The architecture of absence: building, landscape and the changing character of technology in the post-war era

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ABSTRACT: Shell roofs were a structural solution proper to modern tradition in post-war years, pursued by many architects and engineers, from Jorn Utzon to Felix Candela. But unlike them, Archigram was not interested in expressive structure or sculptural forms. Archigram’s entry for the Monte Carlo Competition in 1969 concealed a concrete shell in a big hole at Monte Carlo’s shore, and developed a park over it. The park was conceived as the “cybernetic forest” that Archigram had foreseen in his London based magazine during the sixties, in which nature was merged with electronic devices. Architecture could finally be invisible. Archigram’s answer to the multipurpose building required by the programme exposes the very defiant effects of post-war science and technologies on architecture. Technology had always been a tool for architecture; could it be now standing in the place of architecture, rendering it superfluous?

1 THE ARCHIGRAM GROUP (1961-1974)

Peter Cook (1936), Warren Chalk (1927-1987), Ron Herron (1930-1994), Dennis Crompton (1935), Michael Webb (1937) and David Greene (1937), members of the Archigram Group, were among those interested in exploring the impact of changing technologies on everyday life, from the privacy of home to the shape of cities. The group merged around the homonymous Archigram magazine, with ten issues published in London between 1961 and 1974. Most of the new technologies that had emerged after the Second World War did not primarily belong to the field of architecture and construction. During the sixties, the Archigram magazine searched into the meaning of those new technologies in relation to the architectural field, with architecture’s own disciplinary tools: drawings, experimental models, projects and propositions.

As a group, Archigram is better known for speculative drawings than for built architecture. “Without the drawings we would just be a sort of minor footnote to a minor footnote”, said Peter Cook (Cook, 1997). In fact, during the sixties, Archigram produced an extensive amount of graphic material that expressed its member’s visions of the many architectural possibilities in a changing and stimulating decade. By mid sixties, Archigram had developed its own iconography, which could be based in raw material from science fiction and comic strips, as well as in cultivated sources such as the Russian constructivism or the German avant garde of the twenties. Since then, the most noticeable aspects of Archigram’s contribution are related to that vigorous iconography. Archigram’s best-known megastructural schemes, like Plug-in City (1964) or Walking City (1964), exposed a bold, lavish figurativeness, mostly identified with the machinery of the industrial age. Nevertheless, Archigram’s schemes, unlike other experiences under the so-called label of “fantastic architectures”, were much closer to the professional and disciplinary approaches. Archigram’s work was paper architecture, but it was not necessarily detached from reality. As Peter Cook claimed, there was “a range in the [Archigram] projects between quite considerable pragmatism, i.e. buildings that could easily be built or can be built within the existing technology”; Archigram’s work could be regarded as “just drawings”, but not exactly as a “fairyland” (Cook, 1997).
In 1969, Archigram members actually took part in a professional competition for an existing site: the Monte Carlo Competition for an entertainment centre in Monaco. Monte Carlo would give Archigram the first great opportunity to build real architecture as a group. But, when everybody expected them to use Archigram’s characteristic iconography, maybe appealing to “a sort of machine that walked around the site or something like that” – as Peter Cook explained - , they decided to do exactly the opposite: “an apparent nothing”. “Just a piece of ground”, said Cook (Cook, 1997). By the same time, Archigram was working on its ninth issue. Archigram 9 came out in 1970 with a seed packet attached to its pages and an editorial that recalled the emergence of ecological issues and claimed for new attitudes: “what is needed is an all-embracing regard for survival and sustenance”. That new agenda could be perceived as Archigram’s retreat from its former position: “No longer do the marvels of technology have to be claimed as a dramatic or wonderful or even a particularly significant thing any more” – the editorial stated (Archigram, 1970).

But Archigram’s manoeuvre demands a deeper assessment. The closer examination of the group’s work since the mid sixties reveals the keys. An important one is the distinction proposed in Archigram 8 between “hardware” and “software”. Archigram borrowed the incipient computer jargon to stress a contrast between tangible, touchable objects, and the notion of systems that could be transmitted but not touched. Of course architecture’s tradition was on the hardware side. As they exemplified: “HARD e.g.: Monument, New York, wall, machine, metal, plastic, etc.; against SOFT e.g.: programme, wire, message, instruction, graphic synopsis, equation, mood, abstract.” If hardware had limitations, as Archigram sustained, so did architecture. Archigram’s point was using software “to expose architect’s continued complete hang up on hardware” (Archigram, 1968).

The “Metamorphosis” scheme for homes devised from 1968 to 1985, the “Moment Village” and the “prefabricated sets” that Cook and Greene presented in Archigram 8, were all attempts to recognize not just an evolving technology, but a changing technology. They anticipated the editorial opinion in Archigram 9, that the defiant frontier was moving “into areas were machines and natural forms are together, interdependent” (Archigram, 1970). The underlying question for Archigram had always been to discuss the implications between technology and architecture. The transforming status of the first, with the emergence of the electronic systems, seemed to push for a new definition for the second. Although never executed, Archigram’s winner proposal for Monte Carlo still poses many questions that can be re-examined in the light of the issues raised by the session, concerning the impact of those new technologies on architecture in the post-war era.

2 THE CYBERNETIC FOREST IN MONTE CARLO

“I like to think (and the sooner the better)
of a cybernetic meadow
where mammals and computers
live together in mutually programming harmony
the pure water
touching the clear sky.
I like to think (right now, please)
of a cybernetic forest
file with pines and electronics
where deer stroll peacefully
past computers
as if they were flowers
with spinning blossoms.
I like to think (it has to be)
of a cybernetic ecology
where we are free of our labours
and joined back to nature
returned to our mammal
brother and sisters
and all watched over
by machines of loving grace.
The Realist”
David Greene [Archigram], *All watched over by machines of loving grace.* (Greene, 1969a)

The Monte Carlo project would incorporate David Greene’s ideas on a cybernetic forest, and Archigram’s notion of interplay between “hardware” and “software”, according to the definitions proposed by the group in *Archigram 8*. The Principality of Monaco launched a limited competition for an entertainment center on the reclaimed foreshore of Monte Carlo in 1969. The competition had two stages. On the first stage, thirteen teams from England, France, Finland, Norway, Germany, Spain and the United States were selected after their portfolios to proceed to the second phase. Teams lead by Ricardo Bofill and Frei Otto were within the competitors. On the final stage, an international jury that included Pierre Vago, Ove Arup, René Sarger and Michel Ragon declared Archigram first winner.

Although Archigram participated as a group, the Monte Carlo project was essentially developed by four members - Peter Cook, Dennis Crompton, Ron Herron and David Greene – with the assistance of Colin Fournier, Ken Allison and Tony Rickaby. Frank Newby, who had already collaborated with Cedric Price and James Stirling, worked as consultant engineer. The competition brief required a multipurpose building suitable to a wide range of activities with an audience capacity of 1500 to 2000 people. Such a building should be able to adapt to a variety of very different functions, with specific requirements, ranging from international circus arenas to sports events, from art shows to ice rinks and glamorous scenarios for balls and receptions. Apart from these changing and episodic uses, competitors were asked to propose a permanent use for the building, so that each team should create a supplementary programme, in line with the ambitious range of activities required by the Principality.

The jury’s profile could explain the final verdict in favour of Archigram. Arup and Sarger were engineers and shared with Ragon and Vago the sympathy expected from Archigram. And that would be the case, even though without any trace of the lush megastructural imagery that the group had been employing to challenge the architectural scene since the beginning of the sixties. In fact, what singularized Archigram’s proposal for Monte Carlo was not the technological expressionism or the figurativeness of the science fiction world, but just an idea about landscape.

The proposed site for the Monte Carlo entertainment center was a strip of reclaimed land stretched between Princess Grace Avenue and the Mediterranean sea, to the east of the famous Monte Carlo Casino. Archigram described the site as “a quiet and wistful place” facing a high-rise and high-rent residential area, “unsure of its role” and “depressingly underused”, despite the mythical connotations of glamorous Côte d’Azur, the abundance of trees and the immediacy of the sea (Archigram, 1972). Along the coast there was an adjacent beach sector over another reclaimed area, that seemed heavily used during the day but almost deserted at night.

By that time, Archigram was developing the Instant City project (1969), a set of portable components designed to generate or encourage urban ephemeral events on deliberately indeterminate places. Although the issue of the transitory event and the notion of "architecture as a kit of parts" explored by the Instant City project had affinities with the Monte Carlo task, Archigram took a completely different approach concerning the response to the place. As Archigram noted, this place was not “anywhere”, in the sense that it could be if it were an Instant City Kit" (Archigram, 1972). Archigram’s proposal is pragmatically grounded on the site’s until then poorly exploited free venues, like the vicinity of beach, the view of the sea, and the potential ability to capture the motion generated by the "linear city" that virtually developed on the Mediterranean coast over a succession of small resorts. The lack of green spaces for public use in Monaco suggested the preservation of this particular place as natural landscape. Archigram thought that it might become a place next to the beach, which extended its services but was “complementary in atmosphere and experience” (Archigram, 1972).

Archigram team worked on a scheme that combined three major technical features: first, a concrete shell generating a continuous covered space; second, a set of “robot” facilities designed to support a variety of activities, from a circus to a car race; and third, a green park developed above it all. The park was conceived as an electronic serviced landscape, like the “cybernetic forest” that Archigram had foreseen in his magazines, in which nature was merged with invisible electronic devices.
archigram's strategy inferred the annulment of the building’s presence before the originary landscape. it would be achieved by means of excavating a big hole in the existing site and sheltering all the entertainment center areas under a single underground building. a vegetated surface was extended above the building cover, engendering the continuity with the natural terrain. it was that physical reconstruction of the site that allowed archigram to present the urban park as the required permanent destination for the new equipment, prolonging the public use area of the beach over the gentle hill formed by the building cover. archigram renounced to build another monument in the monte carlo landscape, and proposed to bury a sort of "instrument-building" under a bucolic exterior park. the idea of the toolbox hidden under the park suggested by that scheme was an answer to the required multiple functionality, since it could be manipulated and used to build almost anything. in the same way, archigram responded to the polymorphic pretensions of the building programme with a structure without any appearance at all.

the underground building comprised a circular assembly hall developed in a single floor with six separate entrances leading down from the park. advised by engineer frank newby, the structural solution consisted of a concrete dome 79 meters in diameter supported on peripheral buttresses. apart from the technical infrastructure network, regulated by a grid placed under the concrete shell, all other interior architectural elements were mobile components.

archigram designed complete series of auxiliary components - sanitary-type cells, mechanical stairs, platforms and bridges, support structures and service columns called "robots" - to be moved and combined in different ways, depending on the current event. the entire space was designed like a stage, in which these mobile devices, arranged as an outer ring of services, could quickly move and transform the organization and interior appearance of the assembly hall. it was supposed to be an architecture "made from the event rather than the envelope" (archigram, 1972). archigram explained the "envelope" as the television studio, where "the ubiquitous range of equipment is used merely as a background for the wit of the producer of each piece of entertainment". architecture was just "a particular combination that is made at any point in time" (cook, 1970).

these expectations affected as well the conception of the park on the roof. greene was in charge of it. he imagined a green hill in the english tradition of the natural garden, however served by an invisible network of service points discreetly located every 6 meters (the technical infrastructure necessary to carry out any outside activity that needed electricity). the park created a public area associated with the beach, in which anyone could come and plug all sorts of equipment, like telephones, refrigerators, air beds, screens, sound sets, etc.

the park resumed the idea of "the fully serviced natural landscape" that archigram had devised for the first time with the ironic logplug and rokplug set designed by greene in 1968. rokplug and logplug consisted of naive artificial rocks and tree branches, with prosaic lichens and little flowers, like a sort of ecological kitsch that concealed service outlets for mobile living containers. they would be strategically distributed among the real nature of which they were a profane copy, offering civilized facilities like electricity, cold-water service, cable line delivering, plug connections and credit card systems.

greene reworked the theme of the serviced landscape in archigram 9 with the "gardener's notebook", but discarding the allegorical and figurative factor present in the precedent rokplug and logplug. "could the whole world be an all-green-grass-sphere?" – he asked. the answer was yes, if you had the device lawun - locally - available - world - unseen - networks. the anagram was a play on the word lawn – plot of grass -, and was meant to designate an ubiquitous and homogeneous hidden system of infrastructure that would engender the global technically equipped landscape. greene selected a few images that pictured ephemeral situations taking place on the natural environment - a man fishing by the river with his portable tv, people doing a picnic on the park, etc. the gardener's notebook invited to look at these current situations in a slightly different way, and called it the "transient non-specialized environment made possible by the sophisticated portable hardware" (greene, 1969b).

"lawun means the striving after basic objectives" – explained greene – "doing your own thing without disturbing the events of the existing scene and in a way which is invisible because it involves no formal statement, and because it is related to time, may or may not be there at any given point in time" (greene, 1969b). instead of permanent and specialized structures, he thought of an "invisible city" existing just during the action of its occupants: "the temporary place, retained perhaps permanently in the memory. an architecture that exists only with refer-
ence to time” (Greene, 1969b). Against the idea of architecture as the building of physical limits, which implied not just a fixed spatial proposition but definitive marks on place, the much more precarious concept of the transitory mechanism in the landscape and its correlated idea of time discontinuity, that existed perhaps only in the memory, allowed Greene to evoke “the architecture of absence” (Greene, 1969b).

3 THE ARCHITECTURE OF ABSENCE

It is no coincidence that Greene borrowed the notion of "architecture of absence" from the work of the American artist Robert Smithson, a leading figure in the emergence of the Land Art movement and the updating of the idea of landscape in the art of the sixties.

Greene explicitly referred to “Incidents of mirror - Travel in the Yucatan”, a Robert Smithson’s project from 1969. It was a temporary action on the landscape. Smithson accommodated twelve rectangular mirrors on different natural surfaces in the Yucatan, making what he called "nine displacements". After being photographed by the artist, the compositions were dismantled and the mirrors stored. The work ceased to exist. Greene quoted what Smithson had written about Yucatan: “It is the dimension of absence that is to be found”. And then he argued: “So maybe you might say that the development of portable hardware produces an architecture of absence” (Greene, 1969b).

That defined Archigram’s ideas about Monte Carlo. The rhetorical impulse of the megastructure, with its figurative appeal, Archigram’s space race based iconography and its pop culture imagery would be now challenged by a deliberate oblivion of the building’s exterior presence. If Archigram produced lush collages for Monte Carlo that incorporated the pop iconography, the cheerful psychedelic dream of the sixties, those collages were just like flashes, instant and fleeting traces of something else: they no longer served to represent “the envelope” but “the event”. They were just hints of the many ephemeral, short lasting happenings that could be electronically conjured by the serviced landscape. They were like the passing images inside Smithson’s missing mirrors.

The idea proposed by Archigram for the landscape in Monte Carlo culminated a series of other rather fictitious proposals, whose main theme was the merge between the primitive and the technological. Greene’s cybernetic forest, as the founding idea behind the serviced landscape, was related to the technological shift of the post-war period. An industrial culture, primarily based on the production of consumer goods, was changing into an electronic culture, whose main commodities were intangible – image, information and services. If the machine could be clearly identified as an artificial domain opposite to nature, the concept of cybernetic forest evoked a sort of promiscuity between the built and the natural, between the artificial and the organic.

In the end, Archigram’s idea about the serviced landscape and its primitive connotations, though apparently conservative from an ecological perspective, did not mean an effort to re-found architectural reasoning in nature and place, but rather the displacement from an organic relationship with nature, that would be interested in pursuing architectural forms integrated to place, to a symbiotic relationship with nature, which would rather render the appearance of those architectural forms irrelevant. According to the emerging computer jargon appropriated by Archigram, architecture could not be a question of hardware but software.

4 THE CHANGING TECHNOLOGY AND THE ISSUE OF INVISIBILITY

“I make no noise, I make no smell. So what tells you I’m there?” (Archigram, 1968). Archigram wrote that question on the group’s installation for the XIV Milano Triennale in 1968. What Archigram assumed as the interplay between hardware and software, and the challenge that the latter demanded to the former, which after all represented the point of view of architecture, can be clearly related to the major technological themes of the post-war period. The displacement from tangible, material supports to invisible processes and systems can be associated to the transformation of the very character of technology throughout the twentieth century. One of the key features of this transformation is the fact that technology seems to be no longer identified solely with technical artefacts or concrete objects, and has become increasingly identified with systems and control processes whose nature is potentially abstract and ubiquitous.
A non-deterministic history of technology has emphasized this transformation, describing technology not as an autonomous factor of historical change, but as part of the complex human culture. According to Leo Marx, this process begins with the transformation of the mechanical arts and the subsequent “invention” of the concept of technology. As he noticed, the idea of technology in today’s broad sense did not yet exist when the Enlightenment project was being formulated. Although the word technology, derived from the Greek techne, can be traced in the English language to the seventeenth century, it would refer almost exclusively to technical discourses or treatises during the next two centuries (Marx, 1994).

The artefacts, the knowledge and the practices that later came to be encompassed by the term technology, however, belonged to a special branch of the arts, which could be identified by different names such as “mechanic arts”, “industrial arts” or “useful arts”, as opposed to fine arts or high arts. The mechanical arts referred mainly to a collection of knowledge and craft practices embodied by the mechanical and industrial iconography - the steam engine, the power loom, the factory or the locomotive - which had a manifestly tangible and practical character, strengthening the role given to instrumental rationality as an agent of social progress in the context of the Enlightenment (Marx, 1994).

The overcoming of the “mechanic arts” term by the concept of technology, according to Leo Marx, also pointed to a shift in both the character and the representation of the technical knowledge and its products. Discrete artefacts, like “the machine”, were replaced by the broader and diffuse notion of “technological system” as the characteristic embodiment of technical power. The acceptance of the word technology is due to the necessity of a more comprehensive and scientific concept, which referred not only to machinery and technical knowledge, but also to whole systems of production and control. Compared to the mechanic arts, it was that relatively abstract character of technology, as the accepted concept to designate the whole instrumental realm, which happened to be adjusted to the real complexity of the new technical systems, “in which the boundary between the intricately interlinked artefactual and other components – conceptual, institutional, human – is blurred and often invisible” (Marx, 1994).

Archigram had been committed until the very end to the debate between architecture and technology. Besides other enterprises of its time, Archigram promoted a critical view over institutionalized post-war modernism for not being able to recognise the rise of new social realities, identified with mass consumption, the new technologies of automation and information, the restructuring of capitalist Fordism and the shift from a predominantly industrial culture to an electronic culture. Starting from the controversies of mass consumption and expendability, going through the issues of mechanical mobility and nomadism, Archigram moved toward the automation and information technologies, discussing the boundaries between technology and architectural materiality. The steps of this narrative evolved from the metaphorical representation of an industrial world focused on the production and consumption of goods, that Plug-in City exemplified in 1964, to the gradual dissolution of architecture in the symbiotic landscapes of electronic culture, as the Monte Carlo project suggested. Archigram’s trajectory clearly demonstrated the actual change in the character of technology, which was no longer primarily identified with artefacts and objects, as the machine, and seemed to be progressively identified with abstract and ubiquitous systems and processes of control, such as automation and information systems.

Shell roofs, like the one Archigram proposed in Monte Carlo, were a structural solution proper to modern tradition in the post-war years, pursued by many different architects or engineers, from Jorn Utzon to Felix Candela. But unlike them, Archigram was not interested in expressive structure or in sculptural forms. On the contrary, Archigram totally concealed the concrete shell in a big hole at Monte Carlo’s shore and developed a park over it. In the case of the Monte Carlo scheme, the interplay among architecture and technology actually provoked the disappearance of building into landscape, and then the conversion of landscape in something else, that looked natural but actually hid an energy and information network. Architecture, as Archigram pointed out, could be just “the transient non-specialised environment made possible by the development of sophisticated portable hardware” to plug-in. Architecture could finally be invisible. In a sense, Archigram’s answer to the multipurpose building required by the programme exposed the very defiant effects of post-war science and technologies on architecture. Technology had always been a tool for architecture; could it be now standing in the place of architecture, rendering it superfluous?
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