Jurjen Zeinstra

HOUSES OF THE FILEFURE HOUSE OF THE FUTURE HF 5502 1/2"

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Alison and Peter Smithson, House of the Future, axonometric projection

1 The description of this work draws from the following articles: Jeremy Baker (ed.), 'A Smithsons File', Arena (February, 1966), 177-218; Alison and Peter Smithson,

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In the world of architecture there is a long tradition of experiments that test the boundaries of the discipline. The 1960s witnessed a flurry of such experiments, many of them quite intriguing, though it is fair to question whether their significance goes beyond that of the well-timed joke we often take them to be. Do they undermine the foundations of architecture? Or do we, as critics, tend to inflate their importance? To answer these questions it is necessary to gauge the architectural content of the experiments. Only then can we speak in any meaningful way about their ultimate significance to the field. It should come as no surprise that the most fascinating experiments are the ones undertaken on the very fringes of the discipline (or even just beyond), the investigations that attempt to establish the contours of a new architecture.

In this article we will be taking a look at a number of experiments related to the fundamental architectural concept of 'living'. We'll begin with an early experiment: the House of the Future by Alison and Peter Smithson. It is a seminal design, both within the Smithson's own oeuvre and in the field as a whole. The *Archigram* group, for example, would go on to create an interesting series of follow-up experiments. By contrasting these *Archigram* projects with a number of works by the Smithsons, we gain a sense of what creative minds in the 1950s and 1960s thought about the architectural (im)possibilities of the house of the future.

HOUSE OF THE FUTURE, 1956

In 1956 Alison and Peter Smithson designed their House of the Future, which was displayed at the *Daily Mail*'s 'Ideal Home Exhibition' later that

same year.¹ The house is a somewhat disguised variation on the modernist patio home, adapted to an urban context. Peter Smithson sketched out the principles behind the house and its relationship to its surroundings in one of his 'private air' diagrams from 1955-1956. Here we see how the patio forms the central and most intimate part of the dwelling, thus giving each house a 'vertical tube of unbreathed private air'. It is a design that makes it possible for the buildings to be joined together in a highly dense grid structure.

The House of the Future is built on a rectangular base, 9 x 15 m in area. On this base, various rooms are arranged around an irregularly shaped patio. While each room has its own characteristic shape and dimensions, it also forms an inextricable part of a continuous space. This continuity is the result of the omnipresent plastic panelling: a honey-coloured skin, stretched over all the walls, floors and ceilings. Between the rooms and the patio is a fully transparent façade that exerts a unifying force over the rooms, both in relation to one another and with respect to the patio.

Two different elements are used to establish spatial boundaries: hollow walls and hollow objects. The hollow wall consists of a double shell that is deep enough to accommodate appliances, sanitary amenities and storage space. This element is used three times in the House of the Future. We first encounter it at the entryway, where the visitor quite literally 'breaks through' both shells, experiencing the depth of the wall before coming into the house. There is another one by the kitchen; here, the shape of the wall is determined by the standard appliances, which are contained inside and thus hidden from view. This particular wall is also notable in that it is one of the few large rectangular elements in the house. Household appliances figure prominently in the design; of particular interest is the

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Entrance

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Kitchen















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choice to encase the appliances in the walls. By the 'boudoir' we encounter the final hollow wall, which holds everything relating to the occupant's personal care and attire. Each of these walls not only acts as a highly elaborate container of appliances and storage space, but also serves to define the spatial structure of the house. Certain facilities, such as a wardrobe or the shower stall, are positioned around the house as free-standing objects.

The House of the Future can be seen as an attempt to achieve a perfect fusion between such facilities, which exist in the form of a wide range of appliances, and architecture itself. These facilities (including the storage space and sanitary amenities) are assigned a specific form and location within the house. In the case of the free-standing objects, this location is explicitly linked to the patio. The solid wardrobe by the entrance, for example, is situated partly on the patio; the bath, which is nestled in a recess in the floor, pokes its way into the green of the interior garden; a section of the kitchen island protrudes through the transparent façade, and finally, the elevated sink by the boudoir is echoed in the rainwater basin. All the actions performed by the occupant with respect to these facilities take on a quasi-theatrical significance in relation to the patio. This is intensified by the curtains and the radical openness of the rooms vis-à-vis this central space. Although the objects do have an autonomous shape, which is closely bound up with their specific function, the ubiquitous panelling serves to reimpose a large measure of unity.

Material plays an essential role in this house: the dwelling is made entirely out of fibreglass panels, into which the lighting and heating systems are fully integrated. The panels consist of shells, connected by dark strips, producing a strong graphic effect. The association with the bodywork of a car is almost unavoidable. A conscious decision was made not to include such connecting strips in the transparent patio wall; this house is devoid of any styles or rules. The wall is made of Perspex panels which are glued on at the top and bottom.

Plastic, the quintessential material of the 1960s, has always evoked strong associations with the notion of progress. The odd thing about the material is its intrinsic blankness and shapelessness: plastic can be made to assume or suggest any form. When the material began making its appearance in the fields of architecture and industrial design in the 1950s and '60s, a new visual and formal language was created to accommodate it: clear-cut shapes, rounded corners, a shiny surface and bright primary colours. Thanks to the artificial origins of the material, the variety of applications is potentially boundless, a fact which is often vividly expressed in the designs incorporating it. A textbook example of this is the domed cities proposed by Buckminster Fuller in the 1960s.

But this boundlessness is also a feature of the House of the Future. Here, plastic is taken to absurd extremes, creating the impression that the material is ever-present and overpowering: the occupant is ensconced in the material. The rooms appear to be recesses in an enormous plastic mass, holes in a gargantuan Swiss cheese. Yet the paradox is that the material itself has been reduced to a shell, the bare minimum.

In the 1950s plastic took over the role that concrete had played in the 1920s: a material whose characteristic shapelessness endowed it with unprecedented potential. But whereas concrete bore the burden of its own substantial weight, plastic combined the adaptability of concrete with an unparalleled lightness, holding out the possibility that buildings would at





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JURJEN ZEINSTR/ 'We put photographs of the House of the Future as evidence of another language on the walls OF THE FUTURE of a spare room,' Alison Smithson remarked, referring to the CIAM HOUSES congress in Dubrovnik See Alison Smithson (ed.),



Patio & Pavilion, 'This Is Tomorrow' exhibition, 1956



last succeed in wresting themselves free of the pull of gravity. The advent of plastics severed the traditional and obvious relationship between weight and volume, giving rise to the wild, expressionist fantasies of the 1920s.

Yet there is a striking difference between those fantasies and the House of the Future. In the House of the Future, the walls, floor, ceiling and furniture merge into a spatial continuum in which the tension between matter and gravity, so often depicted in constructivist experiments, has disappeared completely – everything flows. The apparently random shapes and the whimsical, door-less doorways that connect the rooms strengthen the illusion of viscosity and literal flexibility.

The Smithsons strongly emphasised the material and its tactile qualities, making reference to Le Corbusier's Maison aux Mathes from 1935.² At first glance this allusion seems rather far-fetched. The Maison aux Mathes is a simple house, with a wooden beam construction and massive natural stone walls. It is one of Le Corbusier's lesser known villas, in which the material is visible and speaks a language of its own. The Smithsons take their cue from the natural stone walls, which ensure that the materiality is literally palpable throughout the entire house, thereby establishing a tactile continuity. In the House of the Future the Smithsons sought to attain the same continuity. At the same time they were in search of a different style, a different language,³ attuned to the world beyond architecture: mass culture.

In the 1950s the Smithsons were part of the Independent Group, a collective that had emerged from the Institute of Contemporary Art. The Group was interested in the effects of technology and mass media on the arts. Other members were the artists Richard Hamilton, Nigel Henderson and Eduardo Paolozzi, all of them pioneers of pop art. The Group also included the theoreticians/critics Alan Colguhoun, Reyner Banham, Lawrence Alloway and John McHale. Alloway described the Independent Group as follows: 'We discovered that we had in common a vernacular culture that persisted beyond any special interest or skills in art, architecture, design or art criticism that any of us might possess. The area of contact was mass-produced urban culture: movies, advertisements, science fiction, pop music. We felt none of the dislike of commercial culture standard among most intellectuals.'4

The Smithsons, for their part, were primarily interested in advertising. In the essay 'But Today We Collect Ads'⁵ they speak of the increasing in-Team 10 Meetfluence of advertising on the norms and aspirations of the consumers of architecture, an influence it appropriated from the social reformers and politicians. As evidence they point to the ways that large areas of the house Ouoted in (kitchen, bathroom, garage) are dominated by the products of industry, over which the architect has no control. The Smithsons make much of the growing role of mass culture and its significance to architecture, and the House of the Future can certainly be seen in that light. But unlike Reyner Banham and the Archigram group, the Smithsons never wanted to see architecture merge with or disappear into this mass culture. They always had an ambivalent attitude towards the Pop Art movement, chiefly because they remained preoccupied by traditional architectural concepts, like materials, urban design and the pursuit of a style.

Like the House of the Future, 'But Today We Collect Ads' first appeared in 1956. In that same year, the husband and wife team made a pavilion that would seem to be the complete antithesis of the House of the Future. It was displayed at the 'This is Tomorrow' show at the Whitechapel

2 Alison and Peter Smithson. 'The Shift', op. cit. (note 1), 44.

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in 1956.

ings 1953-1984 (Delft, 1991). 4 Charles Jencks Modern Movements in Architecture (Oxford, 1973). 5 Baker, 'A Smithsons File', op. cit. (note 1), 194.



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Gallery in London. The exhibit showcased a number of pieces that could be regarded as the earliest examples of Pop Art, in terms of both their content and presentation. Amid the onslaught of Pop Art images, the Smithsons set down a fenced-in patio on which sat a primitive hut. In, on and around this structure, Paolozzi and Henderson placed a number of objets trouvés, giving the Smithsons' project the air of a fragmentary slum, surrounded by garish billboards. Here, the Smithsons depict 'the fundamental necessities of the human habitat', as they put it in the accompanying catalogue. They go on to explain this statement as follows: 'The first necessity is for a piece of the world, the patio; the second necessity is for an enclosed space, the pavilion.⁶ Despite the deliberately provocative differences, the House of the Fu-

ture bears an unmistakable resemblance to the Whitechapel pavilion with regard to these necessities. The House of the Future, too, comprises a 'piece of the world' (an enclosed patio) and a space 'furnished with symbols for all human needs'. These symbols are not *objets trouvés* though, but appliances.

6 Alison and Peter Smithson, 'The Shift', op. cit. (note 1), 32.

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APPLIANCE HOUSES, 1957-1958

The House of the Future should not be seen as a stage in a straightforward progression within the Smithson's oeuvre, but rather as both an experiment with a particular material and an investigation of the influence of furniture and household appliances on the architecture of the house. That investigation was taken a step further in the Appliance Houses.

The Bread House (November 1957), which was presented as Appliance House I, is a fairly crude application of the 'language' of the House of the Future to a traditional dwelling with a living room on the ground floor and bedrooms on the two upper levels. The Snowball Appliance House plays with not only the language but also the architectonic nature of the House of the Future: the patio totally dominates the ring-shaped house.⁷ The The Snowball rooms, which were initially partitioned off by the hollow walls and objects, Appliance have now been sacrificed to a continuous living space with only screens to House and preserve their individuality. The interior is defined by the cubicles, and it is the Strip Apthere that the household appliances are concentrated: the cooking, washing, changing and storage cubicle. The cubicles hide the appliances from view, deliberately segregating them from the interior, as they are highly dependent on trends and thus more subject to obsolescence. The shell walls of these cubicles are the fixed structural elements in the house, rudimentary signposts that suggest the main architectural structure. This is the Smithsons' response (or hypothesis, to use their term) to the breakdown of the home, a phenomenon they draw attention to in the House of the Future as well: 'The House of the Future demonstrated the architectural consequences of, amongst other things, the disintegration of the kitchen by means of mobile appliances and pre-packaged food etc.⁸

With its ring shape, the Snowball Appliance House does not lend itself to being grouped together in large numbers with others of its kind, a consideration that always played a central role in the Smithsons' work. An attempt was made to remedy this shortcoming in the Strip Appliance House, a prefab, rectangular component of a larger residential system. Again we find cubicles as strictly rectangular elements. Together with the highly pronounced male and female 'boudoirs' they dictate the layout of the house.

In 1959, the Smithsons applied the Appliance House concept to their

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Baker, 'A Smithsons File', op. cit. (note 1), 197.









David Greene, Spray Plastic House, 1962







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- bathloom
 pneumatic lift
 variable electric wall system
 sliding wall
 window

- connection points for ducts
 storage space



Collage featuring (from top to bottom): cross section, cooking station, model, workstation, floor plan





David Greene, Living Pod, 1965, floor plan, façade

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blueprints for a country house in Kent. Here, we again encounter the design of the Strip Appliance House, devoid of the last remnants of the organic formal language of the House of the Future. The cubicles are arranged so as to partition off the rooms – literally as well as figuratively – thanks to the sliding walls inside the cubicles. Overhead lighting accentuates the cubicles in the exterior while simultaneously ensuring, in the interior as well, that these elements are more than cupboards stuffed with appliances.

The Appliance Houses concentrate on the architectural significance of the proliferation of domestic appliances. In 'The Future of Furniture'⁹ Alison Smithson argues for a new approach to these appliances, whereby the living area would no longer be a workroom for machines. By reducing their size and weight, the designer can scatter them about the house. This decision opened up the possibility of a new spatial concept: separate rooms are replaced by a continuous space. Alison Smithson contrasts traditional Japanese homes, where the closets are oriented away from the room, thus creating continuity, with Western homes, where the furniture and appliances always face towards the room. In the latter set-up the architect is robbed of any control over the interior and left to the mercy of the fashion-driven whims of the interior designer. Alison Smithson sees the cubicles of the Appliance Houses as an architectural solution to this problem: 'Inside the cubicle, under control, the changing world of high-pressure advertising, styling, etc., plugs in.¹⁰ This is a clear illustration of the Smithsons' architectural approach: even though they are well aware of the growing role of disposable Baker, products and the variable elements in a house, they attempt to develop an architectural approach in which these things must be kept in check to maintain and reinforce space as an essential element of the dwelling.

SPRAY PLASTIC HOUSE, DAVID GREENE, 1962

In the work of the Archigram group, the house of the future is treated as an ongoing experiment.¹¹ The Smithsons' House of the Future acts a source of The descripinspiration for this experiment, several stages of which are described below. tions of the

The preoccupation with plastic as a material and the fervent attempts Archigram to forge an appropriate form of expression (a formal language, if you like) pieces draw on Peter Cook are two elements of David Greene's Spray Plastic House from 1962. The (ed.), Archithree small drawings that illustrate the genesis of the building can be seen gram (Basel, as a preview of what will happen to the house in a series of Archigram 1991, originally published plans. In the first phase the house is 'dug out' of a rectangular block of in 1972). polystyrene, like a burrow in the earth. In this massive body, the rooms are connected like organs, complete with two 'orifices' and a heart which feeds the installations and heating. In the second phase the surrounding body disintegrates so that by the third phase only the materialised outline of the various rooms (or organs) remains. The material that enveloped the rooms has literally shed its mass and become a skin. Here we are treated to a concise demonstration of a recurring theme in the Archigram plans. As David Greene puts it in the first issue of *Archigram*, 'You can blow up a balloon any size / You can mould plastic - any shape.'

PLUG-IN CAPSULE HOME, WARREN CHALK, 1964

The third issue of *Archigram* showcases another important (and related) theme for the first time: 'Expendability: towards a throwaway architecture'.

9 Architectural Design (April, 1958), 174-178.

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The issue features collages in which domes, Buckminster Fuller's prefab bathroom and Dymaxion car, and various container houses are depicted alongside packaging material and disposable items as serious and successful attempts to design objects or buildings with a limited lifespan. The periodical criticises a large number of these prefab objects, such as caravans, bungalows and garden houses, for concealing their industrial origins behind a traditional facade. Archigram, by contrast, propagates a look that mimics that of popular disposable products.

The Plug-in Capsule Home can be regarded as an elaboration of these ideas. The design is one of the results of an experimental project carried out by members of Archigram on a commission from the Taylor Woodrow Design Group. The assignment was to make a prefab dwelling that could be integrated into a tower-shaped support structure. The Capsule Home is an adaptable unit, assembled from a number of industrially manufactured interchangeable parts, like wall, floor and ceiling elements. The Capsule Home strips away the house to the bare minimum: a cell connected to other cells, embedded in a larger structure. The Capsule's form derives from this defining characteristic (that is, its ability to 'plug in'). In the interior we recognise the 'organs' of the Spray Plastic House, but they have now been transformed into appliances and objects that are tightly packed together and often hidden from view by control panels. The Plug-in Capsule project exhibits a number of striking similarities with Georgi Krutikov's degree project from 1928.¹² In the latter work the capsules are minimised even further, resulting in elegant, teardrop-shaped space capsules which are only large enough to accommodate a reclining chair. Here too, the capsules are designed to be connected, like the petals of a flower. Even Krutikov's visual points of refer-Sowjetischen ence, which he included with the presentation of his project as a collage, correspond to the aesthetics of Archigram: Krutikov's collage, like that of the periodical, is populated by caravans, zeppelins and teardrop-shaped vehicles.

LIVING POD, DAVID GREENE, 1965

After the Plug-in Capsules and the related Gasket Homes from 1965, the Living Pods represent a further development of the third phase of the Spray Plastic House. Many plans from this period feature a two-part structure: on the one hand, there is the open living space, without the traditional division into rooms that had previously been necessitated by the separateness of various facilities; on the other hand, there is the 'service section', which houses all the high-tech machinery.

We see this same pattern in the Living Pod: the occupant lives in the pod (or cocoon) while all the necessary appliances and power cords are attached to the structure as autonomous components. The look of the Living Pod is derived from the popular visual language of space travel and deepsea exploration.¹³ The interior makes use of the same division described above: organically shaped inflatable couches and an inflatable partition plus a number of highly advanced robots that can move through the pod as cooking and work stations. In this respect the robots are the next step in the evolution of the 'kitchen on wheels' in the House of the Future. Those rooms where machines and facilities play an important role, such as the kitchen or bathroom, are thus rendered superfluous.

Whereas the Plug-in Capsule was still clearly subordinate to a megastructure, the Plug-in City, the Living Pod is plainly an anti-urban, nomadic

(Dresden, 1983), 284, 307-308, 333. Model of the interior. Collage showing (from top to bottom): section, cooking station, model, working station, floor plan.

12 S.O. Chan-

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13 In 1967 AD put out a special issue devoted entirely to trends in this area, under the editorship of a former member of the Independent Group: John McHale, 2000 + (Architectural Design) (February 1967).

object with its roots in that other urban Archigram fantasy, Ron Herron's Walking City from 1964, which conceives of the city as a giant object.

LIVING 1990, ARCHIGRAM, 1967

In 1967 the Archigram group was given a chance to repeat the Smithsons' experiment of a decade earlier, under very similar conditions. This time it wasn't the Daily Mail but the Weekly Telegraph that issued the challenge of designing a house for the year 1990. The traditional architectonic elements, like floors, walls and ceilings, which the House of the Future had treated as a continuous skin that bound the whole structure together, are given an entirely new significance here: they have become conditions or temporary stages, due to the fact that they are in constant flux. They move up and down, in and out; they can become hard or soft. Inside, there is a control panel connected to a large-scale infrastructure, and two mobile robots from which partitions can emerge, to screen off certain areas. The occupants move through the house on their hoverchairs in the same way they move through the city, which is presented as an enormous megastructure. According to its creators, the *Archigram* design is a first attempt to create a house that is capable of immediately responding to the occupant's every whim, thanks to the presence of the latest cutting-edge technology. The last traces of any architectonic organisation have been rigorously eliminated thanks to the treatment of the appliances, just a short ten years after Alison Smithson's warnings in 'The Future of Furniture'. With a rigid consistency the Archigram group follows the trail it has blazed for itself, moving further and further away from architecture. They even go so far as to



Archigram Group, Living 1990, 1967, axonometric projection



Layout for the



Robots

Hoverchair



Perspective of an earlier version

















Archigram Group, Control and Choice project, 1967



Archigram Group, Control and Choice project, 1967







Mike Webb, various stages of the Cushicle, 1966-1967

refuse to provide a design for the numerous appliances that are meant to populate the house. The Control and Choice project, which was also conceived in 1967 (for the Paris Biennale des Jeunesses), is even more radical, blurring the distinction between hardware and software: the robots have lost their defined shape and can no longer be identified as a recognisable appliance or item of furniture. The entire living environment consists of nothing but continually shifting systems. The pursuit of absolute freedom has led to absolute formlessness. The photos of the model bear witness to the tragedy of this project: a bleak carcass, from which any hint of domesticity or architecture has been assiduously erased. And what is more, the occupant has no motivation to stay in such cheerless surroundings, now that he or she can simply glide right out the door on a hoverchair.

CUSHICLE AND SUITALOON, MIKE WEBB, 1966-1968

When walls, floors and ceiling are perceived as merely obstacles to the occupant's total freedom, a house need not be anything more than an apparatus that shelters the person inside while meeting his or her needs. 'With apologies to the master,' wrote David Greene, 'the house is an appliance for carrying with you, the city is a machine for plugging into.¹⁴

The Cushicle is an inflatable house that can be carried around by the nomadic 'occupant' like a backpack. A backpack with a frame: the Cushicle consists of both a 'spine', which acts as a support structure, and a tent, panying the which can unfold itself around the occupant. The Cushicle consists of all the basic facilities: food, water, heat and even radio and television. The house has become an appliance itself, a sort of intravenous drip that gives Archigram, the occupant immediate access to all the necessary facilities. The living area, which in the case of the Living Pod still constituted the dominant spatial element (in the form of an organically shaped 'shell'), has been reduced to a tent of minimal dimensions.

In a later version of this project Mike Webb took things a step further with the introduction of the Suitaloon, a spacesuit that could be seen as the most stripped-down 'house' imaginable. The suit, which provides all the necessary facilities, can be connected to means of transport, to larger 'balloons' where the occupant can shed his or her suit, or to other spacesuits, in order to make direct physical contact with fellow nomads.

The house is in danger of becoming nothing more than an envelope, an article of clothing, a blank spot in which we can perceive the prototypical dwelling, according to Revner Banham: 'Architecture, indeed, began with the first furs worn by our earlier ancestors, or with the discovery of fire – it shows a narrowly professional frame of mind to refer its beginnings solely to the cave or the primitive hut.¹⁵

It doesn't take much imagination to see the House of the Future as this primitive cave. Banham, however, regards the House of the Future chiefly as a Pop Art phenomenon: a conscious attempt to design a stylised, stylish home in the manner of other mass produced articles, like cars. He bases this view on a number of physical characteristics of the house, like the chrome strips and the use of paneling.¹⁶ Yet it is the Smithson's 'narrowly professional frame of mind' that allows this house to show more than what Banham sees in it. The House of the Future gives the house a future.

Translated by Steve Leinbach

14 From the

explanatory

notes accom-

plans for the Living Pod;

op. cit. (note

see Cook,

11), 52.

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