take up a whole chapter or book, falls off a cliff after one column. While Cohen expressly aimed for a "series of cross-sections through the various theatres of the war" (15), they read more like rapid sketches. This could be the result of thinking through the project as an exhibition—it was staged at the Canadian Centre for Architecture—where the organization was spatial rather than bookishly linear and where text humbly assists rather than boldly asserts. The result is something that can feel reportorial rather than analytical; wood was reinvented as a material; "tempores," otherwise known as temporary buildings, appeared in cities; architects turned to camouflage; new visual languages appeared; prefabrication became essential; and so forth. It also means that readers have to be resourceful: Ernst Neufert's contributions are decentralized to no less than eleven different places in the book, Louis I. Kahn's to ten.

Where literary shape seems to have been self-consciously jettisoned, tension and beauty in the telling come through the unexpected juxtaposition of episodes—as in an exhibition. Several pages on Edwin Bergstrom's Pentagon Building in Washington directly abut a short piece on Auschwitz, all as part of an investigation of the new scale the war brought into being. The implications remain tacit, but no less poignant, especially in a moment when so many scholarly texts telegraph their every intellectual move. Still, one could wish that this sort of explosive comparison were not left to dangle without comment. Is the war a series of cross-sections through the various theatres of the war—perhaps all war—is a moment of narrative intensification, of rapidly rising and falling plotlines and crescendos. As much as any human activity, war is fought to make it end, giving its every twist a sense of narrative traction, as David Kennedy's Freedom from Fear makes abundantly clear. Choosing to mismatch representation with reality in this way makes it nearly impossible to carry an argument beyond a paragraph or two. On the other hand, a different kind of reading results: one can enter Cohen's book at any point without having to backtrack to pick up the gist. Fascinating tidbits appear on every page.

Perhaps it is fairer to treat the book as a catalog. Taken as such, it is full of sensational illustrations and exposition. Readers familiar with the author's work will not be surprised to find several astonishing images by Le Corbusier. Less familiar will be Yakov Rubanchik's image of anti-aircraft balloons in the streets of Leningrad or the wonderful diagram detailing Japanese air raid guidelines, where architectural graphics meet proto-anime. Those who appreciate Gordon Cullen's lovely drawings for The Concise Townscape will be fascinated by his drawings describing the "design, construction, and everyday life in anti-aircraft shelters." Even a photograph of Albert Kahn's factory-like drafting room, with draftsmen lying over sprawling drawings as they work, brings home the altered scale brought on by war.

Sections on the architecture of mobility, occupation (including "aesthetic purification"), and the proposed Soviet war memorials are, for their brevity, fresh and poignant. In the section on camouflage, while drawn almost entirely from publications, Cohen deftly shows how camouflage was part of a much larger practice of simulation and deception, including a faux Paris along a geographically similar bend of the Seine built to trick the Luftwaffe into unloading their bombs prematurely. Just the list of modernists who tried their hand at camouflage is impressive: Louis I. Kahn, Le Corbusier, Ernő Goldfinger, Norman Bel Geddes, Percival Goodman, László Moholy-Nagy, György Kepes, George Fred Keck, among others. Hugh Casson's analysis of the paradox of modernists hustling to learn the illusionism of camouflage is among the most insightful statements about this moment in architecture (204).

Whatever quibbles one might have with it, Architecture in Uniform is a book of extraordinary range and keen insight. It will remain essential for anyone working on architecture and war in the twentieth century.

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Notes

Daniel Purdy
On the Ruins of Babel: Architectural Metaphor in German Thought

In contemporary industry, technology and science, it is common to encounter the word architecture used in contexts outside of building design or construction. Most often, architecture refers to an overview or big picture of an enterprise, machine, or organism. Thus business architecture encompasses a company's interoperability and responses to the external environment. Computer architecture assesses codes, data paths and processing, and computations that model virtual and physical states. Brain architecture looks into how experiences build complex circuits from simpler circuits so as to achieve higher levels of plasticity when it comes to impulse transmission between sensation and initiation. In each case, architecture describes a system's production of information as a means of reasoning: statistical
or morphological comparison, pattern recognition, or detail mapping. An architecture uses views or plans to picture a system’s operations and contribute to their enrichment.

These and other instances of the word architecture to describe systemic operations outside of the architectural discipline raise the importance of studying architectural knowledge in an expanded field. In this regard, Daniel Purdy’s On the Ruins of Babel: Architectural Metaphor in German Thought is an ambitious attempt to chart some of the ways philosophers and writers have developed ideas about the world through architectural analogies. Put simply, the way we build finds a parallel in the way we think. And the architecture of what we do before we build—the sketches and drawings and model making—may be looked at as a means of visually or spatially developing skills of reasoning: the anticipation of critique, adjustments made before one has either built an edifice or proposed a doctrine. “Architecture,” Purdy tells us, “provides the language of how to conceptualize a discourse through images” (99).

Architecture has long borrowed metaphors, first from nature and later technology. Built proportions have been widely associated with the human body and face; other phenomena like trees, flowers and perennials; and human inventions like the turbine engine or digital algorithm. The reverse is also true. For perhaps an equally long period, the development of religion and philosophy have made use of notions gleaned from building discourse, such as foundations, supports, and buttresses, to elevate and deepen their arguments. It is Purdy’s contention that this latter direction of borrowing has been especially vital in modern times, if little noticed. From Immanuel Kant to Johann Wolfgang von Goethe to Georg Friedrich Hegel to Walter Benjamin, German philosophers and writers have directly or indirectly commented upon their vital dependence upon architectural notions as a means of expanding the parameters of sensation and cognition. Could it be the case that the modern, inquiring subject was shaped in part by the axes and horizons wielded by architectural representation and the landscape of built artifacts?

Kant’s turn from speculation to critique, Purdy contends, can be likened to a turn from one architectural metaphor to another: from the Tower of Babel to the house. The house, unlike the illimitable tower, confines judgment; its posts and beams that prevent collapse parallel the accumulation of evidence that proves a thesis. “Architecture,” to Kant, “with its methodical concern to solve a building’s engineering flaws, provided a compelling discourse to describe the structure of an argument” (63). The elements of architecture, its embellishments, and the life history of a building, correspondingly, have epistemological correspondences. Thus, the extensive use of ornament, in a sentence or on a façade, reveals a questionable need for embellishment. The discovery of a built ruin or dusty volume points out discarded or forgotten paths of thought. Just as a building assembles diverse phenomena into a unified artifact that nonetheless shows the tectonics of assembly, so too reason arranges empirical knowledge into abstract notions revealing of the weight, proportions and joinery of those concrete building blocks.

In an examination of Goethe’s writings, quite differently, Purdy turns from thought to sensation, and describes how the experience of a building’s details shower the imagination with feelings and thoughts of other architectural encounters. Looking at great architecture, the Strasbourg cathedral or a Palladian villa, Goethe developed a distanced perspective on himself: “Out of identification with the architect as artist, Goethe as the subject of Bildung began to criticize both the architect behind the building as well as the subject (himself) contemplating the structure” (204). Thus, by attempting to grasp the essence of a work of architecture, Goethe was forced into a complex back and forth thought process between his initial sense of a work derived from pictures and books, his on-site experience, his attempts to correlate sensation with the intentions of the architect and, finally, his awareness of how this complex process acted as a mode of acquiring knowledge and identity.

With Benjamin, Purdy turns from Enlightenment views of architecture as a means of representing objective reason or subjective feeling to experiences akin to the workings of the mind in its many iterations of consciousness. Earlier, Freud had likened the mind to an iceberg, where only the small part attributed to consciousness was visible, and the far larger preconsciousness and unconsciousness lay in the murky depths. Now, in commenting upon the way we perceive architecture through photographs, films, and recovered memories, Benjamin conceived of the city as a mental labyrinth that underlies its so-called rational structure and operations. For every monument above the surface there are legions of forgotten, superseded, or merely mundane structures. “Benjamin’s method,” Purdy tells us, “arranges the past spatially rather than chronologically. The temporal order is determined by how the reflecting subject moves through the imaginary space, more than by the historical sequence in which incidents occurred” (269).

Dissimilar to the use of architecture outside the discipline to convey clarity and logic, Purdy’s closing his book with Benjamin takes us from the birds-eye view to the worm’s glance—and, in lieu of a proper conclusion, leaves us crawling. A work of architecture, if it provided for Kant a framework for examining the limits of reason, had by the twentieth century lost any commanding or even unitary quality. Utterly dependent upon its technological reproduction and viewing in contexts beyond the site, architecture becomes a metaphor for the impossibility of recovering a sense of ideal unity and selfhood. Although hard to follow, given its tendency to jump-cut from one dense philosophical argument to another, and harder still to make a larger sense of, in the absence of summaries and recapitulations, On the Ruins of Babel nonetheless provides a valuable contribution to architectural thought. In his journey through German philosophical encounters with building, Purdy shows us how the ways one comes to design, to perceive and to come to terms with architecture are activities with great significance for the workings of the mind.

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