## Toward a Theory of the Architectural Program

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Recent proposals and debates over the architectural redevelopment of Ground Zero have highlighted the way in which, over the last two decades, the public role of architecture has been gradually reduced to the symbolic and the emblematic. Its forms of expression are no longer closely tied back to the urban issues and physical planning questions that, from Congrès Internationaux d'Architecture Moderne (CIAM) to Team X, Neo-Realism to Neo-Rationalism, Rotterdam to Internationale Bauausstellung Berlin (IBA), once energized and mediated the practice of urban architecture. The questions that have arisen around the ethics and aesthetics appropriate to a site marked by disaster and catastrophe have thrown into relief the drawbacks of an architecture overinvested in symbolic form and individual meditation on memory. Many discussions of the proposals for reconstruction, indeed, seemed to bear out Guy Debord's 1964 anticipation of an all-pervading spectacle culture. The difference, expressed by Hal Foster with reference to the perceived effects of new and dramatic designs such as that for the Guggenheim Museo Bilbao by Frank Gehry, is that "thirty years ago Guy Debord defined spectacle as 'capital accumulated to such a degree that it becomes an image,' but "the reverse is now true as well: spectacle is an image accumulated to such a degree that it becomes capital."1

The issue here is, once again, one of "program," a word all-but jettisoned in the high days of postmodernism and deemed irrelevant to architectural "meaning" since the discrediting of the seemingly narrow functionalism of the modern movement. In revisiting this concept, one of the oldest in the history of professional architecture, there is no intent to invoke program in the limited functionalist or political approaches of early modernism, nor even in the revived typological and diagrammatic forms of late modernism. Rather, a contemporary sense of program would imply the radical interrogation of the ethical and environmental conditions of specific sites, which are considered as programs in themselves. Such programs might not privilege architecture in the conventional sense, but stimulate the development of a new environmentalism construed according to what might be called the "technologies of the everyday." Such a new environmentalism would not imply a subservience to "green" building mired in the static response of existing economies and primitive technology, nor would it follow the static contextualism of the new urbanism mired in the nostalgic response to a false

1. Hal Foster, Design and Crime (and Other Diatribes) (London: Verso, 2002), p. 41.

sense of the "good" historical past, nor finally would it accept the premises of global late modernism mired in the false confidence of technological universalism. Instead it would be flexible and adaptive, inventive and mobile in its response to environmental conditions and technological possibilities.

Not yet a movement, nor a unified theory, this tendency toward the critical development of the idea of program is driven by a number of interventions in the idea and practice of design. It is manifested in the exploration of the potential of digital analysis and synthesis, in the increasing interest in the formal and spatial potential of new materials and structures, and above all in the migration of the exploration of social and cultural forms from the domain of art installation to public architecture. The spring 2003 retrospective of the work of Diller + Scofidio at the Whitney Museum of American Art points to the way in which critical theory, new media, and the inventive reconstruction of space and time can imply programmatic invention that is neither functionally "determinist" nor formally autonomous. It is also evinced in the recent theorization of the role of the "diagram" in architectural design—that minimalist, reduced, schematic of spatial organization and technological enclosure that has, in the practice of Kazuyo Sejima and Rem Koolhaas, among others, become almost iconographically representative of a "scientific" approach to program.<sup>2</sup>

Even the apparent division between the postmodern expressionism castigated by Foster and a new sense of programmatic invention is perhaps not as great as it may appear on the surface. Many architects are bringing together their exploration of the formal potentials of digital media and an equally radical approach toward the program by exploiting all the possibilities of animation and rendering programs to combine and represent information and thus overcoming one of the fundamental blocks to modern functionalism—the "translation" of data into meaningful form. Design collaboratives have adopted the interdisciplinary team approaches of scientific research; fabrication is no longer so distinct from conception since the development of sophisticated output technology.

As is true of most radical interventions in traditional processes of design, however, theorization of the new "program" in architecture lags seriously behind. If attempted at all in a climate accepting of digital determinism, it has tended to follow old patterns of discourse, split once again between science and art. Approached from the standpoint of digitalization, theory rarely tackles more than the description and explanation of new technological possibilities and avoids cultural or social studies work on the nature and effects of new media. Approached from the standpoint of critical revision of the program, theory remains embedded in the art-historical discourses of the avant-gardes and their poststructural corollaries in critical theory and media analysis.

The emergence of a new sensibility to the architectural program considered in its broadest terms recalls the optimism of Reyner Banham and John Summerson in the late 1950s. Their premise deemed that a closer attention to science—whether of perception, information, or technology—would in the end lead to a fundamental reconception of modernist functionalism,

<sup>2.</sup> For a discussion of "diagram architecture," see, among many recent texts, R. E. Somol, "Dummy Text, or the Diagrammatic Basis of Contemporary Architecture," in Peter Eisenman, *Diagram Diaries* (New York: Universe, 1999) and my "Diagrams of Diagrams: Architectural Abstraction and Modern Representation," *Representations* 72 (Fall 2000).

not in order to free architecture from observance of function, but rather to cast functionalism in a vastly expanded field that included, from Banham's point of view, topology, perception, biology, genetics, information theory, and technology of all kinds. The following essay explores Banham's attempt to theorize this turn in relation to the inventive programmatic and formal strategies of the Archigram Group—work that has recently found resonance in contemporary discourse as representing an important aspect of the prehistory of a potential new approach to the architectural program.

T

Reyner Banham once remarked on the fact that the history of a period does not always neatly coincide with the calendar. "For architectural purposes," he observed, looking back from the vantage point of 1960, mid-century architecture that of the Festival of Britain around 1950—seemed less of a break with the past of modernism than that that occurred later in the decade, after the building of Le Corbusier's Ronchamp and closer to 1957.3 Indeed, as he pointed out, John Summerson in his celebrated article of that year, "The Case for a Theory of Modern Architecture," described what he called a "Thirty-Year Rule" that measured changes in architectural taste and duly proposed 1957 as "a year of architectural crisis." The "great divide" that both Banham and Summerson detected in the late 1950s, despite their squabbles over its architectural manifestation, was between a modern movement universalized through the activities of CIAM and founded on the "mythology of Form and Function," and a new, freer style, which, as Banham noted, was characterized not so much by the often claimed "end of functionalism" but by the death of the slogan "Functionalism with a capital 'F,' and its accompanying delusion that curved forms were the work of untrammeled fancy." 5 Against this "untrammeled fancy" that Nikolaus Pevsner was soon to characterize as a "New Historicism," both Banham and Summerson were to propose alternatives based on what each thought of as the radical rethinking of functionalism, ideas no longer immersed in the largely symbolic guise espoused by the modern movement, but based on "real" science. Banham, in search of what he called "une autre architecture," turned to the authority of military and corporate engineers, biological researchers, and social scientists; Summerson outlined a new concept of the program as the foundation of a "theory of modern architecture."

The modern movement, as defined by its historians—Pevsner, Siegfried Giedion, Henry-Russell Hitchcock, and then Banham, had been understood as fundamentally "functionalist" in character. The nature of this functionalism differed from historian to historian, but its rule over modern architecture seemed supreme—it was a way of ignoring the formal and stylistic differences of the

Reyner Banham, "Architecture After 1960," *Architectural Review* 127, no. 755 (January 1960), p. 9.
 Ibid., p. 9. Banham is citing John Summerson, "The Case for a Theory of Modern Architecture," *Royal Institute of British Architects Journal*, June 1957, pp. 307–10.

<sup>5.</sup> Banham, "Architecture after 1960," p. 10.

various avant-gardes in order to provide a unifying alibi, or defining foundation, for architectural modernity. It was from this functionalist position that Pevsner, writing under the pseudonym Peter F. R. Donner in the *Architectural Review* in the early 1940s, criticized Le Corbusier (formalist) and praised Walter Gropius (functionalist) and later excoriated the return of "styles" characterized as a New Historicism. It was from this position, too, that the first generation of modern masters was criticized by Team X, among others, as narrow and antihumanist in its functionalism. It was under this sign that John Summerson, writing in the *Royal Institute of British Architects Journal* in 1957, constructed his "case for a theory of modern architecture." And of course it was under this sign that Archigram itself was to be denounced by these historians and architects—by Giedion in the 1967 edition of *Space, Time and Architecture*, and by Alison and Peter Smithson in *Without Rhetoric* of 1973.

Summerson rejected the idea of building up a theory of modern architecture based on the *existence* of modern buildings: to abstract formal characteristics from a select repertory of modern buildings, or provide a grammar of form and then to illustrate how the forms embody the ideas, would, he claimed, only "add up to something like a Palladio of modern architecture, a pedagogical reference book" that would end up as a "hopelessly gimcrack" rag-bag of aphorisms, platitudes, and fancy jargon. Rather, a "theory" of architecture would be "a statement of related ideas resting on a philosophical conception of the nature of architecture," which he found in the statement of a group of Mediterranean beliefs about reason and antiquity, stated by Alberti, reformulated in the age of Descartes, rewritten in Perrault's critique of Vitruvius, then again by Berlage, Durand, Horta, Laugier, Viollet-le-Duc, Le Corbusier, Perret, and Pugin:

Perrault said antiquity is the thing and look how rational; Lodoli seems to have said up with *primitive* antiquity, only source of the rational; Durand said down with Laugier, rationalization means economics; Pugin said down with antiquity, up with the Gothic, and look how rational; Viollet-le-Duc said up with Gothic, prototype of the rational. Eventually a voice is heard saying down with all the styles and if it's rationalism you want, up with grain elevators and look, how beautiful!<sup>7</sup>

Against this rational tradition, however, Summerson saw a new version of authority superceding the classical—that of the "the biological" as advanced by László Moholy-Nagy. As Moholy-Nagy stated, "architecture will be brought to its fullest realization only when the deepest knowledge of human life as a total phenomenon in the biological whole is available." For Moholy-Nagy, notes Summerson, the

<sup>6.</sup> Summerson, when he republished this essay in 1990, observed that it was the "last gasp of prewar English modernism" (MARS group etc.); the moment "when the thought of my generation—the MARS group generation—lost touch with the real world ... not the conclusion which history required."
7. Summerson, "The Case for a Theory of Modern Architecture," p. 230.

<sup>8.</sup> László Moholy-Nagy, *The New Vision* (New York: Wittenborn, 1949) pp. 159–60.

biological was psychophysical—a demanding theory of design matching a broad idea of function that called for "the most far-reaching implications of cybernetics to be realized . . . if the artist's functions were at last to be explicable in mechanistic terms." <sup>9</sup>

In this argument, Summerson traced the idea of the classical, the rational, and the organic to its modern conception, a trajectory that moved "from the antique (a world of form) to the program (a local fragment of social pattern)." Hence Summerson's celebrated conclusion that "the source of unity in modern architecture is in the social sphere, in other words, the architect's program—the one new principle involved in modern architecture." <sup>10</sup>

In his terms, a program "is the description of the spatial dimensions, spatial relationships, and other physical conditions required for the convenient performance of specific functions," all of which involve a "process in time," a rhythmically repetitive pattern that sanctions different relationships than those sanctified by the static, classical tradition. The problem he identified, as with a naive functionalism, was the need for a way to translate such programmatic ideas into appropriate form—a problem to which Summerson offers no direct answer. Dismissing Banham's 1955 appeal to topology in his essay on the New Brutalism as "an attractive red herring (I think it's a herring)," Summerson was quite dismayed at the "unfamiliar and complex forms [that were] cropping up" in practices around him because of the extension of the engineer's role. 12

Indeed his conclusion was pessimistic; sensing the incompatibility of a theory that holds two equal and opposite overriding principles, he concluded that any theory that posits program as the only principle leads either to "intellectual contrivances" or to the unknown: "the missing language will remain missing" and our discomfort in the face of this loss would soon be simply a "scar left in the mind by the violent swing which has taken place." <sup>13</sup>

Banham, writing three years later, was more optimistic. While he sided with Summerson in deploring the style-mongering of the 1950s—"it has been a period when an enterprising manufacturer could have put out a do-it-yourself pundit kit in which the aspiring theorist had only to fill in the blank in the phrase *The New ( . . . )-ism* and set up in business"—he found that "most of the blanket theories that have been launched have proven fallible, and partly because most labels have concentrated on the purely formal side of what has been built and projected, and failed to take into account the fact that nearly all the new trends rely heavily on engineers or technicians of genius (or nearly so)." He proposed that what was needed was "a new and equally compelling slogan," and

<sup>9.</sup> Summerson, "The Case for a Theory of Modern Architecture," p. 232.

<sup>10.</sup> Ibid

<sup>11.</sup> Ibid., p. 233.

<sup>12.</sup> Ibid., p. 235.

<sup>13.</sup> Ibid.

he suggested some of his own: "Anticipatory Design," "Une Architecture Autre," "All-in Package Design Service," and even "A More Crumbly Aesthetic." <sup>14</sup>

By asking this question, as well as implicitly answering it on behalf of a new architecture, Banham introduced a series of inquiries under the title "Architecture after 1960" that he had initiated for Architectural Review. 15 Printed on bright yellow paper with red accents and bold typography, they were kicked off by his own, now celebrated article "Stocktaking," with its parallel discussion of "Tradition" and "Design" and its obvious design-friendly conclusion, and followed by a group of essays on "The Science Side" by experts on weapons systems, computers, and the human sciences. The series continued with a symposium of architects, chaired by Banham, on "The Future of Universal Man," that paradigm of the traditional architectural subject, and concluded with Banham's double bill on "History under Revision," a combined questionnaire on "Masterpieces of the Modern Movement," and a personal exorcism of his own teacher Nikolaus Pevsner, "History and Psychoanalysis," in which the master was put on the couch by the pupil. And just to demonstrate fairness, Banham allowed the old guard back to reply, still on yellow paper, in a dyspeptic sequence of observations by the editors of Architectural Review: J. M. Richards, Hugh Casson, H. de C. Hastings, and, of course, Nikolaus Pevsner. Banham, needless to say, had the last word, adding sidebar notes where he disagreed with the editors and a final note. His message throughout the series was clear: "Functionalism with a capital 'F'" was dead, long live functionalism, with a small "f" and a basis in real science. 16

However, while Banham was clearly in favor of borrowing from technology in widespread fields—rocketry, as described by A. C. Brothers of English Electric, for example, offered a lesson in "total planning and teamwork"—he was as suspicious of the contemporary architectural fetishism of technology as he was of the modern movement's mystique.<sup>17</sup> "Throughout the present century," he wrote, "architects have made fetishes of technological and scientific *concepts out of context* and been disappointed by them when they developed according to the processes of technological development, not according to the hopes of architects." And he concluded, with self-conscious irony against his own enthusiasms, "a generation ago, it was 'The Machine' that let architects down—tomorrow or the day after it

<sup>14.</sup> Banham, "Architecture after 1960," p. 9.

<sup>15. &</sup>quot;The Future of Universal Man," *Årchitectural Review* 127, no. 758 (April 1960), pp. 253–60. Symposium with Anthony Cox (senior partner in Architects' Co-Partnership), Gordon Graham (partner in the lively provincial office), John Page (lecturer in building science, Liverpool University), Lawrence Alloway (critic and program director, ICA); "History under Revision" and "Questionnaire, Masterpieces of the Modern Movement," *Architectural Review* 127, no. 759 (May 1960), pp. 325–32, including Banham, "History and Psychiatry," pp. 326–32; "Replies," *Architectural Review* 127, no. 760 (June 1960), pp. 381–88, with J. M. Richards, Nikolaus Pevsner, Hugh Casson, H. de C. Hastings, and sidebar notes by Banham.

<sup>16.</sup> Banham, "Architecture after 1960," p. 10.

<sup>17.</sup> Reyner Banham, "The Science Side: Weapons Systems, Computers, Human Sciences," *Architectural Review* 127, no. 757 (March 1960), pp. 188–90.

will be 'The Computer,' or Cybernetics or Topology." <sup>18</sup> Electronic computing likewise, as he responded to the summary contributed by R. B. Drummond of IBM, "can stand as an example of a topic on which the profession as a whole has been eager to gulp down visionary general articles of a philosophical nature, without scrutinizing either this useful tool, or their own *mathematical needs* to see just how far computers and architecture have anything to say to one another." <sup>19</sup> He gave the example of Charles Eames, who in 1959 had spoken at the RIBA on the "mental techniques associated with computers" important for architecture; Banham calls for a more analytical approach, examining how computers might be used, and "how far." <sup>20</sup>

Dutifully, Drummond outlined the contributions that computing might make to aspects of architectural planning in four areas: operations research, systems simulation, linear programming, and queuing theory. But, he cautioned, computers could add little to the aesthetic appearance of a building: "They deal in cold hard facts. They have no aesthetic sense whatsoever. Furthermore, they have no imagination. So, although I feel they may be used as aids to architecture, it is still for the human being to create that which is beautiful."21 Banham, however, disputed this traditional separation between "mathematics" and "art" as simply replicating the old form/function divide, pointing out "not only that mathematics is part of the traditional equipment of the architect, but that aesthetics and other aspects of human psychology are no longer mysteries necessarily to be set up against 'cold hard facts.'"22 Further, the article by the future professor of architecture at the Bartlett School (and his own future boss), Richard Llewelyn-Davies of the Nuffield Foundation, had opened the way to the analysis of supposedly "soft" social and psychological facts: "Psychological matters can be assigned *numerical values*—and statistical techniques make it increasingly feasible to quantify them—they become susceptible to mathematical manipulation.... An increasing proportion of the most jealously guarded 'professional secrets' of architecture are already quantifiable."23 In a later response to Peysner's irritation that, throughout the series, "No architect really stood up to say that he is concerned with visual values (i.e., aesthetics) and that, if a building fails visually, we are not interested in it,"24 Banham tartly responded to his former teacher: "No architect stood up to say that he was concerned with visual values because visual values are only one of six (ten? fifty?) equally important values of design."25 To Pevsner's fear

<sup>18.</sup> Ibid., p. 183.

<sup>19.</sup> Ibid., pp. 185-86.

<sup>20.</sup> Ibid., p. 185.

<sup>21.</sup> Ibid., p. 188.

<sup>22.</sup> Ibid.

<sup>23.</sup> Ibid. Llewelyn Davies had written: "A very large part of the psychophysiological relationship between man and environment is likely to fall to the mathematician, not—as heretofore—the mystic."

<sup>24.</sup> Nikolaus Pevsner, "Reply," Architectural Review 127, no. 760 (June 1960), p. 383.

<sup>25.</sup> Banham, "Reply," p. 383.

that "you can have 'non-architecture' that way before you know where you are," Banham rehearsed his notion of a "scientific aesthetic." Admitting that "certainly a *fully* scientific aesthetic is impossible now—but it is a thousand percent more possible than it was thirty years ago," he explained, "By a scientific aesthetic, I meant one that uses, as the basis and guide to design, observations (made according to the normal laws of scientific evidence) of the actual effect of certain colors, forms, symbols, spaces, lighting levels, acoustic qualities, textures, perspective effects (in isolation or in total '*gestalts*') on human viewers." In sum, the 1960s series implied what would be the radical conclusion to Banham's first book, *Theory and Design in the First Machine Age*, published in the same year:

It may well be that what we have hitherto understood as architecture, and what we are beginning to understand of technology are incompatible disciplines. The architect who proposes to run with technology knows that he will be in fast company, and that, in order to keep up, he may have to emulate the Futurists and discard his whole cultural load, including the professional garments by which he is recognized as an architect.<sup>27</sup>

II

Banham had spoken on "clip-on components" for the prefabricated service rooms of a house in his 1960 "Stocktaking," but it was not until five years later that he developed a complete theory of "clip-on architecture" in an article for Design Quarterly, reprinted in the same year as an introduction to the special issue of Architectural Design largely devoted to the Archigram Group.<sup>28</sup> Here he traced the genealogy of "clip-on," from the idea of "endlessness" with regard to standardization, and, according to Llewelyn-Davies, from Mies van der Rohe through to the notion of a "cell with services," introduced by the Smithsons in their plastic House of the Future of 1955, by Ionel Schein in France, and Monsanto in the U.S. The conception of the house as a mass-produced product, mass-marketed like a Detroit car but put together with prefabricated components, had inspired Banham in 1961 to outline a late-1950s unpublished article on "clip-on philosophy." And Cedric Price's Fun Palace, conceived by Joan Littlewood and considered by Price as a "giant neo-futurist machine," ran very close to the programmatic revolution for which he was calling in 1960: a giant "anti-building" seen as a "zone of total probability, in which the possibility of participating in practically everything could be caused to exist."29 Three years later, Archigram had reversed

<sup>26.</sup> Ibid., pp. 386-87.

<sup>27.</sup> Reyner Banham, *Theory and Design in the First Machine Age* (London: Architectural Press, 1960), p. 329.

<sup>28.</sup> Reyner Banham, "A Clip-on Architecture," *Architectural Design* 35 (November 1965), pp. 534–35; first published in *Design Quarterly* 63 (1965).
29. Ibid., p. 535.

the idea of "clip-on" by adopting that of "plug-in," but Banham was ready to fold this into his theory: "Too much should not be made of this distinction between extreme forms of the two concepts: technically they are often intimately confused in the same project, and the aesthetic tradition overruns niceties of mechanical discrimination."30 In returning here to an "aesthetic tradition," Banham revealed his real agenda with regard to "une autre architecture": a call for an architecture that technologically overcame all previous architectures to possess an expressive form. Against the way in which the "architecture of the establishment" had adopted prefabrication—"the picturesque prefabrication techniques of the tilehung schools of the CLASP system"—a prefabricated system for school building adopted by a consortium of local authorities in the 1960s—he was equally opposed to the theories of "cyberneticists and O and R men" who predicted that "a computerized city might look like anything or nothing." For this reason he was enthusiastic about Archigram's Plug-in City, because, as he wrote, "most of us want [a computerized city] to look like *something*, we don't want form to follow function into oblivion."31

For Banham Archigram's projects—as he characterized them: Zoom City, Computer City, Off-the-Peg City, Completely Expendable City, and Plug-in City—were important as much for the technology on which they were predicated as for their aesthetic qualities. "Archigram can't tell you for certain whether Plug-in City can be made to work, but it can tell you what it might look like." 32 Thus whether or not their proposals are acceptable to technicians or dismissed as Pop frivolity, they offer important *formal* lessons. Banham has traced a movement from propositions about the contribution of technology to aesthetics in the 1950s, to, with Archigram, "aesthetics offering to give technology its marching orders." 33

III

Of all those interrogating "une autre architecture" in the 1960s, the Archigram Group, under the cover of what seemed to be irreverent and harmless play, launched the most fundamental critique of the traditional architectural program. The first issue of the magazine *Archigram* in May 1961, which consisted of a single page with a foldout and David Greene's polemical substitution of the "poetry of bricks" with a poetry of "countdown, orbital helmets, and discord of mechanical body transportation and leg walking," set the tone. It was followed by eight issues from 1963 to 1970, which developed themes that embraced issues of expendability and consumerism at the broadest scale. Publicly announced in the *Living City* exhibition of 1963 at the ICA and developed in projects for Plug-in

<sup>30.</sup> Ibid.

<sup>31.</sup> Ibid.

<sup>32.</sup> Ibid.

<sup>33.</sup> Ibid.

City (Peter Cook, 1964), Computer City (Dennis Crompton, 1964), and Underwater City, Moving Cities (Ron Herron, 1964), Archigram explored all the potentials for technology and social engineering to reshape the environment. Inflatables, infrastructures, pods, blobs, blebs, globs, and gloops were proposed as the engines of a culture dedicated to nomadism, social emancipation, endless exchange, interactive response systems, and, following the lead of Cedric Price, pleasure, fun, and comfort on the material and psychological level. All of which were designed with witty technological poetics to place the total synthetic environment—human, psychological, ecological, and technological—firmly on the agenda.<sup>34</sup>

The effect of Archigram's work between 1961 and 1970 was to project into society a program and an aesthetic for the total environment—not "environmental design" or "computer-aided design," nor the high-tech idealism of a Buckminster Fuller or the naturalist organicism of a Paolo Soleri, nor the psychological nihilism of the Situationists or the ironic nihilism of groups like Superstudio or Archizoom—but an environmentalism that worked with every aspect of the contemporary environment, from consumer desire to ecological demand, from media to medium, from dream to the dream machine, from the suburban kit to the electronic tomato. They meant to invent not ways of being determined by the technologies of conservation and sustainability; not ways of being confined by building codes and practices founded on existing market economics and distribution; not ways of reinventing architecture or ways of killing architecture; not ways of rewriting theory or simply introducing "new" concepts into old theory; not ways of redistributing architectural languages and forms across new technological surfaces; not ways of arguing one language against another, one historical precedent against another, one politic of class against another—but rather to throw out the whole, baby with bathwater, and start again with the elements of the known, and combine them across genres, species, and disciplines in hitherto unknown ways. Warren Chalk, writing at a moment of "technological backlash," argued for this new approach, fully agreeing that "either the environment goes or we go," and that "our very survival depends on an ecological utopia, otherwise we will be destroyed," but a utopia that has perforce to be built with a "more sophisticated technology, a more sophisticated science." Against what he called a "hippy-type philosophy," yet fully aware of the enormous significance of Woodstock's momentary welding of synthetic and natural environments, he calls for the building of what David Greene imagined as a "cybernetic forest" coupled with technological play of an order that would extend the "existing situation" and create a new "man/machine relationship," a "people-oriented technology." 36 As Greene himself wrote.

<sup>34.</sup> See *Architectural Design* 35 (November 1965), pp. 559–73, and Peter Cook, ed., *Archigram* (Boston: Birkhauser, 1972; reprint, New York: Princeton Architectural Press, 1999).

<sup>35.</sup> Warren Chalk, "Touch Not Otherwise We Will be Destroyed," in Peter Cook, ed., *Archigram*, p. 138.

<sup>36.</sup> Ibid.

I like to think (right now please!) of a cybernetic forest filled with pines and electronica where deer stroll peacefully past computers as if they were flowers with spining blossoms<sup>37</sup>

Whether represented "architecturally" in Peter Cook's studies in metamorphosis—his "Addhox" kits for suburbia marketed as a set of parts (bay box, deluxe bay, lean-to, garden screen, fun tubes, garden tray, etc.) and the new prototypes of suburban expansion (crater cities and hedgerow villages)—or in the bodily extensions of the cyborgs in their cushicles designed by Mike Webb, this "greening" of the machine and "machining" of nature was personified, so to speak, by the image of the chameleon. "People are walking architecture" imagines people assisted in their walking by a host of half-natural-half-machine gizmos, of which the electronic tomato promised to "direct your business operations, do the shopping, hunt or fish, or just enjoy electronic instamatic voyeurism, from the comfort of your own home." 38

One could write the "programs" of Archigram as a series more or less systematic of such extensions and expansions of traditional functionalism. We might also see them as pointing to the future, or rather our own present, as their inventions might *seem* to write the specs for all the Sony home gadgets, the home offices, and universal remote controllers of today. But there is a crucial a difference: technological foresight is, for Archigram, not the end in view nor the answer they want. For their programmatic project was not only serious and instrumental—it was certainly all that—but also fun and ironic, serious and sensory at the same time; the profound difference between a programmable remote and an "electronic tomato" is that the remote is simply an extension in space and time of our finger, whereas the electronic tomato intersects the organic and the mechanical, the sensory and the functional, in such a way as to disturb all the verities of the functional program on the one hand and the psychedelic program on the other.

IV

It was in 1972 that Banham wrote of Archigram, "Archigram is short on theory, long on draftsmanship and craftsmanship. They're in the image business

<sup>37.</sup> David Greene, "Gardener's Notebook," in Peter Cook, ed., Archigram, p. 110.

<sup>38.</sup> Ron Herron, Warren Chalk, and David Greene, "Manzak and Electronic Tomato," in Peter Cook, ed., *Archigram*, p. 124.

and they have been blessed with the power to create some of the most compelling images of our time."<sup>39</sup> To use the word "image" in this context was then, and is now, of course to conjure up all the specters of spectacular culture, of surface and mass ornament, that, from Kracauer through Debord to Baudrillard, have generally indicated a capitulation to the (postmodern) culture of capitalism at its worst.

But Banham, in his faintly dismissive characterization of Archigram as an image business, is in fact resting on a theory that he had developed only a few years earlier, which lent real substance to the sobriquet "image": that notion of the "image" first posed by Gombrich in the 1950s and adopted by Banham in his characterization of that first "postmodern" British architecture movement, the New Brutalism.<sup>40</sup> There, Banham uses the term to escape from classical aesthetics. to refer to something that, while not conforming to traditional canons of judgment, was nevertheless, in his terms, "visually valuable," requiring "that the building should be an immediately apprehensible visual entity and that the form grasped by the eye should be confirmed by experience of the building in use."41 For Banham, this "imageability" meant that the building in some way was "conceptual," more an idea of the relation of form to function than a reality, and without any requirement that the building be formal or topological. An image for Banham, whether referring to a Jackson Pollock or a Cadillac, meant "something which is visually valuable, but not necessarily by the standards of classical aesthetics," and, paraphrasing Thomas Aquinas, "that which seen, affects the emotions." 42

In architectural terms, according to Banham, this implied that a building did not need to be "formal" in traditional terms; it could also be *aformal* and still be conceptual. Here he was attacking what he called "routine Palladians as well as routine Functionalists," and he took the Smithson's Golden Lane project as an example that "created a coherent visual image by nonformal means" because of its visible circulation, identifiable units of habitation, and the presence of human beings as part of the total image, which was represented in perspectives with people collaged so that "the human presence almost overwhelmed the architecture." <sup>43</sup> In Golden Lane, as at Sheffield University, "aformalism becomes as positive a force in its composition as it does in a painting by Burri or Pollock." <sup>44</sup> This was a result of the Smithsons' general attitude toward composition, not in traditional formal terms, but apparently casual informality: this was a compositional approach based not on elementary rule-and-compass geometry, but on "an intuitive sense of topology." It was, concluded Banham, the presence of topology over geometry that marked the inception of "un autre architecture," another

<sup>39.</sup> Banham, "A Comment from Peter Reyner Banham," in Peter Cook, ed., Archigram, p. 5.

<sup>40.</sup> Reyner Banham, "The New Brutalism," *Architectural Review* 118 (December 1955), pp. 354–61; reprinted in *A Critic Writes: Essays by Reyner Banham*, selected by Mary Banham, Paul Barker, Sutherland Lyall, Cedric Price, foreword by Peter Hall (Berkeley: University of California Press, 1996), pp. 7–15.

<sup>41.</sup> Banham, "The New Brutalism," in *A Critic Writes*, p. 12.

<sup>42.</sup> Ibid.

<sup>43.</sup> Ibid., p. 14.

<sup>44.</sup> Ibid.

architecture, which displayed its qualities through the characteristics of penetration, circulation, the relations between inside and outside, and above all the surface of apperception that, finally, gave the image its force and substance: "thus beauty and geometry supplanted by image and topology."45 Image, for Banham, evidently related to what in 1960 he was to claim as the only aesthetic "teachable" along scientific lines: "No theory of aesthetics (except possibly Picturesque) that could be taught in schools, takes any cognizance of the memory-factor in seeing."46

A year later Banham, who was evidently straining to find an appropriate object for his image-theory in the Hunstanton School, found even the Smithsons wanting in their response to his aesthetic conditions, in the context of the group displays in the *This Is Tomorrow* exhibition at the Whitechapel Art Gallery. The "Patio and Pavilion," designed by the Smithsons, Nigel Henderson, and Eduardo Paolozzi, was a collection of objects in a shed within a courtyard that in the Smithsons' words represented "the fundamental necessities of the human habitat in a series of symbols," and was, for Banham, "the New Brutalists at their most submissive to traditional values ... in an exalted sense, a confirmation of accepted values and symbols." The installation by John Voelcker, Richard Hamilton, and John McHale, on the other hand, seemed more "Brutalist" in character than the Brutalists. These artists "employed optical illusions, scale reversions, oblique structures and fragmented images to disrupt stock responses and put the viewer back on a tabula rasa of individual responsibility for his own atomized sensory awareness of images of only local and contemporary significance." Ultimately, it was Brutalism's refusal of abstract concepts and its use of "concrete images—images that can carry the mass of tradition and association, or the energy of novelty and technology, but resist classification by the geometrical disciplines by which most other exhibits were dominated"—that, for Banham, represented the authenticity of the movement. Banham's image, then, was not only a passive symbol of everyday life or technological desire, but also an active participant in the viewer's sensory field, and it used all the techniques of modernist disruption—of shock and displacement—to embed its effects in experience.<sup>47</sup>

In this context, for Banham to have accused Archigram of imagism would be to see Archigram as a movement concerned with the nonformal, nontraditional, nonarchitectural; with the question of process unencumbered by geometry; with topologies rather than geometries; and thus with an "architecture" fundamentally disjointed from academicism and historicism. Indeed, it was exactly what Banham wanted, although he could not quite see it through his Brutalist blinders.

Such a theory of the image, then, begins to deepen our own interpretation of what Archigram wanted, beyond the overtly brilliant subterfuges of advertising techniques, Pop and Op, collage and montage, super graphics, and the like that

<sup>45.</sup> Ibid., p. 15.

<sup>46.</sup> 

Banham, "Reply," pp. 382–83. Reyner Banham, "*This Is Tomorrow* Exhibit," *Architectural Review* 120, no. 716 (September 1956), pp. 186-88.

rendered the actual images of Archigram so seductive and arresting. For to see an underlying commitment to topology and the image as a confirmation of synthetic experience was to begin the process of building out of Archigram a "program" for architecture that goes beyond its surface effects. It was in this sense that, for Banham, at least in 1965 before his retreat into more conventional architectural paradigms of the "well-tempered environment," Archigram was to provide Summerson's "missing language."

V

Forty-three years after Banham's Architectural Review "stocktaking," reinforcing Banham's view of a history out of sync with a calendar, Rem Koolhaas published his own "review" of architecture in the new century, symptomatically not in an architectural journal but in Wired magazine, once the hip site of computer fetishism, now reborn as the oracle of post-Silicon-Valley-meltdown dystopia.<sup>48</sup> "The Ultimate Atlas for the 21st Century" is presented for the new century as an assemblage of thirty "spaces" alphabetically ranged from "ad space" to "waning space." Like Banham's "1960," with its "science for children" approach to architects intimating their own imminent demise, but unlike Banham, Koolhaas's Koolworld produces a world vision entirely counter to any ideal of design, technological or aesthetic. This world is mapped with relentless "realism": its new frontiers are those of population growth and its economic and social consequences—youth is mapped against the cost of pension plans; prisoners against domains of civil and political liberty; television ownership against illiteracy. Real alternative spaces—that escape control established for the purposes of tax evasion, waste disposal (electronic and maritime), abortion, euthanasia, same-sex partnerships, and human stem-cell cloning are seen as "new islands" mapped against the virtual spaces of global commerce and manufacture, politics and power. The only "architectural" image, and the last in the review, is that of a deserted capitol at Chandigarh, "all that's left from the Western imagination's most radical attempt to organize public space."49 New York, capital of the twentieth century, is, as Koolhaas concludes, "delirious no more" in the twenty-first.

Readers of Koolhaas are, of course, familiar with all of this as well as his recent forays into the "junkspace" of modern capitalism by way of guides to the development of the Pearl River Delta and shopping guides recently interpreted by Fredric Jameson as forms of an apocalyptic utopia that attempt to "imagine capitalism by way of imagining the end of the world." But the *Wired* "atlas" promises more than these deliberately extra-large collections: its insertion within the pages

<sup>48.</sup> Rem Koolhaas, "The Ultimate Atlas for the 21st Century," WIRED (June 2003), pp. 132–69.

<sup>49.</sup> Ibid., p. 169.

<sup>50.</sup> Fredric Jameson, "Future City," New Left Review second series 21 (May-June 2003), p. 76.

of the ultimate glossy of networld, whose editorial is often indistinguishable from advertisements for speedy Hewlett-Packard printers, edges its survey of real junk-space uneasily into the territory of the virtual even as it challenges designers of real space to comprehend the sublime (an aesthetic term that appears once more in its post-postmodern form) of the real. As Felicity D. Scott argues in her contribution to this issue of *October*, here the early "ironic" stance of OMA is occluded. Rather than the world of the future, this is an inventory of the present, building up, in Koolhaas's terms, "a fragment of an image, a pixelated map of an emerging world." And this emerging world, while rejecting architectural terminology as inadequate for its description, retains architecture in its virtual dimensions: "think chat *rooms*, Web *sites*, and fire *walls*," writes Koolhaas.

Architecture is then brought to the Web to define its new spatial dimensions, even as Banham brought computers to the readers of the Architectural Review. But where for Koolhaas to "report on the world" as his contributors "see it" is not to claim a privilege for any form of information, only for its manner of framing, for Banham information, was, in and of itself, bound to change the architectural world in form. In 1960, the fundamental question was the nature of the "program" conceived of in the widest possible sense, adopted for architecture, a program that comprehended and subsumed both function and form. Not "form follows function," but form as, in a real sense, program and vice versa. For Banham a truly scientific program for architecture would take in all aspects previously left to tradition, including the aesthetics of perception, human response (visual, psychological, biological), technologies of the environment, and the like; science would simply reveal and propose the best solutions to the design of shelter. For Koolhaas, science offers no solutions, only knowledge; solutions are the province of the global managers of power and markets. Architects, armed with the precise tools offered by information and visual mapping, can only perceive and predict; their role is not in inventing the program, but identifying its raw material. If for Summerson and Banham it was imperative to rewrite theory in order to promulgate their new sense of the program, theory as both rational elucidation and manifesto, for Koolhaas such theory is manifested by the catalog, on-line and potentially exhaustive, theory as inventory.

Recent theory has put forward the notion of the diagram as one potential form-making instrument in the face of such an inventory. The diagram seems authoritative and scientific amid a world of graphs and charts and without rhetoric in a world cluttered with the residues of architectural expressions. Banham, too, believed in diagrams; his celebrated remark that "history is a graph" evinced his faith in prediction and progress. But where Banham looked to architecture (or its replacement) as the form-giving and inventive motor for his graphs, the new, global, Koolhaas seems to have entirely surpassed the efficacy even of his own diagrams and found architecture's pleasure principle instead in the relentless negation of traditional strategies and ideals.

Confronted with this unstructured and potentially ethically neutral catalog,

the momentary alliance between Archigram and Banham seems to offer more than a historical corrective to contemporary experiments in virtual architecture. As Mark Wigley has pointed out, Archigram was more than a "sci-fi" and Pop blip on the screen of architectural history; it was embedded in the very processes of architectural practice, imaginary and real. Banham's insistence on the role of aesthetics—of the viewer and in experience—in the promulgation of a new architecture adds to this significance and invokes the possibility of reconceiving the notion of program in a way that occludes the fatal modernist gap between form and function and incorporates environmental concerns, technology, and formal invention as integral to a single discourse.<sup>51</sup> "Une architecture autre" was, in 1960, a promise of "tomorrow"; its realization today has become not only possible, but also urgent.

<sup>51.</sup> Mark Wigley, "The Fiction of Architecture," in *Out of Site: Fictional Architectural Spaces*, ed. Anne Ellegood (New York: New Museum of Contemporary Art, 2002), pp. 37–49.