Life at the Threshold

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Territory

In 1949, the year that the architects Peter and Alison Smithson moved to London to begin their professional careers, an ideological controversy over the avant-garde role of architecture in the postwar period erupted within the Congrès International d'Architecture Moderne (CIAM). Le Corbusier, who had founded the organization twenty-one years before, sparked the dispute with his address to the seventh congress in Bergamo, Italy. After declaring the pursuit of the industrialized housing prototypes and functionally zoned urbanism that were characteristic of the early phase of modernism obsolete, he proposed that successive meetings be dedicated to the drafting of a new charter. That charter, he stated without much in the way of explanation, would be known as the Charte de l'Habitat. At the time, *habitat* was a clearly defined, if broad, concept in the biological fields that governed the interconnectedness of the organisms that inhabited a region. In the interwar period, a similar urban discourse had grown up dedicated to "the territorial arrangements that social activities assume."[1] Until this point, however, CIAM had been focused on the development of a standard that would accommodate the most rudimentary necessities of *habitation*—or "dwelling," as this goal was translated into English.[2] Le Corbusier remained vague about the architectural application that he hoped this ecological concept would assume at CIAM, though he requested that all the national delegations participate in the discussion over "the place of l'Habitat in the human complex."[3]

Peter and Alison Smithson both joined CIAM during the period of this high-stakes controversy and were instrumental in shaping the ecological debate in terms

1. Walter Firey, *Land Use in Central Boston* (1947; repr. New York: Greenwood Press, 1968), p. 3.
2. The first CIAM publication was entitled *Die Wohnung für Existenzminimum* (Frankfurt: Englert und Schlosser, 1930) and was based on a traveling exhibition of the same name.
3. From a circular letter sent after an "Extraordinary Council Meeting" held in Paris in May of 1952 and signed by Le Corbusier, Sigfried Giedion, and Jacqueline Tyrwhitt; quoted in Eric Mumford, *The CIAM Discourse on Urbanism: 1928–1960* (Cambridge, Mass.: MIT Press, 2000), p. 218.

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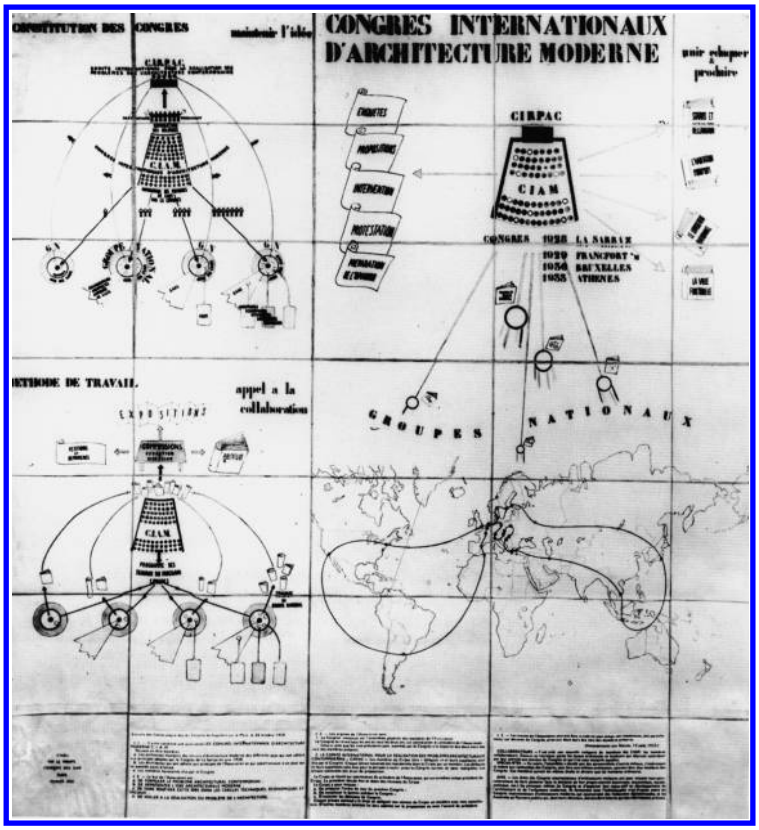


CIAM organizational chart. 1936.

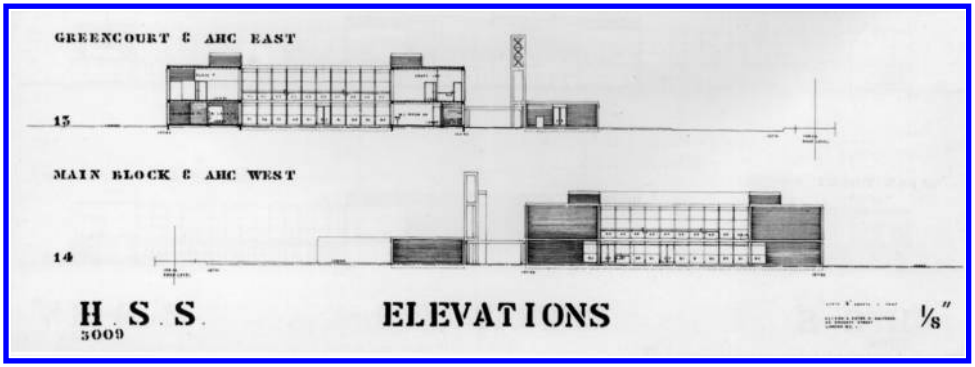
of its domestic roots in "oikology," or the study of the home. The Smithsons had been driven southwards upon graduation in 1949 by the depressed job market and had gone to work for the London County Council (LCC), the largest of the local government departments dedicated to carrying out publically financed projects. Most of the construction during this period was devoted to welfare-state development, including commissions for housing estates and school buildings. With so many architects working in the public sector, the Architect's Department at the LCC was a prime venue for the discord among the generations of British architects to make itself known.[4] The Smithsons spoke out more vehemently than most of their sympathetic peers against what was for them an unfortunate mix of uncompromising social politics and compromised modernist principles that under the rubric of the "New Empiricism" (thus the "New" in Brutalism) had set postwar British

4. Royston Landau cites the RIBA sample survey of 1958 as claiming 45% of British architects worked in the public sector. See Landau, *New Directions in British Architecture* (New York: George Braziller, 1968), p. 39.

modernism on a provincial course of supplying psychological comfort in the form of pitched roofs and flowerpots.[5] Usually this kind of banal architecture, as the Smithsons saw it, was restricted to the New Towns and suburbs. But the mostly lackluster architecture of the Festival of Britain of 1951, a morale-boosting event to coincide with the centennial of the Great Exhibition of 1851, transported this dreary stuff into the heart of London. In response, the Smithsons set about developing a counter philosophy.

The quick rise to prominence that led to the assertion of the pair as pioneers of an architectural movement was unique. Quite soon after taking up their jobs in the Schools Division of the LCC, the Smithsons won a competition for the Hunstanton Secondary Modern School (proposed in 1949 and completed, after a prolonged construction process due to material shortages, in 1954) in Norfolk. Bucking the professional trend, the two were able to set up their own office. Thus released from the aesthetic oversight of the established order, the Smithsons had a rare opportunity to apply theory to practice. Their successful design revealed international affinities—most blatantly with the elegant postwar work of Mies van der Rohe, in its compositional use of symmetry and façade treatment. This association lent the composition a formal air, despite the fact that the nakedness of the materials and services took Mies beyond his own word. Upon closer inspection, the building drew in spirit on the *art brut* aspirations of the postwar work of Le Corbusier in raw concrete. Knowledge of the contemporary work of such prominent figures was rare amongst their colleagues, and the Smithsons had often to rely on photographs in foreign periodicals for the experience of such works. The Smithsons' own images of the Hunstanton School, many of which were taken by their colleague Nigel Henderson, circulated abundantly in the press

5. Reyner Banham lays out the position of the younger generation in the first chapter of *The New Brutalism: Ethic or Aesthetic?* (London: Architectural Press, 1966). See also, Banham, "Revenge of the Picturesque: English architectural polemics," in *Concerning Architecture: Essays on Architectural Writers and Writing Presented to Nikolaus Pevsner*, ed. John Summerson (London: Allen Lane, 1968), pp. 265–73.



Alison and Peter Smithson.
Drawings for the Hunstanton School. 1949.

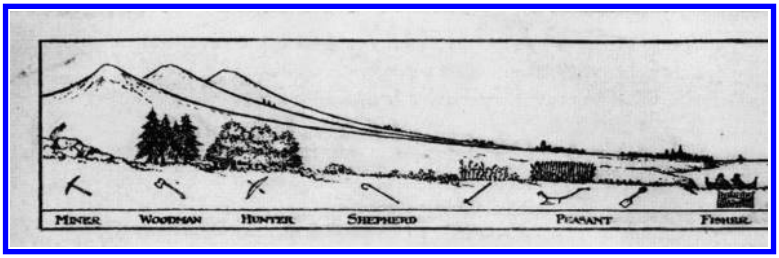
and revealed a bare frame assembled of simple joints and stark interiors.[6] A popular photograph demonstrated the exposed servicing of a row of sinks with the veering horizontals of pipes, open-air wastewater channel, mullions, and structure. Even most British architects "knew" this provincial school in the form of its images.

Phylum

The theoretical emphasis on the visual qualities of raw materiality ended up producing a mainstream practice of Brutalism defined by weighty qualities, often expressed through the use of shuttered concrete. This trait, however, was certainly not definitive of the oeuvre of the Smithsons, the self-declared originators of Brutalist architectural practice; in fact, they were criticized for the lack of authorial consistency across the body of their work. But in the light of the international debates at CIAM over the territorial ethos of *habitat*, the regional ethics of the New Brutalism and the quest for legitimacy through the pursuit of natural order takes on a different sheen. For modernism to remain relevant, the Smithsons argued with their colleagues in the deliberations over the Habitat Charter, its universal premises would have to become accountable to local difference. Unlike the responsiveness to

6. For a detailed account of the photographic documentation of the Hunstanton School, see Claire Zimmerman, "Photographic Images from Chicago to Hunstanton," in *Neo-avant-garde and Postmodern: Postwar Architecture in Britain and Beyond*, ed. Mark Crinson and Claire Zimmerman (New Haven: Yale Center for British Art, 2010), pp. 203–28. A fine reading of the use of welded frame, Gault brick infill, and staged photography appears in "Another Brick in the Wall," the essay by Anthony Vidler in this issue.

Nigel Henderson. Main Hall of Hunstanton under Construction. ca. 1953.



Patrick Geddes. "Valley Section" diagram. 1909.

local materials and retrospective building techniques of "regionalism," *habitat* practice required attention to both the social structures as well as the contemporary technological capacity of a particular locale. As a result, architecture would provide an ecosystem to cultivate the well being of a society. It was via the development of a conceptual framework through which modernist practice could maintain its social validity that the Smithsons cultivated the theoretical arguments that would in turn be published in British architectural journals under the rubric of New Brutalism—which was, in their own words, itself a regional response to the "problem of habitat."[7]

The significance of the theories of the Scottish biologist turned city planner Patrick Geddes for urban studies in Britain manifested itself in the assurance of the Smithsons that architecture could be expected to further the cause of human society.[8] While all plants and animals process matter and energy to modify their environments over time, evolutionary biologists singled out the unique advantage accorded to humans: that they are able to consciously shape their environment rather than simply adapt to it over long durations. Geddes had taken the position that urban form, from the crofter's cottage to the town, was the outcome of human adaptation specific to the conditions of each region. In his famous "Valley Section" diagram, Geddes positioned the metropolis as the apex of a chronologically progressive narrative of urban evolution because of its explicit cultivation of cultural expression superfluous to survival.

The environmental approach of this historical section descended from the pioneering British naturalists who pursued field research in the face of the dominant laboratory method of comparative morphology and physiology of the biological sciences. The tradition began with the eighteenth-century naturalist Gilbert White, who is now considered a pioneer of the ecological movement for his embrace of the idea that all beings dwelling in a particular district are interdependent, and continued up through to nineteenth-century passionate evolutionist

7. Alison and Peter Smithson, "The Built World: Urban Re-identification," *Architectural Design* (June 1955), p. 186; repr. in Alison and Peter Smithson, *Ordinariness and Light: Urban Theories 1952–1960 and Their Application in a Building Project 1963–1970* (Cambridge, Mass.: MIT Press, 1970), p. 108.

8. For more on the influence of Patrick Geddes, see Volker M. Welter, "In Between Space and Society: On Some British Roots of Team 10's Urban Thought in the 1950s," in *Team 10: 1953–81: In Search of a Utopia of the Present*, ed. Max Risselada and Dirk van den Heuvel (Rotterdam: NAi, 2006), pp. 258–63. For a more general introduction to Geddes as a city planner, see Volker M. Welter, *Biopolis: Patrick Geddes and the City of Life* (Cambridge, Mass.: MIT Press, 2002).

Thomas Henry Huxley (known as "Darwin's Bulldog"), of whom Geddes was an avid disciple.[9] By the early twentieth century, there was an acceptance among members of the London Zoological Society that architects too saw themselves as being in the business of building better habitats. In his role as secretary to the London Zoological Society, Julian Huxley, the incredibly prolific grandson of Thomas Henry Huxley, fostered a dialogue with such prominent modernists as Walter Gropius and László Moholy-Nagy, who were in Britain for a time in the 1930s, and commissioned some of them to build animal habitats, most notably the penguin pool for the London Zoo by Tecton, the firm of Berthold Lubetkin.[10]

Seen in the light of an evolutionary model of urbanism, one based on the interconnected ecosystem of a habitat at escalating urban scales, New Brutalism is revealed to be less a material exercise and more an argument for the application of a revamped form of modernism tailored to the English milieu.

Domain

As it happened, the first institutional response to the call for the Habitat Charter reflected the culture of the British scene. The British delegation to CIAM, known as the Modern Architectural Research (MARS) group, had been chosen to organize the next congress, to be held in 1951, and decided against the dedication of the meeting to the writing of a new charter. Instead, the group invited participants to come to Hoddesdon, a commuter town outside London, armed with proposals for the physical reconstruction of bombed out city cores, such as those of London and Coventry, and, as was quite often the case in Britain, for the building of entirely new cities.[11] The MARS group did address the concern over the insufficiency of the old functionalist categories of "domestic," "work," "circulatory," and "recreational space." In place of those classifications in the common *grille* (grid) framework used for congress presentations, they requested that five ascending scales of community—"the village," "neighborhood," "city sector," "city," and "metropolis"—be substituted.[12] Thus, despite the rejection of *habitat* as a theme, the format for the presented work clearly reflected the Geddesian urban ecology of human development, even if the focus remained on formal solutions rather than biological processes.[13] That Peter Smithson only attended this, his

9. An introduction to the topic of field studies and the impact on biology can be found in Richard W. Burkhardt, Jr., *Patterns of Behavior: Konrad Lorenz, Niko Tinbergen, and the Founding of Ethology* (Chicago: University of Chicago Press, 2005).

10. Peder Anker has outlined this relationship in his chapter "The Bauhaus of Nature," in *From Bauhaus to Ecohouse: A History of Ecological Design* (Baton Rouge: Louisiana State University Press, 2010), pp. 9–23. For more on the architecture of the London Zoo, see my "For the Birds," *Grey Room* 13 (Fall 2003), pp. 6–27.

11. Ten "New Towns" were embarked upon in England between the years 1945 and 1951. Seven of those were essentially suburbs of London.

12. The shifts in the presentation format of the CIAM grid are summarized in Annie Pedret, "Dismantling the CIAM Grid: New Values for Modern Architecture," in *Team 10: 1953–81*, pp. 252–57.

13. Welter, "In Between Space and Society," in *Team 10: 1953–81*, p. 258.

first congress, for less than a day highlighted the conflicts of the local scene. That he would leave unimpressed was predetermined.

Le Corbusier, undeterred by CIAM 8's lack of progress towards the drafting of the Habitat Charter, officially dedicated the next congress to the project. CIAM had embarked on a policy of actively encouraging students and graduates to join the organization after World War II, and an unexpectedly large contingent of newly joined younger members participated in the preparatory sessions, which were held in Sigtuna, Sweden, in June 1952. In an effort to smooth over some of the discord in advance, the executive council issued a circular letter that acknowledged the varied nuances that the word "habitat" assumed in the dominant languages of CIAM. While in French the term denotes "the living conditions of any creature," the letter somewhat misleadingly explained, in English it implies "something larger than 'housing' and smaller than 'neighborhood'—in other words, the setting of daily human life."[14] At the Sigtuna event, the arguments focused on the ideological difference implied by the prioritization of the new concept of "habitat" over the older one of "habitation," further exacerbating the generational rift.[15] Indeed, these terms would still be deployed in a partisan manner at the next congress. While the preliminary meeting may have done nothing to impart a commonly acceptable working definition for "habitat" as an architectural agenda, it did promote a sense of cohesion among the younger members who at least could agree that the term suited the desired change in focus from the object to the expanded field of the immediate environment.

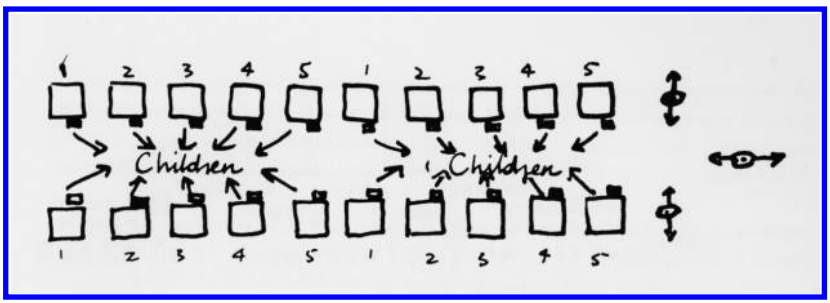
The ninth congress, held in Aix-en-Provence during the summer of 1953, was the event where the discord over the future of the organization came to a head. It was the largest meeting to date, as well as the last at which the "founding fathers" would be present. It was a chaotic, at times confrontational, event, and no charter was drawn up. Instead, a team of newly joined younger members was put in charge of the tenth congress, which was to be broadly based, again, on the search for an "ideal Habitat, fully cognizant of social and climatic conditions."[16] As Alison Smithson would recount, this group, to be known as Team X, first recognized its shared concerns through participation in a CIAM 9 working group—known in the organization as "commissions," as one can see in the diagram of the workings of CIAM at the start of this essay—dedicated to building the new charter.[17] The report of this commission concluded that since even the most basic conditions of dwelling were luxuries unobtainable by the majority of world populations, "habitat" must serve as a "permanent contract between society and the individual with reciprocal rights and obligations."[18] As before, the report was vague on the form this contract would assume, but the issue of implementation was more specifically addressed in two appendices submitted by

14. See Mumford, *The CIAM Discourse on Urbanism: 1928–1960,* p. 218.
15. The meetings at Sigtuna are recounted by Mumford. Ibid., pp. 220–25.
16. Ibid., p. 242.
17. Alison Smithson, ed., *Team 10 Meetings: 1953–1984* (New York: Rizzoli, 1991), p. 19.
18. Mumford, *The CIAM Discourse on Urbanism: 1928–1960,* p. 237.

the Dutch and English youth contingents. As indicated by the need for addenda, variance of opinion expressed in terms of national difference would continue even within the most vocal proponents of the pro-"habitat" crowd.

Family

In the brief appendix "Report of the English Group," the Smithsons seized the opportunity to articulate the architectural agenda in terms of the environmental debate with which they had come to the congress.[19] The polemical tone of the document began with the stated assumption that contemporary housing solutions, for reasons of "political, technical, and mechanical expediency," do not reflect "any reality of social organization."[20] Further, insofar as the house was the basic unit of urban form, any insufficiencies at the domestic scale became those of the neighborhood, district, and city. Thus, for harmonious urbanism to result, the structure of the house, "the shell which fits man's back," had to be predicated on the model of domesticity it concealed.[21] While this demanded a change in architectural practice,



Alison Smithson. Diagram indicating patterns of child association in the street.

their position on the social contract was by no means reformative. Critical design decisions at the urban scale were predicated on the behavior of the family unit with offspring, in the manner of a field biologist registering the reproductive behavior of members of a particular species.[22] The Smithsons, for example, granted elevated status to the point of transition from the world of the house to that of the street because it was the place where children first came into contact with others.[23] That

19. The "Report of the English Group" is included in the documents compiled by Alison Smithson in *The Emergence of Team 10 out of CIAM* (London: Architectural Association, 1982), pp. 8–9.
20. Ibid., p. 8.
21. Alison and Peter Smithson, "Human Associations," in *Ordinariness and Light*, p. 44.
22. For a relevant example, see Patrick Geddes and J. Arthur Thomson, *The Evolution of Sex* (London: W. Scott, 1889).
23. Alison Smithson, *The Emergence of Team 10 out of CIAM*, p. 8.

transition, therefore, was required to reflect the duality of the home as a place in-between, one that looked "inward to family and outward to society."[24] On the one hand, the lessons of the house infused the city by way of the threshold. On the other, the "looseness of organization and ease of communication essential to the largest communication should be present in this, the smallest."[25]

The notion that a successful reinvigoration of urban architecture would begin by fostering meaningful encounters at the threshold of intimacy was grounded in an emerging branch of sociological scholarship that analyzed the behavior of children in search of uncorrupted forms of expression. Play in particular was taken to be an indicator of pure spontaneity.[26] It was the approximation of childlike artlessness that the Smithsons so admired in the work of painters such as Dubuffet and Pollock.[27] In addition, sociological movements such as Mass-Observation were using techniques learned from field biologists to record the everyday activities of people whose energies were mostly directed towards the basic needs of survival.[28] Both of these trends were combined in the striking photographs taken by Nigel Henderson of children playing on urban streets that took up so much of the presentation board the Smithsons brought with them to CIAM 9. These photographs had been taken in conjunction with a series of ongoing sociological studies conducted during the 1950s documenting the life of the urban poor in Bethnal Green, a particularly impoverished area of East London.[29] Transported into a presentation featuring a low-income housing project, the non-productive activity of play carried out by working-class children was intended to convey a new way of seeing the ordinary, or what they would call the quality of the "as found" in the context of New Brutalism.[30] The "as found" designated things that partook of "reality"—a word that the Smithsons applied liberally to what they regarded as genuine—and incorporated crude materiality, found objects, and elementary social units, such as laborers and what they would refer to throughout their writings as "peasant society."

24. Alison and Peter Smithson, "Human Associations," p. 44.
25. Ibid.
26. For more on the focus of Team 10 on children's play, see Ben Highmore, "Rescuing Optimism from Oblivion," in *Team 10: 1953–81*, pp. 271–75.
27. As Banham observed, the unusual awareness of the Smithsons of the international art scene and the work of early modernism was itself a critique of the local scene.
28. For an account of the Mass-Observation project, see Nick Hubble, *Mass-Observation and Everyday Life* (New York: Palgrave Macmillan, 2006).
29. Henderson had moved to this deprived and bomb-damaged area with his wife, the anthropologist Judith Henderson, so that she could participate in a hands-on study run by the sociologist J.L. Peterson called "Discover Your Neighbor," which gathered statistics regarding the behavior of local communities. The aim of such surveys was to provide the governmental departments of welfare advice based observed data collected via the techniques of social anthropology. The most famous such study of Bethnal Green was conducted by Michael Young and Peter Willmott and published as *Family and Kinship in East London* (London: Routledge and Kegan Paul, 1957); another was by Ruth Glass, "Social Aspects of Town Planning," *Architectural Review* 97 (March 1945), pp. 67–72.
30. For a (retrospective) discussion of the "as found," see Alison and Peter Smithson, "The 'As Found' and the 'Found,'" in *The Independent Group: Postwar Britain and the Aesthetics of Plenty*, ed. David Robbins (Cambridge, Mass.: MIT Press, 1990), pp. 201–2.

Class

If the "as found" behavior of urban children could be studied for underlying patterns of associative behavior, the archetypal primitive hut, no longer a philosophical abstraction, remained the key to natural architectural code. When they wrote in the language of CIAM, the Smithsons emphasized the determinate relationship between societies and their typologies. In one of a number of documents entitled "Habitat" that the Smithsons produced in preparation for CIAM 10, they wrote:

> Every culture produces type-objects, indeed it is through them that a culture can be defined. From pre-history to contemporary peasant society, each culture has thrown up a limited number of house forms. The culture expresses itself through these forms. Today's problem is to define that form unique to each culture group.[31]

In the context of the definitive writings on New Brutalism, the significance of the primitive was even more overt: "What is new about the New Brutalism among movements is that it finds its closest affinities, not in past architectural style, but in peasant dwelling forms. It has nothing to do with craft. We see architecture as a direct result of a way of life."[32] It was not the dexterous manipulation of the found materials of a society that defined the practice but the ability to materially articulate the found conditions of being.

The assumption that the young, poor, and indigenous (and combinations thereof) produced objects more instinctively and therefore closer to the state of nature was the overt message of the presentation that garnered the most attention at the congress, as well as the Smithsons' admiration. "Habitat du plus grand nombre" was the joint effort of a group of Western architects working in Morocco to provide a flexible housing module that celebrated the lifecycle of the *bidonville*, or the extremely impoverished shantytowns that grew up on the outskirts of cities, as an evolutionary continuum. The solution for the most elemental conditions, it was suggested, would indicate the way for more advanced housing solutions. One such sophisticated solution was provided in the form of the newly completed residential housing development Unité de l'Habitation in Marseille by Le Corbusier on which Vladimir Bodiansky, active member of the Moroccan delegation, had collaborated and atop which the final party for CIAM 9 was famously held.[33] But the Moroccan proposal presented to the congress improved on the built French one in the Smithsons' opinion because it allowed inhabitants the agency to adapt the given infrastructure to their own familial requirements. As they would

31. Alison Smithson, *The Emergence of Team 10 out of CIAM*, p. 14. With the use of the term "type-object," the language used by the Smithsons both resonated with and differentiated itself from that of Le Corbusier.

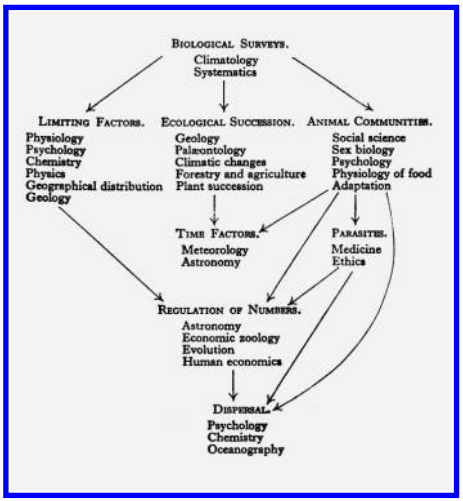
32. Alison and Peter Smithson, "Thoughts in Progress: The New Brutalism," *Architectural Design* (April 1957), pp. 111–13.

33. Bodiansky fervently supported the cause of the Habitat Charter. See Vladimir Bodiansky, "Notes of the Subject of a Habitat Charter," *Annals of Public and Cooperative Economics* 24 (October 1953), pp. 289–94.

describe the project in a review for *Architectural Design*, "they have made it a principle of 'habitat' that each man shall be at liberty to adapt for himself."[34]

Genus

The "Report of the English Group" acknowledged the regional contingency of kinship structure at the outset of the discussion and provided a methodological tool for accommodating the unknowns that would emerge as a result of what they called the hierarchies of voluntary and involuntary human associations in different societies. The association, like the reproductive unit, was a fundamental component of habitat for biologists, especially those with an ethological focus, for whom shared geography and climate alone could not explain the interactive behavior of multiple organisms. As the British founder of community ecology, the zoologist Charles Elton, defined them in his classic text *Animal Ecology* (1927), associations were "not mere animal assemblages of species living together, but form[ed] closely-knit communities or societies comparable to our own."[35] Elton coined the expression "ecological niche" to encapsulate the complexity of relationships forged in an association. An architecture with a valid, associative notion of habitat would also be thoroughly bound to the connections forged between people and their surroundings. By contrast, the simplistic functional categories—work, dwelling, recreation, and circulation—that governed modernist urban design disrupted the network of essential relationships through isolationism. "It became obvious," the Smithsons reflected, "that town building was beyond the scope of purely analytical thinking—the problem of human relations fell through the net of the 'four functions.'"[36] Thus the community had to be considered as a totality unique to its environment, with the individual residence that housed the primary natural unit of society never being separated from any other part of the life of the greater community. The Smithsons would ultimately arrive at the conclusion that



Charles Elton. Diagram from Animal Ecology. *1927.*

34. The review, which appeared in January 1955, is quoted by Banham in *The New Brutalism, Ethic or Aesthetic?*, p. 47.
35. Charles Elton, with an introduction by Julian S. Huxley, *Animal Ecology* (New York: Macmillan Company, 1927), p. 5
36. Alison Smithson, *Urban Structuring: Studies of Alison and Peter Smithson* (London: Studio Vista, 1967), p. 18.

the search for any universal norm, even the one for the Habitat Charter, would fail because "we patently have not got a universal culture."[37]

The Smithsons prepared their presentation *grille* for CIAM 9, known as the "Urban Reidentification" grid, as a demonstration of how a particular proposal could derive its distinctive form from the social patterns of association. While the grid and its featured project, a City of London housing competition entry known as "Golden Lane" (1952), predated their entry into the institutional controversy over habitat, the theoretical terminology easily migrated into the latter. "This Grille," the Smithsons explained to puzzled congress participants, "proposes that a community should be built up from a hierarchy of associational elements and tries to express these various levels of association (THE HOUSE, THE STREET, THE DISTRICT, THE CITY) algebraically."[38] The levels related to each other in a manner not unlike the hierarchy of biological classifications upon which are built the historically shifting nesting boxes of the taxonomic scale.

These hierarchies, which also served as the categories by which the grid was laid out, clearly resonated with those proposed by the MARS group for the previous congress. But even while the domains for the immaterial connections inherent in associations were designated to these familiar urban typologies, in the next breath the Smithsons stressed that the task was to find "new equivalents for these forms of association for our new, non-demonstrative, society."[39] "The problem of reidentifying man with his environment," they continued, "cannot be achieved by using historical forms of house-groupings, streets, squares, greens, etc., as the social reality they presented no longer exists."[40] Not only were the built products of a bygone culture ill suited to current lifestyles, they would never foster a sense of connection for an individual or society. In place of the historical repertoire of forms, the Smithsons contended that architects must do no less than

> evolve an architecture from the fabric of life itself, an equivalent for the complexity of our way of thought, our passion for the natural world and our belief in the nobility of man. In a rough and ready way we have made a start—a "doorstep philosophy"—an ecological approach to the problem of habitat—and a new aesthetic.[41]

The combination of ecology and aesthetics at the heart of an architectural fabric of life began with the crossing of the threshold. It was in such places, neither fully here nor there, where individuals came into the voluntary and involuntary contact with others that defined urban form. Participation in city life required many crossings of thresholds, and doorstep philosophy distinguished the psychological condi-

37. Alison Smithson, *The Emergence of Team 10 out of CIAM*, p. 14.
38. Ibid., p. 7.
39. Ibid.
40. Ibid.
41. Alison and Peter Smithson, *Ordinariness and Light*, p. 108. For a historical account of this philosophy, see Ben Highmore, "Streets in the Air: Alison and Peter Smithson's Doorstep Philosophy," in *Neo-avant-garde and Postmodern*, pp. 79–100.

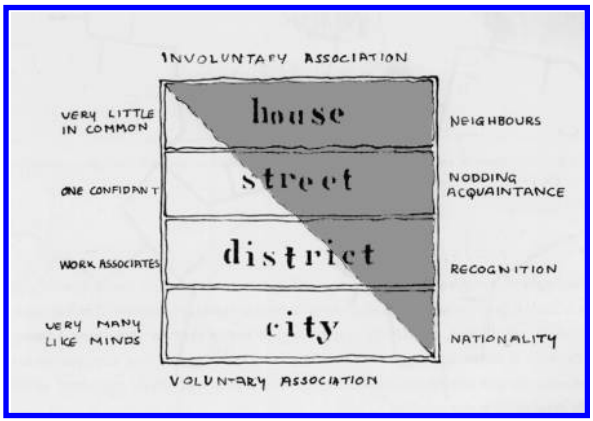
tion of the place in-between as the poignant moment to express the fundamental continuity across a habitat of ascending urban scales. This was precisely the significance of the threshold for environmental biologists after Jakob von Uexküll, in turn influenced by Kant, who drew on the sensorial perceptions of "just-noticeable differences" to account for subjectivity in Darwinist materialism.[42] Uexküll described the condition of the threshold as the crucial point at which organisms become aware of the subtle differences in qualities that differentiate the states around them. When a human subject registers these sensorial impressions, they are objectified according to the preexisting forms of the mind. In other words, the inextricable link between experience and materiality registers at the threshold. "It is utterly vain," Uexküll concluded, "to go seeking through the world for causes that are independent of the subject; we always come up against objects, which owe their construction to the subject."[43] In the Smithson formulation, however, the very perceptual condition of familiarity could be used to material benefit. Given humans ability to consciously adapt their surroundings, the built environment could be strategically used to restore authentic experience by expanding the perceptual qualities of the threshold to the entirety of the urban encounter.

If the threshold between the house and the street facilitated the most instinctive of social activities, from food gathering to play, each successive scalar shift negotiated transitions more related to the state of culture than the last. A diagram included with the "Report of the English Group" relates the associational levels of "Urban Reidentification" to the amount of control that an individual has over social connectivity in each historical venue of the city. As one moves out of the home, the scene of maximum "involuntary associations," towards larger agglomerations based on social ties, such as the workplace, the level of willed connections increases. The city is the scene that benefits from the maximum of voluntary associations, or what the report calls an "intellectual contact community." In later iterations, as part of the documents drafted during the preparatory meeting for CIAM 10 held at Doorn in the Netherlands, Peter Smithson would include another, more explicitly material and environmental diagram of associations based on the Valley Section with which Patrick Geddes was so robustly allied. The Valley Section, as illustrated by Geddes, demonstrates a historical narrative of architectural development that binds specific milieus to stages of social maturity, from the forests of the hunter to the plains of the urban dweller. In the Smithson adaptation, the section becomes a continuum of contemporary urban development, with the least concentrated communities representing a more primitive stage of social evolution than "the ultimate community" of greater density.[44] Place specificity demanded architectural particularity. The

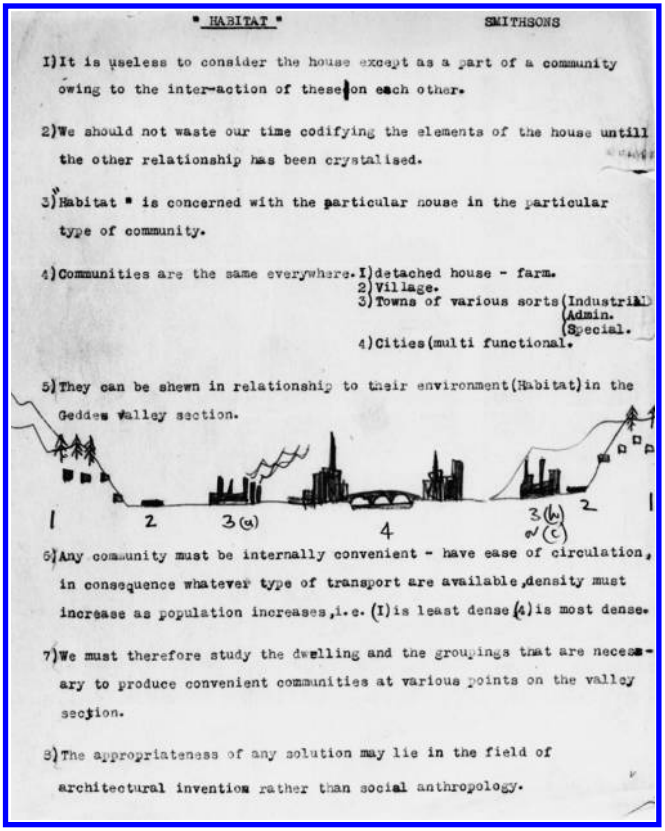
42. Jakob von Uexküll, "Time: Threshold," in *Theoretical Biology*, trans. D. L. Mackinnon (1920; London: Kegan Paul, Trench, Trubner & Co., 1926). The law of "just-perceptible difference" was articulated by the German experimental psychologist E. H. Weber in the 1840s. The groundbreaking nature of Uexküll's "new biological scaffolding" is demonstrated, for example, by the review written by T. Arthur Thomson for the *British Journal of Philosophical Studies* 2 (July 1927), pp. 413–19.

43. Ibid., p. xv.

44. Alison and Peter Smithson, *Ordinariness and Light*, p. 48. Welter noted this elision in "In Between Space and Society," p. 261.



Alison Smithson. Diagram of involuntary/voluntary association. 1951.



"HABITAT" SMITHSONS

I) It is useless to consider the house except as a part of a community owing to the inter-action of these on each other.

2) We should not waste our time codifying the elements of the house untill the other relationship has been crystalised.

3) Habitat " is concerned with the particular house in the particular type of community.

4) Communities are the same everywhere. I) detached house - farm.
2) Village.
3) Towns of various sorts (Industrial / Admin. / Special.
4) Cities (multi functional.

5) They can be shewn in relationship to their environment (Habitat) in the Geddes Valley section.

1 2 3(a) 4 3(b) or (c) 2 1

6) Any community must be internally convenient - have ease of circulation, in consequence whatever type of transport are available, density must increase as population increases, i.e. (I) is least dense (4) is most dense.

7) We must therefore study the dwelling and the groupings that are necessary to produce convenient communities at various points on the valley section.

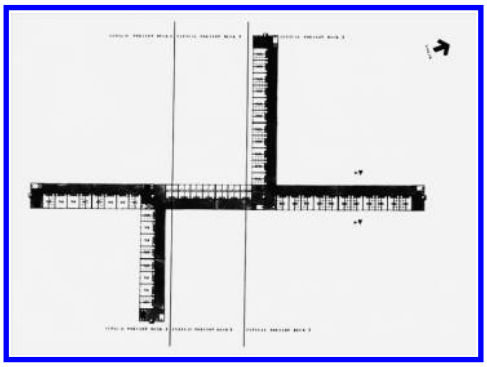
8) The appropriateness of any solution may lie in the field of architectural invention rather than social anthropology.

Alison and Peter Smithson. Draft for a Statement on Habitat. 1954.

Smithsons would even prepare a grid for CIAM 10 that proposed that housing solutions for detached houses, villages, towns, and cities correspond with the locations identified on the section, as opposed to the traditional modernist pursuit of the ideal prototype applicable to all situations. The notes from the Doorn meetings record that Peter Smithson also proposed that the working groups serve as "commissions of atmospheres," with each group collaborating on proposals for the environmental type that he designated on the Valley Section.[45]

Species

Though the Hunstanton School took center stage in the debate over New Brutalism, Golden Lane, as Banham pointed out in his groundbreaking article on the subject, was a much better demonstration of Brutalist philosophy despite its low profile in the architectural press.[46] Banham built his case for Golden Lane on the use of what he called "aformality" as a compositional force as opposed to the conventional geometries of architectural design.[47] The ostensible casualness of aformality, of the kind experienced in a painting by Pollock or a print by Paolozzi, was better understood, according to Banham, in terms of "an intuitive sense of topology."[48] With the analogy between the continuous forms of Golden Lane and the mathematics of the unbroken surface, Banham was seeking to redirect the debate over Brutalism in the specific political terms of the British architectural scene that had rekindled an interest in classical proportions. But in light of the focus that topology shared with the doorstep philosophy on the nuances of qualitative properties, the notion of an instinctive *geometria situs* turned out to be particularly revealing.



Alison and Peter Smithson. "Typical portion deck" plans as submitted for the Golden Lane competition. 1952.

While Golden Lane began its life as a proposal for a particular site in the City of London, it was also the example that the Smithsons turned to for discussions of

45. Alison Smithson, *The Emergence of Team 10 out of CIAM*, p. 18.

46. Reyner Banham, "The New Brutalism," *Architectural Review* 118 (December 1955), pp. 354–61; repr. in *A Critic Writes: Essays by Reyner Banham*, ed. Mary Banham, Paul Barker, Sutherland Lyall, and Cedric Price (Berkeley: University of California Press, 1996), pp. 7–15.

47. For an analysis of Banham's discussion of aformality and topology, see Anthony Vidler, "Toward a Theory of the Architectural Program," *October* 106 (Fall 2003), pp. 70–71.

48. Banham, "The New Brutalism," in *A Critic Writes*, p. 14.

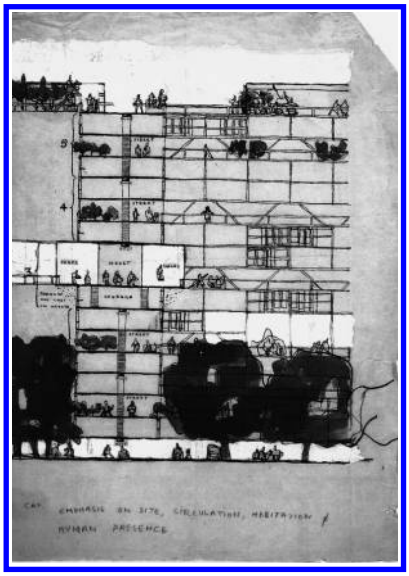
Alison and Peter Smithson. Study for the multiplication of the Golden Lane deck complex. ca. 1952.

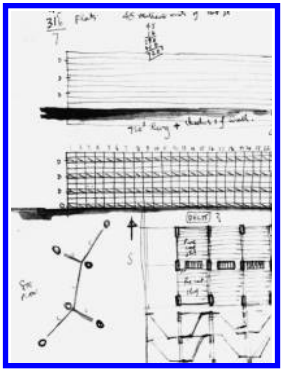
housing suited to the densest of urban scales. The council house, or housing estate, of which Golden Lane was an example, was a commodity much in demand in postwar England and therefore the architectural problem that the Smithsons deemed to be most in need of immediate reform. The regurgitation of the old typologies, still based on defunct ways of living, continued to file people away "like caged birds."[49] In the habitat document of 1954, which focused on the genus of the multiple living unit, the Smithsons classified housing estates according to the taxonomy of "CULTURE GROUP United Kingdom" and "SOCIETY Welfare State" that designated an association committed to the "leveling down of middle and upper classes" and the "removal of economic limits to working class aspirations," both of which lead to the "demand for *optimum* dwelling, i.e. easily worked and satisfying our behavior patterns."[50] It was determined therefore that organization, not style or form, be the foundation of the fundamental element of the housing estate. They named this basic unit the "ARCHITYPAL (UR-typal)." At the level of the house, organization translated into a set of flexible compartments, such as bedrooms that doubled as sewing rooms or studies.[51] But at stake was the much larger claim that through the inhabitation of the "Ur-typal" house (with its embedded reference to Urban Reidentification)

> each of us can actively contribute to the total organization of our society. It is *a means* of achieving order. It recognizes the fact that it is not only a house but a link in a continuum of occupied space contributing to the dynamics of that space. The type house that is not conceived as a component of community—even a community of ONE (i.e., with the more natural order of the fields and hills—is no house at all, for the house is as inescapably one of the species URBS as the man is of the species HOMO SAPIENS.[52]

To structure the connection of the house to the larger continuum of occupied space, the Smithsons extracted the "idea of street"—the avowed starting point for the first Golden Lane sketch—from the historical category of the thoroughfare.[53]

49. Alison and Peter Smithson, *Ordinariness and Light*, p. 34.
50. Alison Smithson, *The Emergence of Team 10 out of CIAM*, p. 14.
51. Ibid., p. 15.
52. Ibid., pp. 15–16.
53. Alison and Peter Smithson, *Ordinariness and Light*, p. 47.





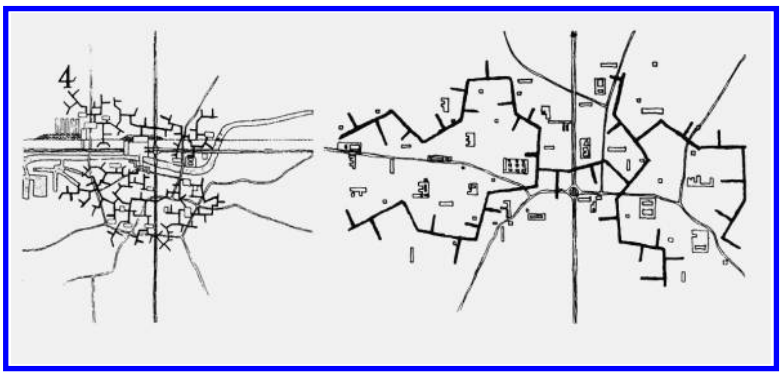
Top, Peter Smithson. First ideogram for Golden Lane. 1952. Left, Smithson. Section for Golden Lane. 1952.

The horizontal decks were the most noted feature of the project. They were sufficiently capacious to accommodate the pedestrian programs of the traditional street—playing, greeting neighbors, shopping—that rhythmically punctuated the neighborhood unit of a Golden Lane housing block. Thus the needs of the home, as family shelter, and as part of a collective, were met at a neighborhood scale. But the permeation of the street went beyond the literal. Horizontal passage also flowed through the neighborhood block, which was "woven into a modulated continuum" with others of its ilk to constitute a district.[54] Mobility parallel to the ground plane, "along and round the corner," was extended throughout all the circulation systems of the vertical housing block as well.[55] Movement "up and down" along the perpendicular axes governed the next order of social activity. "Going to the ground would be a small event," the Smithsons elaborated, "like going to the cinema, to school, to the office, or to play tennis, a special journey for a special purpose."[56]

There was, as Banham would later recognize, an unavoidably aesthetic side to this topology of transition and it was this side that would become so deeply embedded in the mainstream practice of Brutalism. As the Smithsons wrote, the manifestation of the doorstep philosophy came with a "new aesthetic," and that aesthetic began "with a love of materials. It tries to sum up the very nature of materials and the techniques with which they are put together, and, in an altogether natural way to establish a unity between built form and the men using it."[57]

54. Alison Smithson, *The Emergence of Team 10 out of CIAM*, p. 7.
55. Alison and Peter Smithson, *Ordinariness and Light*, p. 34.
56. Ibid., p. 59.
57. Ibid., p. 113.

They gave the distinctive look of their structural solution the name of "cluster," which they in turn defined as "a close-knit, complicated, often moving aggregation, but an aggregation with a distinct structure."[58] The cluster, they added, was "perhaps as close as one can get to a description of the new ideal in architecture and planning."[59] The open-ended pattern of the multi-centered metropolis that resulted from the reproduction of homes, neighborhoods and district was a bold feature of the presentation when Golden Lane was packaged as a CIAM grid. The graphic configuration was significant, as they explained: "We are after something more complex and less geometric. We are more concerned with 'flow' than with 'measure.'"[60] As ever, they firmly connected the resultant "aesthetic of change" to

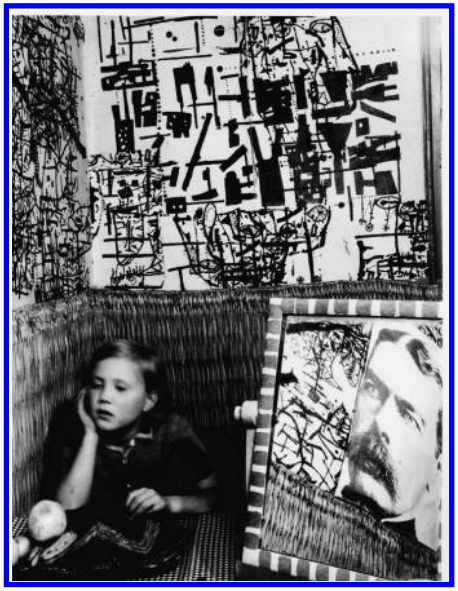


Peter Smithson. Diagram of Golden Lane as basis for the city fabric. 1953.

the social ethics of the agenda in the next sentence: "We have to create an architecture and a town planning which, through built form, can make meaningful the change, the growth, the flow, the vitality of the community."[61]

Though removed from this immediate correlation within the confines of the CIAM *grille* and CIAM discourse, the bold linear graphic of the cluster shared affinities with the *art brut* markings of the London art scene colleagues with whom the Smithsons had formed their own voluntary associations.[62] In their writings for the British audience, as in the special issue of the little journal *Uppercase*, for example, they explicitly juxtaposed the Golden Lane city pattern with a photograph taken by Nigel Henderson of his living room, which had been wallpapered in silk-screened prints by Eduardo Paolozzi. More subtly in the grid, the multiple photographs of Bethnal Green captured these patterns in the form of what they called "children's

58. Alison and Peter Smithson, "Cluster City: A New Shape for the Community," *Architectural Review* 122 (November 1957), p. 336; repr. in ibid., p. 131.
59. Ibid.
60. Ibid., p. 130
61. Ibid.
62. For much more on this, see Alex Kitnick, "Surface and Environment," in *Eduardo Paolozzi and Others*, 1947–1958 (unpublished PhD dissertation, Princeton University, 2010), pp. 71–83.



Henderson. Front Room Decorated with Designs by Eduardo Paolozzi. *1952.*

pavement play-graphics."[63] The abundance of non-architectural photographs in the grid reinforced Banham's argument that the images of people collaged onto the line drawings were an aspect of the non-formal means used in the project to insist on the "presence of human beings as part of the total image."[64] In the context of the conventions of the CIAM presentation, the realism of Henderson's photographs combined with the trifecta of children, play, and poverty. The result functioned as a kind of orthography. The photographs were measurable documents of social reality, which the Smithsons, along with Geddes, defined as "the cultural objectives of a society, its urges, its techniques."[65] For this reason, it was possible to use snapshots of engaged city life taken in the sociological context of East London to illustrate authentic domesticity on a site in the City of London.

Life

This accumulation of photographs of "reality" also brought the architectural discussion into direct contact with what Banham called the "threat and promise of *Parallel of Life and Art*," the exhibition that opened at the ICA just after CIAM 9. In collaboration with Paolozzi and Henderson, as is well known, the Smithsons culled photographs for this installation from a broad range of fields, including

63. Alison and Peter Smithson, "The 'As Found' and the 'Found,'" in *The Independent Group: Postwar Britain and the Aesthetics of Plenty*, p. 201.
64. Banham, "The New Brutalism," in *A Critic Writes*, p. 14.
65. Alison and Peter Smithson, "Thoughts in Progress: The New Brutalism," p. 113.

Hugh Casson and Neville Conder. Elephant and Rhinoceros Pavilion at the London Zoo. 1962–65.

anthropology, photojournalism, medicine, and architecture. The choices emphasized the expansion of the visual field by the photographic techniques of homing in and zooming out by means such as the enlarger, the aerial camera, the X-ray, the wide-angle lens, and the microscope. The constitution of the photographic medium enabled the power of connections made through continuity of scale to be more fully elaborated. In addition, the use of a plate camera to enlarge the source material granted all the reproductions, whether of paintings or cells, a shared grainy texture that made this continuity even more pronounced.[66] The hanging strategy suspended a total of 122 captionless panels of diverse dimensions at various heights and angles from the ceiling and walls, juxtaposing the similarity of material things that otherwise would not be seen in proximity—the drips of Abstract Expressionism and the patterns on the egg of a sea bird, for example.[67] The odd adjacencies, scalar shifts from micro to macro, and the grittiness of the unidentified images was said not only to increase material knowledge but also to provide revelations about the nature of reality.

66. Victoria Walsh, *Nigel Henderson: Parallel of Life and Art* (London: Thames and Hudson, 2001), p. 95.

67. In Banham's review of the show, the images of Jackson Pollock in his studio and the egg of a guillemot were placed side by side. Banham, "Parallel of Art and Life," *Architectural Review* 114 (October 1953), p. 260; reprinted in this volume.

While some people were fascinated by "actuality" displayed as a specimen, many more reacted negatively. The relatively progressive student body at the Architectural Association, where the show decamped for a brief stint after closing at the ICA, "complained," Banham wrote, that the show courted inhumanity through a "cult of ugliness."[68] "Repulsive" was the word used by one journalist to describe the general opinion of his peers.[69] It was this visceral reaction more than anything else that motivated Banham to situate *Parallel* as the "locus classicus" of the New Brutalism and to connect the geometric distortions inherent to topology "to the displacement of Tomistic 'beauty' by the Brutalist 'Image.'"[70] *Parallel* firmly established the priority of the image—with image standing in for reality—over beauty. The questions of aesthetics over which Banham came to find Brutalism wanting, however, obscured the construction of social reality through the perceptible qualities of adjacencies that was central to *Parallel of Life and Art* and Golden Lane. Both assumed that forms, from the smallest of scales up, were part of a dynamic continuum of cultural life. In Brutalist methodology, the structural relationships of habitat, literally and figuratively, forced habitation out of seclusion. As such, New Brutalism was ineffectually understood in terms of images rather than as a system of connections, albeit one with an understanding of decentrality and aformality that relied a little too heavily on the infrastructure of motor transport.[71]

Love of materials, that other mainstay of the New Brutalism, did not fare much better in the long run. A focus on the nature of matter was too easily assimilated into the exercises in weighty formalism of the next decade, such as that of the zoomorphic exhibit of the Elephant and Rhinoceros Pavilion (1962–65) commissioned by the London Zoological Society from the consensus-building director of architecture for the Festival of Britain, Sir Hugh Casson. The Pavilion, declared to be "a bold and apposite exercise in New Brutalism,"[72] was thorough in its use of mass-produced construction materials and could certainly be interpreted as an exercise in the "rough poetry" of industrialization, to use the Smithsons' phrase.[73] Its plan was even fashioned after a cluster of pachyderms around a water source, the proverbial well that

68. Banham, "The New Brutalism," in *A Critic Writes*, p. 9.

69. The journalist Tom Hopkinson, reporting on the sentiments of his fellow journalists, quoted in Walsh, p. 89.

70. Banham, "The New Brutalism," in *A Critic Writes*, p. 14.

71. See Alison and Peter Smithson, "Mobility: Road Systems," *Architectural Design* (November 1958), pp. 385–88; repr. in Alison and Peter Smithson, *Ordinariness and Light*, pp. 144–53.

72. Peter Guillery, *The Buildings of the London Zoo* (London: Royal Commission on the Historical Monuments of England, 1993), p. 21.

73. "Any discussion of Brutalism will miss the point if it does not take into account Brutalism's attempt to be objective about 'reality'—the cultural objectives of a society, its urges, its techniques, and so on. Brutalism tries to face up to a mass-production society, and drag a rough poetry out of the confused and powerful forces that are at work. Up to now Brutalism has been discussed stylistically, whereas its essence is ethical." Alison and Peter Smithson, "Thoughts in Progress: The New Brutalism," p. 113.

the Smithsons were seeking to redefine through contemporary patterns of association.[74] But for all its evocations of the jungle, what this mimetic form provided was a metaphor not all that dissimilar in its formalism from the biomimetic tendencies of the architectures generated by genetic algorithms and parametric computation today. Banham had cautioned the professional readership of the *Architectural Review* to be aware of the technological codes embedded in images in his exhibition review of *Parallel of Life and Art*. "We tend to forget that every photograph is an artifact, a document recording forever a momentary construction based upon reality," he wrote in his reflection on this collection of documentary style and scientific photographs. "But the photograph, being an artifact, applies its own laws of artifaction to the material it documents, and discovers similarities and parallels between the documentations, even where none exist between the objects and events recorded."[75] The same can be said of any product of design software.

New Brutalism, when perceived through the territoriality of habitat, had, as the Smithsons proclaimed just before declaring their devotion to materials, "nothing to do with craft."[76] It was a study of life, or at least human life, at escalating scales of interaction. But their solution was not to argue, as would be done by the provocateurs of the next decade, for anti-architecture. The Smithsons made strong claims for the interactive capacity of objects to shape the environment. To wit: "The relationship of the county to the town, the bank and the house, the school and the pub, is conveyed by the form they take. Each form is an active force, it creates community, it is life itself made manifest."[77] Objects generate community, or, in other words, make the underlying principles of an ecosystem visible. As manifested literally at Hunstanton and abstractly in Golden Lane, meaning was generated at the points where the armature enabled structural legibility, from the scale of the frame to that of society. Hiding behind the compositional criteria of aformality was the network of connections embedded in the acentrality of the cluster strategy. The category of community, Uexküll had demonstrated, was different from the list of attributes that defined a species in that it expressed "the interlocking of the various vocational groups in conformity with plan, without there being demonstrable any unified center."[78] It was at the threshold, at points of interconnection, that architecture could restore continuity to the fragmented urban experience in which the experience of community was torn asunder.

Ecological concerns in professional practice today are predominantly pursued through material solutions that satisfy the established criteria for energy efficient envelopes. The reduction of environmental impact has thus engaged a

74. Alison and Peter Smithson, *Ordinariness and Light*, p. 107.
75. Banham, "Parallel of Art and Life," *Architectural Review* 114 (October 1953), p. 260.
76. Alison and Peter Smithson, "Thoughts in Progress: The New Brutalism," p. 113.
77. Alison and Peter Smithson, *Ordinariness and Light*, p. 108.
78. Uexküll, p. 257.

spirit not unlike the one that motivated the search for the most basic dwelling in the face of the overwhelming housing shortage after World War I. Conversely, an experimental trend of environmentally interactive architecture has emerged that addresses the escalating scales of human subject, architectural object, and milieu through the ecology of the dynamic feedback loop. From the infrastructural to the nano, scale is being retheorized in many guises as an aformal means of pursuing an architecture that is once again enlivened by its relation to the structures of life. Thus do the dueling conceptions of dwelling and habitat continue on in the era of architectural ecology.