – the barely-perceived, low-level grain of socialization which usually fleets by unnoticed. Indeed, slow-motion was the main technique used by ethnographers aiming to capture the subtleties of bodily movements in dance choreography: what they termed Choreometric Profiles. Such profiles are generated by first analyzing filmic documentaries of dance movements performed by troupes from different cultures across the globe. The research intent was to examine dance as the symbolic form of generic everyday movement. Slowing down the sequences allowed researchers to annotate the symbolic language of dance forms. Commenting on this process, Alan Lomax asserts that:

> … paralleling of posture, imitation of gesture, and synchronous or mirror-like behavior… At normal speeds, the subjects may not seem to be actively engaged with each other, yet when narrowly inspected at slow speed [in film], the scene will bloom with covert interchanges between the actors, linking them in a sort of bodily flirtation. Toes waggle up and down in synchrony below the table, as if dancing to the same beat. Insensibly, the participants assume the same posture. Movements beginning on one side of a scene seem to spread across the surface of the communication pool and rock all the individuals to the same rhythm.[285]

The Soviet Rationalist spaces – with their curved grounds and tilted masses - can generate a similar effect [revisit figures 9.15a-b]. Yet rather than slowing down the speed of movement representation (a non-architectural device), Rationalist space arrays an activity's movement through space rather than over time. It unpacks the instant of group activity into an extended duration, thereby amplifying the embedded

[285] Alan Lomax, *Folk Song Style and Culture (*Washington : American Association for the Advancement of Science, 1968): p.?.

socialization within a single activity: gestures, postures and body choreography in reciprocal response to others. In other words, the Rationalist logic spatializes the temporal, and renders the ephemeral visible and observable.

What this analogy to slow-motion serves to illustrate is further evidence of how the extended logic of the Rationalist space promotes co-presence as structural to spatial experience. In the previous chapter, the argument insisted that the synchronic space of gregariousness and assembly [the 'publicness' of public space] adheres to a foundational morphology distinct from that of spaces of individual isolation; the 'architecture of presence' proposes its own *configurational* logic. The present chapter advances this thread further, arguing that the *experience* of such a space is also radically different. To be in a space with others matters fundamentally and substantially in how a spatial logic is constructed, as well as how it is experienced through one's subjectivity.[286] The 'social' is visceral: knowing others by continuous gregariousness – by familiarity of gestures, postures, moves, appearance, dress, and gait – all framed within an aesthetic concordance of sorts. It is intuiting the underpinning gestural and postural choreography of a culture of peoples.

As a logic, Rationalist space activates such gestures and postures of cultural identification, as well as of exchange and communication. It acts as a medium of exposure and exchange. As such, I hypothesize, Rationalist space transposes the discourse on intersubjectivity from its idealist, Fichtean roots – as the problem of other minds or other Egos – to a problem of other bodies. Effectively, it advocates (or assumes) that subjectivity resides not in some inner metaphorical space of the self, where the Ego posits then affirms

[286] One can even advance an argument from the viewpoint of the contingent historical conditions of the time. Conceived in Durkheimian terms, the social condition of organic solidarity is one of fluidity; change and difference characterize a society in the course of transition from the individual similitude of traditional societies into the complementary differences of a modern society. Unlike the similitude of mechanical solidarity, this fluid change cannot be assumed but needs to be observed, experienced and exchanged firsthand to maximize its communicational efficiency and its complimentarity. Hence the importance of co-presence in Rationalist architecture.

itself, but is diffused between self and body, between emotional states and expression, or between 'inside' and 'outside'.[287] Intersubjectivity is mediated by bodies:

> … it is a commonplace that a subject does not have that kind of "external" relation to his or her body that he or she has to things in the world. I do not inhabit my body as I might inhabit a house or a cave; my limbs are not just particularly well-tuned and ever-present levers or tools of which I become aware as mine simply because I find that they are always there where I am, whereas my hammer or spear I can leave lying around. Yet it is hard to say just what this relation is if not such an external one. Now perhaps the internal connection between subjectivity and a linguistically mediated intersubjectivity suggests where to look for an account of this relation: if self-consciousness, mutual knowledge and participation in conventional, in particular, linguistic practices of communication all go together, then perhaps we should see that entity through which they link up with one another, viz., the body, as fundamentally communicative. Perhaps the "internal" relation one has to one's body lies in its being a reserve and medium of signs for communicating one's "mental life" and subjectivity to others, a reserve and medium without which one would not be a subject. Perhaps it is primarily as such a reserve of expressive signs that I am aware of my body and indeed of myself. What I and my body first and foremost are for me is an activity of expressing myself as a self to other selves through a common language. Relatedly, I am only aware of myself, my "inner states" and others to the extent that I express myself and my "inner states" via my body and language to others. I am as thinking - but only because I am as expressing myself to others through the signs which my body and shared language essentially enable and constitute.[288]

It is in this sense that the underlying logic of Rationalist space promotes intersubjectivity - an intersubjectivity constructed from the kinesthetic labor of crowd bodies, and exuding expressive, identifiable, and reciprocal actions (gestures and postures). Through a morphology of shared ground experiences and gregarious configurations, Rationalist space reveals, prompts and even calls forth such a "reserve of expressive signs". It beckons, and traffics in, a currency of identifiable actions, implicit signs and conventionalized codes within a configuration of people. And it is in such a way that an 'emotional economy'

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[287] Dan Breazeale, "Johann Gottlieb Fichte", The Stanford Encyclopedia of Philosophy (Fall 2009 Edition), Edward N. Zalta (ed.), stable URL = http://plato.stanford.edu/archives/fall2009/entries/johann-fichte/ (accessed May 26, 2008). Also consulted is: Paul Edwards' (Editor in Chief), "Fichte, Johann Gottlieb", in *The Encyclopedia of Philosophy*: *Volumes 3&4* (New York: Macmillan Publishing Co, Inc. & The Free Press, 1967): pp.192-6. Critical insights – albeit still from within the idealist tradition – were derived from Allen Wood's "Fichte's Intersubjective I", *Inquiry* (Vol. 49, No.1 February 2006): pp. 62–79. Note that the discussion resorts to ideas of intersubjectivity – from the very idealist tradition which Marx' historic materialism abhorred – rather than attempt to deploy the notion of class consciousness, which would apparently lend a picture more consistent with the Marxist framework itself (in the manner of E.P. Thompson's *Making of the English Working Class*, 1966). The reason lies in that canonical Marxism does not pronounce consciousness as constructive of the relations of production, but rather as constitutive of the Superstructure which emerges from such relations.

[288] Carleton B. Christensen, "Meaning Things and Meaning Others", *Philosophy and Phenomenological Research*, (Vol. 57, No. 3. Sep., 1997): p.521.

may be rationed or rationalized [revisit figures 9.17a and 9.17b]: as (quantifying and qualifying) descriptions of a system of exchange of these externalized, diverse bonds to 'others'. Diagrams in figures 9.14a and 9.14b attempt to graphically establish the basis for such descriptions: to describe a crowd in terms of the externalized bodily communications of its members – specifically through what Rudolph Laban called spatial-movements. This currency of bonds between agents, I insist, comprises the nerve-center of Rationalist space; it is in its evocation that their space obtains, and it is from it that relations to objects or artifacts flow. It is in this way that Rationalist space would work to alleviate alienation from other bodies, as I will argue in the concluding chapter. It promises, as well, to alleviate alienation from 'objects', forms or 'things' within one's field of experience – or artifacts not actively partaking in this gregarious morphology. This then segues into the next set of questions to be discussed in the following chapter: What is the role of the physical building – as a form, mass, volume, shell, or container independent of the individual or crowd – in this process? If the above arguments articulate an intersubjectivity to other bodies (other subjectivities) through the medium of ground morphology, what then of objects which do not partake in such? How does Rationalist space address the problem of the object?

A final note: as an ideology or perhaps as a romantic ideal, the Soviet avant-garde pursued a world of forms and spaces woven whole-cloth from the exertions of labor and spun from the invisible webs of wielded bodily forces. They sought a morphology which precludes masking the forces that brought it into being, but rather exposes their generative processes of creation as its very own syntax. This was where the notion of space proves to be particularly germane. Space generated in the rhythmic interaction of bodies performing work, but also interacting with each other as part of a process of socialization (of class identification and simultaneously an eradication of class), is the mainstay of the relations of production – as will be elaborated in the final concluding chapter. In that, they prophesied Henri Lefebvre's later enunciations on production and space.[289]

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[289] Henri Lefebvre, *The Production of Space*, translated by Donald Nicholson-Smith (Oxford, OX, UK: Cambridge, Mass., USA : Blackwell, 1991): particularly Chapter 2: "Social Space", pp.68-167.

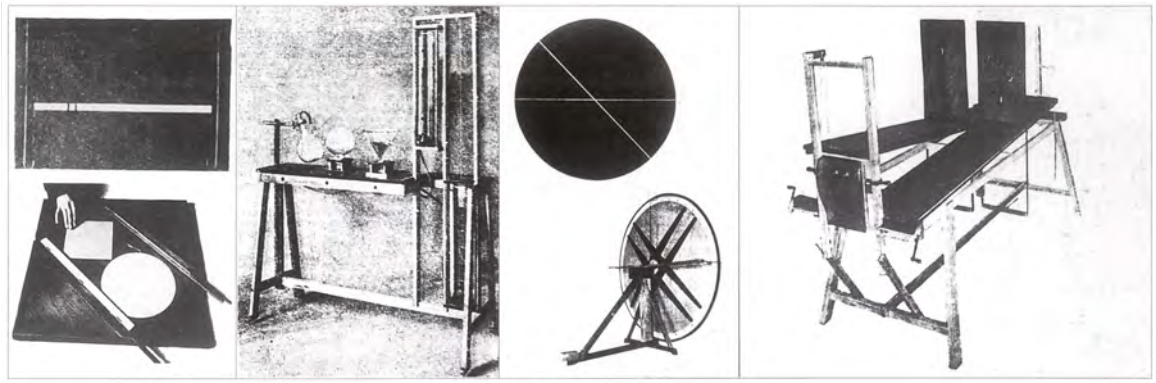

Figure 9.17a Laboratory apparatuses employed by the Soviet Rationalists to compile statistics on the perception of shape, form, volume , ...etc, as means of gauging emotional response to environmental conditions. *From left to right*: Liglazometr and Ploglazometr, Oglazometr, Uglazometr, Prostrometr. (source: Cooke, *Russian Avant-Gardes Theories*, 1983).

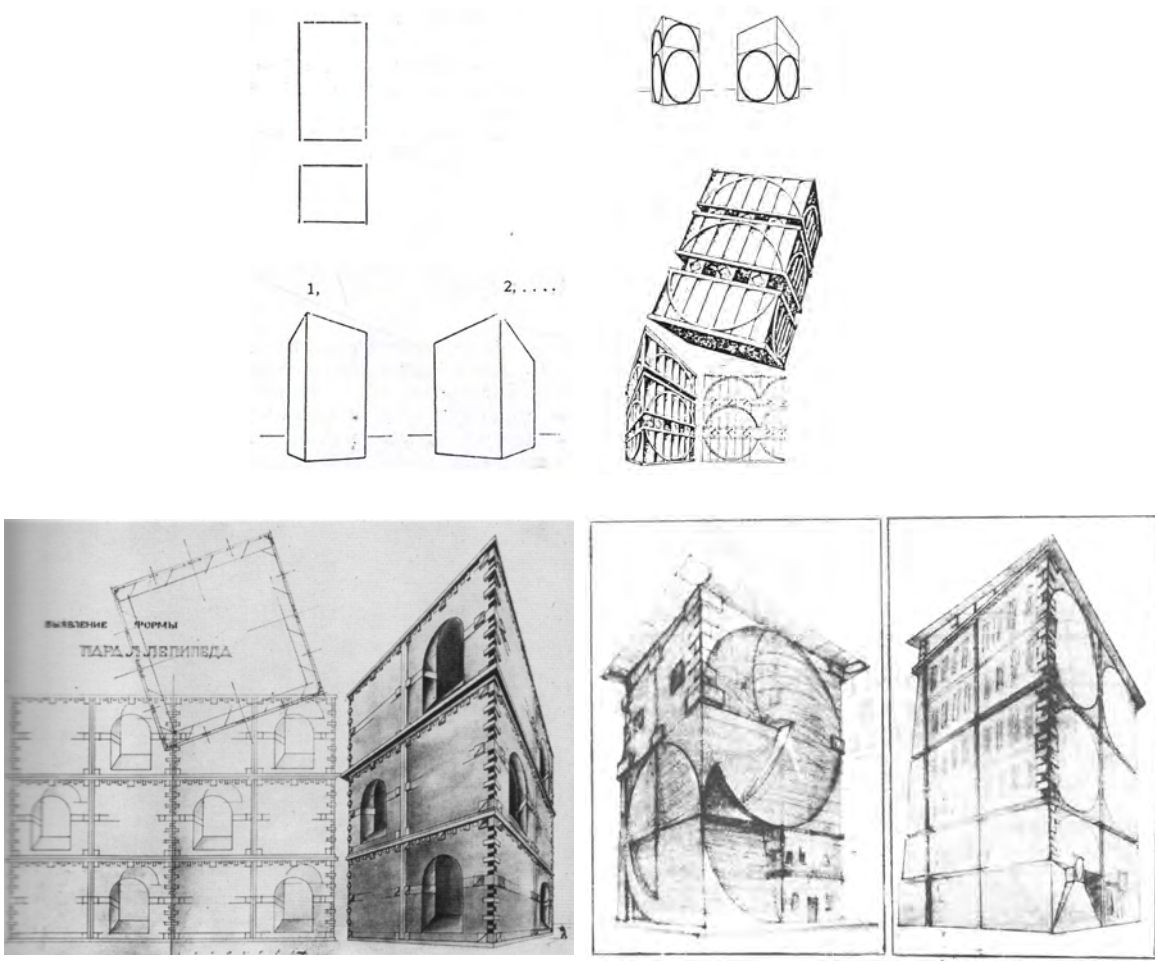

Figure 9.17b An example of Rationalist student exercises: abstract task in the demonstration of certain geometric properties of form, VKhUTEMAS, N. Ladovski's studio (1920). *Top-left*: given assignment; top-right student V. Petrov's response (source: Cooke, *Russian Avant-Gardes Theories*, 1983); *bottom-left* student Turkus' response (source: Khan-Magomedov, *Pioneers of Soviet Architecture*, 1987); *bottom-right* student Traveen's response (source: Khan-Magomedov, *Psikhoanaliticheskii metod*, 1993).

CHAPTER 10

The Problem of the Object, The Materiality of Architecture

Preface

If the spatial concept, discussed in the preceding chapters, is defined through the kinesthetic and informational flows among the member-bodies of a crowd in a synchronic space, thereby marginalizing (even negating) the role of the enveloping boundary in the primary act of spatial-making – what then becomes of the building shell(s): its planes, walls and ceilings; its volumes, masses, surfaces and tectonics? As the shell remains necessary for purposes of shelter, what then motivates its morphological generation in ways compatible with the formal logic of the crowd? Or has defining kinesthetic space independent of its enclosing boundaries rendered the enclosing shell aesthetically redundant, alike in several entries to the *Palace of Soviets* competition? And, more generally, what becomes of other 'objects' and 'things' partaking in the crowd's environment? Does this leave the object, the architectural object as well as other artifacts, beyond the domain of influence of the crowd's logic? Le Corbusier's submission, for example, displays such parallel, incompatible logics (see argument in Chapter-8: "Dynamic Crowds, Abstract Machine"). Another example is Boris Iofan's entry: the language of its building enclosures is one of sculpted masses and carved volumes, autonomous and self-defining irrespective of occupancy or crowd morphology.

Alternatively, and to exercise some healthy self-doubt, one may pose the question: does the enclosing shell constitute an anomaly in the rationale pursued in this dissertation so far? To recall: Fundamental to the

Soviet avant-garde' principle of 'construction' was rejecting any sense of excess - not only material excess, but also pictorial, spatial and even cognitive excesses: or any notion of 'background' and hierarchy of compositional elements. A construction is a work that does not enact hierarchical relations: between foreground and background, between primary and secondary, or between main and marginal. [290] Rather, a painting or a space that negates such hierarchical relations furnishes a pictorial or spatial infrastructure of equivalence across the canvas and/or the space-to-be. So: is the physical form of the building a paradox, in fact, where in the process of conjuring this new space of equitable collectivity, the avant-garde contradict their own logic by inadvertently producing a 'background'?

Addressing the above questions is more productive if one considers their more profound underpinnings. For, besides issues of the independence of the building shell or other objects, an artifact in Rationalist space also forces another set of difficult questions. For one, if previous formulations of 'framework of seeing', the 'matrix of conviviality' and the 'kinesthetic space' addressed, albeit still partially, the intersubjectivity of the mass crowd – the new Soviet person inseparable from a collective – the problem of the shell questions the *nature* of the 'object' within the framework of this novel intersubjectivity, as discussed in Chapter-5, *Legitimacy, Consciousness and the Problem of the Object*. There, the problem of the object demanded a co-generative relationship between the object and the crowd collective. On one hand, what would confer legitimacy on the object is to derive from the aesthetic of the crowd; on the other hand the crowd called on its surrounding objects to support its collective consciousness – i.e. the collective aspired to inscribe its intersubjective consciousness and to command its subjectivities in space. The historical context of the *Palace of Soviets* competition problematized particular parameters and qualities of the object, namely: background, horizon-datum and scale. In parallel, the logic of the problem posed certain object typologies as problemtic: namely, the commodity and the monument. The argument in chapter five also hinted at the

[290] This definition of what constitutes a construction comes from the early debates of the Soviet avant-garde in the Spring of 1921. Significantly, this characterization was Nicolai Ladovski's contribution to the group discussions – a proposition which was adopted unanimously. A brief, concise account of Construction vs. Composition debate is included in Maria Gough's "In the Laboratory of Constructivism: Karl Ioganson's Cold Structures" (*October*, Spring 1998, Issue 84): pp. 91-117. For more, see: Maria Gough. *The Artist as Producer: Russian Constructivism in Revolution* (Berkeley, University of California Press c2005).

nature of collective consciousness desired from the object: a quasi-stable intersubjectivity – one which evoked intersubjectivity not as a finalized inflexible state, but as an ongoing renewable process. In other words, the object was called upon to help inscribe collective consciousness but to still yet to evoke instability within it. In many ways, such questions bear onto the discussion of the 'Socialist object' as posed by Christina Kiaer in her book *Imagine No Possessions*[291]. Yet the aim in this chapter is more focused and less ambitious: the investigation centers on the architectural object – an immobile object conventionally associated with spatial definition at the scales of the building and the urban fabric.[292]

Furthermore, pertinent questions follow here about the *materiality* of architecture in a Rationalist framework. The object of the building shell is what conventionally falls within the categories of architectural work: the physical artifact, its shapes, proportions, surfaces, structure and details, …etc. It is what returns us to the normative 'material' of architecture and, by doing so, involves us in questions of production – unavoidable in context of a Marxist revolution. Yet what one finds in the Rationalist approach is a fundamental questioning of the nature of this normative materiality of architecture. "Space", thus stated Nicolai Ladovski, "… is the fundamental *material* of architecture."[293] What does it mean for space to be the *material* of architecture? If this claim transcends mere word-play and trivial analogy, it should impact our understanding of the nature of objectivity and production. This question of materiality of architecture is not merely a by-product of Rationalist questioning of what it is that architectural space primarily traffics in - if not the physical object itself. What also arise here are issues of mediation. How does space as such – as the material of

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[291] See Christina Kiaer's *Imagine No Possessions: The Socialist Objects of Russian Constructivism* (Cambridge, MA: MIT Press, 2005). Before discussing specific socialist objects in later chapters, Kiaer includes a theoretical discussion on the nature of the Socialist object in her introduction based on the work of the 1920s Soviet art historian and critic Boris Arvatov. My arguments in this chapter are informed by Arvatov's ideas and Kiaer's interpretations, albeit indirectly.

[292] Justification for this delimitation stems from an argument that, with the larger scales of building and city, emerges more pronounced categories of kinesthetics which are particularly relevant to this thesis. Moreover, when speaking of mass crowds, I have yet to develop arguments – consistent with this thesis - to deal with smaller-scale objects whose relation to the body changes drastically, and which deal with a different set of complex issues. If I may venture a speculation, my intuition is that kinesthetic categories do not apply at such a scale as possessed by objects alike cookie packages, discussed by Kiaer. The relation to the body would tend more towards negotiating the nimble prosthetics of this different bandwidth of human experience.

[293] Nicoali Ladovski, quoted in Khan-Magomedov's *Pioneers of Soviet Architecture* (New York: Rizzoli, 1987): p.189; emphasis added.

architecture, however that means in a Rationalist understanding – mediate the relations between subject and object? In what sense is Rationalist space a medium?

In what follows, I will attempt once again to extrude the Rationalists' architectural approach to, and beyond, its logical limits, in order to probe the questions raised above. Along with the new framework of seeing, the formulations of crowd-sorting and collectivity as well as the kinesthetic conception of space, the Rationalists' approaches to problems of objecthood and materiality constitute the fourth component of the architects' responses to the design challenge - as formulated in this thesis. Of all, the following argument is probably the most challenging, but is simultaneously pivotal in articulating one significant contribution of this dissertation. It is here that the multiple threads converge; it is in what follows that I will demonstrate that Rationalist architecture indeed coheres into a logic which potentially alleviates alienation in its different forms – a logic in fact novel to the Marxist canon itself. Indeed, this chapter forwards the assertions that the architectural object may be designed to *complement* the construction of intersubjectivity initiated by the play of ground-and-body, so as to partake in a fuller construction of consciousness.

This chapter acts as a preamble to the final concluding chapter where, from this premise, I will attempt to argue that the logic of Rationalist space recovers human consciousness (and its spatial construction) within the discourse on production.

Hypothesis: the Forces of Agency

> Hundreds of workers moved confidently among the machines, …. There was not a trace of anxiety on their faces, whose only expression was one of quiet concentration. They seem to be inquisitive, learned observers … . It was as if they simply found it interesting to watch how the enormous chunks of metal glided out beneath the transparent dome on moving platforms and fell into the steely embrace of dark monsters, where after a cruel game in which they were cracked open by powerful jaws, mauled by hard, heavy paws, and planed and drilled by sharp, flashing claws, … *To an outsider the threads connecting*

> *the delicate brains of the men with the indestructible organs of the machines were subtle and invisible*.
>
> Leonid, the chief Earthling protagonist in Alexander Bogdanov's *Red Star* (written 1908): describing non-alienated workers and their emotive connection with industrial machinery in a factory environment of the socialist Martian utopia.[294]

Reflections on the 'native' materiality of architecture, from a Rationalist perspective, offer clues to the other concerns of this chapter, and this is where the argument begins. In a statement by Nocolai Ladovski quoted earlier, he states that" 'space and not masonry is the actual material of architecture'[295]. What specifically does he mean by this – and why compare to "masonry" (rather than 'form', for instance, or tectonics)?

That the Rationalists were concerned with space is evident from arguments in prior chapters, which have iteratively framed the Rationalists' contribution as, primarily, acts of forging space. Chapter-8: "Dynamic Crowds, Abstract Machine" claimed that Rationalist entries to the *Palace of Soviets Competition* posit a foundational spatial configuration centered on collectivity and gregariousness – radically distinct from a logic issuing from individual isolation. Such configurations center on, and are constructed from, the mass of crowd bodies: their metric distances, viewpoints, directions, and speeds of movement. Active co-presence, encounter thresholds, interdependency of actions, of co-awareness and of co-visibilities – all become defining categories of such configurations. The argument also hinted at the texture of spatial experience of such configurations as the Rationalists manipulated their potentials: collaged, layered, and even unpredictable - not unlike a montage film sequence. However, it was Chapter-9: "Kinesthetic Space: Intersubjectivity and the Problem of Other Bodies" which elaborated on the qualities of spatial experience. The chapter insisted that the Rationalists' response to the charge of the kinesthetic space spelled out by the arts, especially theater, was to generate an aesthetic experience of arrayed rhythms through what amounts

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[294] From Aleksandr Bogdanov's *Red star: the first Bolshevik utopia,* translated by Charles Rougle (Bloomington: Indiana Univ. Press, c1984): p.64-5; italics added.

[295] Quoted by Catherine Cooke, in her Encyclopedia entry: "Ladovski, Nikolay (Aleksandrovich) " for Grove Art Online. Oxford University Press, http://www.groveart.com/ (accessed May 16, 2006). Note that I have not resorted to analyzing Ladovski's essay from which this statement comes, in order to remain consistent with the method pursued throughout this dissertation. It is the graphic and spatial works, above all, which constitute the primary material if analysis. Textual arguments by architects and artists remain as supplementary evidence as well as prods for further investigation.

to a morphology of ground and bodies. Curved ground planes, tilted masses and spatialized temporalities generate a dynamic field - a space charged with rhythm and with a sense of 'force' that is exerted, or about to be exerted (I will return to this concern with force as a structuring metaphor below).

Indeed, this concern with space as a pivotal design issue alerts us to its centrality in Rationalist philosophy. The focus on space comes with a particular inversion without whose interpretive filter judging the Rationalist project would prove rather misleading. As Chapter-7: "To See a Crowd, To See Like a Crowd" argued - through the examination of Rationalist drawings executed by students at VKhUTEMAS and by practicing architects such as Krinsky and the ARU group – Rationalist drawings were drawings *about* space as well as *of* space. On one hand, they attempt to depict the crowd from 'within' – as implications of such immersive viewpoints on the conventions of architectural drawing. The architectural drawing came to exemplify the experience of being in (crowd) space, rather than a representation of the physical properties of the transformed space or form. Emphasis in their drawing focuses on negotiating the emotive biases which the artifact introduces in its viewer. On the other hand, Rationalist drawings were also more occupied with the space intervening between, and simultaneously connecting, the depicted artifact to the observing agent and vice versa. The space addressed by the drawing comprised the negative-volume and/or relation intervening between observer and artifact on the condition of being charged, biased by the intervening influence of an artifact with emphasized emotive qualities. Rationalist depictions are *of* this emotively-skewed space rather than of anything else [revisit figure 7.22].

It is with such a focus on kinesthetics and the emotive empathy of space that one should approach Ladovski's pronouncement: "… space … is the actual material of architecture". Considered primarily as a strategy transposing design attention from solid to void would assign it due interest, but would hardly do it justice. In fact, conceiving of Rationalist space as a mere inversion of corporeal and spatial forms would scarcely set it apart from concurrent notions of space espoused by Mies van der Rohe, the de Stijl movement, Le Corbusier and others among the modernist avant-garde in Europe; nor would the vision of

space, as the empathetic field-flux generated by human subjectivity and deformed by the object or artifact (especially by its shape and color properties) in the field. That, too, underlines the early Modernist conception of form-giving in architecture. This correlation would render Rationalist space as but a peculiarly Russian version of the European avant-gardist model, developed simultaneously and potentially independently under the isolating conditions of the European blockade on Russia in the early 1920s. Still a valuable contribution indeed; and, if true, one may then proceed to question in what ways was this Russian edition of the early modernist space particularly infused with Russian cultural history. Yet, despite the apparent similarities, Ladovski's vision departs from the early Modernist model in one crucial and significant respect. Rationalist space pronounces more than a reinterpretation of what the *content* of architecture is; as the very *material* of architecture in the Rationalist framework, space evokes connotations of force and labor, as well as transformation and history or time (of the object). While both conceptions operate through evoking *force* as a structuring metaphor (a common motif of early modern art in general), Rationalist spatiality is radically distinct from its counterpart in the European modernists' version. The *kinds* of forces involved, I contend, are radically different. Let me explain.

For early modernist artists in general, the attraction of the force-metaphor was immense, as Charles Altieri has demonstrated.[296] 'Force', defined as the *intentional* exchange of action and re-action, was partly an attempt to assimilate the exhilarating mystique of the new sciences and technologies of the machine. For the Soviet avant-garde, the construct of 'force' came packaged with a number of ideas deeply resonant with their revolutionary zeal. Force implied active intention and agency; expressing force implied the disclosure of a productive agency. "Unlike concepts of form, those of force treat objects as embodying transitions between states, and hence as exemplifying actual struggle. Expression is also resistance …".[297] In a world perceived as a collage of forces, subjects become possessed with the will and agency to act;

[296] Charles Altieri, "The Concept of Force", 1998: p.77-9. Altieri discusses the underpinnings of such Modernist fascination in an exposé of Hegelian philosophy on pages 79-84.
[297] Ibid, p.88

simultaneously, the object world is not immutable, and the (social) system with its formal expression are not absolute.

'Force' in modern European art arises from the compositional relations of shape and color. When two (or more) shapes or colors are juxtaposed or overlapped, tensions arise such that the subject-viewer's field of empathy is deformed into a new compositional equilibrium or rhythm. Even when mass or weight is evoked, what is involved is not actions inflicted by the subject onto the object but the latter's own gravitational tensions[298]. The subject projects his/her empathy as some form of anxiety to compensate for the 'missing' support – to withstand the hovering object. But the *acting, performing* forces are neither re-enactments nor analogies of forces inflicted by human agents; they consist of either gravitational pull or shape and color tensions: forces centered on the object(s) or artifact(s). In contrast, a system of subject-inflicted forces is a primary concern for the Rationalists, I assert[299]. Their space depends on a variety of design moves instigating emotive interactions – as imagined or apparent exchanges of performative forces - between observers-as-agents on the one hand, and artifacts on the other hand, not unlike the non-objective space of a Suprematist painting[300]. Instead of the expression of tensions and compressions acting on, within or between the physical forms of artifacts due to gravitational pull, the impression of forces in a Rationalist space portrays observers acting on artifacts with forces independent of the normative forces of gravity against which such artifacts stand up.

Such assertions dispute the prevailing wisdom on Rationalist space as described by Anatole Senkevitch in his article "Aspects of Spatial Form and Perceptual Psychology in the Doctrine of the Rationalist

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298 Hence, for instance, the obsession with horizontality which occupied early Modernist architects in Europe and the United States (see Mies' Barcelona Pavilion, Frank Lloyd Wright's Falling Water House, Pope-Leighey House – among others. For a more detailed account of horizontality in early modern architecture, see Thomas L. Schumacher's "Horizontality: The Modernist Line" (The *Journal of Architectural Education*, 59:1, 2005).

299 Not to the exclusion of other types of systems – but rather in a clear hierarchy.

300 As discussed by Charles Altieri in "The Concept of Force" (1998): particularly pp.80-6.

Movement".[301] Translating from his native Russian tongue, Senkevitch relays excerpts from primary texts by prominent Rationalists, such as Nikolai Dokuchaev, Vladimir Krinsky and Nicolai Ladovski himself, which paint a picture much closer to the European doctrine. As part of the framework of expressive qualities of forms, Senkevitch explained how Ladovski advanced four categories that "operate simultaneously and interactively within any given form": the *geometrical*, the *physical*, the *mechanical* and the *logical*.[302] Of particular significance to this chapter is the second category of the *physical* which Senkevitch describes as involving "the visual effect of an appearance of weight and mass, or the force of gravity, acting on a form".[303] Later in the article, Senkevitch cites Dokuchaev explaining how the Rationalists address such notions as weight and mass: "we determine weight in architecture to mean the force causing the mass of a form to [appear to] fall downward under the force of gravity."[304] Drawing on examples from students' work in the Rationalists' OBMAS studio (Basic Course) at VKhUTEMAS[305], Senkevitch argued that Rationalist instructors and students essentially subordinated the notion of *mass* to that of *weight*. Rationalist design, Senkevitch inferred, works to render the appearance of mass to – creatively – articulate and resolve the gravitational pull (weight). Design devices prescribed by Dokuchaev and other Rationalist instructors included "surface treatment, surface details and formal allusions".

My contention in this chapter is that such a formulation remains incomplete; it foregoes a crucial dimension of Rationalist spatiality. Based primarily on reading Rationalist drawings – whether from the OBMAS studios or architectural designs by Rationalist architects – I will demonstrate that Rationalist treatment of space and form assigns particular, independent significance to the category of mass. I will argue that the Rationalists focused also, and at times primarily, on the forces which an agent appears to exact on an artifact's mass

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301 Anatole Senkevitch, "Aspects of Spatial Form and Perceptual Psychology in the Doctrine of the Rationalist Movement in Soviet Architecture in the 1920's", (*Via*, n.6 1983): pp.78-115.
302 Ibid, p.94.
303 Ibid
304 Ibid, p.99.
305 The early stronghold of the Rationalists' design philosophy and the Russian counterpart to the Bauhaus' Vorkurs.

rather than merely on the apparent forces of gravitational pull effecting sensations of weight.[306] My argument will demonstrate that the very design devices posited by Dokuchaev – particularly surface treatment at its different scales – by default transpose the problem into the realm of applied force and mass. In other words, I will argue that Rationalist space - this emotively-charged medium *qua* the material of architecture - recasts the problem in terms of a model of active, ongoing acts of (re)production - again, in the emotive sense.

Several implications and yet more questions would entail from the above assertions, if substantiated. One implication is that such acts of production can only be performed by active agents – by subjects emotively engaged with other subjects as well as with the objects or artifacts of production. Rationalist space-as-material enunciates a more active role for the observing-subject, which in the European modernist model is either downplayed or designated as passive. In the European model, the observer initiates an empathetic field to be deformed by shape and color. Another implication is: this space's flux is itself a dynamic flux that vibrates over time with what emotive forces an observer brings to the space, and how s/he continuously responds to other subjects and to interactions with objects. Rationalist space, in other words, is charged, vectorized with reciprocal 'emissions' and incessantly changing; it is continuously 'in-production'.

How does such a process of production occur? And what is being produced – how is space (re)produced – what does it mean for space to be (re)produced? What roles do objects or artifacts play in this process? And what supports such claims? This calls for more elaboration, which would also serve to explain a pivotal difference between the Rationalists and Constructivists. The argument now turns to examining works by Rationalist students and architects.

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[306] This is yet another instance of conducting research through reading the graphic and spatial artifacts themselves rather than interpreting them as representations of a stated philosophy or conceptual framework – a methodology whose primacy this thesis has insisted on maintaining from the outset. Again, this method argues that designers' pictorial and spatial intelligences deliver meanings and insights distinct from verbal pronouncements and textual account. It was perhaps the case for Senkevitch to have interpreted the students' demonstrations and architects' works in light of the texts by Krinsky, Dokuchaev and Ladovski. It may even have been the case for the three Rationalists themselves.

Close re-examination of students' work executed in the OBMAS studios at VKhUTEMAS under the supervision of Ladovski and other leading Rationalists, lend some clues to such questions. Of particular relevance here are the Rationalists' *demonstration of mass and weight* (in its two versions: Abstract Tasks and Functionally-specific Tasks).[307] Komarova's submission displays an elliptical disc split down its center all the way to the ground [figure 10.1]; explorations of sensations of mass and weight occur rather differently across the vertical divide. Each side tells of a different narrative of "surface treatment" to induce a distinct variation on empathetic reactions. One side – the right one - shows deeper carvings whose angular thrusts and darker shadows pronounce a greater sense of bulk. The surface, as a plane, is distinctly deformed. Note how the carvings insinuate acts of angled thrust or chiseling against the surface of the elliptical disc – thrusts followed by sliding. The left side of the divide displays shallower, thinner and more orthogonal carvings which evoke a lighter sense of mass. The three principal carvings seem to radiate from a point under the ground-line; but do not conform to any apparent vertical deformation from gravitational pull. In fact, one can imaginatively reenact an agent situated infront of the center-line of the elliptical disc – an agent who slices the surface of the disc towards him/her. Furthermore, Komarova introduces a very thin plane projecting only slightly from the surface to bridge across the two sides of the elliptical disc, thereby effecting a very tenuous re-connection of the split mass. The effect is a precarious tension between the deep split and the thin plane.

Meanwhile, both investigations across the dividing line relate to the ground via a similar, rather indescript device: a gradual stepping down which vaguely continues the shapes of the circular disc above [figure 10.1]. Modest in height (compared to the forms above it), the two stepped bases seem hardly adequate to bear the visually crushing weights above them. Split as they are from each other, one is hard pressed to find

[307] These came as part of a series of similar demonstrations which covered measures derived from Ladovski's four categories of expressive qualities of form listed above: the *geometrical*, the *physical*, the *mechanical* and the *logical*. Such measures are explored in the following *demonstrations of*: *geometric properties of form; mass and weight; construction; mass and balance; dynamism rhythm correlation and proportion; volume and space in a structure; spatial organization; texture under various conditions of lighting; volume/form; surface; surface and motion; construction and balance; organization of expressive forms in confined space*. Besides the discussions in Senkevitch's article referenced above, "Aspects of Spatial Form and Perceptual Psychology" (1983: pp.94-104), a more comprehensive account is found in S. O. Khan-Magemodov's tome: *Pioneers of Soviet Architecture* (New York: Rizzoli, 1987):pp. 109-27.

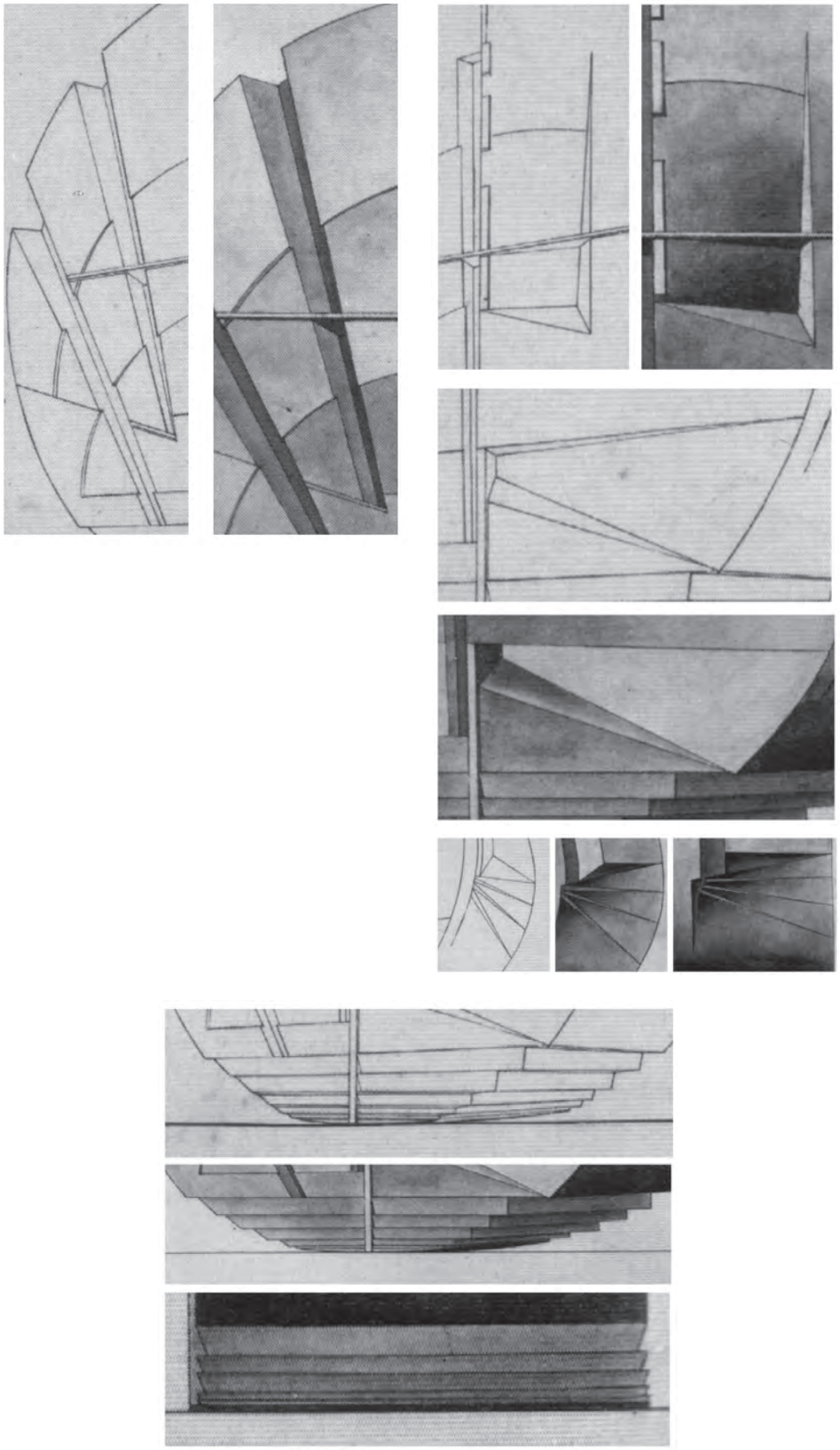


Figure 10.1 Analysis of student Komarova's *Abstract Demonstration of Mass and Weight*, Nicolai Ladovski's Studio, Basic Course at VKhUTEMAS, 1922-23; *above left & right* columns comparison between Komarova's formal strategies for the left and right sides of the mass; *below* Komarova's formal strategy for the base. .

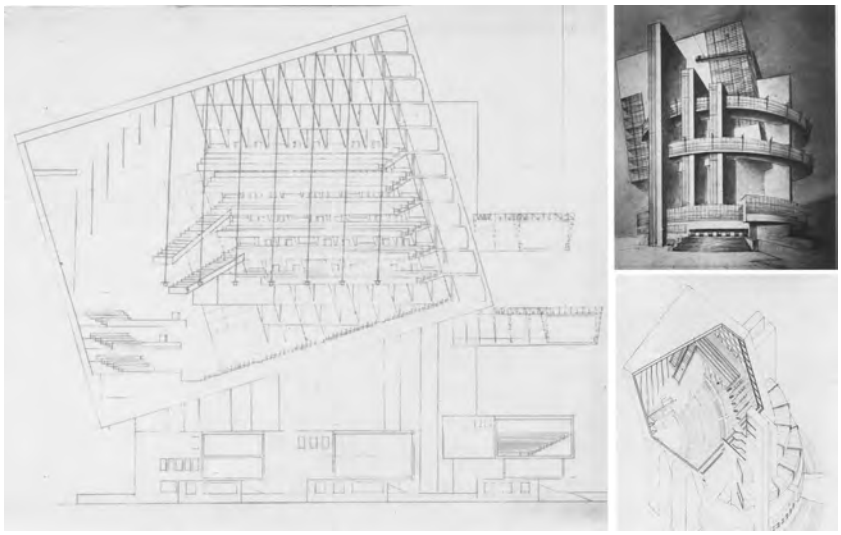
justification for the implied continuation of lines across from one-half base to the other. One even questions how the loading works if the bases are split all the way through. Furthermore, as a tectonic, the bases draw on a formal language alien to the two explorations they portend to uphold, while their rooting into the ground is, at best, dubious. In fact, one's perception of the relation of the artifact (or artifacts, if the vertical split persists all the way in depth) to the ground is vague and indeterminate. While a sense of weight is generated as the two sides of the split elliptical disc seem to fall laterally to the sides in the direction of the carvings, one has to pose the question: is such a sense of weight really the visual emphasis of the apparent forces? Komarova's design energy seems more intensively expended on introducing deformations into the disc-like mass above the stepped bases. Her artifact evokes more readily the apparent language of forces acting on the deformed mass as effected by active agents rather than resolving detached gravitational forces operating infront of a passive observer. Splitting, chiseling, sculpting, carving, slicing and stiffening are the actions that come forth to the mind's eye: actions that relate the artifact to an engaged viewer re-enacting a process of labor or work on the artifact. Performative forces applied laterally and obliquely, not the management of dead weight operating vertically, prevail upon perception. Moreover, the flow of force and energy in Komarova's entry changes formal language at the connection to the ground and becomes de-emphasized: complex carving gives in to simple stepping.

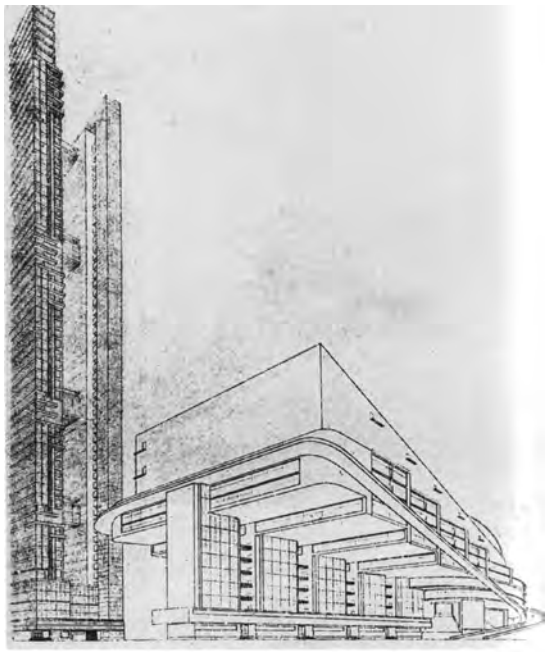
As an *Abstract Task in the Demonstration of Mass and Weight*, Komarova's entry seems to accentuate mass over weight. One gauges one's emotive interaction with her artifact by impressions of the force applied to its deformed bulk. Here, an observer's eyes (and body) re-enact the inflicted forces as well as, simultaneously, re-live the emotive kinesthetics involved. Intense local moments of dynamic action (carving, vertical slicing, horizontal cantilevering, …) are restrained by the overall elliptical shape, as well as by the thin horizontal slab crossing between the two sides of the mass. Multifarious local applications of force are

held in check by global gestures[308]; one alternates, back and forth, between seemingly unrelated local sculpting actions and the global balancing ones.

Furthermore, in building projects executed after VKhUTEMAS students had undergone the abstract exercises hitherto discussed, one still glimpses similar features. In Smolenskaya's and Glushchanko's 1928 proposals for a Design of the House of Congresses of the USSR, executed as part of Ladovski's studio [figure 10.2 *top and middle*], one observes the following: in both submissions, massive structures are elevated above ground, and tilted to angles reflecting the slope of interior seating arrangements. It is not that the two entries disregard the integrity of their physical structures, but that the formal language ordering the elements of the base (the contact to the ground) is significantly different from that composing the kinesthetic flow issuing from the massive tilt. Smolenskaya's collage of geometries and interlocking structural components ends up obscuring the mass' tilt (see perspective, figure 10.2 *top*). (And 'obscured' is how Ladovski's tilted Mass Hall, in his scheme for the *Palace of Soviets*, also interfaces with the ground [figure 10.2 *bottom*]. Its kinesthetic effect, so dramatic on the inside, becomes occluded on the exterior, as the discussion will show below). Qualitatively, all the above projects involve formal moves directed not towards the ground plane, but at the observer. In Smolenskaya's entry, the tension between the massive tilted mass and the immense slicing wall implies the application of force, as well as engages the observer emotively; in Ladovski's *Palace of Soviets*, it is the tilted mass itself. That Rationalist designers, trained in such exercises, tended to 'see' buildings in their design graphics as simultaneously ungrounded and directed at the subject is further demonstrated by Krinski's façade design for a skyscraper [see sketch and model, figure 10.3]. Here, the abrupt horizontal transitions between systems of grids cast the façade as a collage of parts between which the eye struggles to determine the tectonic transmission of weight. Joints – as sites for the transmission of force - are 'omitted' in this tectonic [figure 10.3, *see right-column*]. At ground

[308] It is interesting to note that the same design connotes slightly different emotive kinesthetics between two of the different drawings Komarova submitted. The unconventional half-profile elevation (tone drawing) evokes a sensation of stretching the mass along a horizontal axis, as if it is coming apart at the central vertical seam. On the other hand, the ant-view perspective below denies this and displays a more contained object. I cannot estimate if this follows from a mistake by Komarova in proportioning one of the two drawings, from image-management problems in Khan-Magemedov's book production or a distortion introduced by changing the angle of viewing.





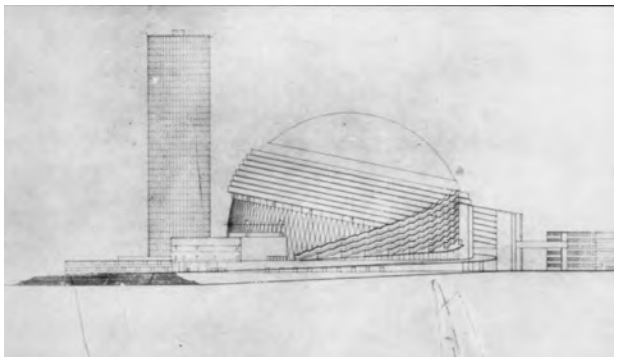


Figure 10.2 *above* Smolenskaya (student), Ladovski's studio at VKHuTEIN - *House of Congresses of the USSR*, 1928;
middle Glushchenko (student), Ladovski's studio at VKHuTEIN - *House of Congresses of the USSR*, 1928;
below Nicolai Ladovski, *Palace of Soviets* Competition entry, Phase I 1931.

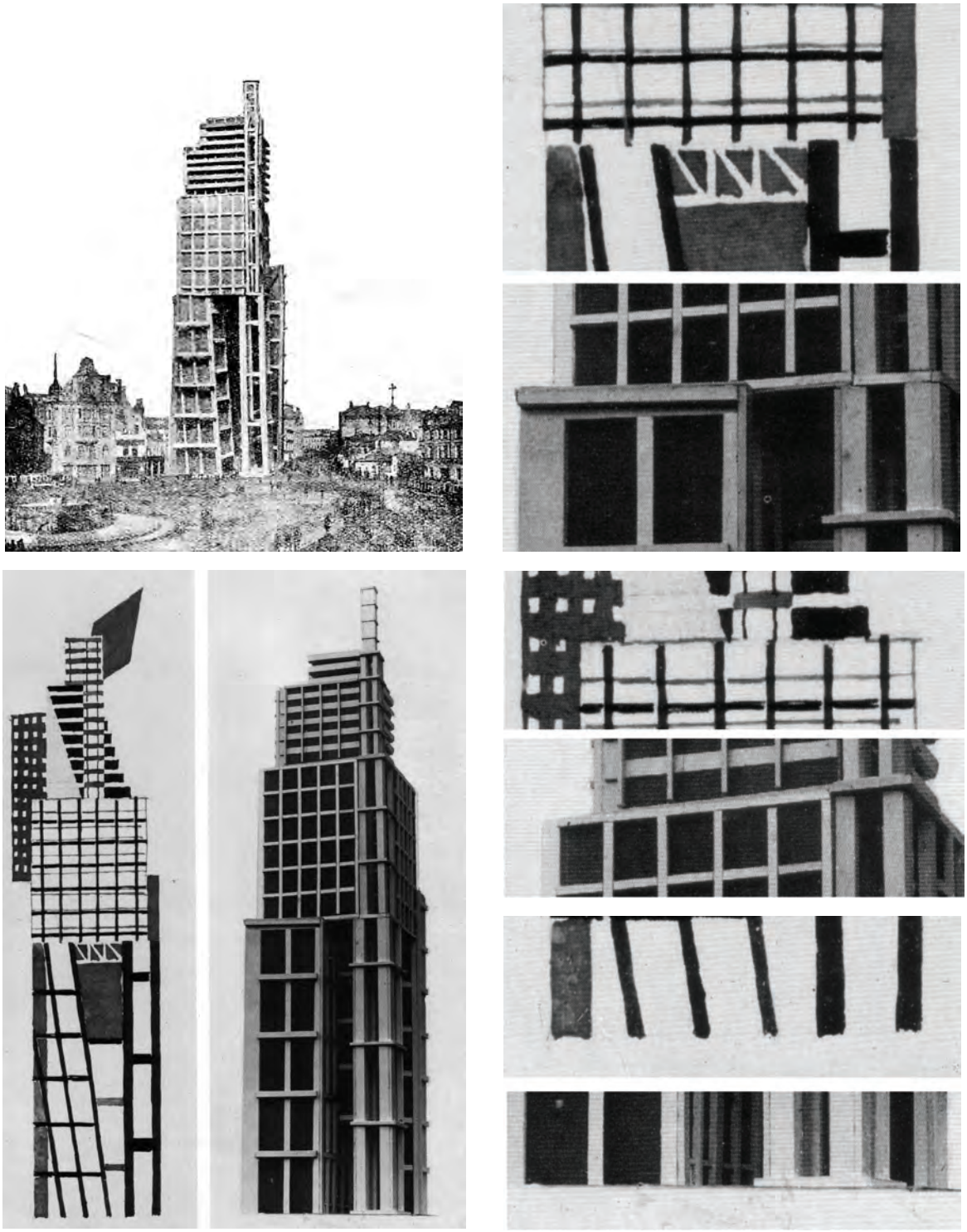


Figure 10.3 Vladimir Krinsky, *Skyscraper Headquarters for the Supreme Soviet of the National Economy* (Vesenkha USSR), Moscow 1923. [source: Khan-Magomedov, *Pioneers of Soviet Architecture*, 1987].
above-left photomontage using model; *lower-left* sketch and model juxtaposed to show transitions between parts in both media; *right-column* zoom-in views at transition joints between parts / grids (again in both media to confirm intentionality).

level, the collage does not acknowledge the ground, but seems to imply continuity into it, or even a hovering independence of it – a very subdued formal relation [figure 10.3, *lower right-column*]. Above, the collage is more explicit on demonstrations of force; the horizontal fracture halfway up [figure 10.3, *middle right-column*] is defined from below by a tilted grid which lends the overall form a sense of instability. The unsteadiness, I contend, speaks of a relation to the observer and not to the grounding of the building.[309]

Reformulation

> This is what Suprematism means to me--the dawn of an era in which the nucleus will move as a single force of anatomized energy and will expand within new, orbiting spatial systems. . . . I think that freedom can be attained only after our ideas about the organization of solids have been completely smashed. . . . There is only energy. Therefore everything is linked and at the same time separate in its own motion. . . . *Expressing this dynamic functioning is the primary purpose of consciousness*. Kasimir Malevich[310]

To sum, Rationalist kinesthetic language seeks to discriminate the artifact from the ground; the artifact *is* grounded physically of course - sometimes too obscurely, but mostly to a different formal language than the kinesthetics which otherwise dominate Rationalist space. The 'application' of force in Rationalist space is less concerned with the artifact's tectonic 'energy' flow to the ground, and more focused on how force engages the (collective) observers' emotive affect. Not only does this contradict common sensibilities on kinesthetics, but also seemingly conflicts with the Rationalists' own commitment to the ground when choreographing crowd movement (as demonstrated in the previous chapter). What this observation really begs is the question of placing the 'object' in the Rationalist framework elaborated in past chapters. Where

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[309] Note: In the above discussions of works sampled from the Rationalist œuvre, the specific 'content' of such works may be the topic for future investigations. In other words, that the 'forces' in Komarova's or Krinski's drawings add up to a specific reading of their individual submissions is beyond the scope of this investigation (as of yet; and would involve more intense archival work). What concerns me here primarily is that the Rationalists' generic pictorial and spatial intelligence evokes a sense of engaged emotive interaction between observer(s) and artifact centered on the forces which construct the form.

[310] Quoted in an epigraph by Charles Altieri in "The Concept of Force as Modernist Response to the Authority of Science" (*MODERNISM/Modernity* 5.2 1998): p.77; italics added. The excerpt is originally from Kasimir Malevich's "Futurism-Suprematism 1921, An Extract," in *Kasimir Malevich 1878-1935,* edited Jeanne D'Anrea, (Los Angeles: Armand Hammer Museum, 1990), 177-78.

does the object, and its attendant exchange of apparent forces, fit within (or against) the configuration of encounter and co-presence, the morphology of ground and body, as well as the array of rhythms which underpin Rationalist space? This seeming paradox may be resolved as a particular formulation of materiality and intersubjectivity. Two important elements mark this re-formulation.

First: As discussed above, the Rationalist kinesthetic space of the crowd is nested within the metaphorical construct of a *force-field*. In a crowd-space conceived as a collage of exchanged forces, the default state of a subject is active engagement (whether conscious or not). Thus, the Rationalist force-field space is 'vectorized' – it is constituted by orientations. "To be oriented …" is, in fact, how Ladovski articulated the "higher technical need" of a person in space.[311] Orientation affords movement – which is the natural state of being: the intent to move, to relate to other points in a spatial system, to instigate interactions and to generate social relations – with other bodies as well as with artifacts or objects. Orientation spurs connection and movement, which in turn establish a foundation for the production of social relations. At a visceral level, this is a space with the potential to constantly prompt its observers' sensuous receptors to *relate* outwards - to extrovert. This recalls one central property of the kinesthetic space conception with which the Soviet avant-garde, drawing on Meyerhold's theatrical Biomechanics, imbibed their choreography of crowds [see Chapter-9: "Kinesthetic Space: Intersubjectivity and the Problem of Other Bodies"]. Both crowd and artifacts surrounding it seem to draw on the same reasoning: to maintain a visceral, sub-conscious and extrovert excitement of the senses among crowd members, which establishes a foundation for gregariousness. Movement induced by manipulations of ground morphology is 'spatial' in type, while the sensory messages from building envelope or shell also induce outward orientation.

Second: If one compares this to the manner in which Rationalist space deals with the choreography of bodies through ground-surface manipulation (as discussed earlier in the previous chapter), one reaches the conclusion that grounding – in its aesthetic *cum* experiential senses - is reserved for the subject(s) and not

[311] Quoted in Khan-Magomedov, *Pioneers of Soviet Architecture* (1987): p.193.

the artifact. Rationalist kinesthetic language works as a set of relations: subjects to subjects, subjects to ground, and subjects to artifact – thus rendering the experience more subjects-centered.[312] With a subject's kinesthetic sensations wired and alert to a ground designed to alert and choreograph, with the subject's surrounding artifacts disconnected from their tectonic grounding but kinesthetically communicative through visual perception, *the subject's sensuous experience becomes the pivot for design language*. Grounded as the subject's body is made to be, adjacent artifacts – in a sense, and in contrast – are ungrounded, 'afloat', and thereby recalling the 'hovering' effect pronounced by ARU's three-dimensional drawing as well as by Suprematist compositions. Ideally, the phenomenal world which the grounded subject of Rationalist space inhabits consists of hovering exertions of force (some more dramatic, others subtle), seen through the thicket of other bodies and experienced from within a field of kinesthetic sensations evoked by such bodies in concert. Forces within this force-field are *reciprocal* between agent-subjects and object-artifacts. The condition of the object is a reciprocal engagement with subjects; the object bears the marks of apparent force-exertion by active agent-subjects, only to evoke empathetic sensations in crowd members in return.

This engages an important issue this chapter attempts to address: the co-generative language of the shell enclosing the synchronic space and, in general, the physical architectural artifact which shelters or juxtaposes the crowd. As framed by the above argument, what makes this aesthetic language generative and involved (i.e. not-background) are its qualities of reciprocity and/or relay: to reciprocate the emotive charge of the mass crowd, and to redirect attention back to its group kinesthetics. As an object, it possesses legitimacy within the Rationalist framework of intersubjectivity as long as the mode through which it negotiates gravitational forces (its demonstration of mass and weight) derives its formal language from the flux of force relations suggested by the specific mass of crowd bodies, as well as relaying attention back to it. Thus, the formal language of the shell or artifact draws from crowd kinesthetics as its thematic – just as the crowd itself draws on it as its own native substance. Variations in the objects' formal languages, I

[312] This observation may not accurately describe all Rationalist artifacts, yet in cases where the artifact seems grounded the issue is not mass and weight – not kinesthetics.

speculate, would result from variations in crowd kinesthetics, and the desire to iteratively relay attention back to it. As Ladovski's designs for the *Palace of Soviets* Mass Hall and his 1928 House of Congresses of the USSR [revisit figure 10.2] demonstrate, the buildings' exteriors as well as interiors are elaborate play on themes of mass and weight. Colossal tilted building masses with dynamic ramps on building exteriors evoke emphatic kinesthetic sensations. Significantly, such moves are usually coupled, in Rationalist designs, with minimal (if any) articulation of building structure. How such masses of building-matter stand up and transmit forces from one part to another and to the ground, remain largely unintelligible. This, I contend, fits within the logic of objectivity argued above. The kinesthetic autonomy of building masses – how they resolve structural forces - is intentionally rendered obscure. Instead, the kinesthetic pronouncement - with its emotive, empathetic power - is aimed at the onlooker(s).

What Ladovski, and the Rationalists in general, achieve from this formulation is a transposition of the sensuous productive forces from the corporeal realm of construction and material-manipulation (as per their contemporaries, the Constructivists), to one which arguably *underlies* such material construction: the emotive space of motives, of observer-engagement, of *agency*. Rationalist architecture assigns production of the conventional artifact of architecture – the physical building – secondary status to the productive role of architectural space as a generator of social relations of production, specifically of the emotive variety. This is best articulated in context of tackling issues of consciousness and alienation in the next chapter. I would like to conclude the present one by making a statement on the architectural object. Based on the above discussions of Rationalist schemes and student exercises, the role of the architectural object in Rationalist discourse becomes to introduce *relay* in the kinesthetic field – to redirect the continuous negotiation of force, attending forms and weights of all kinds, back to the *only* grounded kinesthetics: that of crowd intersubjectivity. Variations of the object-forces act to reinforce subject-subject relations. This, I speculate, throws notions of contextuality in a new light – a contextuality motivated by collective inscription, as the crowd incrementally constructs its consciousness throughout the built environment. And it is in this light that one should construe the Rationalists' laboratory experiments in gauging emotions – as far-fetched as they

may seem. Compiling statistics on the accurate identification of two-dimensional shapes and three-dimensional forms (using apparatus such as the Liglazometr, the Ploglazometr, the Oglazometr, the Uglazometr, and the Prostrometr – see figure 9.17a) as well as the reconstruction of complex shapes, forms, weight and mass in student-exercises at INKhUK[313] [figure 9.17b] - all were attempts to train body and eye to associate with object qualities in agreement, or contradiction, to other bodies and eyes. It was not, I speculate, to identify with otherness through the mediation of the object, but rather to seek, and eventually transform, the object to the emerging aesthetic consensus of the collective.

This chapter commenced with questions about the nature of consciousness constructed by the architectural object in the course of negotiating collectivity. Elaborating on this point is one of the primary tasks of the next and concluding chapter of this dissertation.

[313] Based on: Khan-Magomedov, *Pioneers of Soviet Architecture* (1987); Khan-Magomedov, *Psikhoanaliticheskii metod* (1993); and Cooke, *Russian Avant-Garde Theories* (1983). Anatole Senkevitch's article, "Aspects of Spatial Form and Perceptual Psychology in the Doctrine of the Rationalist Movement in Soviet Architecture in the 1920's" (*Via*, n.6 1983), also furnishes a detailed account of the workings of the Rationalist laboratories and their design exercises.

CHAPTER 11

Gregarious Space: A Theoretical Framework for the Aleatory States of Collective Consciousness

At the Threshold: An Imaginary Narrative[314]

… As the procession approached the meeting point, speeds shifted again, this time reshuffling each company's lines more dramatically than before. At the front-lines, companies faced each other sideways and obliquely; loud greetings and salutations sounded across the grounds, some yelled not without evident sarcasm, about how nice one fur hat was, or how colorful some battalion's new costumes have become. Almost instinctively, one individual from each company departed their respective front-lines to join others at the top of a ramp or the beginning of a lane, following what by then had settled into a habitual pattern. Even the flag-bearing marshals, standing apart from the marching companies to guide their processions, conversed distractedly with the new arrivals rather than gesture traffic instructions wildly as they were wont

[314] This fictitious narrative by this author emulates the reporter's voice, recurrently heard in correspondents' dispatches from the Soviet events of the 1920s and 1930s, such as the *New York Times*, the *Forum*, *The Nation*, The *Chicago Daily Tribune*, *The Christian Science Monitor* and others - some of which are included in Appendix III: "Soviet Political Practices, Period Reports from Western Correspondents". This 'voice' was selected because it maintains the mix of involvement and detachment better suited to a methodological position of the 'pointing critic' addressing a condition of immersion with which empathy is unavoidable. The account also draws on the evidence of Soviet collective behaviors iteratively revisited throughout this research project, including period photography, journalistic accounts and contemporary fiction literature. In particular: Catherine Cooke's *Street Art of the Revolution* (London: Thames and Hudson, 1990); Richard Stites' *Revolutionary Dreams: Utopian Vision and Experimental Life in the Russian Revolution* (Oxford University Press, 1989); James von Geldern's *Bolshevik festivals, 1917-1920* (Berkeley CA: University of California Press, c1993); von Geldern with Stites (editors), *Mass culture in Soviet Russia: Tales, Poems, Songs, Movies, Plays, And Folklore, 1917-1953* (Bloomington: Indiana University Press, c1995); Reed in *Ten Days that Shook the World* (New York: Boni and Liveright, 1919/22); A. Serafimovich's *The Iron Flood,* edited by Ovid Gorchakov (Moscow: Foreign Languages Pub House, 1956); Mikhail A. Sholokhov's *And Quiet Flows the Don,* translated from Russian by Stephen Garry (New York: Vintage Books, 1966/61).

to do. The pattern of movement had become evident to all as they watched the few lines infront of them perform the shuffle; next, the front-line person on the left stood primed to proceed and so on.

Awaiting their turn at the front-line, some shifted body weights rather impatiently as they watched comrades ahead, having reached the top of a ramp or a lane, pause momentarily in bewildered silence with their body postures rather comically suspended – for this brief moment wherein they digested the view of the crowd marching up and down the ramp system to their left and/or right. This, they intuited, was the one moment when one grasped the whole view of the marching crowd. As they moved on, some picked their way cautiously down the curved ramps, picking up their feet too high or stretching them too low as they tried to simultaneously keep step with their row – in what, to onlookers from behind, mimed an arrayed gestural negotiation with thin air. Comrades, friends and chiefs suddenly seemed unfamiliar during this momentary threshold where they grappled for posture. Soon after, loud comments flared again. Comrade X, Chief of Company C, walked like a duck, some yelled across the marching columns, disappearing down their ramp. Others fell respectively silent as Trade-Unionist Y belabored his way up a ramp, thereby exposing his well-hidden limp; a shrapnel wound from the civil-war, they reminded themselves. Fur hats, especially the tall Siberian ones, became the topic again as they disappeared down ramps or bobbed up from them, amidst roaring laughter. Indeed, as marchers picked their ways on ramp or lane, and as columns parted then rejoined, comrades assumed unfamiliar postures to each other. Some exuded a newfound grace, as others suffered unexpected awkwardness. Seen from unfamiliar vantage points – from above their heads as they hurried down a ramp, or from below - others' aspects acquired a fleeting humility or a passing superciliousness. An element of the grotesque further pervaded as some seemed to move slower than usual in order to maintain balance.

A row of marchers locked their arms together to keep step, belaboring to synchronize their marches, while crudely singing The Internationale, growing louder as they approached the lowest point in the ramp. But then their voices quieted down again as they picked their steps at the foot of the ramp and up the other side.

Through the shifting layers of bodies, a soldier in one side lane glimpsed an old friend marching down a ramp on the other side; marchers along the central flat lane relayed his greeting to the far side, not without adding their own punch-lines. Generally, speeds fluctuated rather wildly as jubilant marchers hopped their ways down the ramps at the Eastern end of the system; bodies bobbed more visibly down that stretch as different marchers managed their different body-weights. Speeds stabilized as they adjusted their procession to each other's' speeds by the time their ascents up the ramps began. In one incident, a marcher tripped at the foot of the downward curve. Falling down, his row stalled to await his return to its ranks. In response, the whole column reacted almost intuitively. At the top of the ramp, marchers sounded a signal while slowing down to a near-stop to preempt comrades from entering the ramp behind them. Calls relayed, some concernedly and others sarcastically, down the ramp, as bodily gestures also mimed the deceleration as if the whole group was proceeding in a slow-motion. Ascending the ramp at the other end, comrades looked back to discern the problem, involuntarily slowing down as they gazed questioningly. At the top of the western ramp, one comrade took charge, gesturing with his raised right hand the number 'two'. What this sign meant to others down the column, and whether it meant the same thing to all was initially unclear. Shortly, it became clear that the signal was interpreted by those within the same ramp as a directive to wait for two rhythmic counts – two crowd rhythmic counts sensed by the marchers as they inhabited the ramps. To marchers in the other ramps and alleys, it signaled that the alley to the left was to feed the clusters entering the Mass Hall two consecutive rows, in order to await his ramp to self-regulate. …

Preface: The Task

With this account of an imaginary march through Rationalist space, I wish to recall the questions concerning ARU's ramp system first raised in the opening lines of this thesis. How may one obviate identifying such ramps, the introductory chapter inquired, with dystopias of authoritarian collectives or as disciplinary techniques spawned of Benthamian inspection systems? Arguments in previous chapters have exposed

such questions as more symptomatic of our lingering predisposition towards early Soviet architecture, as well as the making of space more broadly. Entrenched, as we are, in the cultural inertia of ruptured and atomized subjectivity, engrained into us throughout centuries as the natural formative unit of society, addressing collectives and constructing gregarious space presents us with acute, fundamental conundrums. What I wish to do in this final chapter is not merely to qualify Rationalist space as counter-intuitively emancipatory, but rather and more profoundly, I set out to situate such a space as a foundational, generative *principle* within an alternative theoretical framework for the construction of radically-gregarious social collectives. This *Gregarious Space Framework* is the primary contribution of this thesis; articulating its dimensions is what this chapter sets out to accomplish.

In the course of engaging the research questions, previous chapters maneuvered a congested and charged terrain. This closing chapter plays the role of terrain-cartographer; as it retraces together prior arguments, it serves to delineate and interpret the contours of the epistemological terrain thus staked in this research project. While brief summaries will be provided as reminders and anchors to the argument, this chapter is no straightforward summary of contributions aggregated from previous sections. From the grosser grain of 'findings' there emerge new readings which, in fact, proffer the more pertinent contributions of this dissertation. Mapping is an apt metaphor for this concluding chapter and the interpretive reshuffling it involves. Often throughout this research project, argument developments and transitions unfolded through leaps of judgment: the argument was propelled forward by an intuitive (if grounded) insight, and compelling (if not unshakeable) evidence; by an informed appreciation, rather than a detached *quod erat demonstrandum*. Rigorous inspection then followed: dissecting judgment and appreciation from multiple facets, probing limits and seeking falsifications. Constructed (and deconstructed) judgment thus remained the primary vehicle of argument and the native substance of method. To stretch the mapping metaphor, the archipelagic constellation of judgments thus inherited by this chapter, while connected by the research questions and the crowd-design-problem, still want for coherent meaning and emergent synthesis. It is perhaps the inevitable fate of an argument built up from local observations and reasoning to demand some

final form of reckoning, itself once again an act of judgment conjoining the fragments. Repeated practice of such procedures (judgment, inspection, interpretation, ...) establishes the grounds for declaring this a rigorous method.

The broad contours of the emerging map read as follows. What this thesis has unearthed in the work of the Soviet avant-garde, particularly the Soviet Rationalists, is a logic of space-making founded in ideas of gregariousness and the construction of intersubjective states of consciousness alternative to, and radically different from, (then as now) prevailing individualistic conceptions of space and society – and which emerged concurrently in the tribulations of early modernity.[315] Additionally, in the course of unlocking the Rationalist enigma, this thesis evoked and/or adapted a number of spatial constructs, spatial analytical categories, graphic devices and measures which are profoundly more attuned to deal with conditions of gregariousness rather than individuality, and positively predisposed to attending to, and unearthing evenmore, gregarious qualities. On the basis of such findings and as the primary contribution of this research project, I propose what I will call *Gregarious Space*: a theoretical framework of spatial inquiry into collective being, which takes radical gregariousness as the primary, 'natural' condition of society - what Karl Marx called "species-being"[316] - as its starting point and generative principle, and which proffers spatial methodological devices for the description, explanation and interpretation of social collectives. Extending spatial threads across the threshold between architecture on one hand, and a score of other disciplines of thought and practice on the other hand, the proposed framework readily draws on morphological principles and social theory as much as it draws on historical data and philosophical reflections. Furthermore, and as demonstrated in arguments throughout this work, it is particularly amenable to building on design propositions; it is a framework which embodies the claim made earlier that design is generative of its own mode of inquiry as well as its own epistemology. As presented below, the system of thought which

[315] That individualist space had achieved more pervasiveness while Soviet gregariousness did not remains to be explained in another investigation.

[316] Karl Marx, *Writings of the Young Marx on Philosophy and Society*, translated and edited by Loyd Easton and Curt Guddat, referenced and paraphrased in John A. Schumacher's *Human Posture: The Nature of Inquiry* (State University of New York Press, 1989):pp.176-92.

comprises this *Gregarious Space* remains nascent. Above all, this concluding chapter will argue its plausibility, and demonstrate its potential contribution in promoting a mode of inquiry with a particular bent.

To make the case for the above assertions, I advance arguments in four sub-sections. Recalling and distilling findings from previous chapters, the first argument justifies the emergence of such a framework. Here also I will lay out what structures the *Gregarious Space Framework*: its basic morphological principles, its constructs, as well as its basic questions and assertions, arguing that it also offers a method for indepth descriptions of architectural problems. An important objective in any theoretical framework is to discern what pertains to the specific case from what is generalizable. This first section also questions the range of inquiry which the framework affords, arguing that it extends beyond crowd, in the narrow sense of gathering, and into a broader variety of collectives.

The second argument moves beyond the morphological first principles to interpretively read the design propositions put forth by the Rationalists in order to articulate the historical and philosophical thickness of the *Gregarious Space Framework*. I will contend that the Rationalists' spatial principle is not a mere instantiation in a general theory, but a founding spatial principle and a repeatable technique. Thus, probing the Rationalist spatial-principle here helps articulate the larger framework of Gregarious Space itself; this also foretells the nature of the framework as based on the critical appreciation of design propositions. Probing the notion of alienation in Marxist theory as the Rationalists' immediate philosophical context, arguments in this section historicize the Rationalists' spatial-principle, asserting that logically it poses a challenge to Historical Materialism's negation of consciousness in the struggle to transform relations of production. Here, the argument speculates on the nature of the non-commodified, non-monumental architectural object: the conception of the object is dependent on, and secondary to, the relationship between interconnected embodied subjectivities; it mediates social relations *only secondarily*.

For the third argument, and building on Marx, Michel Foucault and John A. Schumacher, I will argue that the Rationalist spatial principle advances the logic of a "loose" aleatory space whose import was, and remains, to challenge and subvert the late eighteenth century spatial principle of Panopticon inspection and disciplinary techniques. As such an antidote to modernity's deep-seated alienations, it promotes gregariousness as a primary or 'natural' state, but in such a way that it sustains a dynamic state of collective consciousness – an ongoing construction of intersubjectivity. The role of the dependent object is to provoke states of quasi-stability within collective consciousness.[317]

Thus, it is the second and third argument that will present the thesis' interpretive reading into the Rationalists' intervention in the crowd design problem. As a final synthesis, the fourth argument concludes the chapter proposing future inquiries for the *Gregarious Space Framework*.

Gregarious Space Framework: Morphological Foundations, Field of Inquiry

Two claims support declaring the emergence of a theoretical framework on gregariousness from the guts of this dissertation: one is the assertion of a persistent historical need; the other is a claim for the development of appropriate categories and tools. First, the persistent need for such a framework in architecture and other spatial disciplines, which was established in the exposé on the historical struggle for self-representation by early modern crowds and collectives (Chapter-2 "The Modern Urban Crowd"), and its philosophical grounding in the rupture of the modern subjectivity accompanying Enlightenment ideas (as discussed in Chapter-5 "The Particulars of the Crowd Design Problem") remains largely unfulfilled. Indeed, Western

[317] Accordingly, I would contend, based on this spatial-principle and its logic of the dependent object, that a collective representation is also conditional for approaching the reality of the phenomenal world distanced in the rupture that attended modern subjectivity. This is, in part, a response to the literary streak which grapples with the criticism of perspectival constructions as the centerpiece of the domain of representation mediating the rupture which accompanied modern subjectivity. See Alberto Perez-Gomez's *Architecture and the Crisis of Modern Science* (Cambridge, Mass.: MIT Press, c1983), and his Architectural Representation and the Perspective Hinge (Cambridge, Mass.: MIT Press, c1997); see also Dalibor Vesely, Architecture in the age of divided representation: the question of creativity in the shadow of production (Cambridge, Mass.: MIT Press, c2004).

literature abounds with such attempts for philosophical systems which call for a reversal of the atomization of modern subjectivity and the re-enactment of a gregarious sociality. To name only a few: the Marxist project starting with Marx himself through a long lineage to Henri Lefebvre; Richard Sennett in anthropology; James Gibson and Erving Goffman in sociology; John A. Schumacher in the history and philosophy of technology; and of course Michel Foucault, ...etc. However, and although in numerous instances of the above works, the quest for sociality extended to include the call for a built environment co-generative of sociality, such attempts have found little traction in the field of architecture theory and far less in architectural practice. Manfredo Tafuri's critiques of the capitalist production in architecture present a pertinent, if exceptional, thread here. One also recalls the early modern work of Hannes Meyer and Ludwig Hilberseimmer[318], as well as – strangely enough – some of Peter Eisenman's invective on Dissimulation.[319] Nevertheless, in such cases of architectural theory, while the problem of ruptured subjectivity was aptly diagnosed, gregariousness was not promoted as its antidote. Even where gregariousness was recognized as an architectural objective, as in the case of the Marxists Meyer and Hilberseimmer, it was not regarded as the very device of transforming the existing cultural system - i.e. that it could act as a generative device and principle. This perhaps goes back to how Marx himself posed the problem disengaging consciousness from the agency of social change – as will be discussed below in more detail.

Furthermore, such attempts did not develop the spatial categories and morphological measures which facilitate further developments and articulation. This is precisely what my second claim portends: that a confluence of principles, constructs, categories, quantifiable measures and graphic mapping procedures, developed in the course of analyzing Soviet architecture in this dissertation, amounts to a critical mass which allows probing and advancing ideas of gregariousness productively. Besides being possessed with a certain penchant for the gregarious, the constructs and techniques proposed in this dissertation also offer a

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[318] See Michael Hays, *Modernism and the Posthumanist subject: the architecture of Hannes Meyer and Ludwig Hilberseimer* (Cambridge, Mass. : MIT Press, c1992.

[319] Later works resuscitating the Soviet architects' work, such as by Christina Lodder on Rodckenko, Christina Kiaer on Rodchenko, Popova and Stepanova and Maria Gough on Ioganson and the Productivists have yet to extend its tentacles outside the field of art history and find application on architecture's 'drawing boards'. In fact, I would claim this dissertation as one of the earliest attempts to negotiate such a translation from art history and into architecture.

rather comprehensive range of spatial descriptions across the phases of environment-production, including: intention and problem formulation across different artforms and disciplines, graphic deliberations, design formulation, built space and inscription. What underpins those two qualities (partiality to gregariousness, and comprehensiveness) is the insistence on space as the universal medium of discourse and the currency of exchange between disparate disciplines. Let me articulate such claims in the course of briefly summarizing three main constructs and their attendant measures, as proffered by this dissertation, to enable probing gregariousness: spatial-construct, the social ontology of drawings, and the *Conviviality Matrix* with its graphic mappings.

Spatial-construct (Chapter-3 "Spatial-Construct: Unpacking Design Problems Spatially") presents a model for the spatial description of design problems, which prefaces any process of design or inscription. Conceptually, *spatial-construct* insists that any problem formulation instantiates in the lived experience of everyday life of a certain collective, as well as in the practice of its different artforms, thereby casting the notion of contextuality in a new light. This was sampled in the Soviet case examined here as, respectively, revolutionary ceremonies and mass events, revolutionary theatrical choreographies and revolutionary art (Constructivism, Suprematism, and propaganda posters). The procedure of analytical formulation of the problem consists of dissecting exemplary instances of the charge observed in the *habitus* as well as in different symbolic artforms, for their conceptions of configurational relations, bodies, and objects, as well as the nascent or crude aesthetic notations implied by movement systems. As employed in this thesis, *spatial-construct* is predisposed towards collective formations by giving prominence to conceptions of the body, as well as by emphasizing notions of agency and authority. Spatial-construct acknowledges the fragile tentativeness of the built environment, inclusively inviting into its conceptual fold the conflicts between different authorities contending over and through space; it provides categories with which to describe their inevitable productive tensions and potential contradictions.

As arguments in Chapter-6: “Premise” insisted, and arguments in chapters seven through ten demonstrated, drawing by its very nature is a socio-political act – even setting aside drawing content momentarily. While primitive surface markings evoke primal survival instincts (after Wolheim), more sophisticated symbolic systems index complex social organizations; in the compositional fabric of their surface-markings, drawings implicate intimations of the nature(s) of subjectivity witnessing (and making) the drawing. Building primarily on Aleksandr Rodchenko’s photography and commercial graphics, El Lisstizky’s *Prouns*, Gustav Klucis’ posters and Karl Ioganson’s *Cold Structures*, graphic analyses in this dissertation put forth that different drawings evoke different kinds of *presence* in their relation to their viewer-*cum*-maker. This presented the opportunity to problematize the *agency of witnessing*, whether individual or collective, as an integral part of graphic analysis, thereby retrieving the drawing - especially the design drawing - from the banal, autonomous instrumentality which posits it as mere representational projection. In other words, emphasizing that design drawings evoke the presence and consciousness of certain (inter)subjectivities has permitted the gregarious to surface in the collective act of witnessing (and making) drawings, while also exemplifying the consciousness evoked by the object(s) which the drawing describes. Especially in Chapter-7: “To See a Crowd, To See Like a Crowd” but also in other chapters, systematic procedures were deployed to such ends: reconstructing, distilling rhythms, filtering, cropping …etc. – a more proactive version of Michael Baxandall’s sociable drawing procedures where the repeatable manipulation of graphics constructs a sociality of critics or of witnesses. Recurrent practice develops co-inquiry and breeds new conventions [revisit figures 7.5, 7.6, 7.14, 7.15 and 7.18].

In terms of drawing *content*, graphic procedures employed in this research project were concerned with mapping the intricate webs of social relations in three related modes spanning across the document and its arguments: a) revealing the invisible socio-political underpinnings of crowd assemblies and flows proposed in design drawings (see graphic arguments in Chapter-8: “Dynamic Crowds, Abstract Machine”); b) enacting conceptual crowd conditions and categories (see chapters five and eight); and c) highlighting the barely-conscious socialities we exercise in everyday life and performative artforms, captured here in period

photography and film (as in chapters four, five and nine). Such crowd morphology mappings were *reconstructive* and/or *generative* in kind: *reconstructive* of spatial-relations proposed (but not necessarily explicitly depicted) by the design content, and *generative* where they propose specific measures for describing the morphologies of collectives formations.

Heeding this segue, I present the third constellation of categories and measures: the *Conviviality Matrix* and the *Conviviality Index* Mappings. Within Chapter 5, the argument on *Crowd Sorting and Organization* proposed the *Conviviality Matrix* to sum up the conceptual categories of a collective's gregarious relationships: co-presence, co-awareness, co-visibility and co-action; as well as categories specific to a political ideology of classless equality: (in)equivalence, interdependency, attention and forms of communication or information transmission. Yet it was up to Chapter-8: "Dynamic Crowds, Abstract Machine" to formulate the morphological principle of the body-field with its attendant quantitative measures, as the configurational foundation within the *Gregarious Space Framework,* and with which to graphically map such conceptual categories. Arguments in that chapter questioned the established individualistic foundations of modern space, exemplified by the notion of the convex-space enclosure (whether demarcated or implied) employed by Space Syntax Theory as a unit of spatial configuration. Instead, the argument proposed the finer-scale, more pliable field around a single crowd-body as the basic constituent [revisit figures 8.17 through 8.20]. As opposed to the stasis which marks a convex enclosure, the body-field fluctuates dynamically as bodies displace or reshuffle; the new principle thus accounts for the mobility of collectives, and promises more fluid descriptions thereof. While a convex space issues from the unhindered visual sweep of an individual observer in control of access, each body-field is negotiated between its central subject as well as its surrounding bodies, and overlaps with other body-fields – i.e. gregariousness is inscribed in its very condition. While a convex space is meant to largely contain and control information within its bounds, the body-field relays information through the very bodies which make its malleable boundaries. While convex enclosures regulate access only in a discrete manner, the more dynamic body-field system additionally manages access through fluctuating densities. Findings in Chapter-8: ""Dynamic

Crowds, Abstract Machine" also resolved that while the individualistic enclosure is largely a space defined by its vertical planes (walls, trellises, implied vertical planes, ...etc.), the body field is highly informed by manipulations of the ground plane and the shared relations thereby generated. The former is thus more heavily dependent on vision for its definition and its navigation, while the latter is more imbued with kinesthetics – it is less dependent on modernity's ocular hegemony, and hence promises to allow the other senses to play more active roles in spatial experience.

Establishing the graphic system of the *Conviviality Index Mapping*, arguments in the same chapter gauged this basic configurational principle in terms of quantifiable parameters: the range of metric distances between bodies or subjects affords a gradient of measures to visually recognize the wide range of communicative bodily lexis, from facial expressions to gestures, all the way to large group movements [figure 8.21]. Anchoring the foundational principle in metric measures and parameters (and not exclusively in configurational relations), augurs a situated character for the framework from its inception. Some such parameters owe their conceptual beginnings to Space Syntax Theory, particularly Generic Functions such as co-presence, co-awareness and co-visibility. *Co-presence* was qualified as the statistical probability of a crowd-individual to discern aspect on the facial expressions or bodily postures and gestures of other crowd members, amongst the flow of information (visual and kinesthetic) which constitutes a crowd.[320] Co-presence thus informs the plastic bubble surrounding a crowd-individual; it is the fluctuations of this fluid component, the Lefebvrian "spatial-body" of a crowd-individual, which captures in spatial terms the monad of rational behavior in crowd conditions, and the unit of information communication. *Co-visibility* addresses properties of mutual seeing within and across a spatial system; as such, it is a generic property which serves to qualify other concepts and measures [figures 8.22 through 8.25]. Fluctuations of fluid bubbles and lines of co-visibility cohere into more complex, self-restricting patterns from which emerge permutations for crowd configurations. Through inductive inferences, such basic parameters may be employed to detect co-

[320] As yet, there is no adequate conceptual grounding with which to address other sensory information significant to crowd formations, such as auditory information flows.

awareness, as well as to gauge other categories of the *Conviviality Matrix* across a crowd's spatial system, as was demonstrated for reconstructions of ARU's and Le Corbusier's design crowds [figures 8.26 through 8.30] . *Co-awareness* speaks to the capacity of this local, basic unit to enable a crowd-individual to formulate global mental representations of the crowd. Additionally, thresholds of *encounter* and negotiation were inventoried to describe the frequency and distribution of encounter in the crowd; *co-action*: the frequency and distribution of instances where the action of sub-groups within the crowd are dependent upon each other; whereas *inequivalence* accounts for the discrepancies in the distribution of visual information throughout a crowd – or, in other words, the discrepancies between co-awareness representations of crowd-individuals across a spatial system. Mapping *inequivalence* in both ARU's and Le Corbusier's submissions yielded readings into locations of visual distinction afforded by each crowd arrangement, identifying whether each scheme induces exchange of such power loci between marchers as further qualification of its collective formation and behavior.

Neither at long distance nor at close range are such communications taken to imply only explicit action signs (e.g. a greeting wave or a bow), but rather are also considered for the subtler choreography of bodies communicating mood and sociability, and which ethnographers of dance have documented as an incessant social practice. Hence, besides configuration, mappings were also concerned with the rhythms activated by bodies at different scales: the *single body* exercising effort and motion, a *group of bodies* exercising effort and motion, rhythms inscribed in the physical armature of a building-space but activated by bodies [see figures 4.9a through 4.11a]. Individual and group body rhythms were pursued using mainly archival photographs from theatrical performances by V.E. Meyerhold's troupes. However, such rhythms were also pursued in close-ups of the scarce depictions of crowds in three-dimensional architectural drawings (perspectives, axonometrics, collages, …etc). Rhythms on an individual body were mostly sought for their conceptual and illustrative impacts – to discern spatial movements from non-spatial ones (according to Rudolph Laban's Effort-Shape Theory), and to determine which body lines divulge more illuminative clues while in motion. Group gestures and movements were the key mappings in this set. Arrays of bodies moving

to some synchronic or diachronic rhythm provided the crucial spatial definitions, as well as were the ultimate test of what rhythms a space generates or reveals. Conceptually, the capacity of the physical properties of a building to render explicit and emphasized the ephemeral, subconscious and barely visible language of intersubjective bodily communications is the critical criterion in a gregarious space, and is what such mappings seek to depict and deploy as basis for design moves.

Such foundational metric parameters and the *Conviviality Index* Mapping lend themselves to future development at least in two respects: a) to include the third-dimension (vertical depth) in mappings, and thence in interpretive readings; and b) to explore measures with which to quantify and thereby map the dynamic bodily surfaces negotiating the formative bubble's pliable, responsive bounds – the basic building block of this gregarious space. Threaded together through three chapters of the dissertation, the necessary foundations for such fine-grained mappings of bodily surfaces were attempted, although they remain admittedly only foundational [see figures 5.6, 5.7a, 5.7b and 5.8 together with figure 8.18 *top right (a)* as well as figures 9.13, 9.14a, 9.14b, and (below) 11.2]. These two additional sets of parameters would furnish more comprehensive as well as more fluid descriptions of the morphology of collective behaviors.

Thus, and to recap this section, the argument posits that the *Gregarious Space Framework* finds its initial justification as well as its beginning conceptual foundations in three basic sets of spatial constructs, pictorial analytics and morphological measures with a particular penchant towards gregariousness. These cover a significant scope of the environment-production process; they establish connections from the Framework to other disciplines and artforms; they engage, indeed redefine, contextuality. The above exposé already divulges some of the methodological inquiries and challenges which this framework confronts.

But what are the more substantive issues of this theoretical framework? What kinds of questions does it raise and address? While its broad concern unambiguously focuses on gregariousness, what are more

specific stakes in its terrain? And, moreover, how does it address the unavoidable ideological charges associated with the historical and logical evolution of gregariousness – some of which were discussed in chapters two, four and five of this dissertation? For a framework which portends to describe, explain (uncover causes and intentions), and interpret (illuminate indepth meaning), its descriptive techniques call for more sharpening as indicated above. Further challenges beset generalizing its applications. To what collective formations and behaviors may this framework apply; is it exclusively bound to crowds, narrowly construed as congregations of bodies undivided by any physical objects (e.g. walls) and differentiated only by densities? Can this theoretical framework extend its descriptive mappings and inquiries to collective formations other than assemblies in synchronic spaces, such as distributed collectives of workers in a factory or an office environment? How can it – if at all - describe collective formations or behaviors not rooted in gregariousness, especially in contemporary space-making which, as arguments in preceding chapters maintained, stem from radically non-gregarious conceptual foundations?

Essentially, such morphological questions challenge the limits of the framework's application and the scope of its inquiry. In response, I suggest three future threads of investigation. The first thread would seek to validate the extent to which contemporary built environments are actually counter-gregarious. Citing dance ethnography studies discussed in Chapter-9: "Kinesthetic Space: Intersubjectivity and the Problem of Other Bodies", the subtle choreography of gregariousness still pervades modern everyday-life, if subtle and subdued; hence mapping this subliminal sphere of consciousness and mapping its moves would constitute a first task. Second, the framework should seek to further qualify the natural movement of groups and collectives, as another significant means of exchange and communication. Gregariousness, as Chapter-8: "Dynamic Crowds, Abstract Machine" and Chapter-9: "Kinesthetic Space: Intersubjectivity and the Problem of Other Bodies" insisted, is a function of movement; or, that movement is our 'natural' state of collective being, as John A. Schumacher put it.[321] In other words, the framework needs to investigate co-presence as

[321] John A. Schumacher casts this natural condition of human movement in many senses, far too many to circumscribe here. See Schumacher, *Human Posture: The Nature of Inquiry* (State University of New York Press, 1989): pp. 161-3, 168, 174-6, 200. My

it occurs diachronically in contacts and exchanges over time, even in spatial systems spawned by non-gregarious configurations. The third thread would further pursue an investigation already started in this thesis under the rubric: the problem of the object. This involves investigating contemporary environments, where extensive barriers of various kinds segregate the gregarious sociality which this framework assumes, following Marx, to be our natural state of "species-being". Contemporary, modern spaces are where the role of the object (and the image) is more pronounced as commodities mediating and deforming social relations. The framework's task would be to examine and classify such object typologies – to qualify such objects, employing mapping techniques which reveal how their formal properties partake in their commodity value.

For all such tasks, the framework would venture into addressing different case studies – to accumulate a database of comparative cases. Yet I have to insist that such an approach, including the three threads and case studies, remains inadequately commensurate with the arguments and findings of this research project. There are yet another set of questions which pertain to the nature of inferences from the constructs and mappings proffered above. How generative are such mappings of 'thick' readings? Can they sustain indepth socio-political explanations and interpretations of collective behaviors? Put differently, are readings of the configurational mappings and pictorial analyses outlined above adequate to generate profound readings of generic collectives, or even the Rationalists' crowds, without the non-derivative conceptions which a spatial history may furnish? This critique recalls the question posed above about the ideological history of gregariousness. Essentially, the dilemma which this nascent *Gregarious Space Framework* encounters in terms of the data it seeks to probe and the phenomena it aims to describe, explain and interpret is that - whether they come as revolutionary crowd events with emergent intelligence or as designed propositions for collective formations - they come deeply contaminated with political ideology; i.e. imbued with non-quantifiable parameters. My point is that the analytical categories and mappings discussed above may serve to establish a necessary foundation for spatially probing phenomena of collective behaviors, whether

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focus here is directed towards the construction of concerted postures as part of this condition of incessant movement – not only as physical movement, but also as communications between dynamic bodies.

emergent or designed, but are insufficient for furnishing indepth explanations and interpretations. For this the framework needs to confront the historical development of the notion of gregariousness – or, more precisely, to draw on the spatial history of gregariousness and its counter-notions: ruptured subjectivity and alienation. Because gregariousness is grounded in historical problems (of other bodies, of the object, of consciousness and representation) which witnessed profound changes, one cannot discount the impact of such history on the logic of space.

This question of a historically transformed spatial logic of gregariousness introduces the next argument, focused on locating what I will call the *Rationalists' spatial principle* within the philosophical system of Marxism. More specifically, the next section aims to articulate the Rationalists' intervention in the historical problem of consciousness as posed by Historical Materialism, the Rationalists' immediate philosophical context. Although the argument will echo discussions on the problem of consciousness raised in previous chapters, it is articulated here in more detail and substance in order to pinpoint more carefully the Rationalists' contribution. This presents an opening to situating the Rationalists' spatial principle against the fabric of modernity's spatial-principles in the following section.

Spatial Principle: Reinstating Consciousness in Historic Materialism

> In the social production of their existence, men inevitably enter into definite relations, which are independent of their will, namely relations of production appropriate to a given stage in the development of their material forces of production. ...The mode of production of material life conditions the general process of social, political and intellectual life. It is not the consciousness of men that determines their existence, but their social existence that determines their consciousness.
> *Karl Marx, A Contribution to the Critique of Political Economy*
>
> Materialism provided an absolutely objective criterion by singling out "production relations" as the structure of society, and by making it possible to apply to these relations that general scientific criterion of recurrence whose applicability to sociology the subjectivists denied. So long as they confined themselves to ideological social relations (i.e., such as, before taking shape, pass through man's consciousness - we are, of course, referring all the time to the consciousness of social relations and no others - they could not observe

> recurrence and regularity in the social phenomena of the various countries, and their science was at best only a description of these phenomena, a collection of raw material. The analysis of material social relations (i.e., of those that take shape without passing through man's consciousness: when exchanging products men enter into production relations without even realising that there is a social relation of production here)-the analysis of material social relations at once made it possible to observe recurrence and regularity and to generalise the systems of the various countries in the single fundamental concept: social formation. It was this generalisation alone that made it possible to proceed from the description of social phenomena (and their evaluation from the standpoint of an ideal) to their strictly scientific analysis, …
> *Vladimir Lenin, What the "Friends of the People" Are and How They Fight the Social-Democrats, 1894*

The two quotations by Marx and Lenin above provide a relevant starting point. The statements make clear the authors' shared stance on Historical Materialism as the foundational philosophy of Socialism. Relations of production are the social relations sustaining the forces of production (the latter constitute the technical facets of production: materials, forms of energy, technology, … etc.), and which enable their performance. Relations of production are the webs of social interconnections in and around the act of making artifacts (to allow oneself a generalization from Marx' *goods and commodities*): relations of laborer to other laborers, relations of laborer to owner (in Capitalism; feudal lords in feudalism, slave-masters in slavery, …etc.), relations of laborer to supervisors generally (managers, master-masons, …etc.), relations of laborer to him/herself, and relations to the object of production itself (the artifact, commodity, …etc.). To simplify a more complex ensemble: together, forces-of-production and relations-of-production constitute the mode-of-production which, as an economic system, underpins and determines all and any of society's activities, according to Marx and Engels. For any society in any historical period, the mode of production is a base from which all social activities are constructed: art, religion, culture …etc.; the reverse is never true, according to Marx' and Engels' scientific socialism.[322] Hence, ideological systems cannot partake in

[322] My account of the strong determinism of the ideological superstructure by the base comes primarily from Karl Marx' famous 1859 "Preface" to *A Contribution to the Critique of Political Economy,* Progress Publishers, Moscow (1977), online at http://www.marxists.org/archive/marx/works/1859/critique-pol-economy/preface.htm (accessed since May 2007). Marx and Engels seem to signal cautionary conditions against simplistic generalizations from this base-superstructure determinism in the *German Ideology* and other works (see Costas Panayotakis, "A Marxist Critique of Marx's Theory of History: Beyond the Dichotomy between Scientific and Critical Marxism", *Sociological Theory*, Vol. 22, No. 1(Mar., 2004), pp. 123-139). However, the strong determinism remains theoretically unchanged by these remarks as attested by Lenin's derivative statement quoted in the epigraph above, from "*What the "Friends of the People" Are and How They Fight the Social-Democrats", in Lenin Collected Works*, Progress Publishers, Moscow, Volume 1 *(1894)*: pp.129-332; online at http://www.marxists.org/archive/lenin/works/1894/friends/index.htm ((accessed since May 2007). In fact, the debates over this point simmer till the present (see generalizations from this base-superstructure

constructing modes and relations of production; for Marx and Lenin: whatever traverses the unique, subjective terrain of human consciousness remains removed from the relations of production - even in formulations of the desired socialist society. Note that, in the epigraph quotations, Marx' and Lenin's restrictions on consciousness – taken together - are both ontological and epistemological; society's economic base performs objectively (irrespective of human knowledge and emotion), and hence knowledge of such a base should admit of no subjective qualities because they cannot be measured or described objectively. To that end: recurrence or repeatability should be established in social relations and knowledge of the social order, in order for both the social scientist and the revolutionary to be able to accurately gauge desired societal transformation. Marx and Lenin argue: hence human consciousness, feelings, culture and, generally, acts of judgment – fickle, undependable and lacking in rigor - must be divorced from the conception of the relations of production. Instead, ideological acts of judgment belong to the superstructure forged out of the objective forces and relations of production.

Moreover, in a Capitalist system - marked particularly by private ownership - such relations of production obtain in an alienating or estranging form. The means and forces of production are owned by a single entity (or class), the Capitalist, who accumulates profits, and hence more wealth (capital), by devaluing labor. The real value of workers' labor (what they *add* to the material during the act of making) is removed from both monetary compensation and individual self-appreciation. Instead, workers are paid for their labor-power; that is, what enables workers to reproduce their labor time and effort: food, shelter and family, but not advance beyond that. Quantified in man-hours, and de-skilled through mechanization or the reduction of skills into atomistic repeated gestures (reductive Taylorism), labor-power heeds little attention to a worker's aptitudes and dexterity (only as necessary to maintain the cycles of reproduction), and extends no appreciation to the empathetic relation a worker develops with the artifact being made, or to the creative aspects of the act itself – to his/her own humanness. The individual lacks free will in such a system; in fact,

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determinism in the *German Ideology* and other works; see a discussion of Scientific Marxism versus Critical Marxism in Panayotakis' "A Marxist Critique" (2004):pp.123-139.

the individual is stripped of his/her agency and will in the process itself. The alienation is thus twofold: an alienation from the means of production since the worker on such meager wages would never accumulate enough to actually break out of the cycle; and an alienation from one's creative potential to produce (rather than reproduce) new ideas and own skills – to find one's humanness (in Marx' still pseudo-humanist framework).

Marx' and Engels' account of the inevitable transition from a Capitalist system into a Socialist one is rather self-contradictory, suffering from the problems of assigning agency which plague Structuralist theories generally. Their conception of the process of transcending the Capitalist modes of production maintains its detachment from human consciousness, and hence human agency. "One cannot judge this period of transformation by its consciousness", Marx posits; yet how would class struggle take place without such awareness remains conceptually unclear. Also ambiguous is the agency of overcoming alienation. Overcoming Capitalist relations of production towards a Socialist, classless society consists of monetarily compensating for labor rather than merely labor-power and the reproduction of labor. But, as such, they remain exclusively materialist in nature, since they do not extend to address the second aspect of alienation – that within the production process itself. Instead, it seems that alleviating the second alienation is to take place at the level of ideology and superstructure in an art for and by the proletariat away from sites of production. In this scenario, workers would emerge from their workshops and factories, alienated from their humaneness by the technical forces of production, and indulge in the generation of artforms in which they relocate such humaneness. And indeed, this was what dominated Soviet post-revolutionary practices. One should note, with some perplexity, the irony which plagues Marx' vagueness on issues of agency and the consciousness of transcending alienation, especially after reviewing the young Marx' acute awareness of the loss of "species-being" which accompanied modern manufactures. The retrieval of such "social powers" may take place

> [O]nly when the actual, individual man has taken back into himself the abstract citizen and in his everyday life, his individual work, and his individual relationships has become a species-being, only when he has recognized and organized his own powers as social powers so that social force is no longer separated from him as political power, only then is human emancipation complete.[323]

But this contradiction in Marx' own position should alert us to the deep rootedness of the problem and its seeming insurmountable immensity. Here is Young Marx again, almost in the same 'breath', noting the unquestioned certainty with which the individual person, as "the passive and given result of the dissolved society" is regarded (by others and by himself) – almost as a "natural object". I will return to this notion of *certainty* later when comparing states of consciousness suggested by the Rationalists' spatial-principle to prevailing states issuing from modern systems of alienation and inspection – which, at length, Marx himself diagnoses with insight:

> Finally, man as a member of civil society is regarded as authentic man, man as distinct from citizen, since he is man in his sensuous, individual, and most intimate existence while political man is only the abstract and artificial man, man as allegorical, moral person. Actual man is recognized only in the form of an egoistic individual, authentic man, only in the form of abstract citizen.[324]

Thus, it is with full awareness of the profundity of the problem that I argue the *plausibility* of the following assertions. *The import of the Rationalists' work is to theoretically reverse this removal of consciousness from the relations of production; and to propose, using space and Architecture, a productive place for an emotional economy (repeatable and recurrent) within such relations*. I hasten to add here two crucial qualifications. I am responsible for making the case for an emotional economy of architecture informing the relations of production by building on the Rationalists' work; I do not claim that the Rationalists themselves

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[323] Karl Marx, *Writings of the Young Marx On Philosophy and Society*, translated and edited by Loyd D. Easton and Kurt H.Guddat (Garden City, N.Y.: Doubleday, 1967); quoted in John A. Schumacher's *Human Posture: The Nature of Inquiry* (State University of New York Press, 1989): p.185.

[324] Ibid. p.184.

explicitly argued this point.[325] Second, raising the issue of how consciousness (or, broadly construed, cultural forces) interrogates the relations of production precedes the Rationalists' establishment. In fact, this is an older debate within Marxist ranks, and which goes back at least to the 1890s, raised and widely propagated by Aleksandr Bogdanov (among others) to stiff resistance from Lenin and Plekhanov. Hence, in fact, Lenin's response in the epigraph quoted above. But what Bogdanov, Maxim Gorky and Anatole Lunacharski struggled with before and after the 1917 revolution was: how does culture (art, spirituality, …) *complement* the independent materialist sphere of production? At best, how may a purely workers' culture evolve to prepare the proletariat for class struggle – the more structural relations-of-production remain untouched by the superstructures of culture.

What is at stake here is how space and Architecture partake in such construction of a collective consciousness and such redefinition of the relations of production. I will build here on the arguments of the preceding chapters and their reformulations of Rationalist space and design strategies. *A*n underlying assumption is that, with necessary caution, the logic of the Rationalist space is expandable into a generic formulation – it is a spatial-principle. The Rationalists' crowd-sorter, rhythmic-field, and – as I will argue later – aleatory *space,* transcends the project-specific design solutions into a theory of space-making. Briefly, here is what chapters seven through ten concluded. The Rationalists' response to the crowd-design-problem consisted of generating a new conception of space which promotes intersubjectivity. The centerpiece of such a conception is a space which builds on the crowd's native properties as its point of reference. The masses of crowd bodies are what define spatial configurations; the manipulation of the ground plane conjoining all crowd-bodies *provokes* continuity of consciousness through *shared* kinesthetic rhythms. A morphology of gregariousness structures this space. Rationalist space also affords intense co-visibility within the crowd; in parallel, it develops new immersive (architectural) graphic conventions with which to redefine seeing the crowd beyond inherited forms of bourgeois representation which visualized the

[325] *More archival research would need to be executed to establish such a claim, if at all necessary. Although, at many instances, graphic analyses in this research project was able to anticipate – in some sense, at least – the meaning of Rationalist statements (Ladovski's in particular), this thesis did not set out to primarily articulate or verify the Rationalists' intentions.*

crowd as irrational and subversive. Both are visual ingredients of generating the crowd's own self-representation and self-consciousness. Rationalist space of intersubjectivity also redefined the subjects' relation to the object - to objecthood in general - conditioning the aesthetic of the object-artifact in terms of agent-force empathy, as well as a temporal, transformative relationship.

This re-conception of the object helps ease into this intricate argument, particularly when compared to an account of this objecthood already formulated by one of the fathers of this neo-Kantian current of thought within Marxism, Aleksandr Bogdanov, in his 1908 utopian novel *Red Star*. To a socialist society on Mars, some few hundred years ahead of its Earthly counterpart, the revolutionary Lennie (Leonard) journeys with his Martian comrades. He spends the first months exploring the workings of this established socialist society. One of his earliest observations registers a linguistic turn in the socialist Martians' language when designating nouns to objects. In a discussion with Netti, the knowledgeable physician, Lennie perplexedly observes that in Martian language "… the names of all objects and qualities are declined according to their temporal status." To this, Netti offers the following explanation:

> "… When you name [in Earthly languages] something you are careful to designate whether it is masculine or feminine, which is not very important and even rather odd in the case of inanimate objects. The difference between objects or persons which exist and those which no longer exist or have yet to come into being is far more significant. The word for 'house' in Russian is masculine and that for boat feminine, whereas in French it is the other way round, but the essence of the matter does not change a jot for that. Yet when you speak of a house which has already burned down or a house which you are still planning to build, you use the word in the same form you employ to designate the house in which you are living. Is there in nature a greater difference than that between a man who is alive and a man who has died – between that which is and which is not? … Is it not better to indicate it … by adding a single letter to the same word?"[326]

Objects are thus described (not qualified with adjectives, but designated by nouns) by the state of temporal transformation they are in. Implied in Netti's argument using the 'house' as an example is that the transformation in question is 'artificial' – inflicted by an agent; in fact, implied in this whole linguistic twist is

[326] From Aleksandr Bogdanov's *Red star: the first Bolshevik utopia,* translated by Charles Rougle (Bloomington: Indiana Univ. Press, c1984): p.48.

an agency-seeking device ("who-dunnit"), or at least a questioning of events (as in the case of the burnt-down house). Although Netti (or Bogdanov) does not elaborate further, this form of designation can easily be imagined to stretch into further refined qualifications of the object's temporal states. Hence, one may be able to somehow describe a house-half-built-skillfully, for instance. Or, alternatively, it may even be possible to formulate more layered, complex forms such as: the aging-repaired-house-memories-romantic.

What is relevant to the discussion is that as descriptions (linguistic in this case) of objects change, so do the objects themselves and the subjects' relations to them. Indeed, in a later visit to a Martian factory, Lennie narrates his observations of the non-alienated voluntary workers' emotive states as they attend the machines.

> Hundreds of workers moved confidently among the machines, …. There was not a trace of anxiety on their faces, whose only expression was one of quiet concentration. They seem to be inquisitive, learned observers … . It was as if they simply found it interesting to watch how the enormous chunks of metal glided out beneath the transparent dome on moving platforms and fell into the steely embrace of dark monsters, where after a cruel game in which they were cracked open by powerful jaws, mauled by hard, heavy paws, and planed and drilled by sharp, flashing claws, … To an outsider the threads connecting the delicate brains of the men with the indestructible organs of the machines were subtle and invisible.[327]

In Bogdanov's utopia, the second form of alienation or estrangement which Marx decries seems overcome – at least in part, as I will argue below. Amusingly, but also quite revealingly, this emotional connection to the object-artifacts and more so to the machines of production themselves have interesting complications. The workers' fascination holds pathological potential if taken to an extreme. The physician Netti recounts the case of one worker, the "comrade operating the main hammer":

> But of course I have warned him of the dangers to which his enthusiasm exposes him. One such risk is the possibility of a convulsive fit of madness that may irresistibly draw him under the hammer. Last year something like that happened at this very factory to another operator who was likewise fascinated by powerful sensations. … An appetite for

[327] Bogdanov, *Red star:* (c1984): p.64-5.

> strong sensations is in itself no disease, but it can easily become perverted if the nervous system is thrown ever so little off-balance by exhaustion, emotional disturbances, or an occasional illness.[328]

But above all, the *act of making objects* itself changes; production has to evolve to account for all such changes in objecthood and in the object-subject relation. What the Rationalists' work suggests is similar: by reframing the description of objecthood, they project a transformation in the production of objects.[329] The Rationalists heed Bogdanov's clue. But, I insist, they also transcend it. Re-examining Lennie's account of the socialist utopian factory, one detects the agency-seeking in the description of the machines themselves as productive forces, and as objects highly dynamic in themselves. The metaphoric association of some large, powerful but graceful beast betrays not only deep fascination, but also unearths an underlying desire to witness agency in the action of machines. A dramatic aesthetic of agency-seeking pervades the socialist space of production, Bogdanov seems to say - a literary image not unlike Iakov Chernikhov's *Constructivist Fantasies*. Yet, in the Martian workers' relationship to their powerful machinery alienation still persists. As voluntary work, workers do not even have to be there [Kantian disinterestedness?], Lennie is informed by the Martian engineers. Fully automated, the machines do not need the workers' skill or inventiveness. The forces of production are independent of human labor (except in building the machines themselves); the second form of alienation remains inadequately addressed. This points to a contradiction within the relations of production which even Bogdanov's critical position did not transcend.

In contrast, the Rationalist œuvre actually suggests the mechanism of the evolutionary transformation of the object: by prescribing a certain kind of space-of-production – or more precisely its principle. But the first condition of such a mechanism is a shift from the conventional space-of-production narrowly construed as the factory or workshop, featured in Bogdanov's Martial utopia or in Marx' and Lenin's Earthly writings. What Ladovski, and the Rationalists, achieve from this formulation is a transposition of the sensuous productive

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328 Ibid: p. 68.

329 Here again, I am allowing a generalization into all objects of production, based on the *Abstract Demonstrations* of the Rationalists' OBMAS course at INKhUK.

forces from the corporeal realm of construction and material-manipulation (as per their contemporaries, the Constructivists), to one which arguably *underlies* such material construction: the emotive space of motives, of observer-engagement, of *agency*. Rationalist architecture assigns production of the conventional artifact – the physical building or other artifacts – secondary status to the productive role of (architectural) space as a generator of social relations of production, specifically of the emotive kind. As discussed in Chapter-10: "The Problem of the Object, The Materiality of Architecture", it is not that Rationalist space *replaces* the Constructivists' construction, but rather *heralds* it in the process of form-giving and spatial-manipulation. It is a foundation for construction and production, not an alternative to it. Space precedes material in the process of 'making'; matter becomes the imprint of emotive production. One may construe this in one of two modes. It may relocate production in a space which precedes the factory or the workshop – a very real space of intersubjectivity which surrounds the factory – the normative production site - on all sides (and which one may even imagine eventually extending into the factory as a system of organizing labor relations). This, in fact, sums up the bulk of post-revolutionary cultural activities, including that of the Proletkult. Music, theatre, poetry, literature and painting were heavily pursued in an attempt to educate the masses of workers (and, actually the peasantry too) to achieve some level of class self-consciousness. Alternatively, one may see this pre-production space as the very fabric of everyday-life – a generic description of all spaces. As such, Architecture becomes the first site of production. Its space is at once the medium and the object of the productive act; its artifacts – the building, the city, but also the machine (as Bogdanov's Martian factory suggests) - emerge as the first loci where variations on the new relations of production are explored and inscribed before the act of production itself.

This alternative space-of-production is rooted in intersubjectivity; its materiality is consciousness, its traffic in judgments - its currency is rhythms. At least three distinct kinds of rhythms may be discerned as constitutive of this alternative space, the first two of which are intersubjective. The first rhythm belongs to the configurations or arrangements of crowd members across a gathering space, and operates from the micro-level of the individual bubble surrounding each crowd member (as discussed in Chapter-8: "Dynamic

Crowds, Abstract Machine). Rationalist space structures patterns of encounter through generating (visual as well as physical) intersections across the larger system. A second kind of rhythm amounts to an aesthetic language provoked, mainly, by the manipulation of the ground plane. Curved surfaces instigate patterns of diachronic rhythms which, while unifying the crowd in a collective choreography through kinesthetic sensations, qualify this unity as decentered with shifting foci of attention. This diachronic rhythm is primarily kinesthetic in nature; it actuates through shaping bodily gestures and postures. Subjects (in plural) exchange bodily rhythms and signals induced by gregarious configurations and the shapings of the ground; a discourse in intense, collectivizing presence. With presence comes: acknowledgement, recognition, appreciation and encounter in different shades and qualities. These are acts of judgment that prop social life – rendered denser and more probable by such gregarious configurations and stimulated choreographies.

But while the first two sets of intersubjective rhythms regulate the inner workings of the crowd gathering, the third addresses the crowd's relationship to surrounding artifacts. This third set of rhythms assimilates objects or artifacts within this collective subjectivity; it is again primarily (but not exclusively) kinesthetic, as well as empathetic in kind. Subjects also exchange (force-field) rhythms with the object(s), in a dialectical discourse of aesthetic judgment: subject(s) empathizing with object(s) through metaphoric forces and rhythms, and object(s) receiving the actual forces of transformation and production – indirectly through several steps of (re)making – from the subjects. The one discourse informs the other. The intersubjective discourse is, in some sense, about the objects – and their production. Subjects exchange their judgments of the objects as part of their rhythmic barter. This discourse on the objects also explains the Rationalists' dogged pursuit of statistics on the appreciation of forms and shapes (using the laboratory at INKhUK); it was attempt to mine, admittedly indirectly, this traffic in implicit judgment.[330]

[330] As part of the future developments of this research into crowd morphologies and gregarious space, I intend to notate such rhythms of intersubjectivity, starting from the techniques employed for analyzing Meyerhold's Biomechanics and theatric dramatizations in Chapter-5, *Kinesthetic Conception of Space*, and Chapter-9: "Kinesthetic Space: Intersubjectivity and the Problem of Other Bodies".

As such, Rationalist space poses a direct challenge to a founding principle in Marx' Historic Materialism: that relations of production are independent of human consciousness and "men's" wills. By finding a conceptual foothold for incorporating the emotive energy of crowds (of intersubjectivity), by furnishing an empirical method for gauging such emotional exchange (based on Munsterberg's methods), the Rationalists in fact proposed a radical revision of Marx' notion of 'relations of production'. Architecture, following the Rationalist Marxist model, becomes the technique of 'making' which exemplifies transcending the narrowness of conventional production to engage creative emotion and thereby alleviate alienation. As such an alternative site and system of production, *the counter-alienation logic of the Rationalist spatial-principle may be further historicized beyond Historical Materialism – indeed, in context* of modernity at large. I will use the next section for that purpose, and also to sharpen to more specificity the nature of consciousness attending the Rationalist spatial-principle. What state of consciousness does it generate or require – or how does its artifact engage human consciousness? How does such a 'state' inform (or not) the social being as well as individual psychology?

Spatial Principle: Panopticon Inspection, Aleatory Spaces

The imaginary account opening this chapter echoes findings argued in previous chapters. Yet it also casts them in a slightly different light while, furthermore, pointing to new insights into ARU's peculiar rhythmic field. As the narrative confirms the concerted bodily rhythms arrayed across the marching crowd's procession, it also indicates that such are not the curved-grounds' only kind of unfolding choreography. As discussed in Chapter-8: "Crowd Sorting and Organization", ARU's parade grounds and ramps perform as crowd sorters, which would not only reshuffle crowd companies in mixed affiliations and in appropriate numbers, but would also help instantiate a self-regulating dynamic crowd with an emergent intelligence. Arguments in Chapter-9: "Kinesthetic Space: Intersubjectivity and the Problem of Other Bodies" maintained that ARU's crowd-sorters were also a field of rhythms which, together with the design phenomena of curved

ground planes recurring in other Rationalist schemes, constituted the architectural counterpart to Meyerhold's choreographies of mass acting. But instead of the theatrical devices of the script and the rehearsal, architecture choreographs the natural movement of individuals and groups through the manipulation of, primarily (but not exclusively), ground planes. Rationalist design manipulations of the ground plane afford *formal concertedness* across the crowd gathering, as they induce rhythms arrayed diachronically across the marchers' movements up and down the ramps, and as they thus conjure dense Goodmanesque notations which help shift visual attentions from one body to the next, thereby preempting the consolidation of stable power-centers within the crowd formation. Alike the cinematic technique of slow-motion, bodies roughly emulate each other's' cautious postures and gestures, delayed to the speed of the march; indeed, the crowd's movement is essentially exhibited or 'replayed' to its constituents, in what amounts to an immersive spectacle – one that can best, perhaps even exclusively, be viewed from its midst.

Crucially, previous arguments also maintained that such formal concertedness promotes the potential for collective social cohesion in two distinct ways. For one, the ramp system would evoke a strong sense of co-presence, confirmed by the peculiar visual field its shifting layers of bodies promote: shallow and deep vistas, collaged closely, would excite the probabilities of aspect-dawning phenomena to occur in what approximates Vertov-like cinematic closeups framed by deeper visual cones [revisit figures 8.27 and 8.30]. Secondly, the high probability for the recurrence of such experiences (bodily rhythms concerted diachronically, shifting attentions, closeups and slow motion effects) along the curved surfaces with other crowds at other times designates the morphology of curved grounds as the repository of specific socializations. What complements this is the accumulation of associative memories; the 'comrades' collective experiences constitute agents of cohesion themselves, as they imprint shared memories and associate certain forms with a particular range of experiences. It is through this layering of: a) such probabilistic occurrence anchored in morphological properties, and b) the register of mnemonic associations - and which recall the practices of the 'inscription' of hard space discussed in Chapter-3: "Spatial-Construct: Unpacking Design Problems Spatially" - that a spatial principle assimilates collective connotations and thus

interrogates social agencies. Arguments will return to this notion of inscription below in context of probing the nature of a spatial principle; here it foregrounds the question of social cohesion and social consciousness attending the ramp system.

Deforming natural movement - or the normative choreography of architecture, the curved grounds effect frequent moments of struggling for balance and stability: a groping for posture amidst a pervasive, if subtle, condition of kinesthetic uncertainty. As argued in Chapter-9: "Kinesthetic Space: Intersubjectivity and the Problem of Other Bodies", such groping for balance involves the exertion of what Rudolph Laban's Effort-Shape Theory termed 'spatial-movements' – one's gestures, mostly subtle (but not exclusively so), are directed not at one's own body but at surrounding surfaces, objects and other bodies. Kinesthetic uncertainty unleashes an array of subtle movements at the very threshold of conscious experience. But what body gestures and movements - reflexive and oblivious - are thence thrust to the foreground of attention and released onto the theatre of social life, are neither fleeting nor inconsequential. Indeed, much of what constitutes a social system gets inscribed onto a body's dynamic surface - i.e. its posture. Citing evidence from dance ethnography, arguments in chapters nine and ten posed the body and its postures as the "… reserve of expressive signs" to others. To quote Christensen again:

> Perhaps the "internal" relation one has to one's body lies in its being a reserve and medium of signs for communicating one's "mental life" and subjectivity to others, a reserve and medium without which one would not be a subject. Perhaps it is primarily as such a reserve of expressive signs that I am aware of my body and indeed of myself. What I and my body first and foremost are for me is an activity of expressing myself as a self to other selves through a common language. Relatedly, I am only aware of myself, my "inner states" and others to the extent that I express myself and my "inner states" via my body and language to others. I am as thinking - but only because I am as expressing myself to others through the signs which my body and shared language essentially enable and constitute.[331]

[331] Carleton B. Christensen, "Meaning Things and Meaning Others", *Philosophy and Phenomenological Research*, (Vol. 57, No. 3. Sep., 1997): p.521.

Hence, what transpires here is not only formal imbalance and physical self-awareness. What the uncertain kinesthetics of Rationalist space unleash are non-discursive, equally-uncertain missives of social codes inhabiting human postures – as subtle or repressed as they may be. As the narrative above indicates, what accompanied physical groping was, as well, grasping for propriety and decorum: a struggle to maintain one's habitual, constructed posture – one's social status as *read through* one's body posture. If temporarily under the condition of kinesthetic uncertainty, self-perception is shaken, while one's perception of other social figures is also disturbed. The impact of the ramps' kinesthetic uncertainty is to unsettle established perceptions of body-posture *cum* social-status and to evoke new ones - some premeditated, many inadvertent.

In a sense, this space offers opportunities to redefine one's posture or status, as well as to question others' postures and statuses. One may read into such uncertain kinesthetics a measure of potential liberation - almost an element of *laziness* or *play* in Paul Lafargue's sense of the terms: labor or action expended outside the alienating domain of the capitalist gauntlet.[332] Not only is the march down-then-up a curved surface instrumentally inefficient – almost frivolous, but its very nature also deviates from the customary roles of bodies. Workers - whose every move in their sites of production was scrutinized to the rhythm of pre-scripted Taylorist choreographies of efficiency, isolation and alienation – now move to unpredictable rhythms and unscripted roles. But perhaps a more profound reading would pose Rationalists' spaces in terms of what John A. Schumacher called *aleatory spaces*.[333] These are conditions where human body postures - encoded by social structures as well as by the very mode of being in, and inquiring about, the world - are rendered simultaneously explicit and questionable, and against which alternative postures are raised as speculative possibilities. In such *loose* spaces, one's perceived social role is exposed as no more than the odds of a gamble, potentially redefined in a collective now perceived in far more fluid terms. One

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[332] Paul Lafargue, *The Right To Be Lazy and Other Studies*, translated by Charles Kerr, transcribed and markedup by Sally Ryan & Einde O'Callaghan (Lafargue Internet Archive (marxists.org), 1883 (2000)).

[333] Schumacher, *Human Posture* (1989): Introduction, pp.5-11; and Part Three: The Co-Making of Inquiry, particularly pp. 192-218.

wonders how different Vladimir Lenin's place would have been etched in history had the posture he was known for closer to the one in **figure 11.1** *right*. Deformed by the podium steps, Lenin's figure seems a far less emblematic figure than his more famous postures haranguing from rostrums [see **figure 11.1** *left*], or how El Lissitzky's heroic rostrum design (1931) depicted him [see **figure 11.1** *far left*]. Indeed, if one goes back to the original charge of the Supreme Building in a communist society: to make building-artifacts which help bring forth a classless society, one finds that the Rationalists had redefined classlessness in a radical way. Defined spatially, classlessness had become the potential to redefine one's movement – here as a field where everyone may do so simultaneously. Spatializing classlessness, the Rationalist schemes correct us, is not only to view everyone equally, not merely to distribute attention and diffuse power centers – but also, and perhaps more profoundly, to introduce the idea and the potential for each individual in the crowd to transform one's posture against imposed social strictures as well as to transform the spatial infrastructure of such postures. Radical classlessness is fundamentally loose space.

To articulate further: Schumacher's phenomenological history of human posture, from *homo sapiens* to the late twentieth century,[334] identifies a long standing history of a certain posture: the shared face. Human society faced the world in acts of co-inquiry and co-making with a commonsensical 'together-posture', gradually disrupted by the emergence of the notion of viewpoints since Plato and then more intensely disrupted, from the Enlightenment onwards, by the advent of ruptured subjectivity. But what violently shatters this common face of co-inquiry and the sensuality of co-making, are the alienating practices of modern manufactures and, above all, the inspection systems proposed by Jeremy Bentham in the late eighteenth century for, simultaneously, penal and educational institutions. Subjecting the individual body, *qua* individual, to ubiquitous systems of inspection and disciplinary techniques has effected radical transformations in modern social systems and has permeated its institutions and its everyday-life, as also demonstrated by Thomas Markus' *Buildings and Power*[335].

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[334] Schumacher, Human *Posture* (1989).
[335] Thomas Markus, *Buildings and Power: Freedom and Control in the Origin of Modern Building Types* (Routledge, 1993).

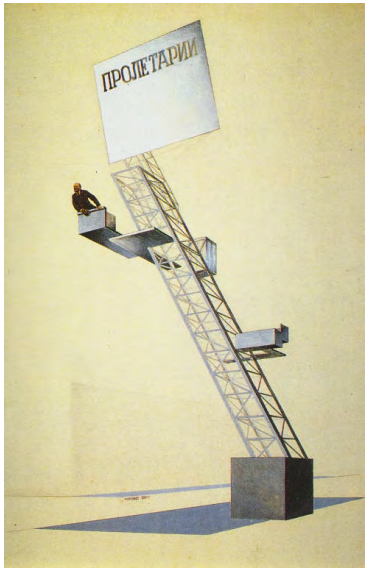

Figure 11.1 Vladimir I. Lenin's postures
left Photograph of Lenin orating, Sverdlov Square in Moscow, May 1920, from which El Lissitzky collaged his rostrum design, 1931 (*far left*)
right Lenin on dias steps making notes, Comintern Congress 1920 [source: *Life Magazine online archives*]

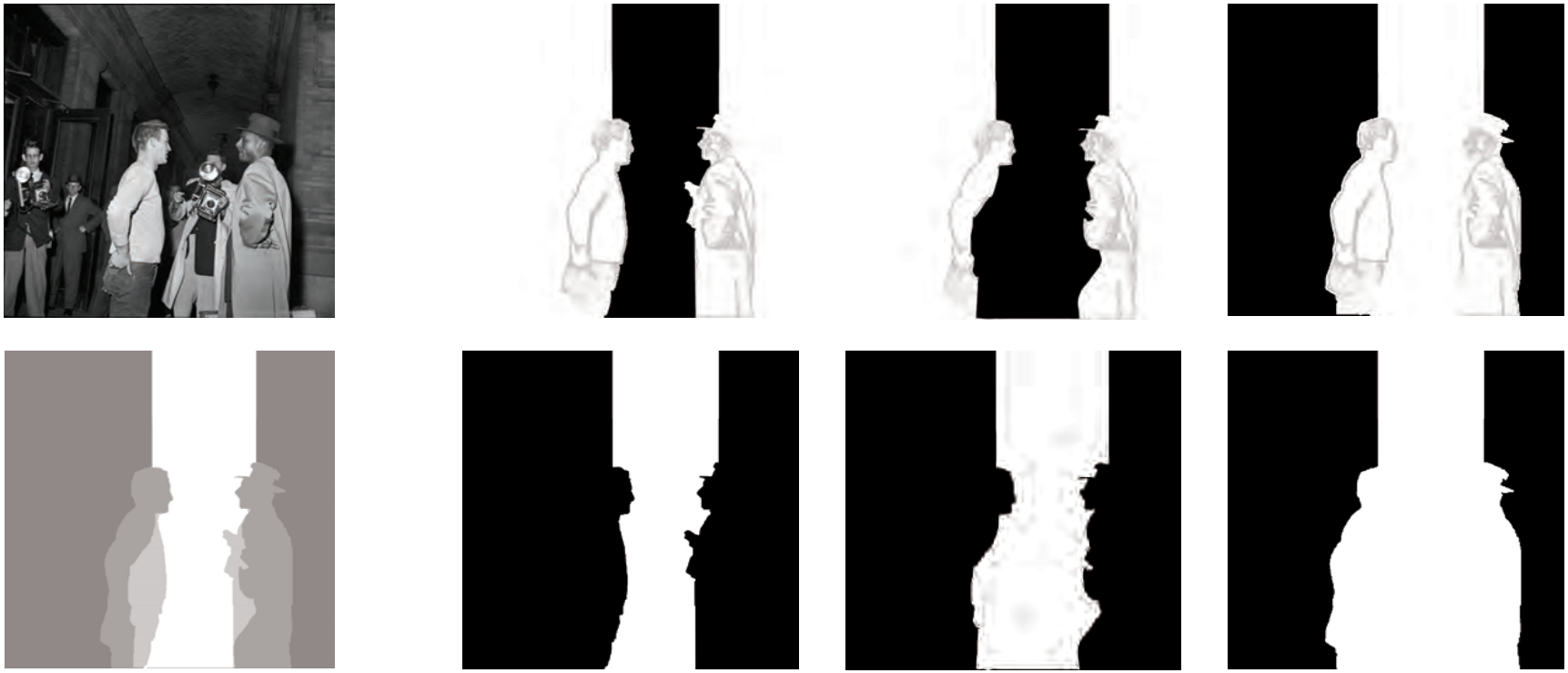

Figure 11.2 Contour dissections of a confrontation during the Civil Rights Movement, Birmingham AL Terminal Station March 1957. Note the reciprocal missives of advance and retreat between the two bodies.

Not unlike the Rationalists' schemes for the *Palace of Soviets*, Bentham's 'design proposition' for the inspection and disciplinary systems of the Panopticon revealed an acute awareness of the body as the first site of social space, and of posture as the substance of consciousness and the premise for inquiry. If the *Gregarious Space Framework*'s basic morphological principle – the body-bubble - departs from the enclosure space of isolation and control (as discussed above), it is as a counterpoint to Bentham's alienating design-proposition *cum* Panopticon spatial-principle that the Rationalists' own proposition and principle stands. While the Panopticon scripts a limited catalogue of acceptable body postures, Rationalist space is an active generator of unpredictable postures. Panopticon posture assumes an unchanging assignment of roles: the guard or the teacher (the gazer), and the inmate or the student (or the gazed-upon) are irreversible; in ARU's aleatory space, roles are productively reversible: power loci are only momentarily occupied then exchanged and body posture is not guaranteed. Instead of the Panopticon gaze incessantly scrutinizing each body as a replete object of inspection, ARU's formula employs the dense notation aesthetic to relay the gaze away from any single body; the gaze is distributed, or even substituted by a more fleeting *glance* generative of aspect-dawning – where the subject's cognition is repeatedly alerted. While the Panopticon gaze promotes detachment, the Rationalists' transitory glance is a calling forth. As a design strategy, the Panopticon is consumed by devising vertical barriers and provocative apertures to isolate bodies, as well as a meticulous management of the ocular in order to, and with which, to circumscribe body movements. In contrast, Rationalist design traffics in the far less precise medium of kinesthetics, evoking shared sensations and common consciousness.

Indeed, the consciousnesses in both spatial-principles are, by design, quite radically distinct. The Panopticon evokes an obsessive awareness of oneself, and oneself only, under a detached but omnipresent gaze; *a consciousness of the certainty of inspection* engrained into one's common sense. In contrast, Rationalist spatial-principle evokes *a continuous awareness of others under conditions of instability and uncertainty* - the instability of the glance and the uncertainty of posture. Furthermore, in Rationalist space, one's awareness of one's own body as reflective of "mental … inner states", is heightened by the

curved grounds, while simultaneously one's awareness of the surrounding social milieu is further sharpened by the uncertainty of postures in surrounding bodies. The expressive surface of the situated body becomes a charged interface between a heightened self-consciousness and a highly-activated social field. One's consciousness, the sum or the collage of the inner and outer awarenesses at the intermediary surface of posture, is here uncommonly heightened, and qualitatively distinct: *convivial and agitatedly liberated, gregarious but aleatory*.[336] Uncertain kinesthetics yields a quasi-stable state of consciousness – stable in its unquestioned attention to the collective as the primary (natural?) condition, but realizing that such a collective is itself far from irreversible. This field of mutual consciousness – in whatever form design offers it - becomes a precondition for considering the interface with objects and things; *other-bodies* come before objects. If the first strategy in Panopticism, and indeed commodification, is to isolate the collective into individuals, then Rationalist consciousness sets up a structure for pre-judging, and hence pre-constructing, any object as non-commodified. Thus agitated by design, the body is reinstated as the first site of social space; radical change starts *at* the body's surface.

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[336] Interestingly, one finds strong echoes of this in the marches and confrontations of the Civil Rights Movement in the United States (1950s-60s). Especially in the Movement's early days, encounters between the civil rights protesters and the White establishment were often concerned with no more than redefining postures. The long, tortuous histories of slavery and segregation were (and, in fact, remain) inscribed on African-American and White bodies. Compare the following two postures from the Movement's history. The first posture is that of Bigger Thomas, the main protagonist in Richard Wrights' 1940 novel *Native Son*. Throughout Bigger's encounters with the Dalton family, Wright captured how Bigger's body responds, almost involuntarily, to the mere presence of white people using terms alike: limp, stiff, uncoordinated, awkward, involuntary [actions] such as continuously looking down at the floor , and others [see Richard Wright, Native Son (Harper Perennial Modern Classics, 2005): pp: 46-9 and 206-15. What was problematic about Bigger Thomas' posture was not only its specific content, but the very fact that it so naturally seemed to all, including himself, as unchangeable and unquestionable – as a normative state.

The second posture dates to March 6th, 1957 and 'came to light' in a confrontation outside the Whites-only waiting-room at Birmingham's Terminal Station (Alabama). In **figure** 11.2, note how Reverend Fred Shuttlesworth's posture is a radical departure from Bigger Thomas' inscribed subservience. Although Shuttlesworth did not gain occupancy of the waiting room that day, but his posture *formally* dominated the space dividing him from his challenger; it imbalanced its symmetry and effected a subtle retreat in the other's body. Intuiting that the body is the first site of space, Shuttlesworth proclaimed and performed his equality spatially. And it is this same recognition of posture as the first site of resistance which underlies Walter Wink's explanation of Jesus' teaching to turn the other cheek as a non-violent incitement challenging the opponent to proclaim the equality of the two adversaries. See *Walter Wink's argument in Engaging the Powers: Discernment and Resistance in a World of Domination (Minneapolis: Fortress Press, c1992); for a reference to the verse, see Matthew 5:38-4*

Gregarious Space Framework: Future Inquiry

Two conjoined ideas of particular importance to the *Gregarious Space Framework* emerge from the preceding argument. Rationalist space is not only a particular space per se, but more significantly a *design-proposition* as well as a *historical spatial-principle*. Design propositions, as compared to the foundational morphological principles discussed in the first subsection, come imbued with richer ingredients of the formal and the social synthesized, as only design can synthesize, into a substantially emergent assemblage. As instrumental and foundational morphological mappings are to this *Framework*, it is design-propositions that would maintain the framework's focus on the interdisciplinarity of socio-spatial works. In other words, the framework is better placed to resume its future inquiry and propel its development through probing design propositions, for which in turn morphological parameters and mappings are further developed.

Rationalist space is also a historical spatial-principle: a spatial-principle which responds to the historical impacts of ruptured subjectivity, modern inspection and disciplinary techniques with their apparatuses of gazes and rampant alienation. It thus takes its place within the *Gregarious Space Framework* not as a specific case of a general theory, but as a theoretical departure point and a repeatable logic, as well as a datum for comparison and a measure for evaluating future findings. In future research, it should also be situated in context of other design-propositions *cum* spatial-principles besides Bentham's Panopticon. Besides illuminating important facets of the theoretical framework particularly in morphological terms, tracing the social histories of spatial principles would also shed light on their reception: their dissemination signals social readiness. For instance, one wonders why Mies van der Rohe's principle of the free-standing wall, discovered as part of his design process for the temporary structure of the German Pavilion in Barcelona` (1929)[337], met with such widespread dissemination even though it was executed but in a few buildings – including its own reconstruction (1986). One equally wonders why its concurrent Soviet conceptions of

[337] See Sonit Bafna's "Symbolic Content in the Emergence of the Miesian Free-Plan", in the *Journal of Architecture* Volume 10 (April 2005): pp.181-200.

space, whether Constructivist-Productivist conceptions or the gregarious Rationalist space under discussion here, met with such containment despite being a potentially transformative moment in the spatial history of gregariousness. It is tempting to resort to the political explanation: the whole Soviet avant-garde movement, the argument goes, was silenced by a vicious Stalinism. However, and while this may partially carry some verity, it cannot comprehensively explain why the Rationalist gregarious spatial principle failed to register outside Stalinism's grip in the Western world, where publications and travelers into and from the Soviet Union (such as El Lissitzky, Hannes Meyer, and others) – at least in the late 1920s and early 1930s – did disseminate the ideas. Let us also remember that Mies van der Rohe's free-wall principle was developed not long before the Nazis controlled Germany and contained the modern avant-garde within and outside the Bauhaus; yet Mies' principle found welcoming ears beyond its incarnation in the *Tugendhat House* (Brno, 1930), spreading into the West as primarily an idea. In other words, the channels for transmission for the two contemporary principles were roughly equally-available; restrictions on the movement of their ideas were also roughly comparable. What was more crucial, I venture to speculate, was the readiness of reception in the West. Gregarious space, and the gregarious non-commodified artifact, demanded – and helped enact - a certain kind of intersubjective consciousness which the West was, and perhaps remains, unready for. To go back to ARU's curved ramps, with which this dissertation started its questioning: it is perhaps because of this unreadiness that one finds no curved ramps anywhere, except in the usually-marginal urban hardscapes of skating-parks – hardly an activity of 'natural movement'.

As a spatial-principle, Rationalist space may also instantiate in variant design propositions. We should remind ourselves that the Rationalists' propositions came at the beginning of the *Palace of Soviets* competition, thence envisioned to extend into the later phases of design development. For one, the ground morphologies proposed by the Rationalists could vary in geometry as well as in kind. As seen in Nicolai Ladovksi's scheme, the geometries of different stacked surfaces (mostly curved but to different radii) conjure a range of different experiences across a larger space. But furthermore, one finds recent and more playful echoes of this principle in the contemporary work of architect Ali Rahim, such as in his Reebok

Flagship store in Shanghai (2005), and the Multi-Use Structure for the Athens Olympic Games (2004). The echo is not merely formal but does not entirely coincide with the Rationalists' political agenda either. Rahim's intent, expressed in a lecture at the Georgia Institute of Technology (Spring 2008), is to allow *individual* bodies to "create their own program" as they adapt their *individual* postures to the curved surfaces, or to re-envision new functions as they re-deploy the curved ground surfaces for merchandise display, for reclining, or for trying shoes on, …etc. Although Rahim's complex warped geometries approximate aleatory settings which loosen posture, question rigid functional typologies and hence prompt new social roles, they were not conceived to induce group choreographies and hence a basis for collective cohesion as in the Rationalists' case. But the Rationalist principle extends beyond curved surfaces *per se*. Textured or uneven ground surfaces offer alternative instantiations; a thick sand crust is kinesthetically-evocative as well as possessed of the additional potential to imprint memories, if only short term; uneven stair steps could question the uniformity imposed on the body by building codes, while potentially orchestrating concerted choreographies across several bodies. Yet the principle also transcends literal 'obsession' with the ground surfaces, as Liubov Popova and Varvara Stepanova have demonstrated [revisit figures 9.8 and 9.9]. To recall earlier discussions in Chapter-9: "Kinesthetic Space: Intersubjectivity and the Problem of Other Bodies", Popova's set for Meyerhold's *The Magnanimous Cuckold* (1922 and 1928) constituted an outgrowth of the ground plane into a three-dimensional scaffold onto which bodies may clamber, hang, fold, dangle, …etc. – and which may serve as a precedent for furniture design. Similarly, Stepanova's patterned costume designs would deform as part of the natural movement of the bodies inhabiting them, loosening posture, orchestrating body choreographies and could also serve as inspiration for an architectural space patterned with light and shadow. In other words, the principle is generative of design ideas – and could very well self-propagate through such synthetic design procedures.

Most importantly for the field of future inquiry charted by the *Gregarious Space Framework*, pronouncing Rationalist space a design-proposition as well as a historical spatial-principle casts in a new light the three threads of investigation identified in an earlier subsection of this chapter (see *Gregarious Space Framework:*

Morphological Foundations, Field of Inquiry). Discussing their transformation in light of the historical arguments above further clarifies what is meant by a spatial-principle, while also providing a closing argument anticipating future studies and perhaps even generative design synthesis.

Probing late modern everyday-life for the still-present, if subdued, choreographies of gregariousness, would now need to account for the deep-rooted levels of modern inscription revealed above by probing the conjoined histories of alienation and inspection. What the Rationalists' curved grounds question simultaneously are the deep-rooted strictures embedded not only on the body postures, but additionally in the making of what constitutes *normative* ground surfaces, and which – to no small measure – dialectically help construct such posture. The building-artifact *cum* body-posture couplet is inseparable. Code stairs, regulation ramps and even the unquestioned horizontality of ground surfaces should also now be queried, as part of the cumulative strictures of modern life - inscribed as they have come to be with subtle layers of disciplinary techniques. In other words, the charge in this thread has evolved to mandate comparing the vestiges of gregariousness while also documenting the peculiar forms non-gregariousness has taken in codes, regulations ...etc. – to qualify descriptions of our contemporary condition of tension between gregariousness and individual alienation.

Relatedly, investigating co-presence as it develops diachronically should now qualify that vehicle of exchange, 'natural movement', whether individual and social, is itself a construct imbued with the tensions of alienation and inspection, with the institutional strictures that evolved from correctional institutions of the late eighteenth century. As Thomas Markus has demonstrated in *Buildings and Power*, the postures of the inmates - heavily watched, disciplined, regulated, and corrected - have migrated and permeated various modern institutions along with the codes, regulations and standards with which the modern building evolved. What above arguments reveal is that the permeation has gone deeper than Markus' thesis; it has accessed the very basis of human and social movement: its rhythms and choreographies as well as the social missives such movements transmit. It is thus with some skepticism that one reflects on the naturalness of

movement both in Space Syntax Theory as well as in John A. Schumacher's discussion of co-inquiry through movement. This level of questioning the underpinnings of natural movement is what some mappings in this dissertation have initiated [see figures 9.13, 9.14a and 9.14b]. What confirms 'natural movement' as a pressing and crucial question for investigation in the near future is a cursory look at the history of assembly within building confines after the period discussed in this dissertation. Even larger numbers of people amass in contemporary buildings (malls or large institutional buildings), but such numbers are mostly distributed and diffused in the configurational labyrinths which constitute such gigantic spatial systems. It is only through the construct of crowd-movement that some form of collective, and some state of collective consciousness may obtain in such systems.

Finally, examining and classifying object (and image) typologies must now be qualified by the history of the states of consciousness they afford – as continuums or disruptions in such states and their historical trajectories. Alike the first steps initiating this research project, the next step consists of finding a case – or, more precisely, a *design-proposition*, whether executed or not – which embodies all or most of the above-listed threads.

APPENDICES

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APPENDIX I

Competition Program for

the *Palace of Labor*, Moscow 1922-3

Overview

Emerging from a profuse typology of contemporary spaces - workers' clubs - the *Palace of Labor* was intended in its time as "a symbol of the new society." In a move that has adhered to the emerging building type from thereon (resurfaces in the *Palace of Soviets* some ten years later), this gregarious, populous spatial type is collaged with a government center. Added to the mix were some cultural activities as well. The competition was for the central *Palace of Labor*, the foremost among many other labor palaces to be scattered throughout the Soviet Union. Due to dire shortages in finance and in building materials, this competition never yielded an executed building. However, the requirements from this competition brief were heavily emulated for several buildings of similar official nature between 1923-6.

This single stage competition was held in1922-3. Apart from representatives of the Bolshevik party, the government and the Moscow Soviet, the jury included older generation architects like Alexei V. Shchusev, Ivan V. Zholtovsky and others. These architects practiced long before the revolutionary ideas brewed in Russian society, and received their architectural training in the purest academic traditions. The site for the *Palace of Labor* competition was north of the Kremlin on Okhotonoyardsky Square, on which the Hotel Moskva was later built in 1935-8.

What follows in this appendix provides a basic exposé of the competition program: building requirements, some commentary on the challenges as well as entries and prizes. All commentary, critiques and discussions on the competition are included in the flow of specific arguments in the main body of research, and referenced where relevant.

Building Program Requirements, Submissions and Awards

The competition program included the following required components[338]:

- A large hall to hold 8,000 people.
- A number of smaller halls for a variety of purposes, such as meetings, lectures, concerts, performances and films, for audiences of 300, 500 and 1,000 people;
- Sets of offices for the Moscow City Council and the Moscow Party Committee, including conference rooms and suites (2,500 offices in total)
- A museum of Social Sciences plus a number of other museums;
- A dining hall seating 1,500 people (in some references the total number of restaurateurs is set at 6,000 people![339])
- The upper levels of the building were intended to house a radio broadcasting station
- an observatory, among other things,
- The possibility of laying an aircraft landing strip there was also to be investigated.

[338] From S.O. Khan-Magomedov, *Pioneers of Soviet Architecture* (New York, Rizzoli, 1987): pp.399-400.
[339] Additional information on the *Palace of Labor* competition program comes from: Anatole Kopp, *Town and Revolution; Soviet Architecture and City Planning, 1917-1935*, translated by Thomas E. Burton (New York: G. Braziller, 1970). Peter Lizon's, *The Palace of the Soviets: the Paradigm of Architecture in the USSR* (Colorado Springs, CO: Three Continents Press, c1993).

As Khan-Magomedov noted, engrained in the formulation of the program is a certain gigantism, partly on account of the immense sizes of individual components, but also worded in the competition statement itself was a desire to "outdo the Capitalist world" in scale.[340]

Yet besides the above list of required functional spaces, not much more data on the *Palace of Labor* Competition brief may be gleaned from works in the English language. One has to hypothesize that the competition brief documents did not comprise much else of substantive value, or else the two main English-language works would have included them: Khan-Magomedov's *Pioneers of Soviet Architecture* (1987), Cooke's and Kazus' *Soviet Architectural Competitions 1920s-1930s* (1992), as well as Lizon's *The Palace of Soviets: the Paradigm of Architecture in the USSR* (c. 1993). Interestingly, this research quandary echoes what the architects themselves may have gone through when, in 1922, they confronted a new and unfamiliar architectural problem presented in such a reduced form.

About 50 entries were submitted from within the Soviet Union. Due to the ongoing blockade of the Soviet Union by European powers, no international entries were solicited. The first prize went to Nikolai Trostky, a Classicist project described by Anatole Kopp as "an overblown cross between Ledoux and Palladio".[341] The third prize was awarded to the Constructivist Vesnin Brothers, whose entry will be referenced in numerous comparisons throughout this thesis.

[340] From Khan-Magomedov, *Pioneers of Soviet Architecture* (New York: Rizzoli, 1987). See *also:* Lizon, *The Palace of the Soviets, 1992* pp.67-8.
[341] Kopp, *Town and Revolution* (1970): p.55.

APPENDIX II

Competition Program for

The *Palace of Soviets*, Moscow 1931-1934.

Overview

Soviets are 'delegates' from all occupations of the new Soviet society: its workers, peasants, soldiers, sailors, ….etc; as well as its widespread regions. In principle, soviets are popularly elected legislative assemblies that existed at *local, regional, and national levels*. Soviets also had *both* legislative *and* executive functions.

The building subject of this competition was arguably the most important edifice in the USSR at the time. Such preeminence shows in how the final selected scheme was used in propaganda posters and publications to symbolize Soviet achievements in comparison to other nations throughout the second half of the 1930s. Premonitions for such an important structure brewed very early on, as the eminent historian of Soviet avant-garde architecture Khan-Magomedov attests[342]. In fact, the *Palace of Soviets* is a re-visitation of the dream that spurred plans for the first grand edifice of the *Palace of Labor* (1922), albeit at an even more gigantic scale. The specific idea for a central palace for the Soviets originated during the 1924 public debates on honoring Lenin. At the time, ASNOVA members (the *Association of New Architects*, mostly from the Rationalist group) advanced some ideas stimulated by resolutions of the First Congress of Soviets in the

[342] Selim Omar Khan-Magomedov, *Pioneers of Soviet Architecture* (New York, Rizzoli 1987): pp. 399-402.

USSR. It comes thus as no surprise that polemics on the nature of Soviet architecture, occurring in context of this competition, reached such intense – even fierce – dimensions.

The competition unfolded in four consecutive phases. A *preliminary closed phase* (starting February 1931) aimed at establishing the competition program for a later open international contest, and to decide on a final site. The *open international competition* was publicly announced on July 18, 1931, with a submission date of October 30, 1931 - later extended to December 1, 1931, along with additional requirements. The building site was set in the heart of Moscow southwest of the Kremlin as a replacement for the Cathedral of Christ the Savior, soon demolished in an event overseen by Joseph Stalin himself. A space open to the Moskva River to the south was envisaged as part of this move.

Competition Program and Challenges

Three main program components accommodating mass crowd activities marked the main charge in this competition: two immense auditoria and a parade ground, with their criteria of interconnectedness changing throughout the competitions' four phases. Underlying such a charge was a number of implicit, interrelated challenges; foremost among which was: to enunciate the sense of a (synchronically) extensive and (diachronically) continuous collectivity – a perpetual crowd. Attendant to this was another challenge: transforming 'spontaneous crowds' into 'organized assemblies' - which involves (re)locating agency, from within the internal dynamics of the crowd (imitation and role-playing) and its visceral response to the phenomenology of its enclosure, to a set of clues and conventions pre-inscribed in a spatial setting. Yet another challenge was to treat the crowds' relations to the city – the zone beyond the controlled building precinct. Quoting the competition program published in *Dvorets Sovetov* in 1931, Jean-Louis Cohen identifies "three architectural principles … clearly laid down: "From an architectural point of view, the design of the building must correspond:

a. to the character of the epoch and the workers' desire to construct socialism;
b. to the building's intended use;
c. to its significance as a monument of architectural art in the capital of the Soviet Union." [343]

Building Program Requirements

As presented to the competing teams, the competition program articulated at the beginning of the second international phase was classified into four groups, set in clear divisions of distinct sections[344] as follows[345]:

Group A: totaling 15,720 square meters

- A large auditorium (Mass Hall) for 15,000 spectators
- Auditorium service facilities.

Group B: 16,280 square meters

- A small auditorium of 5,900 seats
- A small library
- Two reading rooms
- Exhibition halls
- Facilities

Group C: 2,800 square meters

- Two auditoriums for 500 spectators each
- Two halls for 200 spectators each
- Facilities

Group D: 2,000 square meters

- Superintendent and management offices "to house permanent and temporary staff"[346]

Total area: 36,800 square meters, later increased to 38,810 square meters.

[343] Jean-Louis Cohen, *Le Corbusier and the Mystique of the USSR: Theories and Projects for Moscow, 1928-1936,* translated by Kennth Hylton (New York: Princeton University Press, 1992): p.166.
[344] Ibid.: p.166.
[345] Lizon, *The Palace of the Soviets* (1992): p.77.
[346] Cohen, *Le Corbusier and the Mystique of the USSR (*1992): p.166.

Characterizing the Mass Hall, inspired as Jean-Louis Cohen put it, by "mass theaters such as the one in Kharkov" (competition 1930), and consisting of a "vast envelope capable of housing new types of activity"[347], the competition program states:

> The arrangement of the hall must satisfy the requirements of mass gatherings, and should be suitable for mass theatrical and cinematographic performances. The presentation of technical and industrial inventions, and various modes of participation from the audience, which must have direct access to the stage.
>
> The design for the tribune will take into account the speaker's acoustic requirements, and will not only provide for modern methods of presentation, but will also furnish the speaker with the means of showing new discoveries, machines, methods of work. In addition, it should provide for the active participation of brigades, delegations and collectives.[348]

The second auditorium, also known as the Small Auditorium, "was to be designed above all with congresses in mind, but flexible enough for entertainment …". This assembly space, (for convening the All-Soviets Assembly) together with its attendant facilities were "to be positioned in immediate proximity" to Group C, comprising small theaters and service facilities – the only group to be "adapted to everyday use".[349] Based on the above program beakdown and phase-revision to the competition, the following estimate approximates the total populations of usersof the *Palace of Soviets*: 23,700 users (compare to 13,000 for the *Palace of Labor).*

Some requirements were reconfigured based on the outcome of the second phase. A statement from the 'Construction Committee Report (on Feb. 28, 1932), and chaired by Stalin's right-hand man Viacheslav Molotov, included the following items:

1. The Palace must be done as a one-volume complex; both programs, A and B, shall be in one building. At the worst, it would be possible to divide the groups; however, group A, with the large auditorium, must be placed nearer to the Kremlin with all other functions composed behind it.

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[347] Ibid: p.166.
[348] Quoted in Cohen, Ibid: p.166.
[349] Ibid: p.166.

2. It is impossible to unite by mechanical devices the two auditoria.
3. It is recommended to use a circular form for the large auditorium for 15,000 spectators. However, the stage for the presidium cannot be placed in the middle because no spectators are to be placed behind the stage.
4. Balconies and galleries can be used in both auditoriums. They are not to be very deep with a limited number of rows used.
5. It is not necessary to open the main auditoria to allow main demonstrations to march through. The organization of the square should be made for access by a large number of people.
6. The complex should sit on the square openly. Colonnades or other buildings disturbing the integrity of the Palace are not admissible.
7. A predominantly low-rise composition, observed in many projects, is not desirable. Competitors should consider a bold, tall, many-storied building, avoiding however ecclesiastical-church motifs.
8. The Committee could not find a project among the entries which would definitely express the monumentality, simplicity, wholeness or grace of architectural forms appropriate to the great goals of our Socialist society. The Committee does not want to foresee or forecast an architectural style but it insists that the Palace should express the best results of modern, as well as classical, architecture by means of contemporary technology.
9. It was decided, that in order to achieve the final solution of the project, teams of architects who presented the best schemes will continue designing the Palace.
10. Architects chosen to work on the final project shall be freed of all other tasks for three months. During their concentration on the solution, they will be receiving favorable financial remuneration for their efforts.[350]

[350] This list of comments by the Construction Committee is quoted from Lizon, *The Palace of the Soviets* (1992): pp.100-1.

Competition Entries and Awards per Phase

Phase-I (invited; Soviet only)

This preliminary round included sixteen invited Soviet entries by ten individual architects and five groups.[351] The ten architects included: Nicolai A. Ladovski, , Alexei V. Schusev, Aleksandr S. Nikolski, Genrikh M. Lyudvig, Vladimir I. Fidman, German B. Krasin , Kutsaev, Bronshtein, Rosenblum and Boris M. Iofan[352] as well as five teams from associations representing the mainstay of architectural practice and thought at the time: OSA (Union of Contemporary Architects), ARU (Union of Architects and Planners), ASNOVA (Association of New Architects), VOPRA (All Union Proletarian Architects' Association) and SASS (Section of Architects for Socialist Construction).

In terms of awards, entries were deemed "not mature enough". Some entries, like the Constructivist Nikolsky's and the Rationalist Ladovski's, caused heated discussions – but did not "give an embodiment to the idea which was to be immortalized in a building for the Palace of the Soviets."[353]

Phase-II (open international):

Phase II entries totaled 160 plus 112 project proposals (outside the competition). A total of 24 entries came from outside the Soviet Union. International submissions were received from numerous renowned architects; such as Walter Gropius, Eric Mendelsohn, Armando Brazzini, Naum Gabo, Hannes Meyer, Hans Poelzig, the Perret Brothers (Auguste and Gustave) and of course Le Corbusier – whose participation was solicited by the Soviet competition organizers, and he was paid a total sum of $3,000 to contribute. Other international architects' services were similarly solicited; for instance, Cohen notes that the fees requested by the Swedish Ragnar Ostberg were deemed too excessive and his participation was "not confirmed".[354]

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[351] The final sixteenth project was added outside the competition; see Ibid: pp.104
[352] The list is culled together from Khan-Magomedov's *Pioneers of Soviet Architecture* (1987): ; Cohen's *Le Corbusier and Mystique of the USSR* (1992): p.166; and Lizon's The *Palace of Soviets* (1992): p.74.
[353] Ibid: pp.76.
[354] Cohen, *Le Corbusier and the Mystique of the USSR (*1992): p.168.

Who else was compensated against participation is difficult to surmise form available literature. Eleven entries came from the United States, including Richard Neutra's, Joseph Urban's, Thomas Lamb's as well as one by then little-known figure, Hector Hamilton, a British architect practicing in New York. Soviet architects participating in Phase-II included: Moisei Y. Ginzburg; Genrikh M. Lyudvig, Vlasov, Kurovsky, Lamstiv and Igor Yavein; Ivan V. Zholtovsky, Georgy P. Golts, Ivan N. Sobolev and Mikhail P. Parusnikov; Pavel N. Zhukovsky and Dmitry N. Chechulin ; Karo S. Alabyan and Vasily N. Simberstev; Yakov N. Doditsa and Alexei N. Dushkin as well as Boris M. Iofan.

Awards in this phase come in peculiar categories - which reveals either a thought process still undecided on a clear direction, or unresolved political feuds. The three 'Highest Awards' went to Ivan V. Zholtovsky, Boris M. Iofan and Hector Hamilton from New York. Another set of three First Prizes were awarded to Karo S. Alabyan and Vasily N. Simberstev; Pavel N. Zhukovsky and Dmitry N. Chechulin; and Yakov N. Doditsa and Alexei N. Dushkin – all from the Soviet Union. Furthermore, five second prizes and five third prizes were also granted. Fifty designs were 'purchased' and 21 projects received financial awards.

Note that, at least in this second phase, the Construction Committee made its decisions based on a detailed report submitted by the Special Expert Committee, which was comprised of seventy professionals, artists and scholars from different disciplines, including architects, painters, sculptors engineers, literary critics, and others.[355]

Phase-III (invited; Soviet only):

Among the decrees listed by the Construction Committee at the end of the second phase, some awarded Soviet contestants were re-shuffled into twelve teams. These architects were freed of all other tasks for

[355] Ibid: pp.79.

three months, and awarded favorable financial remuneration to concentrate solely on developing their designs for the *Palace of Soviets*.[356] The new competing teams were as follows:

1. Karo S. Alabyan, Gevrog B. Kochar, Arkady G. Mordvinov and Vasily N. Simberstev;
2. The Vesnin Brothers (Aleksandr A., Leonid A., & Viktor A.)
3. A team of students from the Institute of Architecture and Construction (VASI), under Aleksandr V. Vlasov's leadership
4. Moisei Y. Ginzburg, Hassenpflug and Solomon A. Lisagor;
5. Ilya A. Golosov
6. Yakov N. Doditsa and Alexei N. Dushkin
7. Ivan V. Zholtovsky
8. Pavel N. Zhukovsky and Dmitry N. Chechulin, with assistance from Kurovsky
9. Boris M. Iofan
10. Nicolai A. Ladovski
11. Genrikh M. Lyudvig
12. Vladimir A. Shchuko and Vladimir G. Gelfreikh.[357]

No project was recommended for construction from the twelve submissions. While noting 'favorable' tendencies towards Classicism, the jury was still not fully satisfied with any entry. Stressing the absolute necessity of "monumentality, simplicity, unity and elegance of architectural expression" the Construction Committee announced a further limited competition among five 'collectives' or teams were reconfigured from earlier phases.

[356] Ibid: pp.100-1.
[357] Ibid: pp.104

Phase-IV (Limited Competition among five 'collectives'):

The five teams selected came as follows:

1. Karo S. Alabyan, Arkady G. Mordvinov, Vasily N. Simberstev, Yakov N. Doditsa and Alexei N. Dushkin and Aleksandr V. Vlasov.
2. The Vesnin Brothers (Aleksandr A., Leonid A., & Viktor A.)
3. Boris M. Iofan
4. Ivan V. Zholtovsky and Alexei V. Shchusev
5. Vladimir A. Shchuko and Vladimir G. Gelfreikh[358]

As the outcome of this phase, Boris Iofan's scheme was selected as the "principal scheme" – as the "best" scheme, but "not the final one"[359] - based on which the building design was to henceforth develop. Further collaborations with other architects were recommended; Vladimir A. Shchuko and Vladimir G. Gelfreikh later took part in developing Iofan's scheme.

Competition entries selected for this investigation

This thesis takes as its central focus the first-phase entry by the Rationalist group ARU (Union of Architects and Urbanists) whose team was comprised of: N. Beseda, G. Krutikov, V. Lavrov, V. Popov & A. Deineka. First-phase entries by the founder and leading figure of the Rationalist movement Nicolai Ladovski, as well as by the movement's other competing group ASNOVA (Balikhin, Budo, Prokhorova, Turkus, R. Iodko and F. Sevortyan) will be discussed to provide a more comprehensive review of Rationalist ideas. In addition, the arguments will conduct comparisons to the Boris Iofan's winning entry, as well as to the Vesnin Brother's third-phase submission.

[358] Ibid: pp.108
[359] Ibid: p. 109.

Appendix III

Soviet Political Practices:

Period Reports from Western Correspondents

In order to understand the Soviet political system and its workings in that early period, excerpted below are reports by correspondents of some of the major contemporary newspapers issued in English. I have not resorted to treatises on the subject, whether from Russian official documents or from Western documents, since both tend to efface the evolutionary process that the Soviet system went through. For their part, the Russians and Soviets wanted to project an image of a system totally extrapolated from ideology, despite the fact that it grew out of a trial-and-error process. On the other hand, Western theorizations date from a later period (late 1950s and early 1960s) observing, in their turn, an ossified Soviet system 'set in its ways', and foregoing the developmental process that spawned it and which the *Palace of Soviets* was an integral part of. Besides, retrospective accounts of the Soviet political system usually edit out the spatial dimension of political practice. In comparison, correspondents' accounts witnessing the events as they unfold are far more vivid and better account for the complexities and contradictions of any social process, let alone a revolutionary one. Following are paraphrased excerpts[360] from four reports by correspondents of the *Chicago Daily Tribune*, the *New York Times, The North American Review* and *The Forum*. The accounts are

[360] Originals were obtained from the online archives of the respective publications available through Emory Library online databases. It was seen as more productive to paraphrase, excerpt and comment from the accounts rather than to attach copies of the original reports, in order to lend emphasis to observations and issues deemed relevant – especially comments on spatial layout and relations, which are not explicitly stated but may be inferred from the accounts. However, originals are available in electronic format and may be requested form the author.

also arranged chronologically and classified in order to provide some sense of context to the two competitions under research: the *Palace of Labor* 1922, and the *Palace of Soviets* 1931-3.

A. Context of the *Palace of Labor* Competition: the Soviet Congress in its early Period

[Author unnamed] Report cabled to New York Times, Jan 1921: Soviet Congress Stormy

This session involved a stormy exchange between The Mensheviks and the Social Democrats on one side, and Lenin with the Bolsheviks on the other, over the treatment of peasants and favoring workers over them.

Comment: In other words, there was debate and controversy in the early days of the Soviet Congress, at least in context of the Palace of Labor Competition. So, the architects working on it would envisage their designs framed by such controversy and relative freedoms.

Report by Leo Pasvolsky, *The North American Review (1821-1940);* Apr 1921; PROLETKULT: ITS PRETENSIONS AND FALLACIES

The Proletkult attempted to create a Proletarian Culture. Labor clubs, schools and school-clubs involved developing proletarian poetry, literature and art – elements of the new culture. In April 1921, there was a total of 100,000 workers involved in this endeavor. Lunacharsky looked upon Socialism as a movement akin to Christianity. He drew the distinction between Proletarian Culture (the striving, the *Ecclesia militans*) and Socialist Culture (the *Ecclesia triumphans* or the church of saints, blessings and light – the realization of victory and peace).

Comment: This may be seen as the basis for the Palace of Labor institution, as the apex of a hierarchy of such local and regional school-clubs.

Report by Walter Duranty, the New York Times Correspondent, Dec 1921 "Soviet Delegates Rejoice in Fancied Governing Power"

This session was held in the Moscow Opera House; delegates numbered 1,952 plus 200 counted as "other party leaders and spectators including …. foreigners". "The main floor of the theatre was entirely filled with delegates, mostly workmen dressed in furs, who kept on their fur caps throughout the proceedings,[361] presenting the appearance of a gathering of frontiersmen, contrasting with the brilliantly lighted and gold-decorated auditorium. M. Kalenin, the elected chairman, and his executive committee of thirty-two members, including Premier Lenin and the Leon Trotzky, the War Minister, occupied seats of honor around a red table. …

"The Delegates occupy the parterre and the three lowest tiers of boxes in the magnificent building, formerly reserved for the members of the nobility and the imperial court and the wealthiest of the bourgeoisie. What was formerly the Czar's central box has been set aside for the members of the Communist Internationale, and on the stage at a long table there are the members of the Central Executive Committee. Two boxes at the left of the stage are at the disposal of the foreign diplomatic representatives and the members of the American Relief Administration, and fervent Communists from Germany or America can – and do – turn toward them as they fling defiance at capitalistic tyranny and its tool, the bourgeois press."

Delegates were mostly young men (25-25 yrs old); "happy, excited and passionately intent on everything that happens"; most roughly dressed, simple-faced and simple-minded with an occasional cunning or cultured face.

Proceedings unfold smoothly and efficiently, Duranty reports!

"Lenin is not an absolute dictator, because he must get the agreement of the Communist Party to his policy. Generally he does get it, but the limitation remains. Once that agreement is secured, the rest is merely a

[361] Potentially because of extreme called in December coupled with lack of heating, as indicated by another report.

matter of arrangement. The congress just sets the seal of its approval upon the decisions.

"…delegates have gained a sense of power, enhanced by the precautions taken that no one not authorized to do so shall obtain admission. The streets around and the square fronting the Opera are cut off by smart infantry with fixed bayonets. No less than seven military controls must be passed before one reaches his (or her) seat, with two similar controls of exit to prevent the transfer of tickets.[362] There are soldiers everywhere – in the corridors, foyer[363] and lobbies – so that delegate savors the cup of his privilege to the last drop."

Congress gave an "impression of force, solidarity and efficiency … of real democracy or even a real voice in the Government there is nothing." Theoretically, everyone can vote, but the workers elect a much higher percentage of delegates than the soldiers, and the soldiers a much higher percentage than the peasants."

How elections occur "in practice, if not in theory: Twenty-four hours' notice is given that there will be an election in a certain factory. Next night there is a meeting open to anyone, which is addressed by an 'agitator – that is, a spellbinder – of the Communist Party. His eloquence arouses – or lulls – the meeting into acceptance of the list of candidates chosen by the party caucus beforehand."

Such ongoings are usually unchallenged. However, Duranty recounts one rare incident in Petrograd reported in the Russian press, where "… very young" students attempted to put forth a list of candidates of their own, only to be quickly forced to retire in confusion. Such restrictions were defended in the name of expediency, Duranty reports, and that more freedoms would come "as the situation grows more settled and the people better educated". In Dec 1921: amid reports on widespread typhus, Duranty reports that delegates approved NEP (New Economic Policy) only grudgingly, while the trade unions were disgruntled over NEP.

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[362] Delegates' attendance seems to be controlled by some form of [anonymous?] ticket. Compare to ideals of openness implied in the *Palace of Labor* and Palace of Soviet program entries.
[363] Note: only ONE foyer is mentioned; ostensibly the Theatre foyer originally meant for high-society socialization.

Account of an early All-Soviet Congress Session 1922

Abraham Epstein, the *Forum* (1886-1930) correspondent Dec 1922 - Russia's Tenth Internationale]:

The Ninth all-Russian Soviet Congress (*Internationale*) was held in Moscow's Grand Theatre (the Bolshoi). The Soviet "Parliament" was the spontaneous creation of the Revolution and was not guided by either constitutional or parliamentary proceedings. Of the nine Congresses held so far, five did not even have a constitutional basis for their existence."

In 1922, intervals between Congress meetings varied between 2-15 months, although the constitution stipulates twice a year. Congressional meetings lasted from 2-8 days (but depended on how much work was needed).

At the time of Epstein's report in 1922, "Russia's 'Parliament' [was not] handicapped by the usual parliamentary formalities, such as the necessity of a quorum, a well-defined time and place of meeting, regularly established constituencies, a definite number of delegates, a well-worked out system of credentials, and a previously arranged term of sessions". Epstein describes the Soviet parliament as possessing qualities of 'opportunism' – or pragmatism, in comparison to other European parliaments in their incipient stages. As an example of 'rubber-stamping': NEP was passed by the Soviet Congress eight months after NEP's inauguration in the wake of a decree issued by the Council of People's Commissars (headed by Lenin). Delegates did not live in the capital, but traveled from faraway lands to attend. In 1922, delegates were predominantly young, eagerly and attentively listening, silent and do not chat amongst themselves or exchange anecdotes in the aisles. They were 'true-believers'. The impression one gets from Epstein's account is that there was no lobbying outside the main hall; delegates were not 'permitted' to 'conspire'. In 1922, Russian 'Parliament' had "no standing or permanent committees. Upon assembling, it divides itself into sections according to the different problems confronting it at the time, such as food, fuel, railroads, famine, health, etc. Delegates may register and attend such meetings as are of interest to them. Questions are debated thoroughly at those section meetings, and resolutions are then introduced to the

main body." When there were still several parties in the Soviet, "each party holds caucus meetings and decides in advance upon its actions."

[Author unnamed] Report cabled to NYTimes report, Dec 1922: Soviet Congress Shows Patriotism

Correspondent observes how different the delegates look:

"They were the same striking types – the old peasant with shaggy hair and beard, the rough, big-fisted workman, the Chirghiz, exact image of a dried pockmarked coolie from Southern China, and the shy young Turkoman wearing, according to Mahomeddan custom, a round hat fringed with sheepskin, even on the stage of the Grand Opera House, where the Congress met. … But the majority seemed to be more poised, more civilized and more refined. They had less the air of provincials on holiday and more of men conscious that they were cogs in a great machine, small cogs perhaps, but each with his place in the general scheme. They had grown in responsibility and they felt it."

Each reference to the Red Army or Fleet met with huge applause. So did the tale of the enmity of England, Russia's ancient foe. The name of Trotzky they cheered as the leader of the Red Army, but for Lenin there was greater tribute still."

"All the approaches to the Grand Opera House were barred by lines of soldiers twice bigger than life in their new wolf-skin overcoats. Green ticket or red ticket, member of the Presidium Committee or foreign reporter, you must enter and exit at one point and only one."

The report author also relates a number of unexpected behaviors in this Parliamentary session. General Kamenef relates the "Russian [military] failure at Lausanne with surprising frankness.." Also, in 1922, three of the members elected to the Soviet Congress' presiding committee (37 delegates) were not Communists.

[Author unnamed] Report cabled to *New York Times (1857-Current file);* Jul 7, 1923; LENIN NOMINAL HEAD IN NEW SOVIET ORDER

During that time, the Soviet Congress was meeting in the throne room of the Kremlin. The New Constitution was approved by the "Federal Executive Committee" to be approved by the All-Russian Congress of Soviets. The cabinet was named with Lenin as head + 3 Vice-presidents; also approved was the new flag. The New Constitution from decreed that from thereon there would be two parliamentary houses.

[Author unnamed] Report cabled to *New York Times (1857-Current file);* Jan 13, 1924; SOVIET CONFERENCE CENSURES TROTSKY

Discussion of opposition within the Communist Party headed by Trotsky; indication of dissent and opposition; motion by opposition, vote: 325 against, 61 for [a total 500 delegates were present].

B. Context of the *Palace of Soviets* Competition: the Soviet Congress between 1924-34

Report by Paxton Hibben, The Movies in Russia; *The Nation*; 11/11/1925, Vol. 121 Issue 3149, p539,

There are some 2,000 moving picture houses in the Union of Socialist Soviet Republics, as against 18,000 in the United States. Of this number, almost half are in one way or another connected with workers' clubs, thus paying a smaller profit than the commercial theaters. But there is not one that does not turn away a theaterful of patrons nightly, and only a handful that are not showing the products of Hollywood, unadulterated. The theory that American films by their subtle revelation of life in the dens of capitalism will debauch the younger generation of Communist ascetics has no practical effect.

Account of how the Communist Party works as a political system in its own right

HENRY WALES for the Chicago Daily Tribune (1872-1963); Mar 4, 1928: HOW COMMUNIST PARTY HOLDS ALL RUSSIA IN GRIP

Three separate entities comprised the Soviet system: the Soviet Government, the Communist Party and the Third Comintern (the Communist Internationale) which theoretically deals only with international affairs. Membership of the Communist party in 1928 was composed of around 1,250,000 members. All big government posts are held by party members, but not party leaders, who prefer to pull strings from the party position of power.

How the Communist Party 'runs': Nationwide Communist party congress was held every 2 years; upward of 2,000 delegates attend. The congress elects a central committee composed of 300 members, having no president or chairman – the idea being that all are equal. The committee meets "from time to time". It had three secretaries, Joseph Stalin being the strong General Secretary. In turn, the Central Committee elects a political bureau (Politburo) composed of eight members; the politburo could have additional members as candidates or consultants – i.e. non-voting. Some Politburo members are also government cabinet members. The Politburo is in continuous session. Theoretically, it has no presiding officer; theoretically, it also concerns itself only with the party, but given the party's hegemony over the government, in reality it was concerned with government. The Politburo actually also controlled the G.P.U. (precursor of the K.G.B) – which at the time safe-guarded the state's security, but also suppressed bootleggers and grain-speculators. Account of elections for the Soviets: one delegate was elected for every 5,000 people in cities; one delegate for every 25,000 people in rural areas.

Comment: it seems that the Communist Party operated, at least in theory, based on a model very different from the other structures in the Soviet system. Having no president or chairman signals a leaning towards consensus. It would be interesting to examine their seating arrangements, yet no data has been forthcoming.

Account of how the Soviet electoral system works

Report by HENRY WALES for the Chicago Daily Tribune (1872-1963); Mar 4, 1928: HOW COMMUNIST PARTY HOLDS ALL RUSSIA IN GRIP

In 1928 this was the status perceived for the Soviet Congress: it meets once every two years; some 3,000 delegates (plus 300 from the Nationalities Council) attend; an honorary presiding officer is elected. The Congress elects a Central Executive Committee of 300 members which is, in principle, in constant session or could be summoned at any time; this Central Executive Committee, in turn, elects a presidium of 60 members (plus additional members as candidates or consultants). Cabinet members form yet another inner group of 12-15 commissars: the Council of People's Commissars; in turn, this Council has a core of half-a-dozen made up of the principal commissars or ministers. By 1928, the Soviet Congress had already moved from the Bolshoi or Grand Theatre to the Kremlin.

Account of how the system of Soviets works

Report by Walter Duranty. Wireless to THE NEW YORK TIMES. *New York Times 1857;* Jan 26, 1931; SOVIET POLLS HELD THROUGHOUT RUSSIA

"Theoretically all the Soviets in Russia, from the village council to the All-Union Congress, are re-elected yearly, but practically, as this happens in this case, eighteen months sometimes lapse between elections. … All persons over 18 years old have the vote unless they belong to categories deprived of civic rights – criminals, rentiers, lunatics, priests and private employers of labor."

Elections occur directly only at the lowest level – at the village or factory levels. No secret ballot; elections occur through a show of hands

"Electors not attached to institutions vote in groups on a guild basis – that is, according to the section of the labor federation to which they belong". This precipitates duplication and percentages such as 103% and 105% may occur; that was not prohibited by Soviet law.

" to suggest that the whole Soviet system of elections is a Communist rubber stamp for deceiving the public fails to take into account the important fact that the communists, by every device known to propaganda, are trying their utmost to make the nation politically conscious." An important feature of the system is to teach the masses the "science of self-government".

Geographically, *oblasts* correspond to 'states' in the United States system. Village and town soviets elect oblast councils; oblasts send delegates to the national congresses of each of the federations forming the USSR; the federated soviets elect representatives to the All-Union Soviet Congress. The percentage of Communists in the different soviets increases gradually from the lower levels all the way up; at the level of the All-Soviet Congress (for which the *Palace of Soviets* was meant to be the headquarters), the Communist percentage would average 70%.

Account of a direct election event (a Moscow factory)

Report by Walter Duranty, for the *New York Times 1857;* Jan 27, 1931: SOVIET ELECTIONS IMPROVE IN FORM

This article reports on Soviet election procedures by giving an eyewitness account of elections in one Moscow factory. As a general observation, Duranty reports that the elections have become much more ordered than in the Soviets' early years.

A fortnight ahead of time, the factory newspaper published the names, biographies and photographs of the candidates. One day ahead of elections, the factory issued each worker (total 1,600 workers) a gray

invitation ticket for the electoral meeting, set for 5pm (after work-hours) at one of Moscow's theaters. The ticket indicated a reserved seat plus a "stamped sheet" for the worker's suggestions. As Duranty notices, in all Russian mass meetings, many such paper messages exchange hands on their way to the platform. *Comment: This is bound not to yield an orderly crowd since bodily movement would abound; exchanging pieces of paper in a mass-meeting is inherently informal and deforming.* On election-day, one half hour before the end of the workday (at 3:30pm), a group of 'Pioneers' (Soviet youth alike the Red Boy Scouts) entered the factory "blowing bugles" [*note the festive connotations here!*] and in a lengthy speech, exhorted their elder workmen to go in full strength to the electoral meeting. Duranty notes that the Pioneers went around to homes and houses to encourage housewives and house-servants to go to the election also [*It is not clear whether housewives and house-servants have their own representative?*]. Next, the workers started an orderly and *festive march* to the electoral meeting held in a Moscow theater. Duranty paints a vivid picture of a festive march: "The workers formed a column at the factory gate and, led by the Pioneers and the factory band, with flags and placards, they marched through the streets to the theater". In the theater: after a brief speech by the chairman, which contained a section about the electoral law, the names of the candidates and the purpose of the election, a discussion followed. The discussion involved an exchange of witticisms about the candidates' shortcomings, ironically dealt with by the chairman. Again, the *festive* atmosphere prevailed, as Duranty likened it to " …a college football rally before the biggest game of the year"! Next, voting took place: singly, for each candidate, not as a list; no counter-candidates were put forth; voting happened by a show of raised hands [it seems more likely that this occurred through a show of objecting or opposing hands rather than approving ones alone; since it would be difficult to count all such hands. In fact, Duranty recounts that once, one hand was raised in opposition, but that the objecting person was challenged by the chairman to explain his reasons; however, he was too tongue-tied and sat down speechless].

Again, Duranty's account gives the sense of a *festive (almost carnivalistic) atmosphere*: "During the proceedings, three citizens were ejected for "unsober manifestations", and once another rose in a back row

and begged his comrades in the gallery [above] to refrain from throwing paper pellets or launching paper airplanes at the audience downstairs." Duranty continues, "there was a holiday air about the scene, but nearly all were in keen earnest, thrilled with the importance of the moment, fully responsive and far more attentive than at electoral meetings which your correspondent has attended in other countries."

The final election count was 112%; repeated voting being permitted in Russia. This was met with applause, and a singing of the *Internationale*. Finally, a professional theatre company played a scene from Verdi's Rigoletto [*Comment: more festive medieval-mystery connotations as von Geldern postulates*].

Report by Walter Duranty. Wireless to THE NEW YORK TIMES. *New York Times (1857-Current file);* Jan 24, 1933: SOVIET CONGRESS OPENS ITS SESSION

Stalin sits in the gallery above the speaker's rostrum.

Report by Walter Duranty for the NYTIMES, Dec 29, 1933: SOVIET CONGRESS HEARS 1934 PLANS]:

The Soviet Executive Committee [which was not the All-Soviet Congress; it seems this is a larger body that has no equivalent in the Western system] is roughly equivalent to the US Congress. The December 28, 1933 Congress met in the Kremlin; not in the Czars' throne room [which Duranty makes it sound as if this was where they met prior to that date] but in the "theatre of the Kremlin's military school". Welcoming 'behavior' was exhibited towards all the leading men of the party each according to his 'stature': Stalin received a standing ovation and frantic applause; Foreign Commissar Litvinoff received tumultuous applause; Premier Molotov received a great ovation. [*Comment: this carefully scaled and measured reception / reaction amounts to organized ritual*]

Report by W. H. Chamberlin for the *Christian Science Monitor (1908-Current file);* Feb 3, 1934; The Diary of an Onlooker in Russia

The TsiK (the All-Union Soviet Executive Committee) meets towards the end of the year – between meetings of the All-Union Soviet Congress (3-4 years according to CSM's Chamberlain!). The Tsik meets for a week, then adjourns, delegating its responsibilities to a smaller group called the Presidium. Chamberlain illustrates the "picturesque element" in Soviet Congresses: held in the historic Kremlin in all its splendor; it is also the meeting of such diverse population representatives as from the Trans-Caucasian Republic, Yakutia ("an indefinite number of thousands of miles from Moscow") and Siberia.

Report by Anne O'Hare McCormick, Moscow. *New York Times 1857-Current;* Mar 18, 1934: AGAIN THE RUSSIAN BEAR WALKS ABROAD

This is an account of an assembly of the All-Union Soviet Executive Committee, of which some sessions were conducted at night, irrespective of the intense cold. Along the way to the convening session in the Kremlin, Correspondent McCormick &her company were challenged four times, in what seems to be the Kremlin's grounds or outdoor space – perhaps even Red Square itself as given by her expression "…clear as the flood lights in the Red Square..". Passes were verified by telephone while they waited.

McCormick describes the convened assembly: "These relays of soldiers, the intense immobility of the assembly, listening as no congress ever listens, least of all those multiplying congresses which, like this, are not Parliaments but audiences; the steady shadowless blaze of illumination, like the glare of a Hollywood studio during a 'take' - ….." [*Note: it seems McCormick is implying that the listening is special to this specific congress assembly, given the gravity of international affairs discussed. However, Duranty had also remarked how eager and attentive the early delegates were.*]

Christian Science Monitor; Jul 30, 1937: Moscow Skyscraper Seeks World Title

By 1937, requirements for the *Palace of Soviets* project had evolved: the main hall was designated to house 20,000 people; the overall height was to become more than 1,300 ft (highest building on the planet). CSM reports that the Soviet congress met [at the time] in the White Palace of the Kremlin.

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As stated in the introductory chapter, literature review in this research project proceeded in local accompaniment to the different topical questions addressed throughout the investigation. Similarly, bibliographic references are organized below in categories following such topical areas of concern, thus offering the reader an overview of the works examined in each field. Each bibliographic category, after the first one listing Primary Sources, comprises the following: [TITLE: Broad Subject Heading] : [SUBTITLE: Specific Foci addressed in this dissertation]. In cases where works fit in more than one category, they are repeated while clearly cross referenced.

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