Systems and the South: Architecture in Development

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Call for Proposals

The Aggregate Architectural History Collaborative is pleased to invite scholars and researchers in architecture, history, anthropology, science studies, etc. engaging with the world of buildings and cities however construed, to contribute to the Systems and the South project.

This project aims to theorize and understand links between three overlapping phenomena, all of which had their heyday from the 1950s to the mid-1970s:

1. the Bretton Woods currency exchange mechanism,

2. the era of "development" in the Third World, and

3. the ascendancy of systems thinking and theory as a multi-disciplinary ethos affecting multiple knowledge fields, including architecture and urban planning.

We invite scholars at all levels to send proposals that explore the history of political, economic, technical, and aesthetic interconnections in architecture and urban thought and practice and their relationship to development theory in the aftermath of the Second World War and the era of decolonization. Proposed papers need not specifically be located in histories of the so-called developing world alone: we welcome contributions that address developmentalism as a "moment" (concepts of the pre-industrial, the primitive, the traditional, the poor, as temporal preludes to their eventual subsumption into the modern) in more general theories of architecture and modernity, or in the history of

the industrialized world. Scholars working on these issues within the Soviet sphere are also invited to submit proposals.

In keeping with Aggregate's practice of collaborative workshopping (see *Governing by Design*) and blind and transparent peer review, participants should expect to participate in workshops (see note on Submission Format below) and discussion about their work. We expect the outcome of this project to be published as a peer-reviewed product that meets professional standards for advancement and promotion. For a symptomatic treatment of systems thought in this era (but not as a defining volume), contributors are referred to Anthony Wilden, *System and Structure: Essays in Communication and Exchange* (London: Tavistock Publications, 1972).

Background

Bretton Woods and the Presumption of Full Industrialization

The global monetary and exchange arrangements created in the wake of the Bretton Woods Conference of July 1944 had as their objective the need to stave off the market crises, and consequent social ruin, to which capitalist markets seemed inevitably vulnerable. The new monetary system drew substantially on the ideas of the economist John Maynard Keynes, whose *General Theory of Employment, Interest and Money*, published in 1936, had expounded on the key role that the money-form, as a crucial determinant of market expectations, could play under certain constraints in stimulating investment within an ever-looming landscape of risk. The state's strategic injection of money as an inflationary instrument within a finite range of underemployment, Keynes argued, could have the effect of modulating wage prices and commodity prices as a way of stimulating demand, such that markets would not be subject to the *simultaneous* demand and supply crises as experienced during the Great Depression. This gambit to "save capitalism from the capitalists," and the institutions founded in its wake (the IMF and the World Bank), would have global repercussions in the norms that it would stipulate for monetary convertibility between national markets. Nonetheless, this presumptive multilateralism would remain, as many noted at the time, an Anglo-American compact.

Within a national market, Keynesian tools are effective only at near full-employment levels, a premise which assumes a fully industrialized society. American policy makers confirmed this assumption in the shape of the Marshall Plan (and similar grants-in-aid for Japan and Korea), with the objective of restoring the industrial base of war-damaged European economies. The Bretton Woods conference had also included, in the words of an observer, a "gathering of Colombians, Poles, Liberians, Chinese, Ethiopians, Russians, Filipinos, Icelanders and other spectacular peoples," proxies or representatives from countries that often had marginal, if any, industrial economies.

Both Keynesian economics, and the monetary system crafted by the Bretton Woods institutions, signally begged the question of the status of the non-industrialized world, consequences for which were not lost on the non-European representatives at Bretton Woods. Although these economies, many of them newly decolonized nations, would be equally subject to the Keynesian monetary norms laid down by the Bretton Woods arrangement, no Marshall Plan-type transfers of capital and technology would accrue to them: in essence, the new Washington consensus actively promulgated a hierarchical world still categorized by the primacy of industrial (formerly colonial) powers over countries enmeshed in primary production and resource extraction.

In the industrialized world, the surpluses garnered from future expectations of industrial growth would be critical in fashioning the set of biopolitical entitlements (health, education, etc.) that would come to be called the "welfare state." This being said, it would be important to note that the expression "Keynesian welfare state" is a contradiction in terms. Keynes would remain sharply critical of a State or Central Planner acquiring the knowledge to efficiently allocate resources in real time, trusting the health of the market rather to the blind blundering of "animal spirits." The genesis of the welfare state belongs to a quite different history of European state-making, social contracts and pastoralism: in that sense, the welfare state can be described as a new basket of entitlements by which these newly industrialized peoples could be persuaded to accept market capitalism (in whose virtues Keynes' own faith remained unshaken) as essential to their future good.

Development: A Proxy Discourse for the Non-Industrial World

There would be no Marshall Plan for the "Third World." So-named by its new philosopher-princes, what these countries would receive, in lieu of capital, technology, and welfare entitlements, would be *theory*: a plethora of scholarly outpouring, policy meditation, and "economic missions" in the pursuit of what would be called "development" (an ecumenical, much-bandied word, like the "market"), professing various fanciful pathways and trajectories that these countries could take to look more like their wealthier counterparts.

There would be a froth of teleological narrative, outlining this or that path of national progress and civilization advance, based on this or that indicator or measure of stagnation or growth, a veritable network of futurology circulating in and out of the corridors of various national finance ministries, the United Nations, the USA's Point Four Program, UNESCO, the World Bank, the CIA, Rand, Ford, and Rockefeller, the policy think-tanks and planning bodies that would proliferate in the First, Second, and Third Worlds.

For one, the sundry theories of development would portend to capture the diverse empirical portraits of the world's far-flung populations into a coherent intellectual armature, forcefully outlining (in their own minds at least) clear lines of state and economic action that would stage "growth" as an international, laminar movement of various national endowments, capabilities and speed. In the process, this putative coherence would establish the premises of mainstream economics and social theory as a normative standard by which all societies may be measured and compared, evaluating various sectors or entire nations as belonging to various temporal "stages" on the way to mature capitalism. Terms such as "the big push" (Rosenstein-Rodan), "take-off" (Solow), "forward-backward linkages" (Hirschman), and today, "emerging economies," all underscore this same, retroactive, temporal imaginary. If development theory presumes as its outcome the *eventual*, future entry of the world's peoples into a singular market system, this was also for the purpose of validating its own presumptions and arguments in the present time, justifying the positions held by its adherents in various decision-making bodies.

An analogy can thus be set up between welfarism and developmentalism, which represent in this sense two diverging forms of socialization established to "naturalize" the extra-statal constraints posed by the Bretton Woods organizations on the monetary prerogative of each nation-

state. In both cases, a biopolitics steps in to fill out the grand narrative required to establish an inherently competitive geopolitics and an exploitative geoeconomics. This structural similarity is however the only one that can be drawn between industrial and non-industrial contexts. Development theory, in large measure, will hitherto comprise of a translation between the terms of one and the other, a traffic in symbols, meaning, techniques, languages, and dreams by which the pre-capitalist populations of the world will be reconciled with *homo economicus*. Development thought will thus not be restricted to purely market features alone. In order to establish market relations throughout the world it will cannibalize non-market relations and gift economies, and an entire catalogue of anthropological behavior that it will obsessively document and subsume: the conditioning by climate, the profiles of the libido, "alternative" technologies and techniques, the fetishistic use of things, forms of symbolic exchange, linguistic structures, alternative legal mechanisms for transactions and contract. At the edge of this subsumption would be new readings of cosmogonic imaginaries—magic, transubstantiation, and witchcraft— seen as predisposing or obstructive mechanisms defining the nature of development. Just as Weber would discern in Protestant piety or austerity the enabling logic of the capitalist market, so too in the new interactions between anthropology and development thought (e.g. Margaret Mead), magic could appear as the flipside of reason; sorcery could be linked to science; non-market relationships could appear as templates for new market imaginaries. The various architecture and urban planning missions and projects initiated in the Third World will strongly exhibit this translational logic.

These translations will be effected not just amongst ideational constructs but amongst material logics as well. To provide an example: even a "universal" material such as cement, for instance, so essential to our sense of the global influence of modern architecture, might hardly be construed as universal. In each country, the process of generating cement might involve a different mix of import-export laws, locally prevalent material substitutes that "satisfice" (Herbert Simon's expression) for particular performative characteristics as opposed to other countries, new production lines, energy costs, alternative engineering processes, and new norms on material tolerance. The women carrying headloads of cement up the ramps of the Chandigarh buildings offer here what is at best a tiny window into an entirely different economy and anthropology of cement concrete.

The varied aggregates that make up "cement" in varied countries might thus be seen as a reflection of national competences within the global market set up by the monetary exchange mechanism (and the bond "ratings" which render money of one kind more or less able to purchase commodities on the global markets). In the multiple national variations of "cement concrete"—which we must see therefore as an aggregate or *system* of relations amongst things and people, of sand, clay, labor, machinery, the weather, curing times, etc.—we see the imprint of the mechanisms by which the dinar may trade against the dollar, or the rupee against the pound. In the seemingly self-identical substitution of money for money, other substitutions—of books for wheat (the US PL 480 program), of whiskey for oil, of one kind of sand aggregate for another —become viable or necessary.

Systems and the World

In other words, the "artificial" stability sought by the Bretton Woods system would seek to be reflected, by its managers and clients, in a "natural" stability or homeostasis seemingly embedded in the cultural aspirations and dream worlds of the societies which this arrangement sought to transform. On the side of narrative, we see in the aftermath of the war, within the myriad university programs and departments, the think tanks, and consultant organizations that emerge in this new international infrastructure, a rejuvenated *humanism*, siphoned off from its European forebears and pressed into a saga of universal civilizational emergence. On the side of technique, which is to say the governmental, biopolitical, economic, and technological spheres, this tale of modernity would invoke, at the root of all relationships, a new religious "spirit of systems," not unlike its eighteenth-century precedents, that would be put into play to validate actors and theories in academia, governments, and global development agencies alike. From the end of the Second World War until the next three decades following, the term "systems" would acquire an intellectual force that would consciously or unconsciously form the basis for a vast range, if not all of, institutional behavior and thinking.

Theories of system defined their success by their negotiation of difference, and their ability to translate between disparate genres of thought and things. The problem of providing electric power to a large population, for instance, concerns multiple systems at multiple scales and modalities: the

physics and transmission of electrons, and the political issues of satisfying municipal and regional governments, the more configurational conundrums of time-bound supply and demand, and the social question of price-setting. A light bulb burning over our heads as we read, therefore, already speaks several languages. In other words, a system is a conglomeration of systems. To talk of systems means to eschew ontology in favor of modes of relation. Systematicity thus involves both the deployment of heterogeneity as well as bringing certain compositions of heterogeneity to order. In architecture and urban studies, for instance, this coupling of humanism and systems would take on a distinctly schizophrenic aspect in topics such as global housing, where the study of Italian hill towns (or *mutatis mutandis*, the Arab or Indian "village") could go hand-in-hand with concepts (or "rule-sets") derived from computational logic. Post-war knowledge frameworks and systems thinking, and the state-building operations with which they were inevitably linked, have this way of propitiating both ghosts *and* machines: New Criticism *and* Structural Linguistics, composition *and* grammar, poetry and data. The statist dialectics of control and freedom that undergirded the tension between "closed" (context-free) systems and "open" (context-bound) systems would extend not just to one field but would create a mode of analogizing between multiple fields and disciplines, wherein biological cells could be compared with computational circuits, or language units to building columns (Rowe, Eisenman), or concepts from physics about differential charges could be extended to linguistics (phonemes) and then on to anthropology (mythemes) as well. Seen through the ever-proliferating analogies propounded by this spirit of system, for instance, topics as diverse as weather formations and population dynamics could be cognized as subject to the same epistemologies. Talk of systems was thus both master discourse and magic trick, offering both profound and vapid ways of linking previously unlinked things, thoughts, social groups, and life as such as availing of comparable goal-mechanisms and teleologies. It simultaneously made claims about the limits of rationality while at the same time endeavoring to rationalize everything.

Thus, in an Aldo van Eyck traveling to Dogon villages with the anthropologist Fritz Morgenthaler, it is not just that an anthropological minima will be discerned that will tie together "primitive" dwelling with the needs of welfare-fed children, or that architectural thought will cross over into the terrain of anthropology, but there is also the premise of *something* perduring or abiding—*a structure*—across these

multiple boundaries that allows these translations between unlike things to happen. Structure thus becomes the stabilizing and deontological entity allowing the planner and the social scientist to profess control over uncertainty itself, a feature of systems thinking that made it particularly amenable to policy discussions that were effectively proxies for market management. Indeed, this fondness for cognizing and quantifying uncertainty in systems thoughts would be described by many as bearing a particularly Cassandra-like aspect: the propensity to declare this or that imminent cataclysm or "crisis"—the population bomb, the limits of growth, the environment—in the offing in order to better foreground the expert's expertise.

The stability of nation-states would involve not just questions of sovereignty but also the proper deployment and assemblages of systems. Systems-thinking became the rubric through which contexts are read, created, and transformed. Modernization, therefore, is only the name for a sum process; a process of bringing regions, states, and populations, within the logic of system. In presuming to eradicate poverty, for instance, systems must be devised that translate between calorific intake, the ethical rubrics of family, the level of trust in lending operations, educational levels, mathematical equations, questions of sovereignty, sexual habits, the weather—in truth a *mise en abyme* of proliferating rubrics that the "experts" must cordon off or admit based on the challenges placed upon their authority.

Just as the IMF would neutralize the instability of the money form to render market mechanisms more manageable, so would systems theory smoothen out, through this epistemic handle over uncertainty, disparities amongst the different sciences of behavior so as to better socialize the world's disparate peoples through the neutrality of technique. And just as the Bretton Woods institutions would secure a unified conception of the "market," so would systems-thinking in development secure the concept of "society," a portmanteau term by which countless lives in the world would become measurable, knowable, exchangeable, and ultimately, substitutable, with regard to each other. The primary import of systems-thinking would thus endeavor to render the social realm of things, behaviors, and psycho-geographies amenable to translation and fungibility. The flipside of this newly attained epistemic authority was the global mobility of the so-called "global expert". For university dons and the sundry global consultants and hacks—these not being mutually exclusive —employed by the plethora of development agencies, the profusion of metaphors afforded by systems-thinking

afforded both profundity and transportability, creating a promiscuous market for ersatz keywords and concept-peddling (such as "Ekistics"). Discerning the "structure" of all things would provide the facile intellectual baggage that would serve as critical equipment for consultants hopping from country to country on the back of new geopolitical and military alliances.

As is well known, architecture and urban planning thought would also be infused with this spirit of systems (from the CIAM and Team X grids, to Doxiadis' Ekistics, to the climatological and iconological arguments for "cultural specificity" made by a slew of architects). Our understanding of systems-thinking in architecture and urban planning circles thus goes beyond the circles explicitly engaged with systems theory (such as the Design Methods discussions, for instance) to the larger invocation of various quasi- and pseudo-systemic frameworks made in the larger architectural world, for example the approaches taken within the Metabolist and Megastructure movements, not to rule out the various national and international debates on "human settlements," housing, and cities. What made systems-thinking essential to architectural and urban thinking in the immediate decades after WWII, we argue, was not just its pertinence to large demographic scales and complexity, an area in which architects found themselves significantly wanting in expertise, but also its corollary: architects' need to acquire professional and epistemic validity within a new circuit of biopolitical management and financial logic.

Methodological Framework

In Aggregate's first published project, *Governing by Design: Architecture, Economy, and Politics in the Twentieth Century* (Pittsburgh: University of Pittsburgh Press, 2012), the group attempted to outline a prospect of writing history that would go beyond classical understandings of authorship, embodied in the persona of the architect, or, for that matter, the reverse art historical push to "begin with the object," which at best provided a license to forego the challenges of theoretical explanation by simply reverting to descriptivism or belletrism (the freshman writing program mantra, "tell the story") of various kinds. *Governing by Design* reflected the Aggregate collaborative's

> shared conviction that agency is complex; that authorship of the built environment is dispersed

across multiple registers comprising not only architects and designers but also many other kinds of producers and consumers, along with a multitude of associations, institutions, and bureaucracies. Complementing this expanded field of agents, or architectural subjects, is a revised conception of architectural objects. Rather than focus on singular buildings, monuments, and landmarks, [the book] develops close readings of architectural events— moments when architecture and design participated integrally in managing the changes associated with modernization… Disaggregating architecture's subjects and objects in this way highlights not only the complexity of agency but also its fundamental contingency. Rather than affirming the continuity from architect's intention to realization in the completed building, or confirming master narratives of progress or conflict, these chapters emphasize the degree to which intention and outcome are separated by accidental confluences, redirected intentions, and unforeseen outcomes… They suggest that plans, schemes, books, journals, objects, buildings, and technologies often emerge less from pure intentionality as out of negotiation with the radical indeterminacy of a given situation. These various designs are contingent assemblages through which the apparatuses of power take on architectural figure.

Governing by Design directly confronted the fact that in architectural scholarship, there has been little in the nature of sustained methodological effort to undo conventional models of authorship. In the context of the developing world, the old humanism of the post-war era reigns strong in the practice of anointing new heroes from Third World countries with the barely warmed-over categories previously used to proclaim the genius of the "Western" avant-garde: the putative battles between "tradition and modernity," "between global and local," between "technology and culture," and so on, that the architect confronts head-on as an ideational conflict of the mind, with the building as the realized outcome of the dialectic. The ongoing curatorial trend of histories of "architecture in global modernism" for which the 2015 MoMA exhibition *Latin America in Construction: Architecture 1955-1980* can be cited as example, has done little to improve these conventional models of explanation. Very little tends to be gleaned in these accounts about the complex interactions of

bureaucracy, technology, firms, financing, resources, law, institutions, knowledge frameworks that condition these histories. One gleans even less about the fraught conditions of legitimacy by which the architect or planner comes to occupy—and/or is denied—agency of a particular kind.

In seeking to tell stories about architecture in the South as also stories of expertise, and of system management, we also seek to explore methodologies that refrain from the conventional form of architectural narrative: first, the name of the architect; second, the building; third, the delineation of context (or "cultural specificity"); followed by a theory of the relationship between architect, building, and context. The story of architecture can begin anywhere, and not just with the architect or building. Why not begin with insects, the supply of food, the size of agricultural holdings, language, solar behavior, even those systems that are cognized as held together by magic or dreamwork? We therefore particularly invite papers that examine architectural interventions or devices whose significance lies only to the extent that they are part of, or are linked to, other systems. Architectural form, we argue, becomes critical when it coincides with other systemic parameters: templates of hierarchy, control points, containers both physical and semiotic, archaic images of enclosure, and allegories for the boundedness of systems. Architectural form becomes critical in establishing relationships between the insides and outsides of systems.

Potential Areas of Contribution

For our next project, *Systems and the South*, we invite scholars to contribute articles that historicize and theorize the professional legitimacy of architects and urban planners in addressing the overlaps between an institutional framework and multi-national imaginary (development) and an epistemology (systems). Both the latter sought an *anonymization* of agency in order to bring attention to more structural processes, networks, and relations defining human life and habitation, creating a new mode of institutional validity that significantly affect the way in which architecture was conceived, realized, and modeled. Scholars and students of architecture, history, anthropology, science studies, etc. engaging with the world of buildings and cities however construed (business models, technologies, domains of expertise, the realm of symbols and meanings, epistemologies, patronage and clientele) are welcome to contribute/collaborate in this project. Below we lay out some

possible or suggested areas of query; contributors are invited to use to both imagine and make their own case on how their proposed contribution might connect with the above.

A special note on the Soviet sphere of influence: As is well known, the Soviet sphere explicitly rejected the parameters imposed by the Bretton Woods mechanism to adopt higher deficit and inflation-based models of development. Without smoothing over this crucial difference, comparable discourses of development are to be found in the Soviet sphere as well, complete with its own circuits of expertise and international bureaucracy, financial and technological transfer and management. We more than welcome contributions focusing on development paradigms and architecture/urbanism within the Soviet sphere with this comparative framework in mind.

1. Institutional histories of the discourse of human settlements within Bretton Woods organizations, developmental organizations, elite Northern aid bureaucracies (USAID, ActionAid, MSF, etc.) or private foundations (Ford, Rockefeller, etc.), national bureaucracies and Five-Year planning bodies, etc.

2. Developmentalist "moments" in general theories of modernity and/or histories of architecture and cities in the (fully-)industrialized world. Examples here are the considerable case studies of colonial and Third World contexts in the late CIAM and Team X meetings.

3. Crossovers between major theoretical trends of the 1950s-1970s (structuralism, systems theory, cybernetics, psychoanalysis, artificial intelligence) in the social sciences/humanities and aesthetic and architectural practices pertaining to development. See, for example: Arindam Dutta, ed., *A Second Modernism: MIT, Architecture, and the 'Techno-Social Moment* (Cambridge, MA: MIT Press, 2013); also Eden Medina, *Cybernetic Revolutionaries: Technology and Politics in Allende's Chile* (Cambridge, MA: MIT Press, 2014).

4. Linkages between efforts at state-building and architectural and urban thought, from questions of technological transfer to project management and procurement norms, systems compatibility, the establishment of domains of new expertise and their status as new (or failed) elites, investment paradigms, Five-Year Plans, etc.

5. Communistic and communitarian experiments in the developing world exploring "alternative" strands of technology. See, for example, Felicity Scott, *Architecture or Techno-Utopia: Politics after Modernism* (Cambridge, MA: MIT Press, 2010).

6. Relations between developmental disciplines and their impact on architectural/urban thought (e.g. the ascendancy of the economists, climate scientists, etc.).

7. Effects of various biopolitical regimes (food systems, population control, health-care initiatives, etc.) on architectural types and planning paradigms.

8. Biographies of particular buildings or para-architecture, architects, para-architects, or planners that particular exemplify the networks and discourses laid out in this call for proposals.

9. Effects of particular economies (e.g. oil extraction or banana production) on architectural types and planning paradigms.

10. Constructions of various Third World clients and proxies of development discourse (the poor, women, disaster resilience, etc.) in architectural and planning thought and practice.

11. Epistemologies of the unmodern; theories of freedom and unfreedom in relation to aesthetic and symbolic thought.

12. The design and planning of bureaucratic or technocratic enclaves and offices, industrial facilities and townships, infrastructure.

13. Arguments linking back theories of development or modernization to particular preoccupations within certain institutional homes or knowledge fields (e.g. the reliance of the World Bank on MIT social science "experts," the influence of the London School of Economics on Third World knowledge elites, or of Harvard's GSD and the AA in producing a global cadre of "modern" architects, etc.).

14. Curricular developments and linkages amongst various countries pertaining to human settlements and development discourse.

15. Explanations pertaining to the decline or weakening of the above linkages in the late 1970s, chronicling the rise of "postmodernism" in these realms, as well

as new investment paradigms ("neoliberalism") delimiting or transforming the scope of projects and the nature of expertise.

16. Constructions of the State (in constitutional doctrines, Five-Year Plans, military regimes, etc.) in relationship to architecture and urbanism.

The Aggregate "Method"

It is important that this project should not be seen as yet another compendium of dimly linked subject material that touch on a theme that the audience is left to divine. As an editorial collective, Aggregate has prided itself on its collaborative process of working material through a sequence of workshops into more intellectual integrated outcomes. Scholars wishing to contribute to this project *must therefore commit to participating in three workshops*, as per the schedule below, that will take the project from draft to its finished state. On the same lines, contributors are required to be open to a process of collaborative intervention, where inputs from other contributors, workshop participants and the editorial team will need to be incorporated into each contribution in order to better integrate the project.

A number of university presses have already indicated interest in this project; we will take up further negotiations with them as workshops proceed and clarify the scope of the project.

Submission Format

Please send in your submission to the following e-mail address: **systemsandthesouth@gmail.com**.

Please send in a proposal of 2-5 pages indicating content of your contribution, in addition to explaining how your work pertains to the intellectual interests outlined above. You are also welcome to attach to your proposal chapters, drafts, talks, or portions therein that you may already have worked on to give us a better sense of where you're coming from.

We anticipate the following calendar of events in order to best make efficient progress on this project:

- July 10, 2017: All submissions due.

- July 25, 2017: Announcement of selected projects.

- Late August, 2017: First workshop, to discuss scope, plan of work.

- January 10, 2018: First draft due.

- January/February, 2018: Second workshop, for discussion of first draft.

- May 15, 2018: Second draft due.

- June, 2018: Third workshop, outlining of final deliverables.

- August 1, 2018: Final draft due.

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