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‘Bursting the Seams’: The Evolution of Archigram’s Nomadic Living Units

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Abstract

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It seems no accident that a renewal of interest in the 1960s avant-garde architectural group, Archigram, should erupt at this historical moment. Communicated through drawings, photographs and collage with an overarching pop sensibility and an often hollow relation to reality, Archigram's vision of the city was based on systems theory and imagined as an indeterminate kit of mobile, autonomous parts. Their conception of the home was based on the idea of a nomadic pod that would be invisibly linked to a computerized network of servicing and communication. Although their understanding of technology is often remembered as naïve, their notion of the city as network and the home as interface feels—and looks—familiar when seen from within today's information-based culture. Although the genesis of the idea of digital, information space arguably began as early as the 1960s, it was not until the 1990s that Internet technology was made largely accessible to the general public. So when scholars began to reconsider Archigram's ideas, such as Peter Cook's Plug-In City and Dennis Crompton's Computer City, it was within the context of the popularization of a new medium that would radically change our ideas of spatial habitation. The temporal correspondence of Archigram's revival and the emergence of the most significant technological development of our age points toward the importance of an understanding of the group's radical and unsettling designs. At this moment in the history of technology, it seems we are poised to reconsider Archigram's work with new insight.

While many scholars have found their seductive, extraordinary ideas about the city to be their most interesting and fertile contribution to architectural history, this essay focuses on their ideas of the home. It attempts to show how Archigram translated their notions of a living city into a formal arrangement—that is, the Plug-In City concept. It then explores the lineage of the individual living units, which were initially designed as components of the Plug-In kit-of-parts. Finally, it attempts to demonstrate how these home units gradually disconnected from their material contexts and increasingly came to rely on the idea of a network of "wireless" communication.

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Introduction

But in the case of environments that are created by new technologies, while they are quite invisible themselves, they do tend to make visible the old environments. We can always see the Emperor's old clothes, but not his new ones.

Marshall McLuhan, 1967[1]

Our new medium, the Internet, is a McLuhanesque invisible environment unlike any we have seen before. In "The Invisible Environment: The Future of Erosion" (1967), McLuhan used the example of the late show to illustrate a theme: "On the late show on television we see old movies. They are very visible; they are very noticeable. Since television, the movie form has been re-processed. The form of movie which once was environment and invisible has been re-processed into an art form, and, indeed, a highly valued art form."[2] In this example, television is the environment and the old movie is the content. He continued:

> It is plain that the content of Plato's work, of his new written form, was the old oral dialogue. The content of the print technology of the Renaissance was medieval writing… By the 19th Century the Renaissance had come into full view in the rear-view mirror. As the industrial environment formed, this progressive time firmly and squarely confronted the Renaissance. The content of the 19th Century mind was the Renaissance; the content of the 20th Century mind the 19th Century. We are obsessed with it.[3]

It is not enough to say that the content of the twenty-first-century mind is the twentieth century. The Internet has so completely transformed the notion of environment and content that it cannot be compared with past environments. The Internet, along with other wireless and digital technologies, has the power to frame

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[1] Marshall McLuhan, "The Invisible Environment: The Future of an Erosion," *Perspecta 11* (1967): 164.
[2] Ibid., 164.
[3] Ibid.

what may appear to be nearly all dimensions of the human mind—written language, verbal communication, music, still images and, of course, moving ones (indeed, television)—and, increasingly, to build an ethereal landscape for the mind. Furthermore, our physical planet and built environment have become the content of a new, parallel environment, through satellite imaging and popularized tools such as GoogleEarth. McLuhan predicted this almost five decades ago: "The planet itself will become the content of a new space created by its satellites, and its electronic extensions."[4]

As early as the 1960s, the notion of a nonphysical environment, of an invisible network supported by electronics, already existed. By this time, the possibilities introduced by the development of the electronic computer in the 1940s had begun to permeate the popular imagination. In 1966, McLuhan spoke of the proverbial young student who faces the challenge of relating his traditional education to the new "'mythic' world of electronically processed data and experience that he takes for granted."[5] Around the same time, scientists were beginning to consider the idea that computers could communicate with each other to instantaneously deliver information across the globe. These were the ideas that spawned the Internet and cyberspace—that is the "infinite artificial world where humans navigate in information-based space."[6] Over the last fifteen years, the popularization of the Internet has increasingly blurred the relationship between

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[4] Ibid., 165.
[5] Marshall McLuhan, *Understanding Media: The Extensions of Man* (New York: McGraw-Hill Book Company, 1965), vii.
[6] Michael Benedikt, *Cyberspace: First Steps* (Cambridge: The MIT Press, 1991), 3.

physical, material space and digital, information space. In our digital age, cyberspace and physical space are not mutually exclusive conditions. As Saskia Sassen argues, we can no longer deny that "what takes place in cyberspace is deeply inflected by the cultures, the material practices, the imaginaries, that take place outside cyberspace."[7] In studying the intersection between the material and the digital, we must locate an interface where the two meet and interact. Certainly, computers are the most basic form of interface. Until the advent of accessible wireless technology, this computer interface was bound to a static location—for the consumer, this was usually within the office or the home. Recently, however, access to the Internet has become increasingly mobile, even nomadic, with the introduction of devices like the Smartphone and the wireless tablet.

The idea of a digital space is continuously redefined, but for my purposes, should be understood as an environment in which not only digital technologies communicate, but also one in which we, as humans, engage with electronic information. So radical is this idea of a real, but invisible space parallel to our material existence that its development has outpaced even the evolution of language. At present, we lack the terminology to articulately discuss the Internet and the paradoxical realm it has constructed: one that is at once undeniably real and completely intangible. In place of a dedicated lexicon, we frequently borrow from an architectural vocabulary to linguistically render digital space.[8] This lexical

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[7] Saskia Sassen, "Urbanism in a Global Age," *ARQ: la revue d'architecture* (Nov. 2004): 22.
[8] We say that we access cyberspace through a "window," departing from our homepage to traverse the information highway supported by an infrastructure to arrive at various IP addresses. An individual can be said to own real estate in cyberspace—that is, an IP address of his or her very own.

mingling suggests a fascinating intersection between the material world of architecture and the digital world of the Internet and its antecedent networks. Today, architects are actively grappling with the concept of a new, digital realm that is destabilizing the material one for which their profession has traditionally designed. Even as they continue to design physical buildings, architects can no longer afford to ignore the digital infrastructure that has slipped under the physical urban fabric. As Rem Koolhaas has pointed out, "our old ideas about space have exploded."[9] For the June 2003 issue of *Wired Magazine*, Koolhaas took the position of guest editor and invited an assemblage of writers, researchers, critics and artists to consider new concepts of space. The issue reported on 30 spaces—from Euro Space to Space Space to Waning Space (i.e. New York)—all of which, according to Koolhaas, "form the beginning of an inventory, a fragment of an image, a pixilated map of an emerging world."[10]

Looking back upon the architectural history of the receding twentieth century, one movement stands out as fascinatingly suggestive of our present technological condition: the work by a group of six young architects who took their name from their nine-issue newsletter, *Archigram*. After lying dormant for two decades, "the phenomenon that is Archigram"[11] burst through the seams of

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Regarding social media, one speaks of writing on a friend's wall. In the business of computer and network programming, the systems designer is even called an architect.

[9] Rem Koolhaas, *The New World: 30 Spaces for the 21st Century*, Wired Magazine, 2003, http://www.wired.com/wired/archive/11.06/newworld.html, 11 April 2010.

[10] Koolhaas, *The New World*, http://www.wired.com/wired/archive/11.06/newworld.html, 11 April 2010.

[11] David Rock, *Archigram: RIBA Royal Gold Medalists 2002*, The Royal Institute of British Architects, 2002, http://www.bartlett.ucl.ac.uk/architecture/people/showcase/01-02/archigram.htm, 31 March 2010.

architectural history in 1994, its members reuniting to produce the first major traveling retrospective of their work. Colorful, jocular, yet frighteningly dystopian, the exhibition debuted at the Kunsthalle Wien in Austria and toured worldwide, from Tokyo to Paris to San Francisco, for more than ten years. What had often been considered to be simultaneously one of the most inane and alarming developments in recent architectural history suddenly became a topic for serious scholarly consideration. Simon Sadler began work on the first full-length monograph on Archigram and its eponymous pamphlets in 1994, followed quickly by Hadas Steiner. Eight years later, the Royal Institute of British Architects granted their highest honor, the Royal Gold Medal, to Archigram as a group, and in 2007 the group's informal leader, Peter Cook, became a Knight Bachelor.

It seems no accident that a marked renewal of interest in the 1960s avant-garde architectural group should erupt at this historical moment. Communicated through drawings, photographs and collage with an overarching pop sensibility and an often hollow relation to reality, Archigram's vision of the city was based on systems theory and imagined as an indeterminate kit of mobile, autonomous parts. Their conception of the home was based on the idea of a nomadic pod that would be invisibly linked to a computerized network of servicing and communication. Although their understanding of technology is often remembered as naïve, their notion of the city as network and the home as interface feels—and looks—familiar when seen from within today's information-based culture.

Although the genesis of the idea of digital space arguably began in the 1960s, it was not until the early 1990s that Internet technology was made largely accessible to the general public through the development of web browsers. So when scholars began to reconsider Archigram's ideas—and the images that represented them—such as Cook's Plug-In City and Dennis Crompton's Computer City, it was within the context of the popularization of a new medium that would radically change our ideas of spatial habitation. The temporal correspondence of Archigram's revival and the emergence of the most significant technological development of our age points toward the importance of an understanding of the group's radical and unsettling designs.

At this moment in the history of technology, it seems we are poised to reconsider Archigram's work with new insight. While many scholars have found their seductive, extraordinary ideas about the city to be their most interesting and fertile contribution to architectural history, I have chosen to focus this essay on their ideas of the home. I will first show how the Archigram group translated their notions of a living city into a formal arrangement—that is, the Plug-In City concept. I will then explore the lineage of the individual living units, which were initially designed as components of the Plug-In kit-of-parts. Finally, I will demonstrate how these home units gradually disconnected from their material contexts and increasingly came to rely on the idea of a network of "wireless" communication.[12]

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[12] I do not wish to imply that Archigram literally imaged the wireless technologies that surround our lives today. When I use the word "wireless," I am referring to a more basic definition of the word, meaning "lacking or not requiring wires."

Chapter 1
Launching the Indeterminate City:
The Living City Exhibition and the Plug-In City

In the decades since their casual formation in the early 1960s, Archigram's legacy has been said to exist in two dimensions: in a realm of pop-art collage, of colorful print media, of fantastic paper architecture. Yet, their very first project as a group that included all six members—Peter Cook, David Greene, Michael Webb, Dennis Crompton, Warren Chalk and Ron Herron—was an endeavor in four dimensions: the Living City exhibition opened at the London Institute of Contemporary Arts (ICA) in 1963. A catalogue to accompany the exhibition appeared in *Living Arts* magazine, a new publication edited by Theo Crosby, architect, writer and initiator of the ICA show. In it, Peter Cook poetically introduced Archigram's agenda for the exhibition:

> belief in the city as a unique organism underlies the whole project
> in the living city man is the ultimate
> subject and principle conditioner
> the theme is interpreted by presenting
> evocations, accentuations and
> simulations of city life, not a display of
> suggested forms
> the image is a total image of
> it all like a film.[13]

Living City was a chaotic spectacle of image, light, sound and space: a jumble of photographs, drawings, contrivances and text assembled to present the city as an experiential whole. Later in the catalogue, Cook explained specifically what the exhibition was and was not: "Living City is not a blueprint for a city. Architecture is

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[13] Peter Cook, "Introduction," in *Living Arts 2*, ed. Theo Crosby and John Bodley (London: Institute of Contemporary Arts and Tillotsons, 1963), 70.

not in evidence here, our aim is to capture a mood, a climate of opinion, to examine the phenomena of city life, to create an awareness within the spectator of himself, his attitudes, and the significance of the throwaway environment around him."[14] In other words, the Archigram group did not wish to display their own work nor the work of other architects. In fact, Living City was hardly about architecture at all. Instead, it was a celebration of everything non-architectural that helped shape the messy vitality intrinsic in urban centers, specifically London.

In the spring of 1966 the stateside *TIME* magazine ceded the cultural moment to Archigram's home: "In a decade dominated by youth, London has burst into bloom. It swings; it is the scene. This spring, as never before in modern times, London is switched on. Ancient elegance and new opulence are all tangled up in a dazzling blur of op and pop."[15] After a decade and a half of post-World-War-II austerity, the British economy finally recovered, rousing both optimism and hedonism in the restless public. Led by music and fashion icons such as The Beatles, The Rolling Stones, Marry Quant and Twiggy, London dominated the international cultural scene of the West. Tourists from around the world were attracted to the city's most fashionable avenues, including Kings Road and Carnaby Street. But although 1960s London had sufficiently charmed much of the globe, few architects were as enchanted with the city as were the Archigram group. It was this enchanting London that was the primary material for the images on display in Archigram's 1963 ICA exhibition. As the group of young architects assembled their

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[14] Cook, "Place" *Living Arts 2*, 114.
[15] "Great Britain: You Can Walk Across It On the Grass," *TIME*, 15 April 1966, 32.

show, they turned to an infinite profusion of photographic images—from modish fashion advertisements to full-color photojournalism—that documented the life within Swinging London.

For the avant-garde architectural community at the beginning of the 1960s, Living City marked the emergence of the Archigram group as pioneers of a new "pop architecture." Before the exhibition, however, Archigram was just the title of a fledgling newsletter put together by Cook, Webb and Greene—all recent graduates of separate architecture schools. The two published issues prior to 1963 were filled with drawings of student works alongside photographs of modern architecture. Ensnarling the images were lines of meandering, handwritten text announcing the exciting potential of a younger generation of architects and the vexing shortcomings of the institution that Modernism had become. Meanwhile, Chalk, Crompton and Herron were employed at the Special Works division of the London County Council and were working on the South Bank Arts Centre. In 1962 Crosby hired these six young architects, who would soon after join to form the Archigram group, to work on the renovation of the Euston railway station. One year later, he landed them the ICA exhibition.

For the Archigram group, Living City set the tone for a decade of work that would appear in the seven issues of *Archigram* that followed. The ideas expressed in Living City were still in their formative stages, but would find their way into the more developed schemes presented in the magazine. *Archigram 3* closely followed the exhibition and crystallized the learning from Living City into specific proposals for a "throwaway architecture" that would be as ephemeral as the magazines in

which it appeared. As Cook explained in an anthology of Archigram's work published at the tail end of their career as a group, the exhibition was an important prerequisite for their design proposals: "It was necessary to accumulate the evidence… Expendability could be proved as a fundamental aspect of a dynamic, pluralist society, but this had to be transferred into an architectural conversation."[16]

As much as Living City was an exhibition, it was an experiment. The viewer played an integrated role in creating a "situation" around and a relationship to images and objects displayed in the installation. Each individual's journey through the gallery space was intended to be different and open-ended. Above all, Archigram designed Living City to simulate the vibrant, transient quality of city life in which architecture was only one of its defining elements, among a profusion of other factors. Cook returned to this view of architecture throughout the catalogue, notably in one of his more famous maxims: "When it is raining in Oxford Street, the architecture is no more important than the rain, in fact the weather has probably more to do with the pulsation of the living city at a moment in time."[17]

Together, the architects-turned-curators arranged the exhibition space as flowing, circulatory and non-directional to encourage unique experiences, connections, and perhaps even revelations, for each visitor. Within the gallery itself, they installed a steel framework that held together pre-fabricated triangular panels, chosen for their ability to "twist [themselves] around spaces."[18] This internal

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[16] Peter Cook, Warren Chalk, Dennis Crompton, David Greene, Ron Herron and Mike Webb, ed., *Archigram* (London: Studio Vista, 1972), 16.
[17] Cook, "Introduction" *Living Arts 2*, 70.
[18] Cook, "Introduction, *Living Arts 2*, 71.

skeleton insulated the exhibition from the outside world. From inside the installation, the street outside could only be viewed through two periscopes situated on either side of the installation space. The exhibition visitor entered Living City through a tunnel-like space and emerged at the center of the installation, which was divided into seven alcoves called 'gloops' by Archigram. Each gloop was dedicated to "a theme deemed central to the dynamic urban experience: Man, Survival, Crowd, Movement, Communication, Place and Situation."[19] The gloops loosely organized the content of the exhibition, but were not distinctly separated, their themes and content mixing and merging at their intersections. Supported by the paneled structure, photographs of London monuments, transportation system schematics, magazine advertisements and consumer products were fragmented, resized and juxtaposed as signs and signals without captions or text to evoke a variety of significations.[20] The exhibition space was lit by a flicker machine, which artificially and continuously changed the patterns of light and shadow that fell on the images. This effect was intended to show that any individual's perception of the city—and of the architect's carefully designed buildings—would inevitably be fractured, varied and dependent on circumstances beyond the designer's control.

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[19] Ibid., 71.

[20] This was not a new concept. Living City followed a lineage of previous ICA exhibitions by the Independent Group and inherited their "as found" sensibility. These installations had encouraged the city dweller to take notice of familiar objects and media around him that had slipped below the consciousness by scattering photographs and advertising materials throughout the gallery space. Alison and Peter Smithson described the effect of such an awakening of awareness: "The 'as found' was a new seeing of the ordinary, an openness as to how prosaic 'things' could re-energise our inventive activity. A confronting recognition of what the postwar world actually was like." (Alison and Peter Smithson, "With Hindsight… The "As Found" in Architecture," in *As Found: The Discovery of the Ordinary*, ed. Claude Lichtenstein and Thomas Schregenberger (Baden, Switzerland: Lars Müller Publishers, 2001), 40). Cook acknowledged Archigram's debt to the Smithson's This Is Tomorrow exhibition at the ICA in his introduction to the Living City catalogue (Cook, "Introduction," *Living Arts 2*, 68).

The entrance tunnel directed the visitor toward the three gloops to his left—"Man," "Survival," and "Crowd." In Living City's story of urban experience and subjective perception, Man took the role of protagonist and "the ultimate subject and principle conditioner"[21] of architecture. The Man gloop depicted and characterized the individual heroically: images of Superman appeared alongside spacemen, and a board game challenged the Living Citizen to move, turn-by-turn, through the city. "We have tried to determine the characteristics of man in the future," wrote Cook.[22] Although Archigram generally aimed at portraying Man's identity as ambiguous, genderless, race-less and classless, this effort was doomed by the young architects' naïveté. Chalk's Living City Survival Kit, a photograph published in the exhibition catalogue, left little doubt about its owner's position in society. The photograph showed a splayed out collection of the essential objects of day-to-day survival in the Living City: money, Puffed Wheat, cigarettes, a copy of *Playboy* magazine, a toy gun, a bottle of scotch whiskey, a John Coltrane LP, and men's sunglasses, among other items. Chalk's inclusion of makeup—which appeared suspiciously proximate to the word "sex"—into the mix of generally masculine paraphernalia would have done little to convince the viewer that the owner of this survival kit could be other than male. Despite Archigram's efforts to obscure Man's precise identity, it is clear that he was someone specific: a young, hip, moneyed, white, male urbanite with few obligations. Perhaps Man and his survival kit reflected the architects themselves who, despite probable good intentions, were

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[21] Cook et al. ed., *Archigram*, 22.
[22] Ibid., 21.

callowly unaware of how their accidental privileging of the young, white male ultimately compromised their insistence on open-endedness and individual liberation for all.[23]

While the Survival Kit inadvertently revealed Man's identity, its primary, intended message was that Man must fight to preserve his individuality within the crowded city. Certainly, individualism superseded collectivism in Archigram's ideology, but the crowd could not be forgotten if the city's dynamism were to be maintained. In Archigram's designs for individual living pods that would first appear in *Archigram 4*, the individual inside the home was emphatically separated from the collective outside. In Living City, however, the Archigram group presented Man as an integrated part of the city. He "fit in" to its program, as explained under the invitation to play the "Socio-Pyscho Game":

> The chips are down
> The stakes are low
> Man in the city the ultimate goal
> Throw the dice and
> learn about yourself and how
> you fit in the pattern
> that is 'Living City.'[24]

The crowd, depicted in a large, kaleidoscopic collage, was in fact a collection of individuals, each with his own idea of the city. In a description of their own agenda that appeared in the catalogue, Archigram hinted at the possibility of a future

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[23] It is important to remember this project when considering any of Archigram's projects that involved the "individual." Simon Sadler occasionally confronts gender issues within his study of Archigram, but as far as I have found, he is the only one. It is a much-neglected topic, but beyond the scope of this essay. In this context, I refer to the urban citizen (and the nomad) as *him* not without awareness and intention. I have capitalized Man to indicate a specific identity.

[24] Archigram, "Man Gloop," Living City exhibition; quoted in Sadler, *Archigram: Architecture Without Architecture* (Cambridge: MIT Press, 2005), 65.

takeover of personal agendas and a reluctance to interact with fellow men: "This thing we call Living City contains many associative ideas and emotions and can mean many things to many people: liking it or not liking it, understanding it or not understanding it, depends on these personal associations. *There is no desire to communicate with everybody, only with those whose thoughts and feelings are related to our own* [my italics]."[25]

On the opposite side of the exhibition lay the Place and Situation gloops. The inclusion of the idea of place seems strange for a group that would later propose the complete dissolution of permanent place.[26] The end result of the Place gloop, however, was the suggestion that the creation of meaning and experience within the city would forever and unavoidably escape prediction, and therefore defy static design. On a collage of maps, Archigram identified epicenters of "place" by circling them: the American eastern seaboard, Rome's Piazza del Popolo and Pantheon, Glasgow, Edinburgh, Liverpool, Birmingham and, of course, London.[27] These were not planned points of assembly; they were places where spontaneous social patterns and interactions converged organically, unsolicited by any sort of urban design. Another collage read, "Architecture alone cannot achieve this feeling of 'place.' It alone is not enough to give identity. It is the content and use that are important."[28] Above all, the Place gloop celebrated the capricious flowering of spaces within a city that were meaningful to its citizens and opposed the

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[25] Archigram, "Situation," *Living Arts 2*, 112.
[26] Sadler, *Archigram*, 71.
[27] Ibid., 70.
[28] Archigram, "Place," *Living Arts 2*, 110-111.

homogenizing effects of urban over-planning. The Situation gloop was ideologically and physically fused with the Place gloop, but it also explicitly referenced the ideas of Archigram's more politically engaged continental counterparts, the Paris-based Situationists. Their ideas rooted in Marxism, the Situationists sought to construct "situations" in which the environment would work to serve the individuals' desires as alternative to the capitalist order. The Archigram group, on the other hand, avoided portraying the idea of situation as antiestablishment. For them, situation simply meant "the happenings within spaces in-city" and it was the critical element "in determining our whole future attitude to the visualization and realization of city; it can give a clue, a key, in our effort to escape the brittle ingratiating world of the architect/aesthete, to break away into the real world and take in the scene."[29] Indeed, Archigram's idea of situation would take a central role in the theoretical impulse behind the group's first design for an enhanced living city: Cook's Plug-In City.

Located in the center of the paneled structure, the Movement and Communication gloops tied the two sides of the installation together. Within the Communication gloop, the viewer found a collection of images of mechanisms that "moved" information through the city: written language, film, corporate logos, comic books, records and the human body. The Movement gloop showed how people and objects were connected through traffic systems, roadways and mass transit. While the Movement gloop was more concerned with the motion of physical objects, the Communication gloop focused on the transmission and circulation of information

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[29] Cook et al. ed., *Archigram*, 21-22.

through signs and symbols—and, accordingly, explored the methodological mechanics of the exhibition itself. Both concepts, however, were central to the urban experience at the dawn of the digital revolution and, consequently, would be two of the architect's chief concerns in the future. During the 1950s and '60s, advances in digital computers and systems had begun to accelerate the pace of communication. *Archigram* was launched during a moment in which digital technology was beginning to change Man's relation to everything around him: the crowd, place, communication and situation of his city. As if anticipating the immanent creation and consequences of cyberspace—an environment that would exist beyond the tangible realm—Archigram believed that a critical change would have to occur in architecture if it were to keep pace with the rest of the contemporary world and survive into the future world.

Movement was at the heart of this change. Cook, in considering "the key to the vitality of the city," explained how a vibrant metropolis depended on the mobility of both information and objects: "Communications, services and facilities must be there as a form of ground base to the city that spreads over them, *but they should be as physically capable as possible*, not tied to standards produced by outworn scales of values. The living, vibrating crust of the city must regenerate in its own terms."[30] In this context, capability equated mobility and flexibility, and the essential components of the viable city would be required to become more dynamic than ever before. According to Archigram, the city as a whole would soon be defined not just by buildings, roads and infrastructure, but also by less solid

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[30] Cook, "The Key to the Vitality of the City," *Living Arts 2*, 80.

systems, such as language. In the exhibition catalogue, Living City's graphic designer, Peter Taylor, called for a convergence of graphic and architectural thinking: "Buildings are permanent, and lettering is transient, so goes the thinking: but in the Living City everything will be subject to constant change. The city environment must now be considered as a totality, in which alphabetic and architectural elements are a single entity."[31] Archigram believed that buildings within such a city could no longer take a static or permanent place in society and that the architect's new task in the digital age would be to introduce transience and mobility into architecture. The designer of cities and homes would have to become more like the makers of consumer products and popular culture. The group envisioned a home of the future that would no longer be designed and sited by an architect, but instead chosen—and eventually thrown away—by the consumer.

The essential first step in Archigram's mission to animate architecture was a rethinking of the urban framework. How could a cacophony of moving parts be assimilated into a functional whole? Before they could begin considering the individual units to replace the traditional, static buildings that were apparently strangling the life of the city, Archigram needed to conceive a framework that would be more flexible and open-ended than any existing arrangement. In his design for the Plug-In City, Cook sketched and reified the notion of the vibrating, living city tentatively suggested within Archigram's ICA installation. A truly living city would necessarily be capable of both growth and adaptation and would depend upon

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[31] Peter Taylor, "Words at liberty: Alphabetic communication in the Living City," *Living Arts 2*, 79.

"situation as much as established form."[32] The Plug-In City was a constantly evolving idea, but its first iteration appeared one year after Living City in *Archigram 4*:

> Definition: The Plug-in City is set up by applying a large scale network-structure, containing access ways and essential services, to any terrain. Into this network are placed units which cater for all needs. These units are planned for obsolescence. The units are served and manoeuvred by means of cranes operating from a railway at the apex of the structure. The interior contains several electronic and machine installations intended to replace present-day work operations.[33]

The overall purpose of such a megastructure would be to allow complete regeneration, renewing architecture's usefulness and enabling it to contend with the accelerating "pulsation of city life."[34] Archigram saw the introduction of mobility as the next logical stage in the evolution of buildings, and especially homes, within a living city. The promise of regeneration not only theoretically enhanced architecture's resiliency, but also offered the citizen population emancipation from the spatial hierarchy imposed by the traditional city. Given the prospect of a portable or mobile living space, the individual was both physically and ideologically liberated. By disconnecting his house from its site, Man was free to easily throw away his home—or just a part of it—as it became obsolete, unfashionable or even just unwanted. This also allowed him to keep the home, but move it to another location. In Cook's scheme, architecture would always be at the service of Man, responding to his needs and desires—that is, until a newer, improved model took its place.

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[32] Cook et al. ed., *Archigram*, 36.
[33] Ibid., 39.
[34] Ibid., 23.

Cook consciously exploited visual devices to communicate a sense of motion in his renderings of the Plug-In City. He often drew it in a sprawling, bird's-eye axonometric plan to harness the visual movement and instability inherent in the diagonal.[35] In both plan and section, the overall impression of the Plug-In City was of a structured tangle of lines and shapes. The lines, which represented an ambiguous sort of hyper-rapid transportation route between "buildings," were the dominant visual feature in every rendering. In the axonometric, they distinctly resembled computer wires—perhaps indicating Archigram's instinct to treat architecture as information. The image of such rapid, seemingly unrestrained motion posed the problem of traffic and worse, accidents. How would such speed and freedom be regulated? Who or what would be charged with the task of governing the Plug-In City?

Considering how government—and, thereby, politics—would fit into their scheme seemed to the Archigram group far too limiting a consideration. In general, they had no interest in engaging with politics—a stance for which they have often been criticized. Their hope, nonetheless, was that the Plug-In City would transcend politics. Reflecting an ever-intensifying faith in technology during the 1960s, the Archigram group subscribed to the belief that physical labor should one day be replaced by automation.[36] Using this logic to defend their apolitical stance, they reasoned that an automated government could perhaps end political strife entirely. This was the rationale that led Crompton to develop the Computer City in 1964:

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[35] For more on the use of the axonometric and the diagonal by Archigram and their forebears, see Hadas Steiner, *Beyond Archigram: The Structure of Circulation* (London: Routledge, 2009), 203-205.
[36] Sadler, *Archigram*, 20.

"The Computer City Project is a parallel study to Plug-in City. It suggests a system of continual sensing of requirements throughout the city and, using the electronic summoning potential, makes the whole thing responsive on a day-to-day scale as well as on the year-to-year scale of the city structure."[37] Crompton drew only one image of the Computer City, which was essentially a diagram of an invisible network. Sadler rightly points out that the Computer City was "posited not so much as an alternative to the sprawling urban forms of Plug-In City but, floating in abstract space, as a diagram of the systems that would let Plug-In City work."[38] The Computer City complemented the Plug-In City in the way that computer software complements hardware.

Insisting on a mechanized infrastructure, the Plug-In City—coupled with the Computer City—was, in many ways, a bizarre response to the call for a *living* city. Yet, it anticipated several of the themes that would reemerge when Archigram turned their attention to designing the individual units that would fit into the plug-in scheme. First, the Plug-In City suggested an unexpected relation between the mechanical and the organic. Certainly it could be said that Cook proposed a metropolis that showed signs of life, even sentience: it was capable of movement, of response and of evolution. Nonetheless, its operations were completely mechanized and overseen by an automated force. The Plug-In City also introduced Archigram's penchant for manipulating and obscuring concepts of interior and exterior. In attempting to integrate their concept of situation, the Plug-In City interiorized the

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[37] Cook et al. ed., *Archigram*, 41.
[38] Sadler, *Archigram*, 21.

world outside the home. This allowed Man to exist inside at all times: open motorways became closed "lift tubes," and casual outdoor gathering spaces—such as parks in a traditional city—became enclosed nodes of human interaction. What was left outside was essentially a void, nothing more than negative space. Finally, the Plug-In City exposed an early paradox in Archigram's work: the mobile living unit that freed Man from his permanent location on earth also continually and actively enclosed him within its skin.

The Plug-In City created a hypothetical structure for which future Archigram projects would be designed. In the years immediately following the invention of the plug-in concept, the group members turned their attention to imagining designs for homes that would "plug-in" to the megastructure. Gradually, as hesitant mobility gave way to intrepid nomadism, Archigram's designs began to literally and ideologically unplug from the Plug-In City and set out on their own.

Chapter 2
Unplugging:
The Capsule Home, The Gasket Home and the Living Pod

With apologies to the master, the house is an appliance for carrying with you, the city is a machine for plugging into.

David Greene, 1966[39]

Although Chalk's Capsule Home appeared one issue behind Cook's Plug-In City, Cook recalled that the two projects were conceived simultaneously, but separately. Nevertheless, "it soon became obvious that the capsule dwelling would be a preferred type within the Plug-In City."[40] And so it was with a confidently established relationship between megastructure and components that the Archigram group embarked upon the design of individual living units. Yet, it would not be long before this plain link between Man and the crowd began to steadily disintegrate. Between 1964—when the Capsule Home emerged—and 1966—when David Greene debuted his Living Pod in *Archigram 7*—Archigram's mobile environments gained ever more autonomy, while the clarity of their interconnectedness lost its definition. Following the proposals of a city in which wariness of the collective was already apparent in *Archigrams 4* and *5*, readers found growing attempts to unplug and eject from the city in *Archigrams 6* and *7*. This period is characterized by apathy, even an aversion, to a sense of community outside of individual pods. Separation and, eventually, isolation of individual units is discernible in both the images and language used by Herron, Chalk and Greene.

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[39] David Greene, "Living-pod," in *Archigram,* ed. Cook et al., 52.
[40] Cook et al. ed., *Archigram,* 44.

Their work from here on out betrayed an increasing unwillingness to cope with community and interaction. In an age in which electronic technology promised a future eased by automation, could the architects have been losing confidence in their fellow humans to function in a progressively more accurate, mechanized world? We cannot know their exact thoughts at the time, but it seems fair to judge, in retrospect, their understanding of the relationship between humans, architecture and technology as representative of the era's trust in technology.

Whatever the reason for their desire to separate individuals, this inclination obliged architecture to take on new distinct responsibilities previously undertaken by other disciplines. It was required to provide a means of emancipation through increased mobility. In this context, it is important to note the difference between transportation and mobility. Transportation is the work of vehicles and it is the task of moving people and things from place to place. Mobility has a different connotation in that it certainly implies a departure from a fixed location, but an arrival elsewhere is not so certain. Archigram never spoke of transportation; their mobile environments did not serve to move people from specific place to specific place (for example, to a meeting with another person). It was wandering that interested them, inspired by a romantic notion of the ancient nomad. It was ejection from society, inspired by the submarine and space capsule.

During this early period in Archigram's thinking about mobile housing, a declining interest in incorporating individual home units within a larger framework is already detectable. The first home, the Capsule Home, remained firmly anchored

to the service core. Its limitations provoked increased flexibility in the Gasket Homes, which can be read as a "half-step"[41] between the initial idea of the prefabricated home unit and its more rebellious descendent, the Living Pod. The Living Pod marked a distinct break from earlier projects that insisted upon a clear relationship to the Plug-In City. In both image and description, the Living Pod was neither physically tethered to an infrastructure or service core nor did it suggest any relation to other units.

Chalk developed the Capsule Home primarily to operate within consumerist rhythms of expendability and planned obsolescence. He acknowledged that "the idea of mass-produced expendable component dwelling is not new… The Plug-In Capsule is an attempt to sustain the idea in the hope that some brave soul might eventually be persuaded to finance research and development."[42] Like similar projects by Le Corbusier, Jean Prouvé, Buckminster Fuller and Alison and Peter Smithson, the components that made up the unit were designed to be prefabricated and locked together, allowing for interchangeability and replacement. One of the drawings of the Capsule Home, an exploded axonometric, showed the "typical components of one capsule: floor tray, pull-out screen, bed tray, audio-visual component, inner wall leaf, ceiling tray."[43] In this way, it demonstrated the principle

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[41] The Archigram group discussed the idea of the "half-step" in relation to the "ultimate stage" in the retrospective volume of their works (Cook et al. ed., *Archigram*, 50).
[42] Warren Chalk, "Hardware of a New World," in *FORUM* (October 1966); reprinted in *A Guide to Archigram, 1961-74*, ed. Dennis Crompton (London: Academy Editions, 1994), 93. Notably, the Japanese Metabolists envisioned a nearly identical system of large-scale, flexible, expandable megastructures that would grow and develop like a living organism. For more on the Metabolists and other cities based on organic growth, see Herbert Wright, *Instant Cities* (London: Black Dog Publishing, 2008).
[43] Cook et al. ed., *Archigram*, 44.

behind the Plug-In City on a smaller scale. Archigram compared it to an established commercial product that operated under the same principle: "To use the automobile as an analogy: the Ford floor tray could be traded in for a Chrysler floor tray. There would be a continual exchange taking place, with constantly changing and evolving parts."[44]

Inspired by industrial design, Archigram believed that the homeowner should have the opportunity to customize elements of his home. Perhaps he would order a capsule from a catalogue and personally choose from a selection of built-in appliances and furniture. When these elements got old or went out of fashion, the capsule-homeowners could select and order new ones, which could be installed with cranes, if necessary. Chalk's writing about housing made explicit his endeavor to empower the dwellers: "In a technological society more people will play an active part in determining their own individual environment, in self-determining a way of life. We cannot expect to take this fundamental right out of their hands and go on treating them as cultural and creative morons."[45] The opportunity that Chalk presented, however, did not truly invite creativity. First, individuals would remain confined to a capitalist hierarchy. The number of options available to an individual would continue to depend on his or her financial standing. Furthermore, this privilege of choice would only be a process of selection, one not radically different from choosing a traditional house to live in. More central to this proposal than true creative freedom was the promotion of multiple-choice convenience and comfort.

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[44] Ibid.
[45] Chalk, "Housing as a Consumer Product," 92-93.

Finally, Archigram remarked that Chalk's approach to capsule homes preserved an interest in "presenting a series of very sophisticated and highly *designed* elements locked together within a 'box' which is itself highly tailored."[46] In this scheme, the architect would still play a major role in forming space for individuals, and economic and societal status would continue to anchor their place within the city.

While the capsule was made of interchangeable "trays," the unit was itself an interchangeable component within a larger network. Inhabitants were sealed within their capsule by means of a glass-reinforced plastic skin. This versatile, yet solidly smooth shell insulated each capsule from the noise, odors, weather, textures and friction—that is, the experience—of the unpredictable exterior world. In this way, density could increase without compromising the comfort of the residents. Each capsule related to other units in a plug-in, clip-on fashion in which the capsules themselves were "snuggly and efficiently locked together."[47] The units were wedge-shaped to fit around a vertical cylindrical tower that provided each unit with support and services. Architectural historian Reyner Banham, a close friend and neighbor of the Archigram group, explained the logic behind such an organization in his essay, "Clip-On Architecture":

> If the units are stacked vertically, then some form of external structure will be needed to take up their cumulative weight; and if any substantial number are to be serviced with water, air, gas, piped music or you-name-it, then those services are going to thicken up into some pretty impressive ducts and trunking-in places. So you reverse the proposition. The generalized structure becomes the source of power, service and support, and the specialized clip-ons become the habitable units.[48]

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[46] Cook et al. ed., *Archigram*, 44.
[47] Ibid.
[48] Reyner Banham, "A Clip-On Architecture," *Design Quarterly* (1965): 11.

In other words, the form became an expression of its mechanics. This idea would inform the aesthetic of many projects associated with the High Tech movement that emerged during the 1970s.[49]

In this clip-on scheme, the capsules remained connected to the tower and would necessarily be contiguous. Neither Chalk nor any other Archigram member had yet worked out how to incorporate mobility and a higher degree of flexibility into their designs for individual environments. Inspired by the space race, Chalk's choice to name his project after rocketing space vehicles evoked a clear yearning for escape. The space capsule as human container and mobile, autonomous environment suggested the fantastic possibility of a "blast off" from extant society and symbolized the ultimate in vigorous emancipation. It also expressed the possibility and desirability of what Fuller once identified as "the first completely designed human environment."[50]

For the members of Archigram, the Capsule Homes revealed the limits of the clip-on tower scheme and provoked future possibilities in flexible housing. Cook identified the "wedge-shaped unit sitting into a tower" as the greatest restriction to the concept: "It suggests that the city might contain a defined conglomeration."[51] In

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[49] Renzo Piano and Richard and Su Rogers were some of the first—and only—architects to attempt a materialization of Archigram's ideas. The Pompidou Centre in Paris turned the building inside out, exposing and highlighting its skeleton and guts to the street. The Archigram group and their friend, architect Cedric Price, visited the Pompidou together, shortly after it was completed. They recognized its relation to their own work—"Ostensibly it appears to be an Archigram building," Herron said—but ultimately dismissed it as "too consistent." Price announced at the site, "Someone either designs a building to move or does not design a building to move," while David Greene proclaimed a nearby crane "much more dynamic." (All quoted in Sadler, *Archigram*, 167.)
[50] Fuller, quoted in Chalk, "Hardware of a New World," in *FORUM* (October 1966), reprinted in *A Guide to Archigram, 1961-74*, ed. Dennis Crompton (London: Academy Editions, 1994), 176.
[51] Cook et al. ed., *Archigram*, 44.

other words, the tower imposed dimensional boundaries to the scheme, thereby limiting the lifestyles of the capsule inhabitants. Archigram's goal was to create a home whose form was a direct and immediate result of the changing preferences and desires of its owner. Due to its relationship to adjacent units, the shape of the Capsule Home was determined, at least in part, by its neighbors. Ultimately, the Capsule Home was too dependent on its surroundings to adequately respond to the whims of its inhabitant within. Yet, while this scheme could not present an environment itself defined by its inhabitant's chosen lifestyle, it did set stage for the sealed, autonomous environment to "unplug" from its service cores.

The Gasket Homes, on which Chalk collaborated with Herron, represent a step further toward a more complete release of the individual into the realm of a flexible, undefined external environment. They also expanded the extent to which the units could be incorporated into a patterned network and multiplied infitnitely. In place of a service tower, Herron and Chalk imagined a complex of individual units strung together "into an almost infinite series of enclosures… [The units] are suspended from a megastructure, and are independent of one another."[52] The introduction of suspension was the most critical development in the Gasket Homes. In a rendering of a plan of such a construction, the individual units, which have been freed from their wedge shape, are shown strung together by a flexible, tensile connecting line. The individual units have bumper-like protrusions on either side and coiled, cushioning gaskets between each unit and the main structure, both suggesting that the entire structure would experience some degree of agitation.

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[52] Ron Herron and Warren Chalk, "Gasket homes 1965," in *Archigram*, ed. Cook et al. 46.

Instead of being held in place by adjacent units, these seem free to bob and move with the fluctuating external conditions—or perhaps even in response to the rhythms of the lifestyles lived within their skins. In another drawing by Herron—titled Capsule Pier 1965, but clearly more related to the gasket home type—the individual units appear as a jumble of submarine-like forms and are suspended on threads connected to a mast-like megastructure. Overall, these drawings newly expressed a casual, permissive relationship between the megastructure and the individual unit. As the design pair explained, "without the restriction of the tower layout, these units show a more relaxed attitude towards servicing and enclosure."[53] Furthermore, the Gasket Homes anticipated Greene's Living Pod in the increase in distance between units and the flexibility of their relationships. Although Herron and Chalk's project flirted with the idea that "a series of environmental elements [could be] only *sometimes* interdependent," the habitable units maintained a parasitic and constant, if perhaps more elastic, connection to the service core.[54]

The Living Pod was the first Archigram project to truly free itself from the megastructure that connected it to other units and the necessary services. It was perhaps the single most important development in Archigram's quest for a nomadic architecture. Greene's pod could achieve temporary disengagement thanks to the attachment of servicing machinery that could operate remotely from the megastructure for an extended period of time. Instead of the living space feeding on the service core, the services were compacted and mobilized in order to suckle the

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[53] Ibid.
[54] Ibid.

individual pod. Here, the action of clipping-on was reversed: the services clipped-on to the pod, and the pod supported itself. Although "this capsule could be hung within a plug-in urban structure," it could also "sit in the open landscape."[55] It was, by far, Archigram's most mobile unit yet.

While the possibility of integration was indicated in text, the images of the Living Pod never situate it among other units. In fact, the iconic model of the Pod gives it the appearance of having just landed in a lunar landscape. The textured ground upon which the pod sits is free of foliage, water and any evidence of life. It is the only thing present, besides groupings of rocks, in this conjectural world. The barrenness of the terrain suggested that, outside of his Pod, man could not survive here. It seems obvious from this image that Greene did not design this pod for camping trips, as did the creators of the American mobile home. While it was in part inspired by a growing trend toward recreational mobility across the Atlantic, the Living Pod was no Airstream. "Really one is left with a zoom-land trailer home. Probably a dead end," Greene wrote, implying that his invention was a hybrid of two of his favorite American innovations: the trailer home and the space capsule. It was a camper that could be taken to the bottom of the sea, to the Antarctic and, of course, to the moon. In order to provide a home that could support life outside of Earth's habitable biosphere, it would have to be sealed and robustly protective of its interior and its inhabitants. The most autonomous unit yet, it was also the most hermetic. At this high level of insulation, the inhabitant would hardly be able to

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[55] Greene, "Living-pod," *Archigram*, ed. Cook et al. 52.

engage at all with the exterior environment, be it Mars or the corner of Regent and Oxford Streets.

This insistence on hermetic design extended undoubtedly from Greene's long-standing interest in "burrowing." The first issue of *Archigram* featured Greene's Spray Plastic House, which was as much process as it was house. In it, Greene explored biomorphic form as a natural result of innate human creation: "Why don't rabbits burrow rectangular burrows? Why didn't early man make rectangular caves?"[56] The architect's client was truly the one who gave form to the Spray Plastic House, while the architect's role was to provide a foamed polystyrene block and "suitable burrowing tools"—and to occasionally advise. After the clients had burrowed into their block, forming it to their liking, architect and client together would spray the form with plastic and fiberglass before the foam block eventually disintegrated. The result was a home that was a direct expression of the life inside it. Greene's drawings of such a collaboration between architect and client are uncannily similar to the form of the biomorphic Living Pod, which was notably complete with inflatable "womb" seats.[57]

In *Concerning Archigram*, a volume of their work published in 1999, Crompton declared that Greene's interest in burrowing and his enthusiasm for the sculpted shell were equally manifest in the Living Pod.[58] Its expressively organic form, combined with Greene's descriptive language that parodied technical jargon, exposed another important inspiration that contributed to its conception:

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[56] David Greene, "Spray Plastic House," in *A Guide to Archigram, 1961-74*, ed. Crompton, 48.
[57] Steiner, *Beyond Archigram,* 140.
[58] Dennis Crompton, "Archigram Classic: Living Pod, David Greene, 1966," in *Concerning Archigram*, ed. Crompton, 110.

cybernetics.[59] In this project, technology would enter the home at unprecedented levels. Crompton insisted upon the architect's ability to incorporate robotics and automation into his design: "The fascination with the 'servant' role of the robot has to be seen together with its main significance to the Archigram Group: as a key addition to the architect's vocabulary—roof, wall, door, window, robot, floor, etc."[60] As the relationship between house and technology, alongside that of house and human became ever closer, a new connection emerged. The mobile house, serviced by mobile machinery, would become an extension of man[61] as he traveled "to the edge."[62] In its role as a survival aid, man's house-pod became more than a home, its machinery more than a tool. The meshing of human and machine implied by this new type of home was perhaps the key to its mobility. It built upon Man's natural ability to travel and augmented it by supplying added power and protection.

As mentioned earlier, the Living Pod marked an important turning point in Archigram's ideological history. It was the end of the conception of the home as necessarily tethered to the ground and the beginning of the "middle period" described by Cook as the time when "the experiments were beginning to burst the seams of architectural response."[63] With the Living Pod began an indulgence

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[59] Steiner, *Beyond Archigram*, 140-141.
[60] Crompton, "Archigram Robots," in *Concerning Archigram*, ed. Crompton, 114.
[61] McLuhan's seminal work, *Understanding Media: The Extensions of Man*, introduced the idea of another type of extension of the body: "During the mechanical ages we had extended our bodies in space. Today, after more than a century of electronic technology, we have extended our central nervous system itself in a global embrace, abolishing both space and time as far as our planet is concerned. Rapidly, we approach the final phase of the extensions of man—the technological simulation of consciousness, when the creative process of knowing will be collectively and corporately extended to the whole of human society, much as we have already extended our senses and our nerves by the various media." (Marshall McLuhan, *Understanding Media*, 3-4.)
[62] Cook et al. *Archigram*, 51.
[63] Ibid., 50.

implicit in the design of encapsulated, mobile environments: the possibility of designing individual homes without consideration for their surroundings and relationship to other structures and individuals. The Living Pod took no account of the collective, instead only considering the needs and wants of the isolated individual inhabitant. This indulgence released architecture from the limits of context—allowing it take on whatever form desired by its owner—and began to inflate its perceived capacities to include unrestrained mobility and freedom. In the next stage of Archigram's mobile environments, the idea and possibilities of the architectural object were inflated further; this time, in a very real way. Mobility was intensified thanks to a new kind of structure that would reach an unprecedented level of impermanence and lightness: the pneumatic.

Chapter 3
An Ultimate in Skins:
The Cushicle and the Suitaloon

"More often than not, Webb was the most far out," the Archigram group recalled in the 1972 anthology. To be sure, a sense of the "far out," was present in the Cushicle and the Suitaloon, Webb's contributions to Archigram's ongoing conversation regarding mobile architecture. Referenced both as a merged unit and as two separate inventions, the Cushicle-Suitaloon was the first major Archigram living unit specifically designed for the use of a single inhabitant and their first attempt to use pressurized air as a structural support. In these semi-pneumatic houses, Greene's earlier notions of the house as a hermetic, responsive capsule reached increased saliency. *Archigram 7* introduced the Cushicle—a contraction of "air cushion vehicle": "[It] is an invention that enables a man to carry a complete environment on his back. It inflates-out when needed. It is a complete nomadic unit—and it is fully serviced."[64] The unit comprised two basic parts that could be used together or independently: an "armature" or "spinal" system, which unpacked and formed the chassis for the appliances; and the enclosure-suit, which unfolded and inflated to house the inhabitant. In the ultimate rendering that added the Suitaloon to the Cushicle concept, the inflatable unit was fitted to Man's form, both protecting and augmenting his body. Drawings of Webb's invention show the services—including water and food supply, temperature regulation, radio, television, etc.—embedded into the unit's design and remotely connected through

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[64] Cook et al. ed., *Archigram*, 80.

antennae to the plug-in urban scheme. In this way, the Cushicle-Suitaloon extended its inhabitant's senses to reach across the global network, allowing Man to wander comfortably to the far out reaches of his expanding universe, while organically negotiating his place within the crowd and keeping him remotely connected to society.

Cook included the Cushicle in *Experimental Architecture*, his review of the most important architectural inventions of the time, and explained how a modern-day nomad might use the Cushicle: "When the carrier has decided to set up home he places it in the ground and by walking into part of the membrane can push the structure out."[65] In other words, the structure would answer to the presence and contours of the human body. Cook continued: "We get close to something very like a man-as-a-bat where the skin of the enclosure is dependent upon a system of vertebrae that respond very directly to the nervous system of the person within."[66] In this way, the human body plays an integral role in the structure, or skeleton, of the Cushicle—an idea that would become more emphatic in the Suitaloon.

In the Cushicle scheme, the human body is aided by pressurized air, which acts to maintain the inflated home's structure and form. Following the Michelin brothers' nineteenth-century invention of the inner tube, twentieth-century architects and designers, including Fuller and Frei Otto, began experimenting with using air as a building material. The Cushicle appeared at a moment when interest in pneumatic structures was reaching its peak among American, European and

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[65] Peter Cook, *Experimental Architecture* (London: Studio Vista, 1970), 55.
[66] Ibid.

Japanese artists and architects. Members of the avant-garde, such as Cedric Price and the politically active French group, Utopie, saw inflatables as "a challenge to the weight, permanence, expense, and immobility of traditional architecture."[67] During the 1960s, these architects created pavilions, furniture and museum installations using low-pressure air systems to support a thin membrane that often acted as ceiling, wall and floor in one. It seems inevitable that the Archigram group would adopt the inflatable scheme for their own purposes. Indeed, Webb used the unique structural characteristics of the pneumatic—its lightness and ability to collapse and condense—and put them to practical use in his designs for nomadic housing.

For Archigram, the idea of pneumatics—or the notion of the home as a bubble—literally and ideologically softened some of the ongoing tensions within their architectural ideology. While the possibility of inflation and deflation provided obvious benefits for a home designed for personal mobility and convenience, the idea of a membrane shaped by pressurized air probed the relationship between form and formlessness. Ultimately, however, flexibility and responsiveness were two of the pneumatic home's most important qualities in terms of Archigram's primary goal: responding to Man's ever changing needs and desires. When inflated, the Cushicle would operate in a state of active homeostasis, always responding to the conditions within its skin. Any change to the pressure inside would result in a change to the shape and behavior of the structure. For an individual living inside a pneumatic home, the structural characteristics held an interesting implication. In

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[67] Rosalie Genevro, "Introduction," in *The Inflatable Moment: Pneumatics and Protest in '68*, ed. Marc Dessauce (New York: Princeton Architectural Press, 1999), 8.

order for the inflatable unit to operate properly it had to be sealed, and Man would have to take his place definitively within his own zip-locked reality.

The sensitive, reflexive structure also necessarily reacted to the environment outside its skin. Individual units could bounce off one another and temporarily change shape in cramped or compromised conditions. The membrane of the Cushicle acted as an automatic mediator between interior and exterior, metaphorically resolving the tension between the interests of the individual within and the crowd of discordant interests outside. The pneumatic membrane organically handled the task of exterior integration between units, while still allowing the possibility of an "environmental totality"[68] on the interior of each individual unit. Because of its flexibility, the Cushicle could operate both as a singular object in the round and as a component within a larger network. According to Archigram's logic, a network of bubble-like inflatable homes did not require additional physical ties or regulation; the homes regulated themselves and could therefore freely take off on their own. This changed the way the "space between" could be considered.

Both in visual renderings and ideological conception of the Cushicle, the space between individual units was forgotten as negative space and was irrelevant to the existence of Man within his home. Webb's treatment of the exterior of the Cushicle hardly went further than a passive reliance on the nature of the pneumatic structure to lightly interact with its surroundings. Despite the fact that the unit was

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[68] Cook, *Experimental Architecture*, 55.

designed for an "explorer, wanderer or other itinerant,"[69] Webb made no mention, in image or in text, of how it would be carried or how it would aid the traveler on the move. All attention was paid to the end of the journey, that is, to the unit's interior in its inflated state. In the illustrations of the Cushicle in its fully expanded position, it looks similar to a dentist's chair with a bubble enclosing the dome-like space above. Around the recumbent chair—and hypothetically surrounding the reclining nomad—were various servicing gadgetries, including "food, water supply, radio, miniature projection television and heating apparatus."[70] These instruments directly responded to the needs and desires of the inhabitant, who is free—or required, really—to lie back. The main purpose of architecture, in this case, was to tend to the individual's immediate requests.

While the descriptions of the Cushicle explained that the food and water services would perhaps arrive and attach to the unit in separate pods, access to information and communications was built into the unit and endlessly available. In place of a connection to its local surroundings, the Cushicle connected its inhabitant to a different, more distant context. Television and radio units were housed in a helmet, which was worn by resting nomad. This would allow him to "plug-in" remotely to an invisible network of mass-media communication, perhaps the only remaining nexus of human interaction in Archigram's imagined world. In every rendering of the Cushicle—and later, the Suitaloon—Webb drew an antenna reaching out of the top of the unit. This antenna signified a new faith in a remote,

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[69] Cook et al. ed., *Archigram*, 94.
[70] Ibid., 64.

nonphysical connection to the larger network unexplored in Archigram's earlier inventions. Even Greene's Living Pod had implicitly respected the necessity of an eventual plugging-in to a physical outlet. Webb was not so reverent, instead assuming the presence of an extraordinary radio tower that would transmit signals to the far reaches of possible travels.

Furthermore, Archigram inventions that appeared around the same time as the Cushicle began to treat even tangible commodities as if they were as ephemeral as information. Blurring the boundaries between information and physical goods, Archigram explored a translation of the idea of delivering information through airwaves into notions about the distribution and accessibility of food and water. Projects following the Cushicle—those no doubt intended to be used by the Cushicle's nomadic consumer—seemingly promised to package and deliver physical products like immaterial bits of information: "Tired of supermarket shopping? … For the great indoors, get instant vegetable therapy, from the new ELECTRONIC TOMATO."[71] Instantaneous delivery of goods and information would allow Man to remain safely within his personal realm, pampered by the robots that had come with his house. Interactions with the outside crowd were becoming increasingly optional, perhaps even difficult, for Archigram's nomadic Man.

In the eighth issue of *Archigram*, Webb reworked the Cushicle scheme to include a new invention: the Suitaloon (i.e. "suit balloon"). Like all of Archigram's projects, the idea of the Suitaloon was made up of a collection of possibilities,

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[71] Ibid., 124.

without any definitive resolution. The Suitaloon evolved from the Cushicle's undefined envelope component into a form-fitting suit that could be worn when deflated and lived in when inflated. Webb had also considered how to improve the Cushicle chassis, to which he added wheels and a motor. Webb described how the Suitaloon could work within the Cushicle scheme in *Achigram 8*: "In the previous Cushicle, the environment for the rider was provided by the Cushicle—a mechanism like a car. In this project [the Suitaloon] the suit itself provides all the necessary services, the Cushicle being the source of (a) movement, (b) a larger envelope than the suit can provide, (c) power."[72] The Suitaloon could stand alone and could provide its inhabitant with constant shelter and some level of servicing. Alternatively, it could connect to a Cushicle, which was newly refashioned as both a vehicle and a scaled-down, mobile megastructure. The Suitaloon could also merge with a larger envelope provided by the Cushicle. The descriptive text was, of course, accompanied by a sequence of drawings that demonstrated the process by which the Suitaloon and Cushicle could take on a variety of forms and relationships. This numbered sequence would become the most emblematic representation of the joint Cushicle-Suitaloon invention.

The reworked model of Webb's project offered several improvements to the original Cushicle idea. First, Webb reconsidered the unit's various states of operation, paying closer attention to how both components, chassis and envelope, could serve a function at all times. In the earlier idea of the Cushicle, the nomad

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[72] Ibid., 80.

would have to carry his home, which acted essentially as a serviced tent. In the new scheme, the Cushicle could carry him. While the Cushicle-Suitaloon was on the move and deflated, the envelope served as clothing and the chassis powered the unit's locomotion. When it was time to set up camp, the two inventions could work together to allow the nomad to have the same "high standard of comfort with a minimum effort"[73] as the earlier Cushicle had promised.

In the new Cushicle-Suitaloon, Webb ensured that the individual would be protected and serviced at all times. Instead of carrying his serviced home with him, he wore it. Fashioned after the astronaut's space suit, it swallowed him from head to toe, mounting "all the necessary services"[74] directly onto his body. Cook described this in *Experimental Architecture* as related to "the notion of an ultimate in skins: a membrane which is not there. The skin which can be seen through; the skin which can be parent to all within; the skin which can be regularized; the skin which can be treated as an environmental totality."[75] The Suitaloon blurred the ideas of inside and outside, allowing the inhabitant-wearer to explore the universe—no matter what the exterior conditions—while never leaving his home. Yet, he was never truly outside. In fact he was sealed *inside*, and his experience was limited only to his sense of sight and, perhaps, hearing. Comfort and servicing came at the price of his other three senses and any genuine interaction with the environment he had come to explore. The landscape outside his home seen through its clear membrane was hardly more real or engaging than the scene on the television inside his home.

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[73] Ibid., 64.
[74] Ibid., 80.
[75] Cook, *Experimental Architecture*, 51-55.

Never did Webb pay any interest in drawing the Cushicle-Suitaloon in an environment: in every drawing, it was surrounded by empty, white space. Thus, the Suitaloon protected and disconnected Man from his immediate surroundings, while technologically extending his mental senses and feeding them into the invisible global network of information.

Nevertheless, sociability was an important dimension of Webb's presentation of the Suitaloon. *Archigram 8* explained how individual suits could plug-in to one another: "Each suit has a plug serving a similar function to the key to your front door. You can plug into your friend and you will both be in one envelope, or you can plug into any envelope, stepping out of your suit which is left clipped on to the outside ready to step into when you leave."[76] Webb's preferred image of the Suitaloon showed how a man and a woman might meet and joyously merge, thanks to the compatibility of their suit-homes. Indeed, the Suitaloon was Archigram's first nomadic unit to explicitly consider human interaction, but it did so with mechanized choreography through which human interaction was made purely discretionary. While Man could certainly choose to have guests into his Suitaloon, he could also choose to exist in sealed solitude. As much as the plug let visitors in, the full-body house-suit more emphatically kept unwanted guests out. Long gone were the days of casually brushing against others on the street.

The Cushicle-Suitaloon concept was the final stage in the evolution of Archigram's brand of nomadic living units and, therefore, helped to illuminate the

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[76] Cook et al. ed., *Archigram*, 80.

path that their designs had taken. It inherited many of the values emphasized even in Archigram's earliest units. Naturally, it absorbed Archigram's deep-seated infatuation with technology and servicing. It maintained an interest in flexibility and the possibility for expansion that underlay the early designs for interchangeability in the Capsule and Gasket Homes. It also inherited and expanded upon Greene's obsession with biomorphic form, originally explored in the Spray Plastic House and the Living Pod. Yet, while Greene's pod had encapsulated the biological, sentient human within a hard shell that abstracted and ossified man's organic, fleshy forms, Webb's projects merged the inhabitant with the infrastructure of his home. Pressurized air inflated the structure, but Man at the center provided both foundation and shape.

Ultimately, the iconic imagery of the Cushicle-Suitaloon insisted upon sealing Man securely within his pod. This sealing was in accord with a growing sense that Archigram's living units were designed to separate their imagined client-nomads from their imagined dystopian city. With their development of the "wirelessly" connected and serviced suit-home, the Archigram group suggested a new role for architecture that they believed would be necessary in the oncoming information age: it would become the interface between the physical body and its technological extensions. In 1964 McLuhan wrote that, "To listen to radio… is to accept these extensions of ourselves into our personal system and to undergo the 'closure' or displacement of perception that follows automatically."[77] By embedding media

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[77] McLuhan, *Understanding Media*, 46.

technology within the very body of the home, Archigram theoretically forced a "displacement of perception" away from the physical realm and into the immaterial realm of the information network.

Conclusion:
Bursting the Seams of the Material Environment

As the Archigram group assembled themselves at the beginning of the 1960s, they looked to the future with sanguine anticipation. The emergence of the digital computer and invisible, communication networks inspired the young architects to imagine the dazzling possibilities that technological advancement could offer to their profession. As the decade wore on, however, Archigram began to treat the integration of technology and architecture as compulsory; robust technological servicing, once considered a delightful architectural accessory, was increasingly insisted upon in their projects. During the short, but fruitful, period between 1963 and 1967, a loose manifesto emerged from the clamorous pages of *Archigram*, calling for an architecture that would help guide Man safely through the digital revolution into the information age. According to Archigram, the city was caught between the industrial and digital eras of technology and would either evolve or die out. As an invisible infrastructure of communication developed and expanded, the physical urban fabric would begin to reflect fewer and fewer exchanges between its citizens. Although the Plug-In City existed only in an imaginary realm, it nevertheless offered the sensational possibility that the approaching information age would instigate a dramatic transformation of Man's environment into an enormous, invisible network system.

The ultimate purpose of Archigram's nomadic living units was to provide Man with his own dedicated environment that would allow him to contend with the impending changes to the global condition anticipated by the young architects. For

the Archigram group, the home was responsible for providing an interface between Man's material existence and the invisible, immaterial network of information. They believed that it was necessary to imbed communication devices—including the telephone, radio and television—into architecture, especially the home, to ensure stable, continuous access to information. For the most part, Archigram's initial designs for individual living units—that is, the Capsule Homes and the Gasket Homes—stayed within the then current realm of technological possibility. These homes relied on a physical connection to a service core, which in turn was physically tied to the rest of the city. Beginning with the Living Pod, the physical tethering to the network was broken—although in this project, a periodic return to the physical city was implied. Finally, in the Cushicle-Suitaloon, material connection to the network was forgotten completely, thereby freeing the nomad-inhabitant to escape from the physical city for an indefinite period. This invisible connection to the network anticipated cellular and wireless technologies that only began to emerge during the 1990s. It also expected an eventual configuration that could remotely power the nomadic units, as well as one that would transport material goods as if they were information.

The disintegration of the physical network that bound individual units together and rooted them all to an urban supply center offered the nomad unprecedented freedom: not only liberation from a fixed location, but also emancipation from the physical world entirely. No matter where an individual found himself and his pod in the universe, he could always escape to information-based space. As Archigram's projects began to emphasize their continuous,

unbreakable connection to the invisible network, any concern the group may have once had for physical, face-to-face interaction with other human beings was left behind. Not only this, but Archigram portrayed interpersonal encounters with the community outside the individual living unit as an unnecessary nuisance. In a collage called Control and Choice published in *Archigram 8*, Cook asserted that the owner of the individual living unit was in complete control of his environment: "Choice means freedom of personality, of enclosure, of involvement, of facility, of movement." Above this, a smaller paragraph read: "If I really want to be on my own, my personal capsule moves out into a more remote space."[78] No matter how far into remote space the speaker's capsule moved, he would always have access to the invisible network.

Archigram 8 contained the last evidence of Archigram's interest in designing material objects that would enclose the individual within a skin. *Archigram 9*, which the group struggled to publish two years later, was full of projects that were not just non-architectural, but completely dematerialized. By 1970, Archigram had tired of designing objects entirely: "It used to seem a nice idea to carry your environment around with you (spaceman, Cushicle, Suitaloon, etc.), but it can be as much of a drag as having it stuck in one place."[79] *Archigram 9* described no material solutions at all. In place of a suit that would service an individual, Archigram proposed to imbed technology into the earth itself. Greene's Bottery was defined in this issue as

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[78] Cook et al. ed., *Archigram*, 69.
[79] Ibid., 113.

"a fully-serviced natural landscape."[80] In order to serve the "sophisticated needs" of the modern nomad, the Bottery provided robots that could be called to any location in the universe. The text implied an erasure of the plug-in concept, which the group had respected until this point: "It's anarchy—and it's hardware—supported until it's under the skin or in the mind."[81] It also suggested that, eventually, servicing would invade the body and perhaps enter the mind, physically redesigning Man himself so that he would become a truly integrated component within the network. In a collage called Video Notebook, Greene at last declared that "People are walking architecture,"[82] marking the ultimate dematerialization of the architectural object. At this point, Archigram's idea of architecture surpassed even the drawing's ephemerality, impelling both Chalk and Greene to abandon visual representation all together. Needless to say, there was no *Archigram 10*.

One of the main points of contention among critics of the Archigram group has long been that their reliance on a seemingly magical type of technology, power and connections makes their designs "largely irrelevant to the purposes and means of architecture."[83] Many have called their "insights into advanced technology trivial"[84] and their understanding of network systems erroneous. Without a doubt, they glossed over the details of systems theory and exploited the concepts of

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[80] Ibid., 112.
[81] Ibid., 113.
[82] Ibid., 119.
[83] Philip Drew, *Third Generation: The Changing Meaning of Architecture* (New York: Praeger Publishers, 1972), 102.
[84] Ibid.

hardware and software to serve their own purposes, among other liberal appropriations of technical jargon. On the other hand, their intuitive conception of the intersection between digital and non-digital realms as expressed in the nomadic living units is astoundingly prescient.[85] While Archigram will always be remembered for their architectural provocations, it seems possible that as we continue to learn more about the Internet, their work will emerge as most relevant to future studies of digital, information-based space. Only recently have we begun to recognize that the digital and the material are not mutually exclusive conditions and to attempt to understand how digital space is imbedded in societal, cultural and economic structures. Before a global digital network emerged with the invention of the Internet, Archigram had already begun to explore the threshold between physical and information space. Today, architects delight in the design of a place in cyberspace, often fashioning their websites as if they were three-dimensional.[86] Yet, fifty years ago Archigram had already burst the seams of the material realm of design, expansively laying the imaginative groundwork for an architecture of the digital realm.

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[85] This is especially astonishing if we consider the general state of publicly accessible technology during the 1960s. The members of Archigram would have listened to the Rolling Stones on vinyl and designed their newsletter by hand.

[86] See, for example, the websites of Diller Scofidio + Renfro (dsrny.com) and Eisenman Architects (eisenmanarchitects.com).

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