Lessons from the Social Condensers

Form as Function in the Rubenstein Commons

BY ANNA BOKOV

The new Rubenstein Commons building at the Institute for Advanced Study, designed by Steven Holl Architects, stands in stark contrast to the explicitly functionalist forms of other modern buildings on campus: the Member housing, designed by Marcel Breuer, or even the welcoming but austere (what's known as "brutalist") spaces of the dining hall, designed by Robert Geddes.

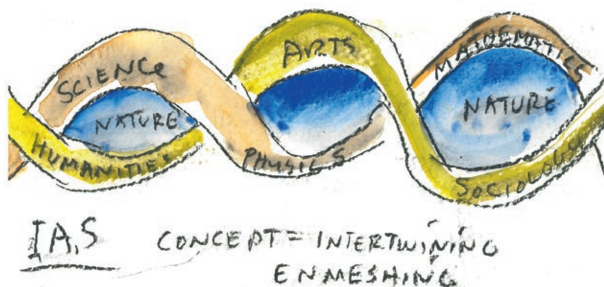
As an architectural historian, I think of architecture in epistemological terms. It is my second nature to question the ideas and origins that might have informed the design decisions in a given project. What temporal and cultural connections can be made? What precedents across history and geography come to mind? What design principles can be uncovered?

Observing this project under construction brought a number of associations to the fore, from the unexplored dimensions of cubist sculptures to the colliding forms of constructivist structures. Holl's inspiring form-finding process made me think of some of the radical explorations in art and architecture of the early twentieth century—the period that I have been working on for the past decade, looking specifically at the links between experimental pedagogy and innovative design. This topic is central to my new book, *Avant-Garde as Method, Vkhutemas and the Pedagogy of Space, 1920–1930* (Park Books, 2020), published during my time here at IAS.

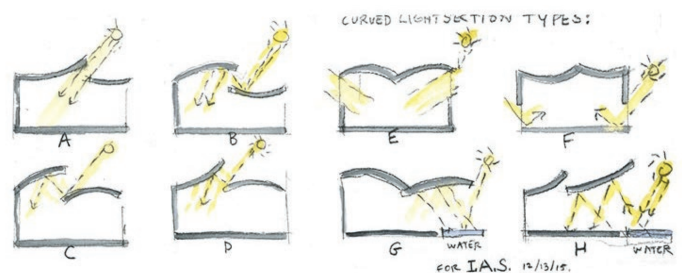
Thinking of every building as an opportunity to experiment and advance the field of architecture is something that Steven Holl shares with many of the avant-garde protagonists. Like Nikolay Ladovsky (architect, educator, leader of the Rationalist movement, and one of the protagonists of my book) a hundred years ago, Holl seems to be forging deeper connections—or intertwining, as he calls it—which go beyond mechanical programming, bringing to life the intuitive, experiential, and phenomenological aspects of architecture.

In fact, the concept of "intertwining" was central to the design proposal. For Holl, it has a two-fold meaning. First, it aims to intersect the sciences and the humanities, promoting exchange between different disciplinary silos. Second, intertwining fuses architecture and nature by treating light as a material and organizing the entire plan in sync with seasonal changes, turning the building into a fine-tuned horological instrument that registers light and space through time.

The other concept central to the design, according to Holl, is that of the "social condenser." The question that he

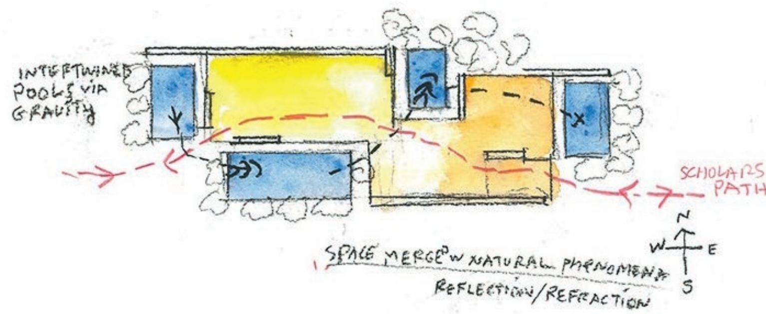


Watercolor sketch from the architectural competition. Natural phenomena are intertwined with science, physics, humanities, and art—corresponding with the Institute's mission.



Sketches showing the variety of ways light reflects within Rubenstein Commons

asked was “What are the ideal conditions for new thinking emerging today? What is thinking together?” In other words, how does architectural space foster collective activity? The underlying philosophy behind the concept of social condenser is that spatial form not only affects human experience but conditions human behavior, and can have a powerful psychological, ideological, and even educational impact: essentially, that architectural form can induce and promote social function.



As the building materialized it became clear, even from the outside, that Rubenstein Commons was challenging one of the most common tenets of modern architecture, that form follows function. In fact, I would argue, it is part of a different tradition in architectural thinking, where form is not a derivative of function but instead functions as its generator. My goal is to situate some of the underlying ideas behind the Rubenstein Commons within a larger historical context—specifically by examining the notion of the social condenser and questioning the intertwined relationship between form and function that has been foundational for modern architecture for much of the twentieth century and continues to be in the twenty first.

The Architecture of Rubenstein Commons

The IAS, of course, has its own set of radical foundational principles, central among them is “the unobstructed pursuit of knowledge” and continuous “advancement” of its frontiers. Or as Robbert Dijkgraaf puts it, curiosity-driven groundbreaking research.

“The pursuit of knowledge for its own sake is not a product that can be made to order,” founding Director Abraham Flexner argued. As he keenly observed, Institute scholars are “like poets and musicians, [who] have won the right to do as they please and to accomplish most when enabled to do so.” This kind of research—like artistic creativity—benefits from a “special environment.”

The Rubenstein Commons is an embodiment of the Institute’s mission of “bringing great minds together” (as was eloquently put by David Rubenstein at the groundbreaking ceremony on March 14, 2018), and is an interpretation of Flexner’s idea of “community” as the interconnectedness of social and physical form.

Holl proposed an open, one-level plan, which combines several loosely-defined zones with clear visual connections. This type of spatial organization allows one to use the space in multiple ways—from individual repose to collaborative interaction, and, of course, for a variety of collective events. With its picturesque aggregation of billowing roofscapes (for those percolating thought bubbles) and the cluster of intersecting (or intertwining) spaces, the new commons building seems to invite one inside for further inquiry.

The playful geometry of its forms lets the mind wander and search for associations with manmade and natural phenomena around it. If you are a mathematician, you might be reading into the patterns of light dancing across the ceiling (reflected from the pools through the prismatic glass). For a historian, its complex forms might bring a sense of wonder

Left: A virtual look inside Rubenstein Commons, featuring patterns of light and prismatic glass. Right: Glass features at the back of Rubenstein Commons

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but also connections with patterns of the past. Ultimately, its architecture inspires the experience both within and outside one’s field of knowledge.

Echoing the founding tenet of the Institute about the usefulness of useless knowledge (in this case, one might say the usefulness of unscripted space) in Holl’s project, each area does not necessarily have a prescribed use or set of activities. Here, space is not a passive agent but a “material of architecture,” to quote Ladovsky, which facilitates human experience and inspires social interaction.

The Rusakov Workers’ Club, designed by Konstantin Melnikov

Workers’ Club as Social Condenser

The term “social condenser” was coined by Constructivist architects in the late 1920s, about a decade after the Bolshevik revolution. They sought to construct a new “social type,” where “all the elements and parts of a building, without exception, stem from their social and technical function.”[1] Constructivists applied this concept to a range of architectural and urban structures, including “communal housing, workers’ clubs, palaces of labor, administrative buildings, and even factories.” All of these were supposed to become “conductors and condensers of socialist culture.”[2]

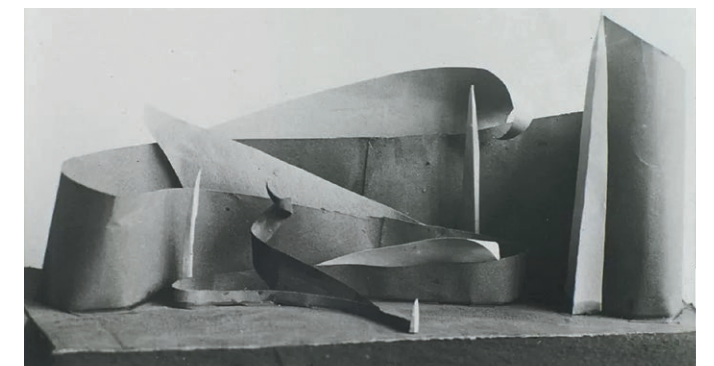
Most consistently, the concept of social condenser was tested and interpreted in the typology known as the workers’ club. This group of projects, both built and unbuilt, tended to have a characteristically expressive dynamic form meant to ‘conduct and condense’ a host of collective activities. While public assembly, performance, and education were historically the major functions of a workers’ club, it was neither a city hall, nor a theater, nor a school; rather, it was a new hybrid typology, hence requiring the new term.

Starting with the workers’ club prototype designed by Alexander Rodchenko for the International Exhibition of Modern Decorative and Industrial Arts in Paris in 1925, designers sought to graft the emerging forms of collective life through these new environments, treating them as showcases of the new lifestyle. The most prolific contribution to the new typology belongs to architect Konstantin Melnikov, who designed half a dozen workers’ clubs in the late 1920s.

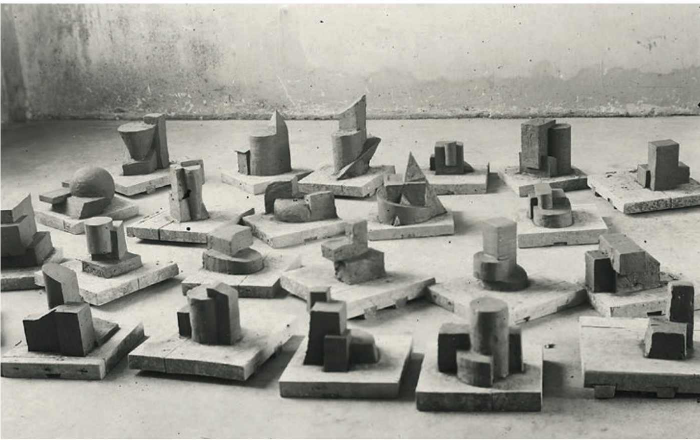
His iconic Rusakov Club, constructed in 1927–28, offered an inventive design solution to the relationship between the three primary programmatic components of the club: assembly, performance, and education. The club inverted the traditional relationship between the inside and outside by directly pushing the entry sequence outside and celebrating public procession. This idea was further manifested through the spatial and organizational structure of the entrance, foyer and auditorium zones. The auditorium component here becomes visually active, shaping the exterior as if turning the building inside out. Melnikov conceived the club as a system of auditoriums of different sizes separated by moveable partitions. According to his plan, when needed, these auditoriums could be combined into a composite performance and meeting space. Here, programmatic transformation manifests itself through spatial re-combination in two major ways: the auditorium subdivision and the expandable foyer.

Formalists and Functionalists

Finding a perfect solution for the architecture of a social condenser became a subject of intense polemic in the design studios at the higher art and technical studios, known as Vkhutemas, a multidisciplinary design school active in Moscow in the 1920s. This intense process of experimentation



Exercise on the Articulation of Deep Space, Space Course at Vkhutemas, Moscow, 1920s (top); proposed Rubenstein Commons from above (bottom)



Display of student exercises on the Interaction of Geometric Volumes ("chessboard" studies). Volume Course at Vkhutemas. Moscow, 1920s.

resulted in buildings that vary greatly in terms of their compositional and organizational configurations. Perhaps more than other building typology, the workers' club reflected the difference in approaches between the two major camps in Russian avant-garde architecture of the 1920s—Constructivists and Rationalists. The main point of contention between these groups was the relationship between function and form.

For Constructivists, form was a derivative of function. The visible was less significant than (and, in fact, subordinate to) the invisible forces, like circulation patterns and technological processes. In other words, form was bound by the pragmatic approach articulated by their Western-European contemporaries, most notably Walter Gropius—the first director of the Bauhaus—and his successor Hannes Meyer, who thought of building as pure organization, in every aspect: social, technical, economic and physical.

And, of course, Le Corbusier, who looked at architecture through the "criteria of economy" and famously treated buildings as "machines-for-living," equivalent to mass-production objects. (Though, later in life, right around the time he visited Einstein's home in Princeton in 1946,[3] he embraced what I would call a more mediated approach, focusing on the human body instead of machines.)

The modern buildings on campus, up until this point, can be attributed to this functionalist influence and, in fact, were designed by the disciples of Gropius. Robert Geddes, who designed the dining hall, was a student of Gropius at Harvard Graduate School of Design. Breuer followed Gropius from the Bauhaus to Harvard and was hired to design the Institute Members' housing in 1955.

By contrast, for the Rationalist architects form was not exhausted by the notions of use, structure, or technology, as it was for their colleagues. Instead, architecture was grounded in the timeless and universal properties, ostensibly present in spatial form and manifested in its perception. These formal properties included (according to them) geometry, size, position in space, mass, texture, relations and proportions, rhythm, and various types of composition.

This approach echoed, I would argue, the work of expressionist architects, such as Erich Mendelsohn, manifested in his famous Einstein Tower, the astrophysical observatory completed in Potsdam in 1921. Mendelsohn made numerous sketches with an attempt to create a structure that would reflect Einstein's groundbreaking theories, letting it emerge from what he called the mystique around Einstein's universe.

Instead of precisely defining the activities inside it, the Rubenstein Commons creates a space between—not just between walls, but between life and architecture. Like a hadron collider, the building smashes atoms (or, to paraphrase David Rubenstein, collides great brains together), in order to expand the horizon of our knowledge and collective human consciousness. It is not simply about giving form to life but rather allowing life to unfold in its most unpredictable form. As one of the greatest architects of our time, the late Paulo Mendes da Rocha, told Hashim Sarkis,[4] "architecture is the art of delineating life's unpredictability."[5]

Indeed, the language of architecture is not verbal. Rather, it is visual and spatial. Unlike other languages—mathematics, to name one—the language of architecture is accessible to all. Perhaps it is comparable to music in that sense; it is universal. Architecture speaks to us through its volumes and spaces, through structure and tectonics, texture and materials, through scale and proportions, through literal and phenomenal transparency. So much is communicated and understood through bodily experience and perception—without words and, as with any text, in between the lines. ■

Anna Bokov is a former Member (2020–21) in the School of Historical Studies. Anna's recent book Avant-Garde as Method: Vkhutemas and the Pedagogy of Space, 1920–1930 *(Park Books, 2020) is dedicated to the Russian counterpart of the Bauhaus. She is currently working on the exhibition on Vkhutemas at the Cooper Union. She is also working on two projects: one focuses on the post-Vkhutemas decade and the attack on formalism in architecture; the other explores the embodied agency of the typology of the workers' clubs and palaces of culture in the 1920s and 30s, unpacking the notion of the social condenser.*

Endnotes

1. The Resolution on the Reports of the Ideological Section of the OSA, ratified at the First Conference of the Society of Contemporary Architects in Moscow April 25, 1928. In *Sovremennaya Arkhitektura* [Contemporary Architecture], Issue No. 3. Eds. Gan Alexey, Moisey Ginzburg. Moscow, 1928, 78. Author's translation.
2. Ibid.
3. "Albert Einstein, Frank Lloyd Wright, Le Corbusier, and the Future of the American City" by Milton Cameron, *Institute Letter*, Spring 2014
4. Hashim Sarkis is Dean of the School of Architecture and Planning at MIT and founding principal of Hashim Sarkis Studios.
5. Sarkis, Hashim. "Precisely Unpredictable: On the Architecture of Paulo Mendes da Rocha (1928–2021)." Facebook. May 25, 2021.