

Beyond Architecture: Technology, Freedom, and Play

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

David Greene, Living Pod, 1966

Given the recent interest in and enormous amount of press given to architectural environments that can move and be moved, expand, plug-in, un-plug, tune in and turn on, this essay will provide a brief introduction to the cultural and philosophical framework that preceded and initiated this contemporary discussion.

Themes of liberation and freedom were commonplace by the mid-1960s: the Civil Rights, Feminist, and Free-Speech Movements were only a few of the numerous peaceful (and not-so-peaceful) coalitions that formed under the banner of freedom. The historian Arthur Marwick notes that never before had society seen the development of such a large number of different subcultures all characterized by a trend toward freedom and permissiveness. (Fig. 1) This essay attempts to identify a line of thought that runs through the work of the British and European Radical Avant-garde of the 1960s and early 1970s. Archigram's groundbreaking magazine/architectural telegram Archigram, particularly the issue Archigram 7, and their work done between 1966-68 is seen as a radical indicator of the impending ideological shift in architectural thought. The work of groups and individuals such as Archigram, the Utopie Group, Haus Rucker Co., among others will be discussed within the greater intellectual and cultural "philosophy" of freedom that explodes during the 1960s. A dominant theme, characteristic, or feature that emerges upon

close examination and comparison of the aforementioned practitioners is the idea of an architecture that is itself mobile and/or transportable, or one that encourages the mobility and freedom of the mind and body within its structures. The notion of "play" (Notes, 1) is often invoked in the programmatic descriptions of these projects. The works discussed in this essay are mainly theoretical, prototypical, or conceptual.



Figure 1. Dancer at a love-in, Golden Gate Park, 1968 (photo earl leaf/michael ochs archive)

The generation of young European and British architects who grew up during the war, went to school during the 1950s and began to practice and teach during the late 1950s and early 1960s were less convinced by Modernism's social and formal aims, but were attracted to the architectural potential of advances in technology that were the

handmaiden of progress. As Archigram member Warren Chalk writes in 1966:

...the first half of the 1940s saw a great inventive leap made out of necessity for survival, advancing technology and mass production techniques and demonstrating man's ingenuity, courage, effort and investment under the stress and pressure of war. Out of this period came too a strange social idealism. The idealism was to fade but the technology, the laminated timber or geodesic framework of an aircraft, the welded tubular construction of a bridge, the airstructure of a barrage balloon, and much more, filtered through to colour our attitudes and disciplines today. (Chalk, 6. 1966, p.146)

Instead of looking to the more formalized work of Le Corbusier and Mies van der Rohe, they championed architects such as Buckminster Fuller whose *Dymaxion House* and transportable/mobile structures held promise and inspiration for their own nascent practices. Groups such as Archigram, Haus-Rucker, and Superstudio, and architects such as Hans Hollein & Walter Pichler (among many others) embraced the ideology of liberation, freedom, and pleasure that permeated Europe and the United States.

The world of architecture will eventually move away from the idea of buildings as something fixed, monumental, great and edifying, into a situation where buildings take their rightful place among the hardware of the world. Then architects as presently known will cease to exist, and a very different kind of animal will emerge, embracing science, art and technology in a complex overview. Established disciplinary boundaries will be removed and we will come closer to the all-at-once world of Marshall McLuhan. (Chalk, 5. 1966, pp.172-73)

The argument of this essay is contingent upon the hypothesis that there is an identifiable trans-national culture of liberation and freedom that is often identified as one of the salient features of the 1960s, and that much of the work of the emerging radical architects of this period deals with this notion of both physical and psychological "liberation" aided

by the postwar advancements in technology and materials. The essay argues that this youthful generation of architects and artists draw upon a *culture and ideology of freedom and liberation* (Notes, 2) that is engendered in part by the widely disseminated and highly influential philosophy of the Frankfurt School critical theorist Herbert Marcuse, and the more maverick, yet equally influential, psychological theorist Norman O. Brown. An underlying assumption of this essay is that the rationalism, functionalism, and mode of production espoused by the Modern Movement is analyzed and critiqued by this subsequent generation who ultimately find the Modern project to be unfinished, alienating, and repressive. They look to the concept of freedom (and an architecture and urbanism that explores and celebrates it) to resolve those conflicts that arise from the modern condition. (Notes, 3)

Marcuse and Brown are seen as major social theorists in the defining of the counter culture that was to emerge in the late 1950s and throughout the 1960s. Herbert Marcuse's 1955 *Eros and Civilization: An Essay on Human Understanding* was dedicated to the implications of Freud's meta-philosophy regarding civilization and its repressions, and not to a pure critique of his psychological assertions. Marcuse became internationally famous with the publication of *Eros and Civilization* and became a "key work in the intellectual legacy of the 50s, and so important in shaping the new subcultures of the 60s," (Notes, 4) Marcuse's work was well known in intellectual European circles. His work was translated by the influential French literary/theoretical magazine *Arguments* during the late 1950s and 60s, and it was also widely translated and published in student journals. (Notes, 5)

Within three years from *Eros and Civilization's* publication, Norman O. Brown published *Life against Death: The Psychoanalytic Meaning of History*, which quickly became an underground classic. Although not as easily or widely read as *Eros and Civilization*, Brown's maverick, yet influential ideas are often cited by both the early participants of the counter-culture (such as Abbie Hoffman in the United States), and later by the generation that followed them, those who came of age in the late 60s. Both books were to encourage the liberative pulse that was beginning to beat on

both sides of the Atlantic. Although their methodologies and political positions are quite different, Marcuse and Brown do agree upon one primary point: that to effect a social change man's consciousness must be awakened or de-mystified and his repressions must be freed. What has been called the idea of a "libidinal liberation" is paramount for both theorists. Marcuse calls this the achievement of "libidinal rationality" and Brown calls it the "creation of an 'erotic sense of reality.'" (Notes, 6)

As a follower of Marx, Marcuse finds modern man alienated from his life by his relationship to the mode of production and the invisible structures that encapsulate and define his life. *Eros and Civilization* sought to synthesize a socialist notion of economic revolution with a "more anarchistic and utopian idea of emotional revolution." (Cranston, 1979) According to Marcuse, with the development of the forces of production such as mechanization and automation, the "historical necessity for existent forms of repression is undermined.... Automation promises the end of the use of the body as a mere instrument of production. The technical need for sexual repression can be challenged." (Rosak, 1968, pp. 122-125) Instead of harboring and repressing our desire and pleasure, technology has the capacity to free and motivate desire. Marcuse promoted a "dialectic of liberation" that he saw as "the construction of a free society, a construction which depends in the first place on the prevalence of the vital need for abolishing the established systems of servitude; and secondly, and this is decisive, it depends on the vital commitment, the striving, conscious as well as sub-and unconscious, for the qualitatively different values of a free human existence." (Marcuse, 27. 1968, p.178)

It is well known that Marcuse's critique of technology was extremely influential on the New Left. For Marcuse, science, technology, and formal rationality weren't necessarily a bad thing. "Is it still necessary to repeat that science and technology are the great vehicles of liberation, and that it is only their use and restriction in the repressive society which makes them into vehicles of domination?" The problem with technology and modern rationality was that they weren't simply neutral and theoretical, but were politically biased and reflected class interests. He argued

that the consequence of formal rationality was that it had escaped the confines of natural science and technique and had begun to shape society as a whole. He argued that by "splitting up its objects analytically into malleable parts a rationality of this type predestines these objects to domination." Thus capitalism doesn't simply rationalize production in the workplace and factory, but what Marcuse calls "one-dimensional society" is rationalized in the spheres of leisure, education, sexuality, etc. This expansion into all the areas of the life-world is in itself irrational as it "obliterates the all important distinction between the communicative and the technical dimensions of human experience." (Feenberg, 1994, p.217) Thus, rationalism isn't rational enough.

Marcuse argued that the project of technology wasn't complete. In his 1964 book *One Dimensional Man: Studies in the Ideology of Advanced Industrial Society* (which was to become a cult classic and bible for the counter-culture) he writes,

[I]f the completion of the technological project involves a break with the prevailing technological rationality, the break in turn depends on the continued existence of the technical base itself. For it is this base which has rendered possible the satisfaction of needs and the reduction of toil-it remains the very base of all forms of human freedom. The qualitative change rather lies in the reconstruction of this base-that is, in its development with a view of different ends... The new ends, as technical ends, would then operate in the project and in the construction of the machinery, and not only in its utilization.

(Marcuse, 26. 1964, pp. 231-323)

The answer for Marcuse potentially lay in the aesthetic dimension. Marcuse argued that instead of technology devastating art, when properly understood it would begin to serve art and begin to conform to "the aesthetic priorities of non-instrumentality, the imaginative recombination of reality, and the embracing of ambiguity." (Lukes, 1994, pp. 230-231) The advancement of technology would allow it to end its struggle and domination against nature: nature would no longer be a thing to be feared. "The conquest of Nature reduces the blindness, ferocity and

fertility of Nature-which implies reducing the ferocity of man against Nature." (Marcuse, 26., p. 240) Natural phenomena can be replicated and predicted by technology, thus technology no longer is at odds with nature. As technology "loses its defensive character (it) is free to join" in aesthetic practice toward the "consideration of alternatives." (Lukes, 1994, p.231)

Marcuse's *Eros and Civilization, One Dimensional Man*, and Brown's *Life Against Death* were exceptionally influential in the freedom and liberation movement. The counter-culture used their theories along with those of Wilhelm Reich, R.D. Laing, Marshall McLuhan, and Timothy O'Leary et al. to help to produce their rhetoric of freedom. Civil society imposed restraint and restriction on the freedom of the individual. "Basically, it's just a question of freedom. It's your body-you can do with it what you want to." (Gross, 1968, pp. 61-62) This newly found freedom was expressed in many forms. The Hippies renounced the conservative taboos against physical contact and they practiced sexual liberation; Tantric Buddhism, Freud, Brown, and Reich inspired them, and they condoned homosexual relationships. The gay liberation movement erupted out of this climate with the raid on the Stonewall Inn in Greenwich Village, NYC and the subsequent riot that ensued. The Village Voice reporter Lucian Truscott reporting on the riot, "Watch out. The liberation is underway." (Unger, 1998)

As Kenneth Cmiel points out in his essay "The Politics of Civility", the idea of the individual freedom "translated into an extraordinarily colorful form of life. Shoulder length hair on men, Victorian dresses on women...and more open sexuality-it was all far removed from "straight" (that is civil) society." (Cmiel, 1994, p.270) As Cmiel goes on to note "[w]e were, according to (the musical) *Hair*, at the dawning of the Age of Aquarius, where 'peace will guide the planets and love will steer the stars.' The vision was explicitly utopian:"

*Harmony and understanding
Sympathy and trust abounding
No more falsehoods or derisions
Golden living dreams of visions
Mystic crystal revelations
And the mind's true liberation*

Lyrics from the musical *Hair*, 1967

But, perhaps the idea of freedom had another function. In his work *Marxism and Form: Twentieth Century Dialectical Theories of Literature*, Frederic Jameson sees the idea of freedom as "a kind of perceptual superposition; it is a way of reading the present." As Jameson discusses the idea of freedom in the work of Marcuse, he suggests that freedom allows us to turn material prisons in psychic ones, thus allowing us to unify the separate levels of existence into data that can be converted into terms of the other. He sees the idea of freedom as permitting us to transcend one of the most fundamental contradictions in modern existence:

[T]hat between outside and inside, public and private, work and leisure the sociological and psychological, ...between the political and poetic, objectivity and subjectivity, the collective and solitary-between society and the monad. It is an opposition which the confrontation between Marx and Freud dramatizes emblematically; and the persistence of this attempted confrontation (Reich, the Surrealists, Sartre, left-wing Structuralism, not to speak of Marcuse himself) underlines the urgency with which modern man seeks to overcome his double life, his dispersed and fragmentary existence.

The concept of freedom enables us to resolve the tension of the dialectic of the Enlightenment, and it is through this mechanism of play that Jameson sees this resolution. Thus, it is not surprising that, as modernism continued the bodily, psychic, and social repressions engendered by the progressive, functional, and rational aims of the Enlightenment, the youthful avant-garde cultured with the grains of liberation from the blossoming society around them would turn to the concept of freedom as the potential mechanism to release them from their binds.

Modernism's failed functionalism and missed opportunity in terms of technology's liberative social powers is explored and investigated in the work of the radical avant-garde of the 1960s and early 1970s. Groups such as the English Archigram and the Italian Archizoom and Superstudio begin to exploit technology and rationality in architecture with the hope of counteracting the societal and bodily repressions of late-capitalism. For groups such

as these the ideology of technology in the modern had not been fully explored and had resulted in fairly disastrous effects. The effects of the modern are mythically recounted by Norman O. Brown in the final chapter of his 1959 *Life Against Death: The Psychoanalytic Meaning of History*. The following quote is taken from a story written in 1944 by Henry Miller: the quote is the introduction to Part 6: "The Way Out" of Norman O Brown's book. In this passage Miller muses on the world after war, the new civilization.

The cultural era is past. The new civilization, which may take centuries or a few thousand years to usher in, will not be another civilization-it will be the open stretch of realization which all the past civilizations have pointed to. The city, which was the birthplace of civilization, such as we know it to be, will exist no more. There will be nuclei of course, but they will be mobile and fluid. The peoples of the earth will no longer be shut off from one another within states but will flow freely over the surface of the earth and intermingle. There will be no fixed constellations of human aggregates...The machine will never be dominated, as some imagine; it will be scrapped, eventually, but not before men have understood the nature of the mystery which binds them to their creation... Man will be forced to realize that power must be kept open, fluid, and free. His aim will be not to possess power but to radiate it.

The language and the images that he provides are practically exact models for the work of the radical avant-garde. The image of people roaming freely over the surface of the earth across landscapes that are no longer bounded by the idea of states, or of fixed cities could be the exact description of the work of any of the first generation of radical architects such as Archigram, Utopie, Archizoom, Superstudio, and the work of a number of other groups and individuals of this period, and is especially evocative of Superstudio's *Supersurface* of the 1972-73 *Five Fundamental Acts: Life, Education, Ceremony, Love and Death* (Figs. 2 & 3) where the landscape is hardwired to allow us to create our own environment in whatever natural setting that we choose. The work of these groups clearly expresses the designed manifestation of Marcuse's attempt find the



Figure 2. Superstudio, Journey from A to B, 1972



Figure 3. Superstudio, Life, Supersurface: The Happy Island, 1972

potential in technology, Norman O. Brown's utopian hope for the freedom of the body, the general culture of mind and body, and the place of technology in the 1960s. In addition, the idea of a rationalized grid of infrastructure (often invisible) that frees communication, circulation, and mobility is the endgame to Functionalism & Rationalism that were seen as not having gone far enough. The problem with Modernism wasn't its ideology, but its unwillingness to take that ideology to its ultimate conclusion. As we will see, particularly in the work of Archigram, the radical avant-garde of the 1960s and early 1970s continuously illustrates how the commitment to a critique of Modernism and a continued investigation of the potentials of

technology can liberate both the individual and society from the repressive binds of an architecture unable to shed its ideological binds. The notion that the philosophical/intellectual critique of technology and its unrealized potential was consciously or unconsciously appropriated by the architectural milieu is clearly illustrated in the following quotes from Archigram's Peter Cook writing in 1970 and Herbert Marcuse's 1969 *Essay on Liberation*.

"In this century there have been several occasions when science, technology, and human emancipation have coincided in a way that has caused architecture to explode."

(Cook, 1970)

"Is it still necessary to repeat that science and technology are the great vehicles of liberation, and that it is only their use and restriction in the repressive society which makes them into vehicles of domination?"

(Marcuse, 28. 1969, p.12)

As Europe recovered from the ravages of World War II, many of the youth of Great Britain, France, and Italy turned away from the brute reality of their broken cities and shattered lifestyle and began to seek a new life through education. The British government set up numerous programs to allow for the training and re-training of their student age populations. The situation was not as proactive in countries such as Austria where the educational system in architecture retained the strictures of Beaux Arts training, but nevertheless the Austrian students of the 1950s and early 1960s managed to produce some of the most experimental and provocative work of the period. As was stated earlier, many of the young designers who directly follow the war years were unconvinced by the strict tenets of modernism, which they felt had in many ways created a sterile and socially unresponsive urban condition. The group/magazine Archigram, the Italian Radical Avant-garde groups Superstudio and Archizoom, and the early work of the Austrians Hans Hollein, Haus Rucker, & Coop Himmelblau emerge from this milieu and engage the culture of liberation and the hope of technology to create an architectural image of this philosophy/ideology.

In late 1950s a group of young British men began to discuss the changing scene of art and architecture that they saw forming in London. (Note, 7) They wanted to continue the polemic of architecture school—the discussion and the critique, and they realized that a publication might help to bring their ideas to the fore and engender a critical mass. They decided to self-publish a magazine as thin as a comic book: it would be easy to ship and quick to consume. They called it *Archigram*. In projects such as *Walking City, 1964, Cushicle, 1966, & Air Hab Village, 1966*, *Archigram* illustrate their desire to produce works of architecture that *respond to situations*, instead of definite, defined, immovable structures that resist permutation. (Figs. 4) For them, in a Marcusian vein, architecture should use and explore advanced technology and through its use architecture will become programmatically more flexible-- it will react to the changing needs and desires of its users. *Archigram* member Warren Chalk states, "In a technological society more people will play an active part in determining their own individual environment, in self determining a way of life." (Chalk, 1963, p.92)



Figure 4. Archigram (Ron Herron and Barry Snowden), Airhab Village, 1967

Their works became increasingly nomadic and portable as the decade progressed. In their writings, their language is infused with ideas that equate a new architectural form with psychological and behavioral freedom. The specialization that technology had engendered thus far led man to a "skillful but spiritless existence; people with enormous fatigue trying to

cope with the banalities of not-too-well-serviced environments." (Chalk, 1963, p. 92) Their technologically promiscuous architecture and city forms would enable the inhabitant to expand and break through boundaries of psychic and bodily repression and would lead them towards a liberating new production of life.

1966 ushered in a new phase for the group. Previously, their work was dependent upon a kind of pop sensibility that looked to science fiction, cartoons, and a Metabolist-like curiosity about the possibility of large megastructures that could be plugged into with pod housing that would be used until its usefulness wore off and could be interchanged or disposed of at the whim of the inhabitant. By 1966, the members of the group (along with various friends who collaborated on specific projects) moved away from the more fictive and heroic projects such as Walking Cities and Plug-in City, and began to embrace the possibility of more nomadic and provisional structures that were undoubtedly influenced by the products that were beginning to be produced for the Space Race. (Fig. 5)

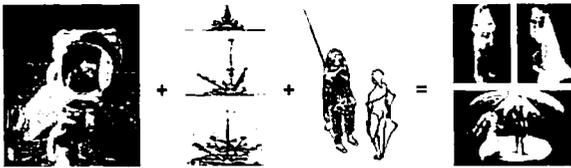


Figure 5. NASA Spacesuit + Archigram(Peter Cook) Blowout Village,1966 + Archigram Suitaloon 1966 (Mike Webb)= Archigram, Inflatable Suit Home, 1968

In 1967 *Archigram* member Peter Cook states, "We are not politically over-developed as a group, but there is a kind of central emancipatory drive behind most of our schemes." (Cook, 1967) The ultimate aim for *Archigram* was the emancipatory function of architecture, and the work initiated around 1966 clearly sets this as agenda. In an almost Freudian exercise of free association, Warren Chalk extols the virtues of this new society enabled by technological freedom. The new model for the individual is a "technological opportunist-- an inventor." The inventor will be "a breaker of boundaries." Dennis Crompton writes in *Archigram 8*, "If the environmental business is concerned with the extension of man's experience then the means

of achieving this is by pushing current technology." (Crompton, 1968, p. 257) The new man or woman will look not to connections that hold things together like glue, but to a "less physical solution." New associations (soft solutions) allow us to get closer to the ultimate pleasure of being through their non-binding means of arrangement. An example of this idea of sensory pleasure through a flexible design object would be Mike Webb's *The Cushicle*, 1966 that premiered in *Archigram 7*, 1966.

The Cushicle is an invention that enables 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. It enables an explorer, wanderer or other itinerant to have a high standard of comfort with a minimum of effort. The Cushicle carries food, water supply, radio, miniature projection television and heating apparatus. The radio, TV, etc. are contained in the helmet and the food and water supply are carried in pod attachments. With the establishment of service nodules and additional apparatus, the autonomous Cushicle unit could develop to become part of a more widespread urban system of personalized enclosures. (Figs.5 & 6.)

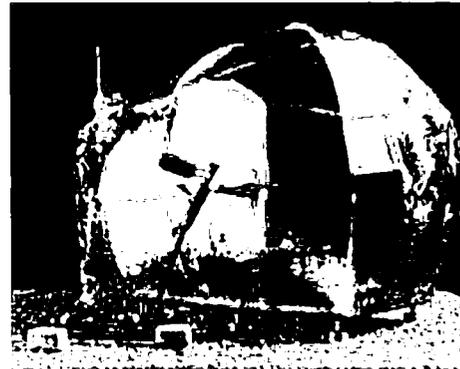


Figure 6. Archigram (Mike Webb), Cushicle Maquette, 1966

Archigram 7 contained numerous projects that mobilized their already inventive and radical architectural propositions. Peter Cook's *Blow-out Village* presents a transportable environment that can be used in disaster areas or for less serious and more playful events. "Mobile villages can be used everywhere to re-house people hit by disaster, for workmen in remote areas, and as

fun resorts sited permanently or seasonally at the seaside and near festivals. When not in use the village is quarter size." (Fig. 5)

Archigram 7 (and the work done between 1966-67) codified the groups' interest in soft solutions for the critique of dwelling and permanence. Michael Webb's *Suitaloon* borrowed the idea of the space suit from NASA "the space suit could be identified as a minimal house" and reinvented it as a housing solution. Its pseudo-byline read, "Clothing for living in-or, if it wasn't for my *Suitaloon* I would have to buy a house." The *Suitaloon* allows you complete mobility and protection while you roam through the environment. "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. The plug also serves as a means of connection envelopes together to form larger spaces." (Figs. 5 & 7)

Not only was *Archigram 7* a watershed issue for the group, but also their insistent and infective call for mobility and freedom was beginning to have a marked effect upon the students working in and graduating from schools of architecture in Europe and Britain in the mid 1960s. In 1968, a year after Peter Cook publishes his *Blow-out Village*, Antoine Stinco of the French Utopie Group debuts his diploma project for the *École Nationale Supérieure des Beaux-Arts* called "Itinerant Exhibition Hall for Objects of Everyday Life"; a hall for the exhibition of mundane objects that can be instantly created from the arrival of several trucks containing the inflatable components. (Fig. 8) The project seems consciously or unconsciously inspired by and responding to *Archigram's* call for instant cities and buildings, as well as Frei Otto's work with pneumatic and tensile structures. As Marc Dessauce illustrates in his excellent history of the inflatable movement entitled *The Inflatable Moment: Pneumatics and Protest in '68*, Utopie was among a slew of young avant-gardes fully invested in the promise of pneumatics as a response to the alienation of functionalism and rationalism. This is illustrated in 1968 when the newly formed Austrian team of Haus Rucker (Ortner, Pinter, & Zamp) debuted two pneumatic projects: *Pneumatic Space for Two People*

(aka *The Mind Expander*), & *Pulsating Yellow Heart* (Figs. 9 & 10). The inflatable mobile movement continues to gather strength in 1969 when Hans Hollein inflates his *Mobile Office* and went to work (Fig.11). In 1971 Coop Himmelblau inflated their *Restless Ball* and rolled through the streets of Vienna, and in 1972 Haus Rucker debuted *Oasis Number 7* at Documenta #5. (Figs. 12 & 13)

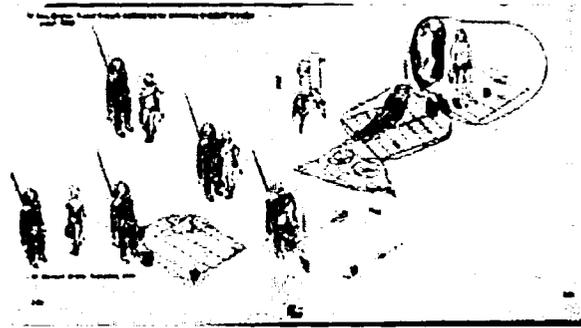


Figure 7. Archigram (Mike Webb), *Suitaloon*, 1966



Figure 8. Antoine Stinco, *Itinerant Exhibition Hall*, 1967



Figure 9. Haus Rucker, Mind Expander, 1968



Figure 12. Coop Himmelblau, Restless Ball, 1971

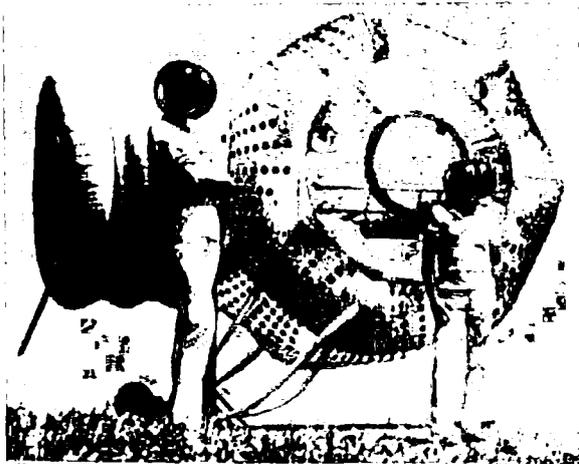


Figure 10. Haus Rucker, Yellow Heart, 1968



Figure 13. Haus Rucker, Oasis #7, 1972



Figure 11. Hans Hollein, Mobile Office, 1968

In a 1970 article entitled *Alles ist Architecture* for *AD Magazine*, Hans Hollein recounts how the students in Vienna and Graz were stifled under the Austrian system that tried to repress any information about avant-garde work that was being done elsewhere. Some professors even forbade the students from seeing the exhibition *Architektur* by Hans Hollein and Walter Pichler that was on view for only 4 days. The students disregarded this form of censorship and were inspired and rallied by the radical exhibition. Hollein goes on to state that much of this work could be seen in relation to the strong Freudo-Austrian heritage of operating psychologically on the individual user's mind and consciousness as well as on the immediate environment while introducing ideas of individuality, fun, relaxation, leisure-time activities, and action. At the same time their desires were encouraged by information about the work

that was being done by groups such as Archigram who were especially popular among the students. (Hollein, 1970, pp.60-63)

Not only were Archigram's projects from 1966-1968 having a profound influence on the burgeoning European radical avant-garde movements of the late 1960s, but also there was a reciprocity between their work and that of their friend and mentor the critique Reyner Banham. Much of the work of this period can be read as a response to Banham's 1965 essays "A Home is Not a House" originally published in *Art in America* and "The Great Gizmo" that originally appeared in *Industrial Design 12*. "A Home is Not a House," published with drawings of Francois Dallegret's *The Environmental Bubble*, reflects Banham's continuing thesis regarding Modernism's other narrative: the one not about architecture as a symbol/image of technology, but about architecture as a function of technology and site for technological research. Here, Banham extols the virtues of the mobile home as environmentally and mechanically better performing than most large American homes that cost "at least three times as much an weighing ten times more." He asks:

If someone could devise a package that would effectively disconnect the mobile home from the dangling wires of the town electricity supply... then we could really see some changes... that kind of miniaturization talent applied to a genuinely self-contained and regenerative standard of living package that could be towed behind a trailer home or clipped to it could produce a sort of U-haul unit that might be picked up or dropped off at depots across the face of the nation...Out of this might come a domestic revolution beside which modern architecture would look like Kiddibrix, because you might be able to dispense with the trailer home as well. (Banham, 1. 1965, p. 374)

"The Great Gizmo" continues this exploration with the discussion of a technologically advanced gizmo that would enable gadget-loving Americans to be freed from their encumbering, environmentally unsound, and technologically backward suburban homes. "Indeed, a self-propelled residential gizmo seems to be a kind of ultimate in the present state of U.S. culture." Banham's gizmo (that

learns from Buckminster Fuller's *Dymaxion House* and the Clark Cortez camper) would allow Americans to embrace the Jeffersonian ideal of the gentleman farmer living in the pastoral landscape, but now able through the progress of technology, to pick up and move to any other natural setting when the whim strikes him. "...once tanked up and its larder stocked it is independent of all infrastructures for considerable periods of time...when it moves off again the next morning, that piece of the face of American remains as unchanged as if four persons and a package of sophisticated technology had never been there. A piece of American wilderness had been, briefly, a piece of the American Paradise-garden, and could then return to wild." (Banham, 2. 1965, pp. 120-121)

In a statement that seems to galvanize Banham's and Marcuse's arguments regarding the potential of technology, Warren Chalk addresses the problem of technology and ecology in an article for *Architectural Design* in 1971, he writes:

We have discovered something-technological backlash. And bargain hunters for tomorrow are reluctantly tuning down their electronic cycle environmental equipment of events. The electric last minute no longer thrills. But dare we face the source of our own negation? Could it be technocratic society? Either the environment goes or we go. And you all know what will happen if the environment goes. We have produced a society with production for the sake of production. The city has become a market place, every human being a commodity. This technological backlash we are experiencing must be fought with a more sophisticated technology, a more sophisticated science. Present beautiful chemistry has turned out as not so beautiful biology. But if we are to prevent eco-catastrophe it can only be done by more sophisticated environmental systems, not by dropping out...a try-it-and-see attitude. (Chalk, 1971, p. 138)

The new technology, for Chalk, will be one that enhances the environment, both the natural and the manmade. This technology will engender "technological play, so that individuals can create an even greater environmental stimulation." The result of

these technological experiments "could achieve a people-oriented technology of human liberation, directed towards pleasure, enjoyment, experimentation... But our search for adaptive systems should have a prime objective, to produce an environment to which the ordinary individual at any level can reconcile himself without the intolerable effort and stress of his own mental and physical adaptation. We must continue to try to establish appropriate systems for a natural relationship between life systems and mechanical systems." (Chalk, 1971, p. 138)

In his 1970 book *Experimental Architecture*, Peter Cook surveys the previous decade's cutting edge work. He notes that, "[l]inked with these general advances in technology is an entirely new architectural concept: that man can have his own container. This suggests that each person, on arriving at a state of relative emancipation, should receive a degree of personal support that he cannot get from the collective artefact..." He presages that 'life-style' would be prompted increasingly from experience outside home and that new demands would be made upon houses, office buildings, and schools, and that they would have to adapt to different psychological stimulus. Cook saw the liberation of man coming through in the interface among man/his desires and machine/technology. Machines and technology were beginning to respond to "our psychological demands" and he predicted "a true symbiosis of the person and the artefact." (Cook, 1970, pp.133-152) No longer would architecture dictate the form that functions would take, but the human mind/body and its ultimate freedom would be the instrumental in dictating the future of architecture. Norman Brown writes in *Life Against Death*, "The resurrection of the body is a social project facing mankind as a whole, and it will become a practical political problem when the statesmen of the world are called upon to deliver happiness instead of power... Contemporary social theory has been completely taken in by the inhuman abstractions of the path of sublimation, and has no contact with concrete human beings, with their concrete bodies, their concrete though repressed desires..." (Brown, 1958, pp. 317-318) The emancipatory projects of the European and British Radical Avant-garde during the late 1960s and early 1970s tried to deliver the promise of happiness and free the

human mind and body. Archigram member David Greene sums up their ideology in a fragment of a poem written in 1969:

*I have a desire for
The built environment
To allow me to do
My own thing*

Notes:

1. Here "play" is used in the Marxist or Situationist sense of: to live and produce one's life deliberately, artistically, and playfully—the notion of freedom is inherent with this usage.

2. The argument here is not that the work of the radical avant-garde is directly responding to the writings of philosopher's such as Marcuse (although in the case of the Italian Radical Avant-garde there is clear textual evidence that they were reading his work), but that there is a general culture of freedom that blossoms in both the United States and Europe to which these youthful groups respond.

3. For clarity we can look to Frederic Jameson's discussion of freedom in his book *Marxism and Form* where he sees freedom as permitting us to transcend some of the most fundamental contradictions of modern existence: "that between outside and inside, public and private, work and leisure, the sociological and psychological...between the political and poetic, objectivity and subjectivity...It is the confrontation between Marx and Freud... the urgency with which modern man seeks to overcome his double life: his dispersed and fragmentary existence."

4. Arthur Marwick points out on pp.13-14 & 292 of his seminal history of the 1960s entitled *The Sixties: Cultural Revolution in Britain, France, Italy and the U.S. circa 1958-c.1974*, that Marcuse had become such a liberal tour-de-force that his follow-up book to *Eros and Civilization* entitled *One Dimensional Man* was funded through grants from the American Council of Learned Societies, the Louis M. Rabinsky Foundation, the Rockefeller Foundation, the Ford Foundation, and the Social Science Research Council—all bastions of the American liberal establishment.

5. The student journal *Aléthéia* (1964-1967) from the *École Normale Supérieure* of Saint-Cloud translated and published the work of Marcuse, along with that of Lefebvre and Heidegger as cited in Mark Poster's *Existential Marxism in Postwar France: From Sartre to Althusser*, Princeton: 1975, 257. Poster goes on to note that Lefebvre's existential Marxism was a direct stimulus to a new radicalism that was geared to advance capitalist society, and we can infer that Marcuse's work had a similar effect on the young French radicals.

6. In conversations with Prof. George Baird of Harvard University, he cited Norman O. Brown as a source that was well known and often discussed at the Architectural Association in London in the early 70s.

7. The core group consisted of Warren Chalk who was born in London in 1927 and studied at Manchester College of Art. Peter Cook who was born in 1936 and studied with Peter Smithson. Dennis Crompton, born in 1935. David Greene, born in 1937, who had studied briefly with Buckminster Fuller. Ron Herron, born in 1930, and Mike Webb who was born in 1937, and was student of Jim Stirling's. They got together to criticize projects, to write letters to the press, to enter competitions and, as Peter Cook has noted, to "generally prop one another up against the boredom of working in London architectural offices."

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