Universidade do Minho
Departamento Autónomo de Arquitectura

Francisco Manuel Gomes Costa Ferreira

The Capsule and Postwar Architectural Avant-Garde, *circa 1956*

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Tese de Doutoramento em Arquitectura

Trabalho efectuado sob a orientação de
Professora Doutora Marina Lathouri

Setembro de 2009

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Para a Lina, Tomás e Matias

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The only way to think, i.e., to move forward, is to be imprecise, inexact, in relation to that which is thought. Gonçalo M. Tavares

A única forma de pensar, isto é, de avançar é ser impreciso, inexacto, em relação ao pensado.

Abstract

The postwar architectural capsule, I argue, stands as a mechanism of insulation - thus creating a sense of enclosed detachment within a protective shell - while holding a vitality that simultaneously incorporates into its core the conditions for an action of expansion - thus creating an atmosphere that emmerges as an open cosmogony. In this sense, Richard Hamilton's collage *Just what is it that makes today's homes so different, so appealing?* and the Smithsons' *House of the future* - both from 1956 - appear as *images* that collapse an *island effect* with the exhibition of a *wordly place*, thus imagining radically enclosed spaces that remain structurally engaged with the general cosmic environement. While this configures a primacy on the notion of interiority and completeness, it simultaneously establishes a conscience of partiality. In this context, the investigation incorporates the notion of the capsule as a register of the postwar avant-garde - as epytomized by such names as Reyner Banham, Eduardo Paolozzi, Nigel Henderson, Richard Hamilton and Alison and Peter Smithson - process of re-configuring the relation of part and whole, thought to be attained through a mixed field of references - from the natural to the technological world, from early avant-garde ideals to contemporary mass-media imagery. Hence the work also investigates how the capsule - a term that would effectivelly become common within the architectural discourse from the mid 60's onward - becomes apparent from within such a disciplinary and visually juxtaposed context, as a complex living device that turns architecture away from being a mediating object between man and setting into a subjective instrumental extension that configures its environment as interiorized territory.

Propõe-se um entendimento da cápsula arquitectónica do pós-guerra enquanto mecanismo insular - o que cria um sentido de desprendimento envolto numa casca protectora - que simultaneamente incorpora uma condição de expansão - criando assim uma atmosfera que emerge enquanto cosmogonia aberta. Neste sentido, a colagem de Richard Hamilton, entitulada *Just what is it that makes today's homes so different, so appealing?,* e a *House of the future* dos Smithons - ambos de 1956 - emergem enquanto *imagens* que colapsam um *efeito insular* com a exibição de um *lugar como mundo,* imaginando assim espaços radicalmente encerrados que se mantêm estruturalmente interligados com o entorno cósmico. Embora configurando uma primazia das noções de interioridade e completude, tal caracterização incorpora, de igual modo, um sentido de parcialidade. Neste contexto, a investigação toma a cápsula enquanto registro de um processo de reconfiguração da relação entre todo e parte, que a vanguarda do pós-guerra - configurada por nomes como Reyner Banham, Eduardo Paolozzi, Nigel Henderson, Richard Hamilton, Alison e Peter Smithson - leva a cabo através de um universo de referências heterogéneo que incorpora fenómenos naturais com manifestações tecnológicas ou ideais da vanguarda de início do século XX com o imaginário contemporâneo expresso nos mass media. Assim, a investigação também indaga acerca do modo como a cápsula - um termo que entraria efectivamente no discurso arquitectónico em meados dos anos 60 - se torna aparente a partir de um contexto composto por sobreposições disciplinares e visuais, enquanto dispositivo ambulatório de suporte que torna a condição da arquitectura enquanto *objecto* de mediação entre homem e entorno, em extensão subjectiva e instrumental de configuração do entorno enquanto território interiorizado.

It is a specific issue of this discourse (and the text that represents it) the fact that its figures cannot be ordered: to arrange, to walk, to move towards an end (towards a stability): there are no first nor last.[1], Roland Barthes

The following text, although following a sequence - *since the book, by definition, makes it inevitable* - should be addressed as an artificial composition of autonomous sections, one that would better translate within the notion of collage.

Such an autonomy is complemented by a collection of images that should compose as a *pattern of interrelated signs*. Although the resemblance in attitude to the Eames' *House of Cards* is not to be discarded, the autonomy of the images results from a juxtaposed character of the text; since the object of analysis calls for distinct links between repeated references it was thought best to allow the reader himself to freely manage the connections proposed by the overall text, thus avoiding annoying repetitions or redundancies.

In this sense, the relations of the images with the categories that attempt to confront and expose the object *capsule*, may be understood as *figures* that, following Barthes, act as *a way of construction*.

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[1] *É princípio específico deste discurso (e do texto que o representa) o facto de as suas figuras não poderem ser ordenadas: dispor, caminhar, concorrer para um fim (para uma estabiliade): não há primeiras nem últimas.,* Roland Barthes, *Fragmentos de um Discurso Amoroso,* Edições 70, 1995, p.16

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PROLOGUE

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> … *but we must remember the date, 1956, and ponder upon the straightforward psychological attraction at that time of 'newness'*., Peter Cook[1]

In *Just What Is It That Makes Today's Homes So Different, So Appealing?*, a collage designed by Richard Hamilton in 1956, a room full of (pop) imagery is depicted beneath an image of planet earth, reuniting, in one image, a space of intimacy (the home) and a cosmic landscape (the outer setting). Achieved through the process of collage, the juxtaposition of these two environments within the same flattened image suggests a radical contraction of scales and milieus that produces an immediate effect of simultaneity and wholeness. {R.Hm2.}

In the same year, Alison and Peter Smithson presented their *House of the Future,* an enclosed box containing a *tight-packed series*

[1] Peter Cook, *Time and Contemplation: Regarding the Smithsons*, *The Architectural Review*, July 1982, Vol. CLXXII, No. 1025, pp. 36-43

of gloopy spaces wrapped around a patio,[2] imagined as a wholesome technological environment ready to engage upon a broader field. {H.o.F.2}
Both *images* translate as self-contained units - if Hamilton's *Today Home* pretends to have been popped off into orbit as a space capsule, the radical enclosure of the *House of the Future*, while allowing for its assemblage into a larger ensemble, was exhibited as a fully serviced and autonomous living device.

Also, both act as registers of a certain sensibility of postwar avant-garde towards a subjective and non-hierarchical juxtaposition of scientific, technological, artistic, science-fiction and mass media imagery as a way of reapproaching such issues as the relation and purposes of part and whole or the connections between the body of man and the technological artefact, issues that also come to interfere in the reshaping of the notion of boundary or limit, whether of the physical body or of man's sensorial awareness.

It is in the context of this sensibility that the Smithsons acknowledge their cultural - and predominantly visual - field as one incorporating *a wide range of association* (...) *offering fruitful analogies*.[3] Written as part of the preparatory documents proposing the organization of the *Parallel of Life and Art* exhibition - which was effectively held at the Institute of Contemporary Art in London between September and October 1953 in collaboration with sculptor Eduardo Paolozzi and photographer Nigel Henderson - such statement incorporates the overall tone of the actions, works and writings of the *members* of the *Independent Group* in London that will configure a critical atmosphere toward previous formal and methodological approaches in design and art, through what Jacquelynn Baas calls a conscious {P.L.A.2}

[2] Ibid., p. 39

[3] Ibid.

revalidation of the early avant-garde. Put against such a background, the new avant-garde concerned itself not with a new attempt on how to configure but on how to deal with an *as found* aesthetics of the contemporary. This would make for both an inclusive and procedural approach upon reality, a reality that the *Independent Group* interpreted as a milieu of casual relations and as such, particularly subject to subjective action.

In this sense, still in the context of the preparation of *Parallel of Life and Art*, the Smithsons write that while [*I*]*n the '20's a work of art or a piece of architecture was a finite composition of simple elements: elements which have no separate identity but exist only in relation to the whole,* [*T*]*he problem of the '50's is to retain the clarity and finiteness of the whole but to give the parts their own internal disciplines and complexities.*[4]

Under the light of the Smithsons' statements and exhibition, the postwar capsule, I understand, comprehends, primarily, a relativeness - ultimately a denial - of scale within the relation of part and whole, in the sense in which the former may be apprehended as both dependent of the latter and as an emancipated autonomous fragment. Consequently, I aim at demonstrating that the capsule's role towards the *clarity and finiteness of the whole, i.e.,* its shape and boundary becomes a consequence of subjective actions of association *within an expanded field of vision brought about by new tools.*[5] In this context, I will argue, the capsule actually comes to incorporate the overall ontemporary interest on the technological artefact as an *expander of human range*. Hence John McHale's statement,

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[4] Ibid.

[5] Hadas A. Steiner, *Butalism Exposed - Photography and Zoom Wave* in *Journal of Architectural Education,* Vol. 59, January 2006, p. 18

We thought [technology] *meant a lot of things,* McHale explained. *On the one hand, positively, we saw that technology expanded the human range. The possibility for increased numbers of choices for human beings, increased social mobility, the increase in physical mobility. A good deal of increase through the media themselves - through photography, television, movies, microscopes and telescopes, if you like.* (…) *There was a feeling here of expansion, actually, of what people were capable of feeling, of what people were capable of doing. Doing also in larger lives - it expanded one's range rather than contracted it.*[6]

Parallel of Life and Art, because of being entirely organized out of photographic images was, in itself, an approach to the *impact of technology* - in this case that of the photographic device - on the way one may observe and establish formal and conceptual liaisons between unrelated phenomena; furthermore, the images were displayed in a *non-formal* way, juxtaposing a plethora of contents ranging from the natural world, to the *human image* of the body, through to the inclusion of technological and mechanical devices and parts. Such content, exibited through suspended photographic images resulting from the use of photo-enlargers, x-rays, wide angle lenses or microscopes extrapolated as a sort of technological conveyer for a simultaneous sense of *synthesis* and *expression* - the terms are futuristic[7] - by providing an environment inside which the observer could actively engulf into a subjective (*aesthetical)* experience. Such a technologically created environment may thus be seen as to acquire an instrumental quality, one that acted as a device aimed at producing an almost surreal sensorial awareness.

{P.L.A.3}

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[6] John McHale, *in conversation with Julian Cooper,* 19 November 1977. Recorded for *Fathers of Pop* but not used in the film, in David Robbins, Ed., op. cit., p. 29.

[7] (...) *That real architecrture is not , for all that, am arid combination of practicality and utility, but remains an art, that is , synthesis and expression., Messaggio,* in Reyner Banham, *Futurism and Modern Architecture, R.I.B.A. Journal,* January 1957, p. 130

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The term capsule (c. 1652, from the french *capsule*) derives from the latin *capsula* or *capsa*, which means a small box, a case or chest. As a noun, the term has found a fundamental use in medical, botanical or biology fields to describe such phenomena as *a membrane or saclike structure enclosing a part or organ (the capsule of the kidney)*. It stands, in any case, as a specific container or envelope that holds and protects. In 1964, the term appears to have been used for the first time in architecture by group Archigram, with its *Capsule Hom*e, designed by Warren Chalk. The *Capsule Home* would be described by Archigram as the result of the *pursuit of an idea, a new vernacular, something to stand aside the space capsules, computers and throwaway packages of an atomic/ electronic age*.[8] On these assumptions, Archigram may be said to be articulating Buckminster Fuller's ideas of an architecture conceived as a technological tool - thus enunciating it as something more than a mere *taylored* object.

{C.H.}

The use of the term capsule in architecture, thus acknowledged, coined a cultural feeling and incorporated a rather extravagant take on the condition of the discipline itself; for with the conception of such an *object*, architecture was actually not just trying to present new solutions in terms of design and building technology. It was also an attempt to challenge its own tradition, upon the ways in which such an object would defy the traditional understanding of the building as permanent and fixed onto a place, bringing a sense of 'eternal drift' instead.

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[8] Archigram Group, *Situation*, in *A Guide to Archigram, 1961-74*, Chinese Edition, Garden City Publishing Ltd., 2003, p. 88 (First Published in Great Britain in 1994 by Academy Editions)

In this way the postwar capsule, unlike the modernist *existenzminimum* cell, is not meant to provide a set of minimal *architectural and sanitary conditions necessary for autonomy*,[9] but a maximal and vital container set as an enunciation of a contemporary experience not based on any sort of social organizational plan but on the subjective experience of the individual among a

If the modernist dwelling unit, which would know several theoretical proposals and configurations of principle - from Karel Teige's minimum dwelling to Le Corbusier's *cellule d'habitation* - was thought as the basis for either a spatial reordering of society or the *generating of architecturally, urbanistically, and economically tenable ensembles*,[10] the postwar capsule would quickly assume a more autonomous status. It emerges with an intrinsic sense of detachment and concrete autonomy - instead of being a mere part of a system, a 'cell' of the 'urban organism' - towards whatever setting - natural or artificial - it would be thought or put upon. So if the modernist cell holds a generative principle, conceived as a primary unit to be assembled, and thereby, produce a larger ensemble - one that ultimately acquires a wholeness that will ultimatelys obscure its origin - the postwar capsule appears to work as origin and end in itself, thus seeking to condense in its atom-like shape the principles of an imaginary milieu/environment. In an utopian sense, the capsule's immune interior and well defined shell would also undertake and acknowledge the planet's *ultimate exterior, the*

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[9] Peter Sloterdijk, *Cell Block, Egospheres, Self-Container*, in *LOG, Observations on architecture and the contemporary city*, #10, Fall 2007, Cynthia Davidson Ed., Anyone Corporation, p. 92. Article excerpted from *Sphären III: Shaume (Spheres III: Foams), part of three - volume series.*

[10] Peter Sloterdijk, op. cit., p. 90

void of outer space.[11]

In his analysis of the modern living cell, Peter Sloterdijk's claims that, as with the biological cell, *it represents the atomic level in the field of habitat conditions: just as the living cell in the organism simultaneously embodies the biological atom and the generative principle (...) modern apartment construction develops from the habitat-atom - the one-room apartment with its single occupant as the cellular nucleus of his private world bubble.*[12] Interestingly, however, as Sloterdijk demonstrates, it was the architectural cell which first migrated to the realm of microbiology:

> *the modern reapproximation between architecture's concept of the cell and that of microbiology did not, by the way, take place without a certain historical legitimacy.* According to Sloterdijk, *when British physician Robert Hooke introduced, in his 1665 work Micrographia, the biological concept of the cell to describe the dense arrangement of discrete cavities in a piece of cork (discovered under his microscope), he was inspired by the analogy of rows of monks' cells in a monastery*, thus concluding that *with the push of modern architecture toward the idea of the reduced living unit as an ideal type, the concept of the cell returns to its starting point after its productive exile in microbiology - but this time, loaded with the surplus value of its analytical precision and constructive flexibility.*[13] {McG.3}

The reference to Robert Hooke unveils, furthermore, an

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[11] Paul Virilio, *The Accident In Time*, in *LOG, Observations on architecture and the contemporary city*, #7, Winter/Spring 2006, Cynthia Davidson Ed., Anyone Corporation, p. 119 - *The thing is, with globalization we are now experiencing the finiteness of the world, of a planet confronted by its ultimate exterior, the void of outer space.*

[12] Peter Sloterdijk, op. cit., p. 91

[13] Peter Sloterdijk, op. cit., p. 92

interesting approach on certain issues concerning scale and perception. The fact that Robert Hooke was also an architect represents no irrelevant matter, although what is of more interest is that along his microscopic investigations as a physicist he also was a scholar on astronomical issues. Among the sixty observations contained in *Micrographia*, in fact, two are astronomical observations, one concentrating upon the surface of the moon, the other telescoping a cluster of stars.[14] So if, as Allan Chapman suggests, the fact that *a flee could be depicted with the anatomical precision of a rhinoceros was quite shocking*, so the fact that the *seemingly simple observation of charcoal under the microscope, (…), could lead to a recognition of the presence of cells*, could result in a similar image to that of a *group of lunar craters made with a thirty-foot telescope*, thus leading to a kind of knowledge that juxtaposes - within a similar method of representation - both fragments of the previously invisible universe of the micro-scale and the no longer distant macro-universe. This becomes extremely relevant for our understanding of the postwar capsule, vis-à-vis the modernist living cell; as Vittoria Di Palma so well ascertains, in *Micrographia*, {McG.1} {McG.2}

> *the scale from point to universe has been exploded in both directions: we have been shown that the minuscule point is, in fact, a world to be further divided and unfurled - in its magnified state it resembles nothing so much as some sort of new, dark planet - while the gigantic moon or star is equally a world in its own right, and*

[14] Allan Chapman, *Robert Hooke's Researches*, *2 Microscopy* and *4 Astronomy and Gravitation*, in *England's Leonardo: Robert Hooke (1635-1703) and the art of experimentation in Restoration England*, Lecture from Proceedings of the Royal Institution of Great Britain, 67, 239-275, 1996. It was also given at Westminster School as the 1997 Sir Henry Tizard Memorial Lecture.

part of a larger constellation of equally complex heavy bodies.[15]

Although exhibiting an atomized shape, the postwar capsule, in fact, becomes - as the minuscule point - a world to be *further unfurled*; this means that, unlike the modernist cell, the capsule does not incorporate any sort of genetic code leading to a generative process of growth or association, but holds, in fact, a vitality which ascerts for its autonomy and inward expansiveness. In this sense, while the modernist living cell, as described by Le Corbusier, was implicitly an *architectural model of a system of inhabitation,*[16] - the most important terms in the sentence being *model* and *system* - the postwar capsule incorporates a detatched quality that, on the contrary, determines an autonomy in relation to any type of settlement understood as an *integrated whole*. In fact, I argue, the capsule, unlike the *elementary functional part* that was the modernist living cell, emerges from within an *as found* field made of parts and fragments which - as *Parallel of Life and Art* sought to bring to analysis - is best qualified as an articulate complex or environment. Both - the modernist cell and the postwar capsule - are, in fact, *built* upon distinct notions on the relation of part and whole, as well as based on different convictions about the intrinsic qualities of such a relation in terms of purpose and structural organization. {P.L.A.4}

In this sense, both the idea of the whole as *integrated* - thus, we might add, as an object apprehensibly finite in its internal interdependent organization and functional purpose - as well as that

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[15] Vittoria Di Palma, *Zoom*, in *The Intimate Metropolis, Urban Subjects in the Modern City*, Vittoria Di Palma, Diana Periton and Marina Lathouri, Eds., Routledge, 2009, p. 254

[16] Le Corbusier, *Almanach d'Architecture Moderne (Paris: Éditions C.Crès et Cie., 1925), p. 111,* quoted in Marina Lathouri, *Visions of Individuality and Collective Intimacies,* in Vittoria Di Palma, Diana Periton and Marina Lathouri, Eds., op. cit., p. 159

of the whole understod as an *articulate complex* - therefore, we might infer, as a field inhabited by relatively independent parts that, inversely, incorporate the sense or properties of the whole within themselves - appear, as we shall see, as reminiscent of eighteenth and nineteenth century anatomical and physiological discussions on the arrangement and role of the organs in a body,[17] particularly those initiated in the 1700's by the confrontation of the *autonomy of vital phenomena vis-à-vis mechanical phenomena.*[18] In general terms, the analysis of this debate relates to the 1950's avant-garde interest in an art-science analogy, particularly in the sense of reshaping man's own image within a technologically expanded dynamic field that obscured any programed sequence in scale or form reconaissance. This estranged field, as depicted in *Parallel of Life and Art*, incorporated a sort of *blow-up* effect that would then bring into play the purpose and properties of the fragment or part. Particularly incisive in suggesting a sense of structural relation between manmade and natural phenomena, *Parallel of Life and Art* thus acted as a set in which both the artificial and the organic part {P.L.A.6}

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[17] Indeed, the correspondence between building and body comes from far, ranging from a compositional anthropomorphic connection through the more functional or anatomical reference, to the genetic structural or original *source*. In some of these forms of relation between human body and architectural body, what is at stake is the desire of the latter towards the former for an equivalence of status in terms of autonomy. In this sense, in his discussion of scientific, and particularly of physiological metaphors used in architectural discourse, Adrian Forty highlights that for such architecture thinkers as César Daily, Viollet-Le Duc and Paul Frankl, the physiological metaphor is attractive not only as a means of understanding architecture but fundamentally as a background conception of the building as a *sealed system, without orifices and self-sufficient - in other words, a body, but a body perceived in the most clinical and unmetaphysical terms.* See, Adrian Forty, *'Spatial Mechanics' - Scientific Metaphors* in *Words and Buildings - A Vocabulary of Modern Architecture*, Thames and Hudson, 2000, pp. 86-101

[18] Sergio Moravia, *From Homme Machine to Homme Sensible: Changing Eighteenth Century Models of Man's Image*, in Journal of the History of Ideas, Vol. 39, No. 1, Jan.-Mar. 1978, pp. 45-60

appeared held through *harmonious reciprocal relations*.[19]

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The interest in man-machine interaction was, in fact, a recurrent theme among the *Independent Group*; more radical takes were taken by both Paolozzi and McHale who executed various works in which the classic image of man appeared compromised - i.e. enhanced - by the hybridization of his organism and overall image with mechanical or electronic parts. On such collages, man's natural image would litterally disappear, being replaced by anthropomorphic figures made from the juxtaposition of organic matter such as bread - one of the collages by Mchale is actually called *Breadhead* - and mechanical artefacts such as photographic lenses, pipes, automobile parts, etc. Within the making of these collages was of course a symbolic interpretation on how man would reconfigure through the tecnological tool or environement. McHale, as we have seen, was very specifically interested on the role of the technological artefact as both an enhancer and modifier of man's capabilities and shape. In *First Contact*, for instance, a kind of sci-fi collage from 1958, one has doubts if the title of the work is referring to a contact with aliens or to a future cyborgian image of humans; cuncurrently, Paolozzi's *Will man outgrow the earth?,* from 1952 - a collage based on a cover of *Time Magazine* - shows a sort of satellite-robot as a *Space Pioneer* within an outer cosmic environment, thus suggesting that man may indeed reach other planets but only through its mechanical and technological representation. A couple years earlier, Paolozzi's 1950's collage *Take Off,* already established a sort of symbiotic statement between man and machine by juxtaposing the jump of an ice

{J.Mc..3}

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[19] Sebastian Normandin, *Claude Bernard and An Introduction to the Study of Experimental Vitalism: 'Physical Vitalism, Dialectic, and Epistemology,* in *Journal of the History of Medicine and Allied Sciences,* vol. 62, n. 4, p. 516

ballerina with her arms opened as wings with the immediate moments preceding a fighter jet's take off.

The understanding of the technological artifact collapsing both an instrumental function with an ability to create a closed and sustainable environment that would allow man to go physically further would become the subject of an exhibition organized by Richard Hamilton in 1955, entitled *Man, Machine and Motion*.

Specifically since the reading of Siegfried Giedion's *Mechanization Takes Command,* first published in 1948, Hamilton would become quite interested in the technological artifact as a means and as an object in itself;[20] With the proposed exhibit, Hamilton wished to illustrate *the mechanical conquest of time and distance [through] the structures which man has created to extend his powers of locomotion, and to explore regions of Nature previously denied to him.* [21] This meant that, for Hamilton, the technological artifact was understood as an extension for man to create - through the ability of moving further and within naturally hostile environments - a wider comprehension on his own conditions of existence. Initially, the exhibit proposal held the title *Human Motion*

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[20] Hamilton's *Reaper* etchings, from 1949 - which, apparently, were directly influenced by Giedion's book, particularly its Part IV, *Mechanization Encounters the Organic-Mechanization and the Soil: Agriculture* - already established the imagery of mechanical artifacts as a field of interest; in *Reaper,* Hamilton broke down the agricultural machine's components into a mix of abstract, simplified forms, through which the mechanism and logic of the artifact becomes manipulated into a set of variations. Fom 1953 onwards, Hamilton would collect material on the topic, and continued to produce works in which not only the artifact as object became under scrutiny, but also its effects. Hamilton's *Transition* series, from 1954, were inspired from the artist's commuting experience from London to Newcastle, depicting one's viewpoint from a moving train. The objective of these works was not to exhibit the mechanical object in question - the train - but its effect on the spectator's sense of motion and, consequently, on his perception of space while in motion.

[21] *Press release for Man, Machine and Motion, 23 June 1955, ICA archives,* in David Robbins, Ed., op. cit., p. 133

in Relation to Adaptive Appliances, but when it finally opened, in May 1955 at the Hatton Gallery - it was shown at the ICA two months later - the title was changed to a more subtle *Man, Machine and Motion.* The exhibition was composed by *223 photographs or photographic copies of drawings,* offering, as was written on the invitation card, *a visual survey of man's relationship with the machinery of movement.* Four images illustrated the card. On the front end of the card, the images of a man {M.M.M.1} on a special race bicycle and what could be a man inside some sort of mechanical armature or suit that resembled the figure of a robot but most likely was a primitive attempt at picturing some sort of diving suit, had printed on them, respectively, the words *Man* and *Machine*; on the reversed side, another two images showing a pilot flying a jet and two men in spacesuits in what seems to be a wild extra-terrestrial {M.M.M.2} environment - behind them a glance of what could be a spaceship. Over the image of the astronauts, the last two words concluding the exhibit's titled, *and Motion* were printed. The exhibit itself was arranged by Hamilton in four areas: aerial, aquatic, interplanetary and terrestrial and the basis of selection of the material to be exhibited was that *each image should show a motion-machine, or similar piece of equipment, and a recognizable man.*[22] Accompanying this environmental and territorial organization, the panels holding the photographs relative to each section were symbolically placed - as described by Graham Witham, *space-travel images were suspended from the ceiling, aircraft displayed four feet off the floor, underwater imagery set on the floor, and so on*[23]. *Man, Machine* {M.M.M.3} *and Motion* depicted artificially created devices as *adaptative appliances* that allowed for man to expand his physical range. Nonetheless, it also depicted the sort of territories where such appliances are

[22] Reyner Banham, *Man, Machine and Motion,* in *Architectural Review 118 (July 1955), pp. 51-52,* quoted in David Robbins Ed., op. cit., p. 133

[23] Graham Witham, *Exhibitions,* in David Robbins, Ed., op. cit., p. 133

made relevant, thus establishing a direct connection between the device's character and the kind of environment it is fit to explore. Particularly in those technologies that allow man to endure up in the air, underwater or in outer space - either configuring as a suit or a ship - we acknowledge the design of defensive and protective properties articulated with the capacity of exponentially contribute to man's own biological abilities. As with *Parallel of Life and Art*, photographic images were the preferred medium for the show - according to Banham, such a preference was due to photography being *more or less coeval with mechanized transport* and belonging *to the same technological environment.* Nevertheless, Banham further explained, *the preference for photography, and the insistence on the recognizable and visible presence of man, sets limits on the material shown.* Banham then recognizes the existence of few images from the pre-photographic era, and, most interestingly, the fact that *Present-day tendencies toward saloon bodies and pressure cabins have tended to make travelers and explorers invisible to the photographer…*[24]. The 1950's car - as well as aircrafts, submarines or spaceships - is thus understood by Banham - through his reference to the saloon bodies - as a motion-machine that hides the presence of man, one that - as Kristin Ross so well explains - will later be valued for *its protected interior space, its quasi-domestic (but also anti-domestic) function: a home away from home, a place for solitude and intimacy*[25].

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During the mid 50's the car would, in fact, represent a major interest for both Banham - through which his critique of the early

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[24] *…and for this reason the coverage tends to narrow toward the fifties, leaving the show broadest, thickest and richer in the period 1890-1920.,* Reyner Banham, op. cit., p. 133

[25] Kristin Ross, *La Belle Américaine*, in *Fast Cars, Clean Bodies, - Decolonization and the Reordering of French Culture,* The MIT Press, 1996, p. 55

avant-garde *machine-aesthetic* would begin to be highlighted - and the Smithsons - through which they developed a particular interest on the issues of mobility, the expandable and what it meant to deal with standardization in architectural design[26]. On March 4 1955 - only two months before the opening of *Man, Machine and Motion* at the Hatton Gallery - Banham had presented a lecture, within the *Independent Group* meetings, entitled *Borax, or the Thousand Horse-Power Mink*. Not coincidently, on the day after the official opening of *Man, Machine and Motion* at the ICA on July 5 of the same year, Banham would present another lecture - although based on the March 4 talk - to an open audience, entitled *Metal in Motion - the Iconography of the automobile*. On July 21, a discussion on *Man, Machine and Motion* took place, including as speakers both Banham and Peter Smithson.

For Banham, automobiles represented *the ever-present symbolic objects that typify the present epoch of technological culture,* (…) *the irritant that causes constant revision of a number of cherished concepts*[27] In his April 1955 article, *Machine Aesthetics,* Banham re-addresses the issue of the automobile within architectural discourse by acknowledging its relevance in a quite different angle than that taken by Le Corbusier in his 1923 book, *Vers Une Architecture*; if, as Banham acknowledges,

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[26] Although the automobile per se, will not aquire any sort of evident relevancy throughout the work, it constitutes a contextual way of introducing the issues surrounding the impact of technology in design which so occupied Reiner Banham, and consequently the 1950-60 decade. Roland Barthes, writing on the *nouvelle Citroen* in 1956, would call it a *superlative object* that *falls directly from the sky*, as a spaceship. see, Roland Barthes, La *Nouvelle Citroen*, in *Mythologies*, Éditions du Seuil, 1957, pp. 140-142. Also, on the matter of the relation of the car with architecture, particularly with the Smithsons *House of the Future*, see Francisco Ferreira, '*Vehicles of Desire' - casas como carros (houses like cars),* in *JA 230* pp. 28-31

[27] Reyner Banham, *Stocktaking,* in *The Architectural Review,* February 1960, reprinted in Penny Sparke, Ed., *Reyner Banham - Design By Choice,* Academy Editions 1981, p.52

Le Corbusier verbally highlights the virtues of standardization, the fact that he immediately establishes a visual comparison between the automobile and the Parthenon configures a *certain aesthetic parti-pris,* in the sense that - Banham concludes - Le Corbusier ends up praising the classic aesthetic achievements of the industrialized *product*[28]. Because the automobile remains an *artefact in evolution*, Banham states five months later, an evolution that is not only defined by technical achievements but also - and most importantly for a question of being able to seduce the free market consumer - such a quest for a *classical* normative into its design becomes utterly maladjusted[29] Comparatively, Banham writes in a quasi-futuristic tone, the *top body stylists (…) aim to give their creations qualities of apparent speed, power, brutalism, luxury, snob-appeal, exoticism and plain common-or-garden sex*[30]. Banham considers that, while architects - throughout the text he refers to Le Corbusier and Walter Gropius and subtly includes them in the following categorization - are traditionally *far from being 'uomini universali',* appearing as *narrowly committed to the design of big permanent single structures,* the automobile *stylist carries the sense and the dynamism of that extraordinary continuum of emotional engineering-by-public-consent which enables the automobile industry to create vehicles of palpably fulfilled desire. Can architecture or any other Twentieth Century art claim to have done as much? and if not, have they any real right to carp*[31]*?*

Thus for Banham, a true mechanical and technological sensibility

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[28] Reyner Banham, *Machine Aesthetic,* in *The Architectural Review,* April 1955, reprinted in Penny Sparke, Ed., *Reyner Banham - Design By Choice,* Academy Editions 1981, pp.44-47

[29] Reyner Banham,, *Vehicles of Desire, The Architectural Review 118, (December 1955), pp. 354-361,* reprinted in Mary Banham,Paul Barker, Sutherland Lyall and Cedric Price Eds., *A Critic Writes, Essays by Reyner Banham,* University of California Press, 1996, pp.3-6

[30] Ibid., p. 6

[31] Ibid., p.5

for the first machine age was to be found in the Futurists, not in what the historian dubbed as the *selective* and *classicizing* approach of the Bauhaus and the *L'Esprit Nouveau* circles.[32]

On January 8, 1957, Banham lectured at the R.I.B.A. on *Futurism and Modern Architecture.* In it, the historian established a sort of a genealogy of the writing of the *Futurist Manifesto* and its consequences and differences over the following *modern* ideals and aesthetics. While Banham's description of the intricacies of the writing and textual manipulations from several intervenients is nothing less than attractive, the main issue remains that for Banham it is Futurism that which, at the beginning of the century claimed for what he meanwhile called *Une Architecture Autre,* an architecture that should stand away from the representation and monumentality of its own disciplinary condition in order to become a subjective sensorial and environmental experience guided by technology. In fact, according to Banham, Marinetti's discovery was that *machines could be a source of personal fulfillment and gratification, that telephones and typewriters, soda-siphons and cinemas, aeroplanes and automobiles had enormously extended the range of human experience at the personal, not the social level. Machines work for men, a man commands his own machines, he drives his own car, no longer has to share a train with a thousand other men*[33]. In this sense, *Sant'Ellia's Messaggio* stated the human condition as *materially and spiritually artificial* .[34] The fact that man is here considered *materially and spiritually artificial*, announces, in *Futuristic* terms, the hybrid condition of the body with which McHale and Paolozzi were working upon. In fact, McHale's 1950's *feeling of expansion* through technology shared its intrinsic declaration of commitment of body

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[32] Reyner Banham, *Machine Aesthetic,* in op. cit. p.44

[33] Reyner Banham, *Futurism and Modern Architecture,* op. cit., p. 132

[34] Ibid., p. 130

and mechanism[35] with Marinetti's *man multiplied by the motor*[36]. In this sense, *Futurism admitted an incalculable number of human transformations*[37], in such a way that within it's doctrine, *man does not relate himself with the machine as a mere operator nor is he exterior to it, but becomes 'intimate with the motor', and should deal with all the consequences of such an intimacy*[38]. For Banham, architecture should be envisaged as such a consequence; architecture was indeed seen by Reyner Banham with similar qualities as a motor or a mechanism, and so it should strip down its academic and compositional aesthetics and concentrate on its quality of being *the integration of a complex of intrapersonal relationships and main services*[39]. In this sense, architecture was imagined by Banham as a device, one that provides *fit environments to human activities,* a statement that may be seen as an echo of the Smithsons' *Brutalist* definition of a building being a *combination of shelter and environment*. Furthermore, such a *device* appears to be characterized according to a sense of expectancy for its *entered user*, *without whom* - Banham writes in his poem *Marriage Of Two Minds - the most complex structure is no environment*[40]. As within the images of *Man, Machine and Motion*, the presence and activity of man within the architectural device remains that which legitimates it as environment, while at the same time, such an environment should act as a stimulus

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[35] see Mark Wigley, *Man-Plus* in *Fisura*s de la cultura contemporanea, No. 8, January 2000, pp. 17-44

[36] quoted in Reyner Banham, *Primitives of a mechanized Art, The Listene*r 62, 3 December 1959, pp. 974-976, reprinted in Mary Banham,Paul Barker, Sutherland Lyall and Cedric Price Eds, op. cit., p. 44

[37] Filippo Tommaso Marinetti, *Manifiestos y textos futuristas,* Cotal, Barcelona, 1978, p. 125, quoted in José Díaz Cuyás, *Motores y Metamorfosis,* in *Cuerpos a Motor,* Centro Galego de Arte Contemporánea, 1997, p. 36

[38] Ibid.

[39] Reyner Banham, *Stocktaking,* op. cit., p. 51

[40] Reyner Banham, *Marriage Of Two Minds,* first published in the *This is Tomorrow Exhibition* Catalogue in 1956*,* reprinted in David Robbins, op. cit., p. 10

for the user's own sensorial experiences as well as to his own conditions of existence.

Banham himself would eventually make an attempt at such an architectural *image* in 1965 - a time when the term capsule was already integrated within architectural discourse through *Archigram* - with his proposal for a combined *Environmental Bubble* and a Buckminster Fuller inspired *Standard of Living Package*, described - and drawn by François Dallegret - in his seminal essay *A Home is not a House.*[41] *This un-house,* as Banham calls it, provides a single space configured by a *sheltering power membrane* nourished by a transportable *standard of living package,* that would breathe out *warm air along the ground (instead of sucking in cold along the ground like a camp-fire), radiating soft light and Dionne Warwick in heart-warming stereo, with well aged protein turning in an infra-red glow in the rotisserie, and the ice-maker discreetly coughing cubes into glasses on the swing-out bar*[42]. Depicted on the section schematics of the unhouse, both Banham and Dallegret are shown multiplied and naked, while exhibiting an appropriate *nonchalante* posture that somehow confirmed Marinetti's *discovery* on the fact that machines - and for all its worth Banham is depicting architecture as an environmental machine - *could be a source of personal fulfillment and gratification, that telephones and typewriters, soda-siphons and cinemas, aeroplanes and automobiles had enormously extended the range of human experience at the personal, not the social level.*[43] The nakedness of the dwellers, on the other hand may be seen to echo the *stripped down* structure; in fact, Banham's essay begins with the statement that, *when your house contains such a complex of piping, flues, ducts,wires, lights, inlets, outlets,*

{R.B.}

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[41] Reyner Banham, *A Home is not a House,* in *Art in America,* April 1965, re-printed in Penny Sparke, Ed., *Reyner Banham - Design By Choice,* pp.57-60

[42] Ibid, p. 58

[43] Reyner Banham, *Futurism and Modern Architecture, R.I.B.A. Journal,* January 1957, p. 132

ovens, skins, refuse disposers, hi-fi reverberators, antennae, conduits, freezers, heaters - when it contains so many services that the hardware could stand up by itself without any assistance from the house, why have a house to hold it up[44]*?*

With this proposal, Banham got to its more radical statement concerning his search for *Une Architecture Autre* an expression first used in the celebrated *The New Brutalism* essay, written in 1955*,* as a way to characterize the emergence of an architecture keen on *obtrusive logic*. In the context of his analysis of the Smithsons' mid 50's projects, Banham would praise their ability to create *coherent visual images* through apparent *non-formal means* - as in the Golden Lane competition -, combined with a clear and exposed structure complemented by a raw disclosure of materials - as in the case of Hunstanton University, or through what he called *an intuitive sense of topology* - in this case making a reference to the Sheffield Design competition.[45] For Banham, these designs had the ability of counteracting a machine aesthetic with a mechanistic procedure of exhibiting construction joints and infrastructure as valuable elements of design. In *The New Brutalism* essay, Banham's quote of Peter Smithson's statement in 1953 when presenting the *Parallel of Life and Art* exhibition to an AA student debate that *we are not going to talk about proportion and symmetry,* favors his interest on considering the *architectural invention* from without the *inherent academicism* of both *Routine-Palladians* and *Routine-Functionalists* alike.[46] Although the Smithson's buildings under analysis actually *looked* like buildings, what effectively attracted Banham in their design and purposes was the fact that the architects were *as honest about materials as one might hope an engineer would be,*

{G.L.}

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[44] Ibid, p. 56

[45] Reyner Banham, *The New Brutalism, The Architectural Review 118, (December 1955), pp. 354-361,* reprinted in Mary Banham,Paul Barker, Sutherland Lyall and Cedric Price Eds., *op. cit.*, p. 14

[46] Ibid.

and they have been sufficiently courageous in their mechanistic convictions to build in brick, and to let the brick appear[47]. These *mechanistic convictions,* meant for Banham a sort of inversion in the process of considering the building as a manifestation of technology - be it in the way a brick constructs a wall or how the plumbing intervenes in the construction and perception of the building's *image. Parallel of Life and Art* - for Banham the *locus classicus* of such an aesthetics - established, in fact, a similar mechanistic context in the way through which each image - as a brick or a piece of plumbing - became an autonomous part of an environment that, nonetheless, appeared as an overall apprehensible totality. This sense of wholeness should thus unfold through each observer's subjective experience, thus establishing an organic connection between the individual and his surrounding. {H.U.}

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Upon the previous context(s), the work will try to demonstrate that it is from a dismantling action of the systemic and positivistic order of a certain orthodoxy that the postwar capsule appears as a paradoxical *apparatus* that collapses the fundamental needs for shelter and protectiveness with an instrumental condition for both the

[47] Reyner Banham, *Machine Aesthetes, New Statesman 55*, 16 August 1958, pp.192-193, reprinted in Mary Banham,Paul Barker, Sutherland Lyall and Cedric Price Eds, op. cit., p. 28

emancipation and quest of the subjective experience.[48] In this resides the question of the subjective overlapping the doctrine of the *positive* - which resonates with the theoretical image of the *singularity* of the dot emancipating from the structure of the grid - thus configuring that which Agamben calls a process of subjectification; in this sense, the 1950's call for a *shift to the specific,* stipulates an attention towards the individual experience as an alternative way of reconfiguring the organizational field of human and spatial relations. As creators and users of the architectural apparatus, individuals - or *substances* in

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[48] I use the term *apparatus* following Giorgio Agamben's reflection on its use by Michel Foucault. Interested in uncovering that which triggered Foucault's use of the term *Apparatus (dispositif)*, Agamben traces the term's genealogy back to the author's use of the term *positivité* - a term Agamben further traces back to Foucault's teacher Hypollite's book *Introduction à la philosophie de l'histoire de Hegel,* more precisely to its third part entitled *Raison et Histoire: Les idées de positivité et de destin* (*Reason and History: The Ideas of Positivity and Destiny).* Acknowledging Hippolite's interpretation, Agamben writes that *the term 'positivity' finds in Hegel its proper place in the opposition between 'natural religion' and 'positive religion'. While natural religion is concerned with the immediate and general relation of human reason with the divine, positive or historical religion encompasses the set of beliefs, rules, and rites that in a certain society and at a certain historical moment are externally imposed on individuals.* In this sense, Agamben withdraws from the Foucauldian (subsequent) use of the term *apparatus*, the meaning for a *set of practices and mechanisms (both linguistic and non-linguistic, juridical, technical and military) that aim to face an urgent need and to obtain an effect that is more or less immediate.* Such an effect, Agamben later determines, proliferates within the capacity of any apparatus *to capture, orient, determine, intercept, model, control, or secure the gestures, behaviors, opinions, or discourses of living beings.* Expanding on the Foucauldian *large class of apparatuses,* an apparatus becomes for Agamben *not only, therefore, prisons, madhouses, the panopticon, schools, confession, factories, disciplines, juridical measures and so forth (whose connection with power is in a certain sense evident), but also the pen, writing, literature, philosophy, agriculture, cigarettes, navigation, computers, cellular telephones and - why not - language itself, which is perhaps the most ancient of apparatuses - one in which thousands and thousands of years ago a primate inadvertently let himself be captured, probably without realizing the consequences that he was about to face.* Thus for Agamben, the apparatus becomes *that in which, and through which, one realizes a pure activity of governance,* i. e., in which and through which one becomes subjectified. In fact for Agamben, the subject results from the confrontation - he calls it both a *relation* and a *relentless fight* - between living beings and apparatuses. in Giorgio Agamben, *What is an Apparatus? and Other Essays*, Stanford University Press, 2009, pp. 1-24

Agamben's words - establish with it a relation which we may then understand as a process of rediscovery and emergence of one's own sensorial boundaries and organic relations. In Agamben's words, in fact, *apparatuses are not a mere coincidence in which humans are caught by chance, but rather are rooted in the very process of 'humanization' that made 'humans' out of the animals we classify as Homo Sapiens.* In this process of humanization, something which Agamben denominates as the *Open* is produced in the living being; the *Open, which is the possibility of knowing being as such, by constructing a world,* thus constitutes a sort of state of expectancy that the human attempts to enjoy, *to enjoy being insofar as it is being.* Thus, the capsule, I argue, may be seen as a device that stands as a means of enunciation for the construction of *a world* as subjective experience and action. It in this sense that the it may be seen to configure as both tool and environement, subjective machine and *Open* condition.

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The following sections of the text are intended to act - as a whole - as juxtaposed views that may produce a sort of kaleidoscopic image of the capsule, alternatively depicted as *figure* or *ground.* This means that the capsule - as object of investigation - becomes, in itself, a methodological tool, and therefore a means to understand the conditions of its own emergence.

Each section is, furthermore, intended to hold a precise argument and autonomy while allowing for an array of implicit links between one another. As both contained and breached discourses, each text within each section immerges and re-surfaces throughout a circular movement that starts and ends with a same statement.

Thus in *Mechanism*, while architecture is reviewed as a sort of *instrumental-thing,* the capsule appears as the catalyst of a collapse

between the notions of organic and technological, as means to understand the broader relations between the notions of part, fragment and whole; in *Environment*, the delimitation of architectural space is addressed as configuring a kind of stage where sensorial simultaneity becomes that which defines the capsule's (im)precise boundaries and juxtaposing scales; in *Territory*, the capsule's radical act of enclosed protectiveness is analyzed as a twofold and paradoxical action through which the inside accumulates as also a place of exteriority; finally, in *Epilogue* I attempt to extrapolate the arguments contained within each of the previous sections as a way to circumscribe the paradox involved in the existential significance of the capsule, thus arriving to the idea of it acting as an emulator of existential beginnings and that of staging an endless process of subjective capture.

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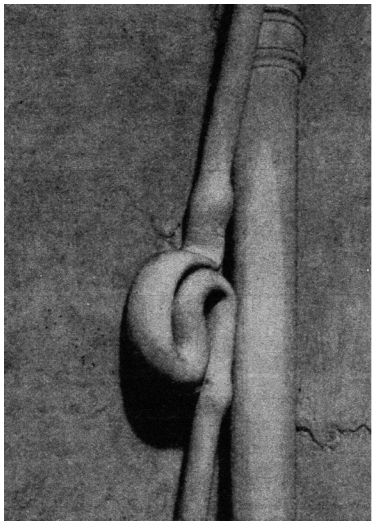
The Capsule and Postwar Architectural Avant-Garde, *circa* 1956



MECHANISM

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No, the house is not a machine for living in, but an organ for living through.,
D. E. Harding[1]

The relation of the machine with architecture is closely connected with the connections of the former with man itself; not only has the machine been created, primarily, as a sophisticated tool in order to enhance man's abilitties, but at some point, its principles of regulation and precision of action came to influence not only the way as the architectural body was to be organized and made efficient toward its more broader social role but it also influenced the conception and the methodology of the understanding of man's own functioning, and consequently, his position towards the surrounding environment. In the same way as the microbiological cell came to inform on the generative principal of the architectural living unit that subsequently incorporated within mechanistic aesthetics and hierarchical procedures towards the composition of the architectural and urban settlement as

[1] *Embodiments,* in *Architectural Review,* 117, February 1955, p.96

an integrated whole, the debates between the arrangement of organs in the human body that pervailed between the eighteenth and nineteenth centuries become quite relevant as a way to attain the fundamentals of the postwar capsule's wish for autonomy and independence within an heterogeneous natural and artificial field understood as an articulated whole. In this sense, throughout the following section, the medical and artistic hybrid *images* of man - from a mechanistic to a vitalistic conception of man's organism that concludes in Claude Bernard's conception of the organ as *living unit*, from Raoul Haussmann's cyborgs to Eduardo Paolozzi's collages - intersect architecture's recurrence to both organic relations and mechanical principles, insofar as both qualities appear as merged within an operative device of hybrid qualities. This hybridization comes to incorporate Marcel Mauss' notion of *techniques of the body,* in which an instrumental quality becomes intimately linked with a decomposition of abilities and actions. In this sense, Fritz Khan's images of anthropomorphic buildings - or, inversely, of man's organism viewed as a complex spatial and infrastructural device that tautologically includes his own presence as operator - establish a concrete representation of a fusion between the biological and the technological that configures architecture as a device that reads the body as an articulated apparatus of independent and vital organic connections. Such a device, here epytomized in the architectural capsule, I argue, becomes a vital container incorporated as a biological tool imagined to exponentiate such an organic experience.

The term mechanism, which derives from the greek *mekhane*, is also found embedded on the origin of the word machine, actually meaning a *device* or a *means,* two words through which the term mechanism may also be understood as a functional/structural

procedure of any *instrumental-thing*. To understand the architectural capsule as an *apparatus* thus means to envisage it as a device which extrapolates a procedural behavior through which the body of man becomes aware of its own mediated existence.

What this means, Anthony Vidler argues, is that the classical tradition of *the body as a priori a foundation for the recognition and apprehension of all the other objects suffers a defeat.*[2] In this statement we recognize a conception of man not as a point of reference and an image of unity that underlines all of its cultural creations but an awareness of its incomplete and expectant self-estate, within which *our original relation to the world* becomes *the foundation of the revelation of the body.*[3] In this way, the existence of man is only possible through an epistemological accumulation of its instruments through which man itself becomes, more and more, an instrumental-being. Through Sartre's existentialism Vidler acknowledges architecture not as based upon the humanist idealized body, but rather as a means for the body to reveal itself within the world. *Sartre's body,* Vidler further notices, *participates in a world within which it has to be immersed and to which it has to be subjected even before it can recognize itself as a body. It knows itself precisely because it is defined in relation to instrumental complexes* (…). This means that man's relation with the *instrumental-thing* - among which we find the architectural *tool* - is of a visceral quality, thus relying not on its exterior image and idealized proportions, but on a continuous redefinition of its structural and functional interdependence. Thence, man´s body becomes that through which he relates to the world, be it a cane, a telescope, a chair

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[2] Anthony Vidler, *Architecture Dismembered,* in, *The Architectural Uncanny, Essays in the Modern Unhomely,* The MIT Press, 1992, fifth printing 1999, p. 81

[3] Jean-Paul Sartre, *Being and Nothingness*, The Philosophical Library, New York, 1956, quoted in Anthony Vidler, op. cit., ibid.

or a house.[4] This implies that the presence of the body, although loosing its referential quality, extends almost infinitely, *fragmented* into contingent manifestations. *My body is everywhere,* thus writes Sartre: *the bomb that destroys my house also damages my body insofar as the house was already an indication of my body.*[5] From this point of view, the ontology of man builds up, as D. E. Harding would attest, *through the creation of its indispensable extensions and outgrowths;* in this sense, man *does not live in the house; it lives in him.*[6] For Harding, man is *little more than a lodger or a caretaker till he feels co-extensive with the structure, and its cube is his, and he is sensitive to its slightest injury, and hurt when it is hurt, and praised when it is praised.*[7] Thus the house as an instrumental-thing becomes an organic part of man whilst man's anatomy looses its finiteness. Hence Samuel Buttler rhetorical question: {D.E.H.}

> *If those who so frequently declare that man is a finite creature would point out his boundaries, it might lead to a better understanding.*[8]

Postwar culture was born from within this aura of dismemberment, something to which the detonation of both the

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[4] *This is why my body always extends across the tool which it utilizes; it is at the end of the cane on which I lean against the earth; it is at the end of the telescope which shows me the stars; it is on the chair, in the whole house; for it is my adaptation to these tools.* Jean-Paul Sartre, op. cit., quoted in Anthony Vidler, ibid.

[5] Jean-Paul Sartre, ibid.

[6] D. E. Harding, *Embodiments*, in *The Architectural Review,* Vol. 117, No. 698, February 1955, p. 97. This article is based on part of D. E. Harding's book *The Hierarchy of Heaven and Earth: A New Diagram of Man in the Universe,* Harper & Brothers 1952/1953 (?)

[7] D. E. Harding, ibid.

[8] Samuel Buttler, *Life and Habit,* p.104, quoted in D. E. Hardind, op. cit., p. 95.

Hiroshima and Nagasaki atomic bombs have obviously contributed. In this sense postwar culture equally acknowledged the idea of collage and juxtaposition as a means to re-engage with the fragment as a vital part, that, nonetheless, could articulate into a sense of wholeness.

In April 1952, - in what William Turnbull would later qualify as probably *the first Independent Group meeting* - Eduardo Paolozzi would present the now famous *Epidiascope 'lecture'*, in which he *fed a series of images taken from American advertising*[9]. According to Nigel Henderson, *the visual wasn't introduced and argued (in a linear way) but shovelled, shrivelling in this white hot maw of the epidiascope,*[10] a statement that echoes Paolozzi's assumptions that *all human experience is just one big collage; reality is many-sided, interpretation is active, and all cultures are 'read' as simultaneous, through use-worn objects and images and juxtaposition produces surprising tensions between wonder and famniliarity. Things are transformed into presences.*[11] This means that Alberti's paradigm of beauty, following Vitruvius *canons of bodily mathematics,* i.e., that the optimal relation of part to whole brought within it an ideal balance or equilibrium that any ulterior subtraction or addition would destroy - something that, according to Vidler, Le Corbusier tryed to reinstate [12] - becomes inverted for it is precisely in the process of recognizing the condition of man as one of one of permanent dis-aggregation and recomposition - a condition that influences both the anatomical perception of man as both the social and anthropological body - that the *new avant-garde* will endure in the process of creating an active - or rather responsive - interpretation

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[9] Anne Massey, *The Independent Group: Towards a Redefinition, The Burlington Magazine,* Vol. 129, No. 1009 (April 1987), p. 237

[10] David Robbins, Ed., op. cit. p. 21

[11] Eduardo Paolozzi, quoted in David Robbins Ed., op. cit., p. 94

[12] *Le Corbusier, as we know, even tried to reinstate it in a newer and more fundamental way, balanced between sensation and proportion; the 'promenade architecturale', the modulor, and the very plan of the Ville Radieuse unabashedly re-create Vitruvian man for the twentieth century.*

of the world. This interpretation, nevertheless, emmerged with a significant influence from *Dada* and *Surrealist* artistic manifestations, where the clash between man and machine depicted through the technique of photomontage will definitely transgress the remains of classical anthropomorphism. Raoul Haussmann's images, for instance, which aggregate a mixed feeling of critical satire and subliminal fascination toward the mechanized reconstruction of the war destroyed body, not only enunciate a new kind of *unity* to be accomplished through the theoretical acknowledgment of the fragment in spite of the functional quality of the part but also a new kind of relation between organic and mechanic in which the biological becomes enhanced by the mechanical. The words of Raoul Haussmann actually resonate within this assumption:

{R.H.2}

{R.H.3}

> *We want to be transformed…through mechanical consciousness, by the bold inventions of the forward pushing engineer. (…) The naïve anthropomor phism has come to its definitive end.*[13]

Among the array of photographs presented at the *Parallel of Life and Art* exhibition in 1953, there was one of a *Dismembered Typewriter*; through the act of disassembling the device, the picture presents us with the image and parts of a mechanism. Curious enough is the fact that it is included in the Anatomy section, along images such as *Two Human Anatomies, 1298 & 1399*, *Two radio valves*, a *Dissection of a frog* or *Sections of an insect*. What is common between these examples is the fact that each image focuses on the inside parts of animal and machine

{P.L.A.2}

{P.L.A.4}

{P.L.A.6}

[13] Raoul Haussmann, PRÉsentismus, in Michael Erlhoff (ed.), *Sieg Triumph Tabak mit Bohnen, Texte bis 1933, Bd.2,* Munich 1982, p. 24-26

alike, thus exploring its intricacies and functionalities, at the same time exposing a contrast - which, I believe, also aims at demonstrating a parallel - between organic and mechanic structure and image. In the *Dismembered Typewriter* image we are confronted with not only a focus on its integrating parts, but, above all, with the representation of the system/mechanism through which the typewriter, as a technological device, is able to achieve the performance of its task. In this image it is not form what is into question, but rather an exposure of *the operation of system over form*. In this way, *form becomes both denatured and opened up to a number of potential meanings*.[14]

Dismembered Typewriter makes account of objects as mechanisms that are both part of a system and a system in themselves, not as forms which mean to symbolize such a system. It is the object's (infra) structure that which becomes an image, thus circumscribing both a sense of overall connectivity and specific functional purpose. In this context, the image of the assembled object holds less relevancy, for its aim is to depict the machine's vital internal process of technical procedures and unique components, not its exterior design; it is a matter of anatomic decomposition and structural analysis, not a matter of formal composition symbolical endeavor. *Dismembered Typewriter* shows us an image of a complex mechanical *body* as ready to be re-assembled as it is open to a *number of potential meanings.* Thus the term mechanism, I argue, leads us towards a procedure of interaction between part and whole, organ and body, component and system, while the image of the machine remains a powerful metaphor on the accomplishment of an (aesthetic) effect.

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[14] Branden Hookway, *Cockpit* in *Cold War Hothouses - Inventing Postwar Culture, from Cockpit to Playboy*, Beatriz Colomina, Annmarie Brennan, Jeannie Kim, Editors, Princeton Architectural Press, 2004, p. 54

For the organizers of the exhibition, *Parallel of Life and Art* held in its core the will to mirror the disciplinary and cultural importance that the *Esprit Nouveau* pavilion represented back in 1925; it is in this context that we must recall Alison and Peter Smithson's previously quoted statement, considering the 1920's work of art or piece of architecture as a *finite composition of simple elements,* while stating the task of the 50's as one of retaining *the clarity and finiteness of the whole but to give the parts their own internal disciplines and complexities.*[15]

According to Marina Lathouri, the *design of the Esprit Nouveau Pavilion* - which consisted of *two perfect geometrical elements, a cube and a cylinder* - already an assemblage of parts - *aimed at constructing the object (the building, the city)… in terms of a process that would enable the object to produce a specific effect, namely that of modernity as a unifying order. The interior of the cube,* she adds, *was formed by combinations of different standardised containers framing both things and activities.* These *standardised elements operated with a certain autonomy while at the same time engaging with one another in a pattern of interrelated signs. This system of outlining and appropriating territory was presented not only as a space to be inhabited but also as an image.*[16] The standardised elements thus expand and interrelate into a pattern which, although not absorbing and dissolving its parts in favor of its own identity, should still arise as a coherent unit. This unitary image was, as an object, to be built upon a precisely planned or previewed arrangement of its parts - subjected to *a common measure and proportion* - that would strategically frame the whole within the particular.

One of the illustrations that accompanies Marina Lathouri's

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[15] Alison and Peter Smithson, in David Robbins Ed., op. cit..

[16] Marina Lathouri, op. cit., p.60. This *unifying orde*r would, according to Manfredo Tafuri, extends itself towards the *whole antropo-geographic landscape* which for Le Corbusier had become *the subject on which the reorganization of the cycle of building production must insist.,* Manfredo Tafuri, *ibid.,* p. 126

text is that of a set of standardized prefabricated elements entitled *Serrure* (Lock) taken from the *Almanach d'Architecture Moderne*. This set of elements, which is carefully organized and quantified, relates to a precisely defined object. In this image we immediately acknowledge the parts, one by one. And although each of the parts exhibits a kind of self-integrity, it is the supra-integrity of the final assembled object which is actually in display. So the displaying of the parts that ultimately build the lock, is, ultimately, the framing in one single image of the whole process for an industrialized building production, one that, following Marina Lathouri's argument, would take the cell as both *the prototype for the individual unit and a particle of the urban*, characterized *at once as self-defined entity and as a part of a process towards construction*.[17] For the Smithsons however, while concerned with retaining *the clarity and finiteness of the whole,* the latter was seen not as a reality to be methodologically and systematically built, but as an existing field of *disparate natures* and scales from which structural equivalences or principles ought to be withdrawn. {L.C.1}

Although of a mechanical *nature*, *Dismembered Typewriter* holds an organic feel to it, rather than just presenting a carefully organized system of parts subordinated to a pre-established conception of a whole. The image resulting from the mechanism dismantlement and its rearranged disposition thus suggest the transformation of the assembled object/machine into an interconnected flow of relations between its parts, which turns the machine into a set of discontinuous fragments that, nevertheless, stand as a conceptual image for a limitless set of connections. It's significance - and most definitely, its operativeness - is twofold, for it similarly incorporates the organic condition akin to any kind of totality and the openness of a {P.L.A.4}

[17] Marina Lathouri, op. cit., p.60-61

mechanized body turned into a multiplicity of self-regulating functions, in which each part assumes a simultaneous vitality from within the whole.

In the *Serrure* image we acknowledge the part as an element related to a process of planned assemblage; in this sense the *Serrure* image represents an object composed by a sequence of elements that correspond to a sequence of functions. *Disassembled Typewriter,* on the other hand, stands as a theoretical construct representing a field; it stands as the image of a structure where the part becomes a fragment, i.e., an element that incorporates a system of principles which underline the association of scales. {L.C.1}

Each fragment, then, becomes an *organ* or limb, as artificial as it may be, within which lies embedded the whole *body* it helps to structure.

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By cataloguing *Dismembered Typewriter* within the *Anatomy* section of the exhibition, the organizers of *Parallel of Life and Art* exposed an epistemological confrontation between body mechanic and body organic. Somehow, both body and the artificial artefact emerge as mechanism. In fact, the scientific analogies between the understanding of the natural organism and that of the artificial mechanism began with the analysis of the former under the regulating principles of the latter. According to Philip Steadman, it was the philosopher René Descartes who initiated an understanding of both animal and human physiology *within a wholly mechanical world view. Descartes*, writes Steadman, *opened the way for a theory of the working of the organs and bodily systems according to pure*

mechanical principles.[18] Within this theory we find an overall preference for a structural over a functional analysis of the organism.[19]

This structural approach, however, implies an understanding of the organism based on the *integration of its various functioning parts into a balanced and organized functional whole.*[20]

For the defenders of Iatromechanism, (or medical mechanism), the parts that may constitute the living being, the whole, hold a precise functionality towards the entity they serve working under the *laws of an exclusively physical and mechanical nature.*

In fact, accordind to iatromechanical phylosophy, writes Sergio Moravia, *life is movement and the living being - even the human being - is a machine.*[21] From this assertion, Moravia explains,

> *iatromechanism tends to reduce organic matter to pure 'res extensa', to postulate the identity of biological phenomena (in a broad sense) with physical and mechanical phenomena, and to explain life and the living organism as if their phenomenology and their laws would be 'a priori' of a determinate type.*[22]

The iatromechanical vision thus projects a structural functionalism upon the parts rather than presupposing their vital functionality. And in doing such, it pressuposes the body as a closed

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[18] Philip Steadman, *The Evolution of Designs - Biological analogy in architecture and the applied arts, A Revised Edition,* Routledge, 2008, p.11. First Published by the Syndics of Cambridge University Press, 1979

[19] Sergio Moravia, ibid, p. 47

[20] Philip Steadman, ibid. p.10

[21] Ibid. p. 47

[22] Ibid.

system. But to this mechanistic analysis, other scientists, particularly Théophile Bordeu, would present a rather opposing view, which would conclude that *the various organs of the body have behavior patterns or characteristics that are for the most part independent and autonomous*, thus understanding man not as a *unitary-monarchic being*, but rather as *an articulate complex, and so to speak, 'decentralized' being,* or *a federation of organs.* Within this view the organ becomes a being, a sensitive being, thus assuming its own dynamics and *interiority*. Based on this assumption, for Bordeu, *every reflection on life must start with the principle of the irreducible vitality of the organs.*[23] Such a vitality, for Bordeu, had a physiological ground, that was to be found diffused by the nerves, and throughout the whole of the organism. This brought to each organic part of the body a sensible quality that shows how *the various organs of the body have behavior patterns or characteristics that are for the most part independent and autonomous, eventhough these organs seem to interact closely with one another.*[24]

Thus the organ, understood as a specific entity, not only incorporates a phenomenology of its own, but consequently, also an *autonomy*, which makes it capable of executing *a whole series of independent functions - from reaction to determined external stimuli to the accomplishment of certain internal physiological operations to which the conscious brain center seems completely alien.*[25]

The whole discussion between iatromechanism and vitalism - a discussion that would end by the 1770's with the mechanistic theory

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[23] Ibid., pp. 56-57 It is important to note that, although Bordeu rejected iatromechanism in favor of a vital conception of the living organism, he did so within a restrict scientific ethos, thus also rejecting the animistic or metaphysical reasoning that was used - specifically by scientist philosopher Georg-Ernst Stahl - as a justification for the *action forces which are innate in living matter itself.*

[24] Ibid., p. 55

[25] Ibid., p. 57

disappearance from physiological theories and the rise of vitalism varieties[26] - brought an emphasis on the consideration of the body from within its interior organization, a motion that early nineteenth century biology would soon incorporate. Nevertheless, while for Bordeu the *organic 'intérieur' of man* assumes a dynamic autonomy in relation to exterior stimulus, early nineteenth century developments on comparative anatomy start to reinstate an emphasis on the functional interdependent relation between the parts of the organism, and subsequently, of the organism with its surrounding millieu.

Starting with biologist Georges Cuvier, at the beginning of the nineteenth century, organisms would get to be dissected and their parts or organs categorized into a taxonomic classification *binding the organs together and integrating their individual functions into a coordinated whole.*[27] Cuvier's action of cutting up the body could be seen to remotely initiate - in a contemporary and loosely Deleuzian interpretation - a transformation of the integral part into a *spatialized* fragment. In this sense, as the body was described according to biological fragments, so too the wholeness of the organic natural world could be revealed through a dispersion of its constituent parts. But mainly because Cuvier had a teleological vision of the world, this *spatialization* of the organism remained, nevertheless, a static portrait of a predetermined whole; in fact, by dissecting the body and studying its internal *complexities,* Cuvier intended to demonstrate not only the precise function to which any of the organism's parts was destined but also that each organism represented a specific system through which it was able to fit within a certain millieu. For Cuvier then, each organ incorporated a specific

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[26] see Theodor M. Brown, *From Mechanism to Vitalism in Eighteenth Century English Physiology* in *Journal of the History of Biology,* vol. 7, n. 2, Fall 1974, pp. 179-216

[27] Reinhold Martin, *The Organizational Complex: Cybernetics, Space, Discourse*, in *Assemblage* 37*,* The MIT Press, December 1998, p.105

task for the physiological maintenance of the organism it belongs to while also being a relevant asset in the system's fitness to the particular conditions of its exterior environment. Thus, it comes back to represent, in its most elementary form, a precise functional part in an equally precise coordinated and organized whole. Hence Cuvier used the dissecting of the body as a means to demonstrate that the whole natural world was, in itself, an interdependent organic totality toward which every part concurred. Bordeu's vitalism, however, determined the notion of the organic according to the autonomous sensitivity of the part in relation to the whole. By recognizing such a sensitivity, Bordeu claimed for an independent functioning of the organ or part, one that draws a sense of hierarchical equivalence within the constitutents of the organism. It is in this way that, as previously referred, Bordeu refers to the body (of man) as *a federation of organs,* a type of organization that pressuposes a certain simultaneity of events - as for example through the admission of more than one nervous system. This, as Moravia explains, determines a juxtaposition of different behaviors incorporated within the *principle of functional uniformity*. It is in this sense that for Bordeu, *the living body is an assemblage of multiple organs living autonomously, that more or less feel, that move, act or rest within determinate times; for, according to Hippocrates, every animal parts are animated.*[28]

The main distinctions between these two figures do not lie, however, in any schism over the parts of the body being either autonomously alienated or anonimously interdependent in relation to the whole within which they participate. On the contrary, what

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[28] *Le corps vivant est un assemblage de plusieurs organes qui vivent chaqun à leur manière, qui sentent plus ou moins, et qui se meuvent, agissent ou se reposent dans des temps marqués; car suivant Hippocrate, toutes les parties des animaux sont animées.,* Theophile Bordeu, *Recherches sur la position des glandes,* Paris, 1828, I, p. 187, quoted in Sergio Moravia, op. cit., p. 58

constitutes a difference is, beforehand, a methodological approach; while Cuvier's investigations relied mainly on observation and analysis of the structure and hierarchies of parts and organisms in relation to their respective natural environments - thus attempting to design a comprehensive anatomical organization of the natural living world - Bordeu experimented and elaborated upon the processes and functioning of organic bodies - thus describing the organism according to the dynamics of its parts. As stated by Moravia, for Bordeu, man's *organs carry out determined functions, produce determined sensations and interact among one another independently from external stimuli.*[29] So while in Cuvier, the organic body is analized within a procedure that attempts to uncover its fitting into the exterior millieu, Bordeu stresses the organism's functional independence in relation to its outer environment. And this, in fact, represents an opposition, for Cuvier directs his investigations from the interior of the organism towards its exterior, while Bordeu moves deeper into the organism's *intérieur.*

Indeed, as it is noted by Reinhold Martin, during the nineteenth century, biology would have *rearranged the terms of the earlier debate between mechanism and vitalism into a new and multifaceted organicism;* thus, Martin continues, '*organization', or the pattern of relationships binding the organs together and integrating their individual functions into a coordinated whole, had become a privileged term referring to the very conditions of life itself.*[30] Thus the organism becomes determined by both a functional and structural aggregation of its parts, and its composition is recognized as well balanced or organized, insofar each of the parts achieves a simultaneous task of performing its specific function as a relevant

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[29] Ibid.

[30] Reinhold Martin, *The Organizational Complex: Cybernetics, Space, Discourse*, in *Assemblage* 37*,* The MIT Press, December 1998, p.105

contribution toward the end performance of the whole. This is particularly clear in the following Cuvier's quote:

> *All the organs of one and the same animal form a single system of which all the parts hold together, act and react upon each other; and there can be no modifications in any one of them that will not bring about analogous modifications in them all.*[31]

As a complement to Cuvier's quote, we may adjoin Reinhold Martin´s statement according to which, nineteenth-century *attentiveness to the integration of structure and function within the organism* would lead to a *resulting assemblage - structure, function, environment -* [which] *came to define the regulatory needs of organized (and thereby organic) bodies conceived as internal combustion engines.*[32] Quoting from François Jacob's *The Logic of Life: A History of Heredity* first published in France in 1970 Reinhold Martin further illustrates this assumption*;*

> *If respiration is always a combustion,* writes Jacob, *each living being, whatever its form and habitat, must be able to obtain oxygen. It must obtain fuel for food, carry it to the place of combustion, reject the waste matter and control its temperature - in short, combine accurately a whole series of opera tions. The lungs, he stomach, the heart or the kidneys can no longer be considered independently. A living being is no longer a simple association of organs, each working autonomously. It becomes a whole whose parts are*

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[31] Philip Steadman, ibid. p.33, from Georges Cuvier, *Rapport Historique sur le Progrés des Sciences Naturelles depuis 1789 et sur leur État Actuel,* Paris 1808, p. 330, quoted in Michel Foucault, *The Order of Things,* p. 265

[32] Reinhold Martin, ibid.

interdependent, each performing a particular function for the common good.[33]

There is, of course, in the analogy between organic bodies and combustion engines, a iatromechanist reference, although within its argument, what we understand is a conception of the organic in which structural organization (its anatomy) becomes interacted with the functionality of its parts (its physiology) in favor of a totality they both construct.

In order to understand the whole of the animal/vegetal organism, the anatomist/botanist needed to dissect it into its constituent parts, organize them within a classificatory criteria and then determine a kind of hierarchy between the parts and their relevance to the functioning and forming of the totality. In his *Jardin des Plantes* - the name through which the *Muséum National d'Histoire Naturelle, created out of G.-L.L. Buffon's Jardin Du Roi* was known[34] - Georges Cuvier would include a *menagerie of live animals*, together with a collection of fossils, animal skeletons and stuffed species. Among these, there were a series of displays which contained organs and bodily systems organized according to their variations throughout the different species. So together with the *integral*, live animals, Cuvier displayed isolated organs and bodily systems, an option that reflects his theoretical approach towards the study of organic nature, in which any living being is characterized by a strict correlation between a structural basis and a functional purpose. Within this kind of reasoning, Cuvier would elaborate a set of anatomical rules, which aimed at determining a scientific sequenced liaison between the *fundamental characteristics of each*

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[33] Reinhold Martin, ibid, quote from François Jacob, *The Logic of Life: A History of Heredity,* trans.Betty E. Spillman, New York, Pantheon 1973, p. 83

[34] Philip Steadman, ibid. p.31

and every creature according to the exterior or environmental conditions in which it would subsist, its subsequent organic and structural organization or interrelation of parts, and finally, the identification of its most functionally relevant organs.[35]

Determining the functional purpose of any organic whole together with an explanation of its relevance towards a given environment was thus achieved by Cuvier through the dissection and organization of such a whole into a hierarchical categorization which aimed at making the understanding of functional systems of the body coincidental with the terms of its environment and behavior. Particularly through the *subordination of characters* rule, which determined the breaking down of the relative importance of each organ towards the whole of the body system, Cuvier would determine what Reinhold Martin denominates as a *taxonomic fragmentation of life,* thus *imposing a division of organisms which can no longer be aligned but tends to develop on its own.*[36] Thus, the organization plan of Georges Cuvier actually implies a sort of hierarchized dispersion, one that extended the physiological conceptions of organisms towards the conditions of its surroundings.

To this dispersion corresponded a hierarchical order that nonetheless related part to whole to environment and back again, an order akin to Cuvier's conception and study of organic life within a compartmentalized classification based on the consideration of principal and invariant organs and their subsequent articulation with other more *peripheral* body parts and systems. Within the dissection of the organic systems of life, Cuvier thus incorporates an almost imediate sense of re-assembly and discovery of a stable and expected

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[35] Ibid., see chapter 4, *The Anatomical Analogy,* p.31-53

[36] Reinhold Martin, ibid, p.105, quote from Gilles Deleuze, *Foucault,* trans. Séan Hand, University of Minnesota Press, 1988, p. 127

natural order; as it is put by Steadman, *with Cuvier the design of nature, the harmonious and fitting way in which each animal matched its conditions of existence, was all taken for granted; it was all part of the beneficence of God's creation, and provided the staring point for investigation and analysis.*[37] Thus, the natural body gets to be decomposed as a means for the understanding - and confirming - of its structural and functional interactions, which, in turn, are assumed as the basis of nature's organic design. As it is put by Reinhold Martin, *[F]rom cell to millieu, the organism was integrated into a bounded whole in which,* (…) *everything was in its place.*[38]

Half a century later, the investigations and theories of Charles Darwin would bring an inversion to this teleological explanation of nature's design. In fact, what before Darwin would be considered as a purpose became then an effect, thus introducing an idea of confrontation between organism and environment that would challenge Cuvier's *conditions of existence* rule in which adaptation was seen as a cause rather than a process or a struggle. Adaptation, then, of any organism to an environment is not a given and straight on ending for the liaison between the functional characteristics of organs and the structural status of the organism, but that which ultimately constitutes the possibility of existence of that same organic whole, dependent on how its structure and body systems react to the environment it itself is found into. This means that instead of an upright organic hierarchy between structure, function and environment - which was deducted from George Cuvier's compartmentalized dissection of the *organic* body and its re-assembly within a conviction of its subsequent fitness to a correspondent environment - the actual *design* of nature could be thought through according to a logic of spontaneous connections

{P.L.A.2}

[37] Philip Steadman, ibid., in chapter 6, *The Darwinian Analogy,* p.74

[38] Reinhold Martin, op. cit., p. 105

between parts, which transforms the conception of adaptation as a natural fitting between organism and environment into one of survival. For Darwin, *it is not forces from the environment which mould the organism from the outside, but a series of spontaneous changes coming from the within which are then 'tested' against the environment.; those which constitute improvements, or confer greater fitness, are preserved.*[39]

What is of interest in this statement is the fact that adaptation results from the necessity of survival, thus placing the *organized* body into a state of constant variation, within a process of evolution and change.

In this view, the purpose of any organ, its size or specific function within the structure of the body, may become obsolete if it no longer helps it to fit a certain change within the conditions of its own existence. Unlike Cuvier, Darwinian theory conceives the fitting of the organic body according to an elective, natural process in which chance plays a major role. In this sense, nature becomes an organically intertwined process in which each part - from cell to organ to body to environment - is constituted as both a tool and a purpose for that tool within an infinite and non-hierarchical system of relations. Thus, what moved and determined Cuvier's analysis and conclusions on the constitution of the organic body - i.e., the introduction of a functional purpose to each of its parts that would be intimately connected to the whole of its structure, and would ultimately exist as a means of fitting the body to its natural environment - would lose, with Darwin, its vertical set of connections, becoming an after effect, not an appropriated cause. Hence with Darwin, the body looses its somewhat

[39] Ibid., p.72

static or integrated sense, igniting instead the appearance of a field where, in Martin's words,

> *a logic of connection begins to replace a logic of compartmentalization, and the decisive organizational factor is no longer the subordination of parts to whole, but rather, the degree to which the connections permit, regulate and respond to informational flows in all directions*[40]

While Darwin's statement on the inner conditions of the organism suggests a certain autonomy from it in face of the surrounding environment that becomes tested, experimental physiologist Claude Bernard would more emphatically introduce the notion that it is precisely through the capacity of the organism to maintain a sort of internal constancy that it may achieve a truly independent life. Through the notion of *milieu intérieur,* Bernard establishes a primacy on the interior dynamics of the organism in relation to its exterior - thus following a vitalistic approach - while at the same time supporting such a primacy on the basis of an understanding of the organism's inner *force* as a *process of constant movement through states of dynamic equilibrium.*[41] Bernard's conception, in fact, juxtaposed the assumption that *an organism could regulate its functions independently of its physical environment* with the conviction that *the organism and its environment, the interior and the exterior, were in constant dialogue, acting and reacting, responding to each other in a myriad of ways*.[42] Mainly, the internal millieu concept atested on the constancy of all of the

{P.L.A.3}

{P.L.A.4}

[40] Ibid, p.112

[41] Sebastian Normandin,op. cit., p. 502

[42] Ibid., p. 515

organism's internal vital mechanisms, *however varied they may be*, in order to *maintain the uniformity of the conditions of life in the internal environment.* This would make for a sort of *fixity of the milieu,* Bernard states, which *supposes a perfection of the organism such that the external variations are at each instant compensated and equilibrated.* The *stability of the internal environment*, Bernard concludes, thus becomes *the condition for the free and independent life.*[43] It should be noted that Bernard's conception of the *milieu intérieur,* eventhough the emphasis with which he promulgated it, did not hold any significance for biologists for more than 50 years.[44] Nonetheless, towards the end of the nineteenth century, it began to be consequent, particularly in the context of Darwin's evolutionary theory. In this context - and this constitutes a particularly interesting issue -, Gross writes that *it became clear that a major trend in evolution was the development of increasingly sophisticated mechanisms whereby the internal environment is protected from the external world.*[45] In fact, for Bernard, such mechanisms represented the maintenance of *a stable relation with changing environmental conditions,* a statement that effectively associates the independency of inner organical manifestations - that which Bernard denominates as *harmonious reciprocal relations* between *living units*, *one in relation to another* - with the variable external environment. It is within this assumption that Bernard - clearly extrapolating on his experimentalist and

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[43] Claude Bernard, *Lectures on the phenomena common to animals and plants,* 1878, quoted in Charles G. Gross, *Claude Bernard and the Constancy of the Internal Environment*, in *The Neuroscientist,* vol. 4, n. 5, 1998, p. 383

[44] According to Charles Gross, this may have happened for various reasons, although the ones more relevant may include the facts that, for one, the biomedical zeitgeist was dominated at the time of Bernard's investigations by Pasteur's bacteriology, secondly because there still existed a gap between general physiology and evolutionary thought, or, finally, because *the tools, techniques, and concepts for adequately measuring the internal environment were simply not available in Bernard's time and for the rest of the century.,* Ibid., p. 384

[45] Ibid., p. 384

deterministic approach to science - denominates the organic body as a *living machine.* And suddenly, we are lead to realize, it is Bernard's idea that *living things seem separated from and independent of their 'general cosmic environment'* - an idea grounded on the scientist's notion of vitalism as driving force - that take him back to a sort of man-machine image. In fact, the machine - as iatromechanists claimed - is but *dependent on underlying physical conditions.* It is under this assumption that Bernard thus establishes the comparison between his notion of the *living machine* and the man-made apparatus:

A living machine keeps up its movement because the inner mechanism of the organism, by acts and forces ceaselessly renewed, repairs the losses involved in the exercise of its functions. Machines created by the intelligence of man, though infinitely coarser are built in just such a fashion. A steam engine's activity is independent of outer-psycho-chemical conditions, since the machine goes on working through cold, heat, dryness and moisture.[46]

Reading through this passage, one senses the conceptual superimposition between the term *living* - as that representing the vital interiority of the organism - and the term *machine* - here stipulating the physical and materialistic quality of the vital force. In this context, one may effectively say that for Claude Bernard, *the organism was a vital machine,* thus intertwining the vital properties of living matter with the physical qualities of the machine, and consequently creating a somewhat hybrid condition to both man and the manmade device. Considering the parts of any organism as independent *living units* - that effectively accumulate both an instrumental condition and an almost subjective identity - that *play the part of stimuli, one in relation to another*,

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[46] Claude Bernard, *An Introduction to the Study of Experimental Medcine,* trans. H. C. Green, London, Henry Schuman, 1949, p. 73, quoted in Sebastian Normandin, op. cit., p. 516

Bernard also constructs an image of simultaneous connections of the parts as a means to induce the manifestations of the whole; such a conceptual construction is not concerned with beginnings (or ends, for that matter) but with processes of being, or, better yet, of becoming.

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To consider organs and limbs as natural instruments or tools that are both an organic constituent and, depending on its importance in the functionality of the whole, a means of survival, came to imply the consideration of the man crafted tool as a kind of cultural organ or limb, one that is part of the evolution of man in its interaction within the species and the environment. Following Steadman's reading of Alfred Lotka's study entitled *The Law of Evolution as a Maximal Principle,*[47] material artefacts are considered as a genetical type of heredity, one that the author calls *exosomatic,* or outside the body. In this sense, Steadman writes,

> *one might see man and his material creations together as some kind of hybrid mechanical/organic creature (…) From this point of view,* Steadman continues, *cultural evolution and specifically technological evolution is seen as a continuing phase of biological evolution in man, proceeding by different mechanisms, and overlaid onto the Darwinian, genetic process.*[48]

In fact, if we accept the conception of the biological organism as a sort of organic mechanism - mirroring Claude Bernard's *living machine* -, one that holds its parts or organs as endosomatic tools, we

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[47] A. J. Lotka, *The Law of Evolution as a Maximal Principle,* in *Human Biology 17,* 1945, quoted in Phillip Steadman, op. cit., p. 119

[48] Phillip Steadman, op. cit., p. 130

may also consider the man-made artefact as an exosomatic part, one that will represent, primarily, both a physical extension of the (human) organic body capacities and ways of interaction with its surroundings, and a culturally intended and fully purposeful artifitial *organ*. Of course that, as Philip Steadman refers, the *artificial organ,* i.e., the manmade instrument, is a man controlled artefact, and its creation incorporates a transformation of the act of survival into one of anticipation and control towards the *environment*; therefore, it stands primarily as a cultural fact, not only as an *evolutionary* consequence.

Could it be then, that *Dismembered Typewriter* actually comes {P.L.A.4} to mirror the *real* nature of man, considering his anatomy as a vital complex of connections and functionalities and his condition as one of artificiality, hence complementing the twelve and thirteenth century *Two Human Anatomies,* which depict *x-rayed* representations of man's {P.L.A.6} organs and circulatory system? D. E. Harding's words, incorporate such a belief:

> [*I*]*t is natural for man to be not only an artificer but artificial - to be nine-tenths his own artefact.*[49]

Hence the typewriter as an artefact may be seen as an *organic* part of man, for it enhances his capabilities of expression, discourse organization, communication, and so forth. It is a tool, amongst many others, which fits man to his *natural* human condition. Thus, it

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[49] D. E. Harding, *Embodiment*, in *The Architectural Review,* Vol. 117, No. 698, February 1955, p. 96. This article is based on part of D. E. Harding's book *The Hierarchy of Heaven and Earth: A New Diagram of Man in the Universe,* Harper & Brothers 1952/1953 (?)

simultaneously extends and envelopes man within an environmental flow of action and survival. In D. E. Harding's words,

> *the naked human body, whittled down and pared of home and furniture and clothes and tools, is no longer a truly human body. It is incapable of any specifically human function, or even of survival. My hands and feet are not so much organs as organ-holders, or limb-buds from which some truly human limb-ending - pen-finger or hammer-fist, bootsole-hoof or pincer-claw, plane-wing or oar-fin - may be grown whenever it is needed.*[50]

Harding's argument poetically merges the conception of artificial artefacts as a matter of both the biological extension and growth of man and its cultural capacities; in Harding's conception, the cultural artefact becomes indeed a biological factor in man's evolution through survival. Following the author's argument, we might then speculate on how man's natural condition is one of continuous outgrowth of new *organs* and functions that build a disassembled landscape of parts which, nevertheless, retain a sense of the whole. And in this sense, we may add, the mechanical decomposition of *Parallel of Life and Art's* typewriter whilst representing a condition of dismemberment, transforms the assembled whole into a system of loose components, which in turn *retain their efficiency and significance, wether a single limb or blown up beyond 'natural' scale.*[51]

This, in fact, was the purpose of the *Parallel of Life and Art* exhibition in its basis; no longer a hierarchical construction of *one thing*

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[50] D. E. Harding, op. cit., p. 95

[51] Ignasi de Solà-Morales, *Absent Bodies*, in *Anybody*, edited by Cynthia C. Davidson, Anyone Corporation and The MIT Press, 1997, p. 21

over another but an apparently disconnected juxtaposition of images presented through the fragmented look of photography *by which the discoveries of the sciences and the arts can be seen as aspects of the same whole.*[52] As it is put by Reyner Banham,

> [T]*he photograph, being an artefact, applies its own laws of artefaction to the material it documents, and discovers similarities and parallels between the documentations, even where none exist between the objects and events recorded.*[53] {P.L.A.3}

The new technical developments in photography, as it is stressed by Graham Whitam, were seen by the exhibitors as something which, in the line of D. E. Harding's reasoning, *expanded* [the artist's] *field of vision beyond the limits imposed on previous generations.*[54] As an extension for man's vision, photography allowed for Henderson, Paolozzi and the Smithsons to pursue a comprehensive method of looking at the conception and understanding of the whole through a disassembled but structurally and purposefully articulated juxtaposition of (similar) images from various fields and realities. In the words of the exhibitors:

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[52] Alison and Peter Smithson, *Addendum: Texts Documenting the Development of Parallel of Life and Art,* in *The Independent Group: Postwar Britain and the Aesthetics of Plenty*, David Robbins Ed., The MIT Press, 1990, p. 129

[53] Reyner Banham, *Photography: Parallel of Life and Art,* in *Architectural Review,* 114, October 1953, p. 260, quoted in *The Independent Group: Postwar Britain and the Aesthetics of Plenty*, David Robbins Ed., The MIT Press, 1990, p. 125

[54] Graham Whitham, *Exhibitions - Parallel of Life and Art,* in op. cit. Quote from *A Statement of Purpose,* document produced by Nigel Henderson, Eduardo Paolozzi, Alison and Peter Smithson, not published at the time, reprinted in Diane Kirkpatrick, *Eduardo Paolozzi*, London, 1970, p. 19

The material for the exhibition will be drawn from life - nature-industry-buildings-the arts - and is being selected to show not so much the appearance as the principle - the reality beneath the principle.[55]

In the context of the total statement, the condition of the material being *drawn from life* - besides the fact of its inclusiveness, something that Henderson, Paolozzi and the Smithsons actually discussed and lived throughout the *Independent Group*'s meetings - reveals a cultural understanding of life as structurally vital and functionally organic. According to D. E. Harding,

[L]*ife is not a ghostly presence haunting organisms, but a function of their wholeness, of the total pattern, of the togetherness of their lifeless parts which include outer artefacts no less than inner chemistry.*[56]

In the case of *Parallel of Life and Art*, it is by the juxtaposition of photographic, micrographic, telescopic images that the organizers intend to explore the possibilities of several structural approaches which might ignite different functional *liaisons*, thus establishing *life* as a whole built up as a plurality, simultaneously scattered in its appearance and tightly connected in its substance. *Disassembled Typewriter* exposes {P.L.A.3}

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[55] Alison and Peter Smithson, op. cit.

[56] D. E. Harding, op. cit., p. 97, The emphasis on the function aspect of the organic body is very much akin to that which characterizes Georges Cuvier's comparative anatomy. In fact, as it is stated by Philip Steadman, with Cuvier's systematic functional approach, *no longer is it visible, geometrical, unconnected and external properties of organisms which provide the criteria for assigning them to groups and families; it is now in a sense 'invisible' properties - those of function - hidden, in the related case of the animal, deep in the body.*, Phillip Steadman, op. cit., p. 34

this within its own process of *being*; its parts, rather then just appearing as precise pieces for a whole functional result, also construct an image of organic structural connections which extrapolate the organization of the assembled object. Therefore it may be fair to say that the artifact depicted in *Disassembled Typewriter* exhibits an organic quality that transcends its rational and pragmatic origin. Mechanized processes of production of artefacts had, indeed, began entangled within a rather strict rationalistic thought. {P.L.A.4}

According to Siegfried Giedion, the transformation of the artificial artefact into a mechanized tool is, in fact, closely connected to an idea of progress and therefore to a culturally characterized evolution of mankind, thus turning mechanization in *the end product of a rationalistic view of the world*.[57]

This rationalistic view of the world comes to imply, not by mere coincidence, that *mechanizing production means dissecting work into its component operations*; quoting from Adam Smith's text *Wealth of Nations,* from 1776, Giedion writes:

> '*The invention of all those machines by which labor is so much facilitated and abriged seems to have been originally owing to the division of labor'. It need only be added* Giedion continues, *that in manufacturing complex*

[57] Siegfried Giedion, *Mechanization Takes Command, A Contribution to Anonymous History*, The Norton Library, 1975, copyright 1948 by Oxford University Press, Inc., p. 31

products as the automobile, this division goes together with a re-assembly.[58]

Mechanized production becomes a tool in itself, one that brings to the foreground the notions of standardization and repetition as a means to culturally attain to life's *natural* plurality. *Dismembered Typewriter*, as an image of a mechanized tool which was produced through mechanized procedures, works as a tautological statement on the assumption of the *clarity* of the whole and the recognizing of its parts' *internal disciplines and complexities.*[59] But it also unfolds a paradox, one that actually breaks up the mechanical sequence of the line production and transforms the end product into an image - with an almost surrealist tone - of ambiguity, one that aims at *touching off a wide range of association and offering fruitful analogies.*[60] On *Texts Documenting The Development of Parallel of Life and Art*, Alison & Peter Smithson write about the cultural and temporal relevance of *Parallel of Life and Art* - still titled *Documents' 53,* at the time of the writing - as echoing the significance of Le

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[58] Siegfried Giedion, op. cit., p. 32. It should be worthy of note he fact that, as Siegfried Giedion explains, the modern assembly line - i.e., *a work method wherein the object is mechanically conveyed from operation to operation* had begun as a rationalized team-work process between man and mechanical driven devices in the Nineteenth century hog packing industry; although not entirely mechanized, what is interesting in noting is the fact that the *assembly line* began not as a process for the assemblage of a product, but, on the contrary, it was due for the dismemberment and separation into parts, of organic matter which, later in the process would be conveniently packed, as if, almost cynically, it were re-assembled. In this process, man's hand works together with the mechanically driven conveyors where the hogs got suspended. Along the continuous path delineated by the *Automatic Hog-Weighing apparatus,* there was *a row of standing workers, each of whom performs a single operation.* Concurrently, we could say, the assembly line, as a mechanical process, becomes an extension of man in its thrive for maximum production, but it also transforms man into a part of that same process. Siegfried Giedion, op. cit., p. 94-95

[59] Alison and Peter Smithson, op. cit

[60] Alison and Peter Smithson, ibid

Corbusier's *Esprit Nouveau Pavilion* towards the 1920's:

> *The first great period of modern architecture finished in 1929 and work subsequent to this can be regarded as exploratory work for the second great creative period beginning now. Both periods are characterized by simultaneous parallel development in architecture - engineering - sculpture: the attitudes, theorems, images of each, finding unsought consonance in the others.* (…) *The second great period should be proclaimed by an exhibition in which the juxtapositions of phenomena from our various fields would make obvious the existence of a new attitude. Our exhibition would present the opening phase of the movement of our time and record it as we see it now, as did the Esprit Nouveau Pavilion for 1925.*[61]

As stated by Marina Lathouri, the *Esprit Nouveau Pavilion* - built in 1925 for the *Exposition des Arts D'ecoratifs* - specifically through its cubic element, was *an exemplification of Le Corbusier's concept of the 'machine for living'*.[62] Furthermore, the *Esprit Nouveau Pavilion* stands as an exhibit within itself of the standardization and Taylorization ideals that Le Corbusier so much praised within the magazine that lent the pavilion its name, assuming architecture as *a social tool*, and conceiving of it as a *product of technical rationalization.*[63] Published between 1919 and 1925, the *L'Esprit Nouveau* magazine would, in fact, carry out a continuous call for the industrialization of the architectural process, placing it

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[61] Alison and Peter Smithson, ibid

[62] Marina Lathouri, *Frame and Fragment - Visions for the Modern City*, in *AA Files 51- The Journal of the Architectural Association School of Architecture*, Winter 2005, p. 60. The text was first presented in *The Intimate Metropolis: Domesticating the City, Infiltrating the Room* Conference held at the Architectural Association in Autumn 2003.

[63] Mary McLeod, '*Architecture or Revolution': Taylorism, Technocracy and Social Change*, in *Art Journal,* Vol. 43, No. 2, Summer 1983, pp. 135-137

within a large-scale production organization, which would lead to *universal collaboration* and *universal methods.*[64] These should allow for the creation of architecture and the city as a carefully planned, calculated and functional universe of *objets-types,* assembled and organized through industrial processes of production and management, *offering both the promise for social redemption and a mean's to continue to practice one's art.*[65] Le Corbusier's technological and industrial efficiency *appel* would, in this sense, transform the architect into *an organizer, not a designer of objects. This assertion of Le Corbusier's,* Manfredo Taffuri writes, *is not a slogan but an obligatory directive that connects intellectual initiative and the civilization machiniste.*[66] The house as a *machine for living in*, thus holds in itself the generator principles of such a civilization, working simultaneously as an end product and as a part of the industrial line of production.

As an industrial driven product, the modernist single residential cell, or *minimal unit of production*, as Manfredo Tafuri refers to it, would indeed become the elementary module destined to generate an organic whole. And if serialism is - as seen by Peter Sloterdijk - *the key to the relationship between cell and cellular compound,*[67] it is Manfredo Tafuri who had already acknowledged that the architectural project between the two wars - specifically through the proposals of Ludwig Hilberseimer - originally *assumed the forms and methods of industrial work* in such a way that the process *from standardized element, to the cell, the single block, the housing project and finally the city* would happen in the way of an architectural

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[64] Le Corbusier, *Nos Moyens*, in *L'Esprit Nouveau* no. 27, quoted in Mary McLeod, op.cit., p. 137,

[65] Mary McLeod, op.cit., p. 144

[66] Manfredo Tafuri, *The Crisis of Utopia: Le Corbusier at Algiers*, in *Architecture and Utopia - Design and Capitalist Development*, The MIT Press, Tenth printing, 1996, p. 125. 1st ed. 1976, translated from *Progetto e Utopia, published in 1973 by Guis. Laterza & Figli, Bari, Italy*

[67] Peter Sloterdijk, op. cit., p. 90

assembly line, one within which *each "piece"* (…) *being completely resolved in itself, tended to disappear, or, better, to formally dissolve in the assemblage.*[68]

Alison and Peter Smithson's *House of the Future*, we could say, {H.o.F.2} stands at mid point between these two arguments: first of all it actually stands as a prototype for an architectural industrialized and serialized living unit; but far from being one result out of many possible others, it actually stands as one specific product, built of specific, exclusive parts. According to the Smithsons,

> *the flexibility offered by the stockyard - of standard parts - has great intel lectual appeal, but people handling these systems never seemed to have had the self-discipline or total idea to make out of the parts anything but the clumsiest sort of Meccano toy equivalent… and after our 1950s experi ence of the products of the systems, there was some doubt as to wether this kind of flexibility was worth having and that perhaps it would have been better to to increase the size of units being standardized to at least the size of a whole house* (…). *This would increase the range of choice and the chance of getting something which was really wanted from an industry sensitive to changes in social aspirations and style urges - rather like the American car industry in its affluent years.* Therefore, *the house was designed - like a car - as one thing, for a limited role.*[69]

This means that it is not in itself a standardised element for further assemblage but that it is assumed as an advanced and complex

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[68] Manfredo Tafuri, *The Dialectic of the Avant-Garde*, in *Architecture and Utopia - Design and Capitalist Development*, The MIT Press, Tenth printing, 1996, p101. 1st ed. 1976, translated from *Progetto e Utopia, published in 1973 by Guis. Laterza & Figli, Bari, Italy*

[69] Alison and Peter Smithson, op. cit., p. 114-115

final product that will, nevertheless, articulate and/or interfere with a broader reality. But as much as it is a final product, it also holds a certain sense of limited validity attached to it. This turning out of the house, or better, the residential cell into a product of consumption, is not, however, a feature of the postwar avant-garde architectural debate, for, as Manfredo Tafuri also had noted, it was something Le Corbusier had already envisaged in his *Plan Obus* for Algiers, back in 1933. According to the author,

> *Le Corbusier does not crystallize the minimum unit of production in standard functional elements, as did May in his Frankfurter Küche. On the scale of the single object account must be taken of the exigencies of the continual technological revolution, styling, and rapid consumption, dictated by a dynamic capitalism in expansion.* Tafuri continues: *The resi dential cell, theoretically consumable in brief time, can be substituted at any change, of individual necessity - at any change of necessity induced by the renewal of models and residential standards dictated by production.*[70]

With the *Plan Obus,* Le Corbusier would, indeed, highlight the residential cell as an industrial *object*, one that, according to Tafuri, *does not presuppose any single given location in the space of the city*. In fact, states Tafuri, *the technological universe is impervious to the 'here' and 'there'. Rather, the natural place for its operations is the entire human environment - a pure topological field, as Cubism, Futurism and Elementarism well understood.*[71]

The *H.O.F*, we realize, stands rather close to Taduri's assumptions

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[70] Manfredo Tafuri, *The Crisis of Utopia: Le Corbusier at Algiers*, in op. cit., p. 132

[71] Manfredo Tafuri, ibid., p. 128

on the role of the residential cell as an industrial and technological driven product; but whilst Le Corbusier's method foresaw the attaining of an *unitary image* of the organic whole it aimed at constructing, the *H.O.F.*, although destined at building up into *a dense mass,* is itself more of a *homeless* fragment than a part integral of any specific broader frame. As Le Corbusier's residential cell, from the *Dom-ino House* and through the *Esprit Nouveau Pavilion*, the *H.O.F.* is a laboratory experiment, but one that presupposes a different look towards the character of the whole.

It seems relevant to recall at this point the artistic theory of *Purism* within which Le Corbusier would develop, with Amédée Ozenfant, the concept of the *objet-type* as the optimized everyday object resulting from the standardized process of production. According to the Purist theory, the *objet-types* would, through the *laws of mechanical evolution*, attain a condition of perfection as object-tools which, as Philip Steadman puts it, would be *chosen for the anonymity of their design, their universal and unchanging stability as forms, their simple geometry, and their lack - so it was supposed - of special literary or extraneous associations.*[72] The *objets-types* should thus come to form a lexicon that would support a universal way of acting through design, circumscribed within *an ideal of maximum utility*, *and the satisfaction of the necessities of economical manufacture, which conform inevitably to the laws of nature.*[73] Drawn from technical evolution - understood by the Purists as something happening according to the *laws of nature* - the standard object type would gather in its structural condition an awareness toward its functionality within the natural human environment together with a formal quality that would stand

[72] Phillip Steadman, op. cit., p. 138

[73] Amédée Ozenfant, *Art* (Paris 1928) trans. J. Rodker as *Foundations of Modern Art* (London, 1931; reference is from revised edition, New York, 1952), p. 151, quoted in Phillip Steadman, op. cit., p. 139.

out through an elementary conformity with such universal values as scale, proportion, or harmony. In fact, in *Vers Une Architecture*, originally published in 1923 and fundamentally composed by articles previously published in the *Esprit Nouveau magazine,* Le Corbusier already had written:

> *The creations of machine technology are organisms tending toward purity and subject to the same evolutionary rules as are natural objects that arouse our imagination. There is harmony in the works that arouse from the workshop and the factory. (…) these are the everyday works of a whole universe that labors with awareness, intelligence, and precision, with imagination, daring and rigor.* [74]

The assumption on the *creations of machine technology* being organisms establishes an intrinsic connection between the development and evolution of the modern, standardized industrial artefact and its natural counterpart, the limbs and organs of living creatures, which, according to Darwinian theories, would adapt to the surrounding environment through a process of enduring fitness toward survival.

At the epicenter of the analogy between the evolution of natural organisms and that of the artificial artefact, Le Corbusier and Ozenfant place the universal quality of the *objet-type* as a result of an artefacts evolution toward the most *perfect* - and therefore closer to a stable or final condition of existence - organic relation between the optimization of its economic status and its functional excellence. The normalization

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[74] Le Corbusier, *Eyes That Do Not See… I: Liners,* in *Toward an Architecture,* translated from the 1928 printing of Le Corbusier *Vers Une Architecture* (Paris: G. Crés, 1924) by John Goodman, Frances Lincoln, 2008, p. 158

of the artificial artefact thus stands as an instrument toward economic optimization and a tool toward the enhancement of human behavior and physical or cultural accomplishments.

In fact, for Le Corbusier as for Ozenfant, the *objet-type* was also an *objet-membre-humain*; in a text entitled *Besoins-Types, Meubles-Types*, Le Corbusier explains how everyday objects embed a quality as *artificial limbs*, something that radically transforms the essence of what before might have been classified as decorative art into an exclusively utilitarian, and therefore, objective status of being. It is interesting to note that, as an opening to the text, Le Corbusier puts up an image of {L.C.5}
man's body - apparently taken from a Larousse encyclopedia and that relates quite significantly to the ones exhibited in *Parallel of Life and Art* {P.L.A.6}
- subdivided into three separated pictures: the man's skeleton, nervous system and circulatory system. Through this image, Le Corbusier declares the universality of man, as a species which shares the same kind of needs, and therefore, the same functions.

In a statement that resembles to the aforementioned statement by D. E. Harding thirty tears later, Le Corbusier declares that man is born *naked and unsuficiently armed,*[75] thus unfitting to survival without the help of its *artificial limbs*. Decorative art, then, is turned into *Orthopedics,* a discipline working upon fulfilling man's needs, of *completing* [man's] *natural capacities with reinforcement elements*.[76] Throughout the text, several other images are depicted, such as archive cabinets, tables, stools or lamps, all incorporating Le Corbusier's convictions on the standard condition of human needs, and therefore, all objects aiming

[75] Le Corbusier, *Besoins-Types, Meubles-Types* in *L'Art Décoratif d'Aujourd'hui*, Éditions G. Grés et Cie., Paris, 1925, translated to brazilian portuguese as *A Arte Decorativa,* trans. Maria Galvão G. Pereira, Martins Fontes, São Paulo, 1996, p. 72

[76] Ibid.

at demonstrating their conformity to the human scale.[77] In order to more clearly explain this kind of associative reasoning, Le Corbusier gives us the example of the consequences to human behavior and organization after the creation of the typewriter; in fact, Le Corbusier states, after the appearance of the typewriter as a writing device, letter paper became standardized; this would have an effective repercussion on the creation of a *commercial size* with further consequences on the dimensions and design of archive cabinets. This then lead to the conditioning of a whole industry, in which typewriters themselves, classification boxes, files or briefcases would be designed according to such a normalization.

Within this argument, the *image* of the typewriter (which in fact never really appears as an image in the text) is used by Le Corbusier as a specific take on standardization as a means toward the building up of a universal system of *objets-membres humains*, that, while complementing man's *natural capacities*, also associate among themselves forming a frame of *orthopedic* instruments that both integrate man and are, in turn, integrate to its functions and scale. With Le Corbusier, man's body becomes the true catalyst of the industrial and mechanized production line; the Larousse image in *Besoins-Types, Meubles-Types,* reveals *standardized* components and a systematic organization, thus centering man within a conception of technological processes as evolution towards the production of better and more adequate *membres-humains*, which, in turn, may enhance man's abilities, not only in its more basic

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[77] *When 'a' and 'b' are equal to 'c', 'a' and 'b' are equal between themselves.Here, 'a'=our 'objets-membres humains'; 'b'=our sense of harmony; 'c'=our body. Hence, the 'objets-membres-humains' are in conformity with our body.,* ibid., p. 76

survival needs, but in its inherent cultural capabilities.[78] This apparent *pseudo-Darwininan* theory - as Banham puts it - on the creation and evolution of the artificial artefact, may indeed more properly be seen within a Lamarckian reference.

As Philip Steadman suggests, Le Corbusier and Ozenfant's theory on the *objets-membres humains* may be related to the writings of nineteenth-century novelist Samuel Butler, a man who was *deeply interested in the theory of evolution* and on its analogy with the evolution of machines.[79] After reading Darwin´s *The Origin of Species,* Butler would become an enthusiast of his ideas, especially with the fact that it put religious, and specifically for Butler, Christian mythology, in question. However, furthering his investigations, Samuel Butler would come to discover Lamarck as a predecessor of Darwin's theories, and consequently, would also come to prefer Lamarck's take on the evolution process.

What came to bother Butler, regarding Darwin's theory, was the fact that there was no consideration of any kind of purpose coming from the biological organism in the way in which its organs or limbs adapt and evolve within a certain environment. Evolution and adaptation, in Darwin, are considered to be achieved through a process of chance, according to the organism's fitness to survival. Instead, in

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[78] *Larousse, given the task of posting a definition of man, presents us with three images in order to decompose it before our eyes; the whole machine is there, carcass, nervous system, circulatory system, and it represents each one of us, exactly and without exception.*,ibid.,op. cit., p. 76

[79] Along with the correspondences between Butler's arguments and the Purists theories, Philip Steadman notes the fact that *each issue of the later volumes of the* [Esprit Nouveau] *magazine carries a list of books whose significance is unexplained* (…) *but which appear to be books gaining the seal of approval of the editors as truly embodying ' l'esprit nouveau'. The list in volume 18 includes Butler's Life and Habit in french translation.* According to Steadman, *Life and Habit* was written by Samuel Butler *in defense of a teleological, directed explanation of the evolutionary process, arising out of the 'needs and experiences' of creatures.* Philip Syeadman, op. cit., p. 126

Lamarck, [*T*]*he production of a new organ in an animal body results from the arising and continuance of a new need, and from the the new movement which this need brings into being and sustains.*[80] Thus for Butler, Darwin's theory of evolution contained an element of randomness which characterized the organism's survival and evolution within a given environment as non-functional and un-purposeful. On the other hand, with Lamarck, organic evolution was thought through within a cultural perspective, establishing that an organism - but one of a higher kind - was actually able to evolve through a process of intended reaction to the needs placed upon it by the environment. Organisms are thus composed of organs that behave as tools that evolve and get perfected through purposeful effort. In the same way, according to Buttler, artificial artefacts - and most specifically machines - are to man as exterior *organs* or *limbs* that evolve through an *organic* process of inheritance and enhancement of its *genetics.*

As Philip Steadman explains, it is through a satire built within his book *Erewhon* that Samuel Butler exposes such a thesis, paralleling mechanical and natural evolution through both Darwinian and Lamarckian points of view. Within the preferential Lamarckian argument, Butler comes to establish the identification of artificial mechanical artefacts as man's *extra-corporeal limbs*, consequently implying that the same applies to the evolution of his natural limbs aswell. The parallel established by Butler between human cultural evolution and biological evolution - which in Lamarck erroneously became the same - thus establishes the artificial artefact as a mechanical extension of man's body at the same time that it considers man's organs and limbs as

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[80] J. B. de Lamarck, *Histoire Naturelle des Animaux sans Vertébres* (7 vols., Paris,1815-22), vol.1, p. 181. Translation in E.S. Russell, *Form and Function: a contribution to the History of Animal Morphology* (London, 1916), p. 221, quoted in Philip Steadman, op. cit., p. 121

organic tools:

> *A machine is merely a supplementary limb; this is the be all and end all of all machinery. We do not use our own limbs other than as machines; and a leg is only a much better wooden leg than any one can manufacture.*[81]

Echoing this thesis, Le Corbusier and Amédée Ozenfant's Purist theory also established a rather ambiguous analogy between the organization and purpose of organic parts and bodies and its mechanical counterparts, conceived as *objets-membres humains*. In fact, this ambiguity is recurrent within Le Corbusier's architectural references; in *Vers Une Architecture,* he either qualifies the house as a *machine for living in* as he declares that *a house or a palace is an organism similar to any living creature.*[82] Architecture - and most specifically the house - embodies both organic and mechanic qualities, thus assuming in its own conception a kind of silent/mute and paradoxical complementarity between a wannabe vital and purposeful existence and a materialistic and artificial instrumentality. What it doesn't do, however, is mix the artificial with the natural.

As stated by Anthony Vidler, *in the Corbusian 'home of man' technology took the form of more or less benign 'objets-types' and perfected controlled environments that allowed for the full play of the natural body in nature. The line between nature and the machine, the organic and the inorganic seemed crystal clear;*

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[81] Samuel Butler, *Erewhon,* (London, 1872; reference is to Harmondsworth, 1970 edn), quoted in Philip Steadman, op. cit., p. 128

[82] Le Corbusier, *The Illusion of the Plan*, in *Toward an Architecture*, p. 216.

organicism was a metaphor, not a reality.[83] In Le Corbusier, man and his body were the reference from which arose the production of *extra-corporeal limbs*, not the other way around. *To search for the human scale,* Le Corbusier wrote, *the human function, is to define human necessities.* (…) *we all have the need to complete our natural abilities/capacities with reinforcement elements.*[84] But if we go back to Samuel Butler's *Erewhon*, we find that later in the Lamarckian argument, some considerations are made regarding the replacement of man's physical body by mechanical substitutes. And so, Corbusian exosomatic *objet-membres humains* gain an endosomatic quality as mechanical components become *organic* body parts. Technological evolution is then intrinsically conceived as a *natural* substitute of biological evolution. Thus, in some sense, in Butler's Lamarckian argument, cultural evolution comes to juxtapose over natural evolution, building up a hybridization of processes that leads to an also hybrid image of man as both a disassembled entity and a compressed man-machine figure, something to what John McHale refers to as the *mechano-morph.*[85] This reconfigures the image of man not as an organic coherent and healthy being - as mainstream 1920's modernism, *lead* by Le Corbusier, understood it - but as a figure that - in the words of John McHale - *relates to the instability of man's awareness of his own form.*[86] {J.Mc.3}

As we have seen, in the *Anatomy* section of the *Parallel of Life and Art* exhibition, the organic and the inorganic are present as if they are parts of a same whole, one that comprehends all of the exhibited images as fragments without an origin that, nevertheless, establish {P.L.A.6}

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[83] Anthony Vidler, *Fantasy, the Uncanny and Surrealist Theories of Architecture*, Papers of Surrealism, Issue 1, Winter 2003; paper based on a keynote speech at the conference *Fantasy Space: Surrealism and Architecture,* Manchester, Whitworth Art Gallery, September 12, 2003

[84] Le Corbusier, *Besoins-Types, Meubles-Types, op. cit.,* p. 72 .

[85] John McHale, *The expendable ikon, Architectural Design,* February 1959, p.7

[86] Ibid.

organic liaisons thus constructing a rather formless sense of totality. *Parallel of Life and Art* thus acted reversely to what *L'Esprit Nouveau* pavilion represented in 1925. While the latter represented a definite *awareness* - to borrow McHale's expression - of man's form through a harmonious relation of scale between his fundamental *nakedness* and the technological exo-organism that would rise up through a carefully planned organization and assemblage of *objets-types* turned into a *millieu, Parallel of Life and Art* revealed an imagery of dissolution of the *idealized* body together with a hybrid sense of organic and inorganic re-assemblage of parts.

This might be particularly noted in *Parallel of Life and Art's* use of László Moholy-Naghy's image for the exhibition's catalogue cover. Taken from Moholy-Nagy's book, *Vision in Motion* - which, together with Georgy Kepes' *Language of Vision* would constitute an important contribution to Nigel Henderson's thinking and work - the X-ray image of a man shaving, more than revealing the body's interior, provides us with the illusion - given the resultant white homogeneous colored surface of everything solid - that the razor in the man's hand is in fact, part of its anatomy, its cord almost as a vein or nervous connection coming out from the his wrist, his spectacles placed as if built in within his skull. This echoes Samuel Butler's aforementioned argument in which he considers the possibility of the functions of man's physical body being replaced and enhanced by mechanical substitutes; in fact, Butler goes further in describing such an action, stating that man's dependency on such *mechanical limbs, especially in old age,* may increase his complexity in such a way that, Butler writes, man will then *be seen with see-engines, or perhaps artificial teeth and hair.*[87]

{P.L.A.5}

[87] Samuel Buttler, *Erewhon,* Penguin Classics, 1985, p. 224

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Of the four organizers of the exhibition, Eduardo Paolozzi in particular was the one who had been incorporating the representation of artificial mechanisms as human anatomical parts in his own work. {E.P.2}
One of Paolozzi's early works, a collage dated 1947 entitled *Self-Portrait,* depicts a drawing of a mechanized system together with a picture of a partial cut up view of a pair of train wheels over a rail that horizontally traverses and exceeds the *portrait.* These two images are superposed to what seems as a more *academic* painting, which, while on the background, works simultaneously as forehead, hair and body to the *face.* In another collage from the same year entitled *Hi-Ho*, Paolozzi places together the cover of a children's comic - which gives the title to the work -, a carefully arranged plate of food, and, partially represented from its waist up, a human silhouette showing - as in a *positive* image of an x-ray - an artificial metallized skeleton and mechanized organs. {E.P.1}

This kind of juxtaposed representation of the human body as a cyborg were common within the Dada movement, in Berlin; *in the first critical exhibitions of the Berlin Dadaists,* de Solà-Morales writes, *bodies appear as primitive mannequins in which the body´s organic movements and functions are deliberately schematized, drawing a parallel with mechanisms that substitute for body parts or organs.*[88] Paolozzi, who, according to David Robbins, *after a successful exhibition at the Mayor Gallery in 1947* moved to Paris for a period of over two years, got in direct touch with Dada and Surrealist art while interacting with such artists as Dubuffet, Giacometti or Tristan Tzara, and would further engage in the exploration of fusing machine

[88] Ignasi de Solà-Morales, *Absent Bodies*, in *Anybody*, edited by Cynthia C. Davidson, Anyone Corporation and The MIT Press, 1997, p. 21

fragments with the human image, *by casting bronze sculptures wrapped in sheets embossed with impressions of 'throwaway' or ruined urban objects.*[89] The Berlin Dadaists in particular pursued this kind of cybernetic imagery, one which is intimately connected with the techniques of montage and collage.

In the 1920's photomontage *Dada Siegt* by Berlin dadaist Raoul Haussmann, images of an open and chopped human body showing its internal organs, as in a medical poster, or the profile of a male character with an open skull where we can observe a partially exposed brain - with the word Dada stamped upon it - are displayed together with, amongst other non-related elements, five door closer mechanisms, a cash register machine and, coincidentally enough, a typewriter; albeit a portrait of the dadaist *unreasoned order*, *Dada Siegt* is interesting for presenting the human body as a dissected and exposed complex of organs, together with a sort of mechanical devices. Together with the photograph of a street, the anatomic portraits put an emphasis on a look towards the autonomy of the parts over the whole - in this case, the human body and the city. Raoul Hausmann would further explore this ambiguity between organism and mechanism with such collages as *Tatlin at Home* or *Portrait of the Dadasoph*, both from 1920. In these, the human body is displayed with built-in mechanical parts, turning mechanical devices into bodily organs and vice-versa; in *Tatlin at Home,* Vladimir Tatlin´s head[90] is displayed with a car steering wheel mechanism emerging from within it, while on the side, an image of

{R.H.1}

{R.H.2}

{R.H.3}

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[89] David Robbins, *Eduardo Paolozzi*, in *The Independent Group: Postwar Britain and the Aesthetics of Plenty*, Edited by Daviod Robbins, The MIT Press, 1990, p. 95

[90] Actually, as it is stated by Mathew Biro, the represented head is not Vladimir Tatlin's, but one *of an unknown man that Hausmann found in an American magazine and whose features he associated with the russian artist for reasons he could never explain,* Mathew Biro, *Raoul Hausmann's Revolutionary Media: Dada Performance, Photomontage and the Cyborg,* in *Art History*, Vol. 30, No. 1 - February 2007, p. 42

human organs and arteries is displayed through the abat-jour of a floor lamp.

In *Portrait of the Dadasoph*, a man's body rests comfortably on a chair, its head replaced, as Cornelius Borck explains, by a *combination of pressure gauge and film projector* [that] *pass for face and brain, whereas the chest offers a look inside the body in the form of an anatomical preparation of the lung with its tubes and arteries.*[91] *Portrait of the Dadosoph* being a photomontage, Cornelius Borck further enhances its *combination of technological and surgical intervention that results [here] in a fusion of technology and biology,*[92] which leads to the image of a *cyborg with nothing in its head but machines.*[93]

This blending of organism and mechanism thus comes to mean that man and machine may become a one and only system developing a kind of intimacy and mutual dependency between their parts. The *combination of technological and surgical intervention* that Cornelius Borck acknowledges in Raoul Hausmann's technique of photomontage may of course be related to one of Donna Haraway's definitions of a cyborg as *a kind of disassembled and reassembled (postmodern) collective and personal self.*[94] Furthermore, Haraway writes, the *cyborg is resolutely commited to partiality, irony, intimacy*, while *the relationships for forming wholes from parts* (…) *are at issue in* its world. {J.Mc.2}

Although written within a context and time that are far beyond

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[91] Cornelius Borck, *Sound Work and visionary prosthetics: artistic experiments in Raoul Hausmann*, in *Papers of Surrealism*, Issue 4, Winter 2005, p. 11

[92] Ibid., p. 13

[93] Craig Adcock, *Dada cyborgs and the imagery of science fiction*, in *Arts Magazine, 58, 1983*, p. 67, quoted in Cornelius Borck, *Sound Work and visionary prosthetics: artistic experiments in Raoul Hausmann*, in *Papers of Surrealism*, Issue 4, Winter 2005, p. 10

[94] Donna Haraway, *A Cyborg Manifesto: Science, Technology and Socialist-Feminism in the Late Twentieth Century*, in *Simians, Cyborgs and Women: The reinvention of Nature*, Routledge, 1991, pp. 149-181. Source: http://www.stanford.edu/dept/HPS/Haraway/CyborgManifesto.html

from that of our investigation, Donna Haraway's words resonate through the idea of man's body becoming, in itself, a juxtaposed system of organic and artificial parts which simultaneously evolves as - and adapts to - a certain *millieu* within a technological and instrumental sense of existence. The cultural merger between organism and mechanism thus transforms man and technology's relationship, which means that the former no longer uses machines as some sort of technological tool that is exterior to its own physical and conscious self, but he himself emerges as that same technological tool.

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In *Incorporation* Sylviane Agacinski recalls the work of anthropologist André Leroi-Gourhan who, in his 1964 book '*Le geste et la parole*', *contests the primacy of cerebral activity in man's prehistory by studying physical evolution and technological advances. In 'Le geste et la* parole', Agacinski writes, *Leroi-Gourhan emphasizes that humanization 'begins from the feet' more than from the head, since the brain 'profited' from the advances made by locomotion but did not provoke them.*[95] In this solidarity between cerebral activity and *the evolution of technologies in the development process 'toward' man*, Sylvianne Agacinski finds a statement/fact that *deconstructs the hierarchy between spirit and body, thought and action, culture and nature.*[96]

This deconstruction, of course, ignites a reverse process of re-assessment over the idea of how this cultural - and now ambiguous -

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[95] Sylviane Agacinski, ibid., p. 33, quote from André Leroi-Gourhan, *Le geste et la parole, vol.1, Paris, Albin Michel, 1964*

[96] Ibid.

idea of *body technique* may[97] in its continuous process of dismemberment and rejoining of mechanico-organic parts, deal with the formation of an altogether architectural response that should *evolve not in relation to the human body but as the vehicle for its different organs.* In this sense, the instrumental quality of the artificial artefact becomes not only a technological extension for the body, but it mirrors the body in its own capacity of developing particular - specifically environmental - techniques. For Marcel Mauss, the definition of *Techniques of the Body* lies in those actions which are previous to the ones accomplished through *instrumental techniques;* these actions, states Mauss, are of a pure *mechanical, physical or pshysocochemical order.* In this sense, Mauss writes,

> [*T*]*he body is man's first and most natural instrument. Or more accurately, not to speak of instruments, man's first and most natural technical object, and at the same time technical means, is his body.*[98]

Thus, we understand, the concept under the term *techniques* relates to those capacities/abilities which are innate to the *instrumental-thing,* in which the body becomes directly implicated. Within the modernist bias, both the biological and the architectural bodies suffered a process of abstract decomposition and sequenced reorganization; although

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[97] According to Sylvianne Agacinski, it was Marcel Mauss who *forged the notion of 'body technique'.* This is a concept that defines technology as an imbedded physical act. *Thus*, Agacinski writes, if *the body is indeed, as Mauss says, the most natural technological object and technical means, it ceases to be situated simply on the side of nature and opposed to technology and culture.*

[98] Marcel Mauss, *Techniques of the Body,* in *Techniques, Technology and Civilization,* Nathan Schlanger, Ed., 2006, 2009, Durkheim Press. Translated by Ben Brewster and previously published in *Economy and Society* (1973) 2/1: 70-88. Originally published as *Les techniques du corps,* in *Journal de psychologie* 32: 271-93

rejecting any kind of symbolic or anthropomorphic analogy, modern architecture held an ergonomic principle as a means of incorporating and accommodating the actions - or *techniques* - of the biological body. Hence, de Solà-Morales writes:

> *Spatial expansion is the direct heir of the mechanical decomposition of the body, which now appears to possess a variable dimension, both as a function of the scale of the biomechanical figures and, thanks to the prostheses, to the extensions of the body that, via poles, cothurni, long caps, or technological garments, expand into space the energy of these bodies transformed into machines.*[99]

Putting forth the argument that an architecture based on ergonomics would be an architecture *without complete bodies*, de Solà-Morales also brings to mind - recalling Georges Teyssot's text *The Mutant Body of Architecture*,[100] - that the Greek word *organon designates both a bodily organ and a mechanical device capable of transporting efforts and energies in carefully determined forms and positions.*[101]

The compression of both biological organ and mechanical device within the term *organon* somewhat confirms a hybrid condition between body and instrument which surpasses the modernist - more specifically *Purist* - idea of the the *objet-membre-humain* as a mere complementarity utility for the naked human body.

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[99] Ignasi de Solà-Morales, ibid., p. 21

[100] Georges Teyssot, *The Mutant Body of Architecture*, in Elizabeth Diller and Ricardo Scofidio, *Flesh:* Architectural Probes, Princeton Architectural Press, 1994

[101] Ignasi de Solà-Morales, ibid., p.22

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In Fritz Kahn's image *Man as Industrial Palace,* a sectioned human torso reveals the interior of the body as an intricate architectural and technological complex. Produced as an *oversize poster version* of one of the images included in *Das Leben des Menschen (The Life of Man), a 'popular anatomy and physiology of the human body', by Fritz Kahn*[102] *Man as Industrial Palace* appears as a sort of diagramatic illustration, merging architectural iconography, technological optimization and physiological functioning; indeed, as Cornelius Borck acknowledges, *only upon closer inspection, does it become clear how the illustration assembles specific machinery to represent a particular organ and its function within its natural place.* (…) In this respect, Cornelius Borck adds, *the poster appears to be an almost prototypical example of the 'Neue Sachlichkeit', the period's ideal representation of its era as rational, and clean, technological and sanitized modernity,* while also sharing *important features with the emergent culture of industrial design, advertising, and economic commodification.*[103] *Man as Industrial Palace*, brings to mind Le Corbusier's assumption that a *house or a palace is an organism similar to any living creature;* in the case of Kahn's image, however, it is man's body which is represented as a building, mixing and articulating its infraestructural apparatus together with office-like compartments where micro human inhabitants deal with precise *everyday* tasks. What indeed strikes Cornelius Borck the most is the fact of *how literally the machine analogues stand in for the body´s organs,* i.e., how *each industrial compartment* is denoted

{F.K.1}

[102] Cornelius Borck, *Communicating the Modern Body: Fritz Kahn's Popular Images of Human Physiology as an Industrialized World,* in *Canadian Journal of Communication,* Vol. 32, 2007, pp. 495-520

[103] Ibid., p. 496

as *a particular organ.* This, Borck concludes, represents a fusion of the *biological with the technological object.*[104]

In this image, then, architecture stands as both a multi-functionalist structure and a hybrid bio-mechanic artifact, through which both the biological body and the technological mechanism are bound to converge as a unique system. The compartments depicted in the humanoid silhouetted *building* of Fritz Kahn, although embedded within a strict organization and hierarchy - from the *head* compartments labeled as *Verstand* (Understanding), *Vernuft* (Reason) or *Wille* (Will), to the lower tayloristic-like subsequent and essentially functional parts - establish a capability of reuniting into one single space a whole range of actions and decision making processes.[105]

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Siegfried Giedion, in conclusion to his 1948 book *Mechanization Takes Command,* would state that the *human organism requires equipoise between its organic environment and its artificial surroundings. Separated from earth and growth, it will never attain the equilibrium necessary for life.* (…) Hence, Giedion also wrote, *we need a type of man who can control his own existence by the process of balancing forces often regarded as irreconcilable: a man in equipoise.*[106]

In the same year, Norbert Wiener would publish *Cybernetics: or Control and Communication in the Animal and the Machine,* in which he would

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[104] Ibid.

[105] This, as we shall see, ultimately materialized in 1968's *Action office* designed by Robert Probst, which inherits its system-like interaction between biological (human) and technological entities (articulated with a game play-like interrelation between operative part and institutional whole), from the air force investigations over pilot-plane interaction, epitomized in the design of the fighter pilot cockpit. see, Branden Hookway, *Cockpit*, in op. cit., pp. 22-54 {C.P.}

[106] Siegfried Giedion, *Mechanization Takes Command*, p. 720-721

expose the *notion of machine-to-human and machine -to-machine feedback.* According to Reinhold Martin, *the feedback loops and servomechanisms on which Wiener had begun working at the same time that Giedion was writing Mechanization Takes Command represented the components from which the 'new type of man' announced by Giedion could potentially be assembled.*[107]

Thought upon as a unique system, then, man and machine interaction *required a simultaneous consideration of human factors and machine function.*[108] After acknowledging the inauguration of a *new form of instrumental rationality* during World War II - *one that no longer merely sought to reduce complex processes into their constituent parts,* Branden Hookway, recognizes the cockpit as *the privileged site of man-machine interaction,* thus concluding it to be *the prototype of postwar space.*[109] On doing this, Hookway is stating that postwar space is mainly determined by its interactive capabilities with the body and not in accordance to any sort of cultural, formal or functional correspondence. In this sense, the cockpit, seen simultaneously as a spatial and technological device, would relate to its inhabitant as both body - in terms of its presence - and organism - in terms of its functioning. The cockpit would, in this respect, be understood within a twofold condition - as an interface and as an environment. In the calibration process toward a fully optimized inter-relation between cockpit and pilot, then, *the body would become mechanized, or rather systematized - visible only in its reactions with and against a technologically mediated environment.*[110]

As an interface, the cockpit was all about information flow and mediation between pilot and plane, in order to establish a precise and

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[107] Reinhold Martin, op. cit., p. 110

[108] Branden Hookway, op. cit., p. 37

[109] Ibid., p. 26

[110] Ibid., p. 37

operative knowledge from the inside toward the exterior, wether in battle or flying through rough climatic conditions. As an environment, however, the cockpit would have to address such issues as its *cramped quarters, the noise of the engines, the cold temperatures and reduction in atmospheric pressure at high altitude, and even the stress of combat.*[111]

The process of design, undertook by teams of engineering psychologists, would simultaneously be concerned with the optimization of the *feedback loop between human beings and technologies* and the concurrent spatial environment in which such a *loop* takes place. In these procedures and experiments, technologies and *body techniques* are equally developed in order to merge them into a unique instrumental *and* spatial-thing, that, while smoothly integrated into a larger organizational system, should be capable of autonomous action. *The result,* as stated by Branden Hookway, *is a blurring of the formal boundaries between institution and individual, just as human factors and engineering psychology effaced the distinction between human being and machine within the man-machine*

[111] Ibid., p. 42

system.[112]

Within the anthropomorphic figure of Fritz Kahn, unlike the principle beneath the action office, one is presented with a compartmented organization of rooms and a rather complex set of machinery which, as previously noted, are labeled according to precise and unique functions; and although we are lead to infer on an interrelation between them - which in the end makes the body-building *work* - they are constituted as autonomous parts.

There is, however, a remarkable tautology on representing human figures in such sceneries as decision making meetings, or simply complying with executive tasks within the representation of a *building* that not only is shaped itself as a human figure but that ultimately

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[112] After World War II, engineering psychology would spread out of the military realm, and sought to engage with civilian partners such as academic institutions or the industry, while enlarging its role *in a number of different areas, affecting everything from the design of highway systems to the organization of work spaces.*. Particularly in the latter case, the relation between institution and individual, or more abstractly put, part and whole, becomes synthesized within the design and organization of the office as *the premiere site for the systematic accommodation of technological change within a spatial environment.* When in 1964 designer Robert Probst creates the *Action Office* for Herman Miller, it does so under the assumption that it should hold the possibility of of interaction *across various scales in the office environment:* (…) *from the individual office worker customizing his or her workstation, to scenario planning at the institutional level, to the microadjustments of the office floor based on the requirements of day-to-day use.* In this sense, the *Action Office* acted as a sort of cockpit, allowing for its *pilot* to feel integrated and act in deep articulation with the corporative managerial system, while also creating the opportunity for individual initiative and responsibility within its *isolated* and *enclosed* spatial condition.

Both cockpit and *Action Office* design incorporate the organic body in the same way that the body itself extrapolates as *cockpit* and *office*; furthermore, both cockpit and office juxtapose to their instrumental character a subjective condition in response to the way in which the former strict and segmented organizational *building* transforms itself into a systematized field with no recognizable silhouette. Ibid., pp. 43-48

aims at *precisely* representing the functioning of the human body as if it were an artificial architectural and technological construct. Unlike the hybrid figures of the dadaists, *Man as an Industrial Palace* represents the integrated body; but although it classically represents a *vertical subordination of part to whole* it nonetheless accentuates the ambiguity between biological, technological and architectural body. Such an ambiguity is not read in terms of representation, but of conception, for we are lead to understand the mechanisms as organs - more than the reverse - operated by human figures within an architectural complex which in itself is also a body conceived as a *palace.* A similar ambiguity is present on the conception of both cockpit and office - both incorporate the operative body while also becoming *organic*; but the *operative* body - as those within the *cerebral* compartments of Fritz Kahn's images - also assumes an specific role. The difference is that while within the *palace* we acknowledge a segmentation of tasks and hierarchies, the cockpit and office tend to blur those hierarchies while juxtaposing different tasks and possibility of autonomous action. Moreover, if within the *palace,* to each specific part of its *body* corresponds a specific *technique*, within cockpit or office, one finds a wider range of *techniques* inside an atomized, single space. {F.K.2}

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When in 1944, Charles Eames and John McHale conceived each an image under the title *What is a House?* the comparison comes to be quite striking. While John McHale imagines a house as a mechanism, thus putting the emphasis on its infra-structural and technological component, Charles Eames represents a series of human figures that depict an array of actions - from children playing with toys, to adults playing cards, projecting home movies, painting or relaxing in a sort of *chaise longue,* reading, playing music, or working. So while in McHale {J.Mc.1} {Eam.1}

we are presented with an artificial and intricate mechanism at work, in the Eames' image we are confronted with the body at play. In both cases, however, there is no sign of any formal or spacial trace of how the house actually is, *architecturally* speaking; instead, both McHale and Eames, - neither of whom, by the way, being an architect - respectively chose to depict *a house* either as a purely mechanical artefact or as a blank stage where the body is depicted in a state of continuous play and change.

House of the Future would literally merge these two conceptions, by creating a house that, *like a big piece of equipment,* would incorporate the playing body as an integral part of its built-in structure. But this *piece of equipment* is as much a mechanical complex artificially sustaining and characterizing its enclosed ethos as a *body* part organically co-extensive with its inhabitants. As it is put by D. E. Harding, *when your client moves into the house you have built for him he moves into every part of it, from the tips of his radio antennae to the soles of of his footings.* Hence, *he does not live in the house: it lives in him.* Not by chance has Beatriz Colomina noticed that *the H.O.F. depicted in perspective resemble*[s] *a lung inside a box.*[113] In accordance to its lung-like design, the house was deigned to provide its occupants and itself, with *fundamental necessities,* with a special emphasis on the capture of clean *unbreathed air.* {H.o.F.2}

As the most direct heir of the *House of the Future,* David Greene's *Living Pod,* imagined ten years later, loses the box and appears with a certain resemblance with the most vital of organs - the heart. Its entrance almost mimicking the section of the heart's vena cava *emptying* into the atrium like interior, the *Living Pod* also exposes several other *arteries* that mirror those of the human organ. Inside it, an array of {L.P.1} {L.P.2}

[113] Beatriz Colomina, *Unbreathed Air,* in op. cit., p. 231

machines such as a *non-static food dispenser with self-cook modifications,* a *non-static media, teach and work machine with instant transparent cocoon ring* or even *inflating screens to sleep mats*[114] respond to the fundamentals of the physical and mental life. While the *H.O.F.* was primarily thought to build into a dense mass, it nonetheless incorporated reference to other sorts of settings; the *Living Pod*, however, was immediately conceived as a loose component; nonetheless, as David Greene writes, (*although this capsule can be hung within a plug-in structure or can sit in the open landscape), it is still a house.*[115] {L.P.3}

Probably a late modern materialization of Georg Simmel's *metropolitan type*'s creation, the capsule assumes itself as a *protective organ* (…) *against the profound disruptions with which the fluctuations and discontinuities of the external milieu threaten it.*[116] In this respect, David Greene's assertion that (*with apologies to the master), the house is an appliance to carry with you* resonates with D. E. Harding's initial assumption, according to which, *a house is not a machine for living in, but an organ for living through.*

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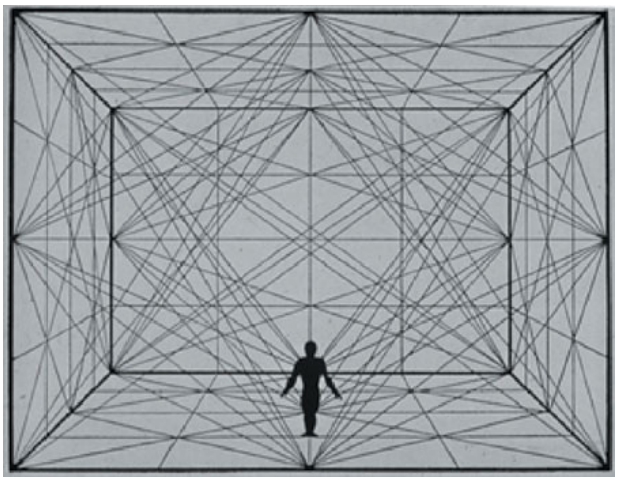
[114] David Greene, *Living Pod,* in *A Guide to Archigram 1961-1974,* Garden City Publishing, 2003, p. 182

[115] Ibid.

[116] Georg Simmel, *The Metropolis and Mental Life,* in *Rethinking Architecture - a reader in cultural theory,* Neil Leach Ed., Routledge 1997, p.70

The Capsule and Postwar Architectural Avant-Garde, *circa* 1956



ENVIRONMENT

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> *All electrical information is simultaneous. So in a sense the electric age is an acoustic age.* (…) *The ear picks-up information from all directions at once and that is acoustic, that is acoustic space.* Marshall McLuhan[1]

The apprehension of three dimensional space, as based on the primacy of vision, establishes a consecutive experience in which the motion of the observer breaks up in sequencial frames that simultaneously build up, one over the other, as an aggregation of pre-composed views - a conception that one may see as translating quite appropriatelly into Le Corbusier's famous expression of the *promenade architecturale*. To this, Marshall McLuhan counterposes the notion of the acoustic, i.e., a non-composed apprehension of sensorial stimuli that juxtaposes as an orchestrated pattern, a notion which Moholy-Nagy analized in *Vision in Motion,* and turned out as one of McLuhan's most important references. This implies a simultaneity of events and

[1] Marshall MacLuhan, *Left or Right Brain TV,* interview on the Canadian Broadcasting Corporation in 12th September 1977, the CBC Archives

references that - as in the process of collage - establishes a flattened sense of depth, a figure-ground play that is open to the individual's single experience. The paradox remains in how a surrounding three-dimensional space may incorporate as a flattened two dimensional pattern that, subsequently is able to configure an all embracing experience. Louis Marin's analysis of Caravaggio's *black* paintings versus Nicholas Poussin's narrative landscapes, establishes the former as one concentrated in the instant, a radical synthesis of an action unseen and enclosed within a darkened space. This configures Caravaggio's paintings as depicting dense, compressed moments, unlike Poussin's opened and sequenced arcadian *paysages*. *Parallel of Life and Art* exhibits this feature quite well, producing a spatial experience based on the flattening of distinct phenomena within one single space thus creating a unique awareness of different scales and fragments. This means that the presence of the observer - as listener - is crucial for the happening of such a reality, something which quantum physics demonstrates by abolishing any sense of *a priori* knowledge. In fact, it is within the quantum universe that the notion of path as a sequence of events or views becomes compromised, giving way to an experience of instant and probable connections which take place through a simultaneity of events that manifest as *real* insofar as they are apprehended. In this way, quantum physics establishes a direct liaison between the active experience of any event with the discovery of its effective reality; simultaneously, it disrupts any conception of the universe as a stable and organized whole which we may orderly follow or unveil while configuring it as a simultaneity of events that produces a dynamic field of resonance.

The term environment carries within its etymology the french word *environs,* which stands for *around,* from the contraction of *en* - in +

viron - circle or *circuit*. In this sense, environment further means *the totality of surrounding conditions*, which puts an emphasis on a sense of totality and the conditions aunder which this sense of totality might translate as a spatial quality within an *enclosed,* capsular space.

Marshall McLuhan's reading of the transition from as early mechanistic culture into an electric age acknowledges a shift from an analytical - and thus sequential and linear - position toward the conception/organization of cultural phenomena to an empirical experience of saturated and simultaneous data; within this assumption, McLuhan immediately recognizes a dramatic shift in the spatial bias, opposing to the visual and fixed perspectival space of *the mechanical age of hardware* a mosaicist and dynamic space of sensorial awareness, which places man within a *closed world of tribal depth and resonance, an oral culture structured by a dominant auditory sense of life.*[2]

At the beginning of his extensive study on Marshall McLuhan's reflections on space, author Richard Cavell describes a 1973 film - made by McLuhan, for the *Great Minds of Our Time* series - entitled *Picnic in Space:*

> *The film begins with static and McLuhan's voice-over speaking about several kinds of spaces - visual, acoustic, Greek, Roman, enclosed, open,and so on. (…) Throughout (…) there are cuts t the film's leitmotif, a close-up shot of Mondrian's 'Broadway Boogie-Woogie' (complete with boogie-woogie piano piano music on the soundtrack). McLuhan takes this as a representation of acoustic (boogie-woogie) space (Broadway) in its allusion to a discontinuous musical form that is analogous to the discontinuities of the post-Euclidean*

[2] *The Playboy Interview: Marshall McLuhan,* in *Playboy Magazine,* March, 1969

space embodied in Mondrian's painting. The painting's musical interface is a further reminder that three-dimensional space is only one kind of space and that acoustic, or non-linear, space exists in the realm of sight as well as of hearing and tactility in general. [3]

As a potential visual representation of acoustic space, *Broadway Boogie-Woogie* very much incorporates McLuhan´s acknowledgement - following the arguments of Georg Von Békésy´s book *Experiments in Hearing* - of the conditions in which the *flat iconic image* - as opposed to *pictorial three-dimensional art - gives an integral bounding line or contour that represents not one moment or one aspect of a form, but offers instead an inclusive integral pattern.*[4] As described by Richard Cavell, in a chapter of Von Béséky´s book entitled *The Spatial Attributes of Sound,* the biophysicist experiments *showed that 'perception of the distance of a sound was determined simply by the loudness', and goes on to make a significant visual analogy with this way of perceiving acoustic space. ( ) Von Békesy's analogy suggests the confluence of the acoustic dynamic with that of the figure/ground gestalt,* Cavell further writes, *the two-dimensional planar relationship that McLuhan theorized as more involving because it was not tied to the fixed positionality (point of view) characteristic of Renaissance art - it was in fact characteristic of the mosaic.*[5] {P.M.}

By associating the two-dimensional with the auditory and the mosaic, McLuhan was acknowledging a non preferential point of view - i. e. a perspectival point of view - thus privileging the idea of orchestration.

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[3] Richard Cavell, *McLuhan in Space - A Cultural Geography*, University of Toronto Press Incorporated, 2002, p. 3

[4] Marshall McLuhan, *Cybernation and culture,* in *The social Impact of Cybernetics,* ed. Charles R. Dechert, University of Notre Dame, Paris, 1966, pp. 95-108; this quotation, p. 97, quoted in Richard Cavell, op. cit., p. 23

[5] Richard Cavell, ibid.

The recognizing of Mondrian's *Broadway Boogie-Woogie* as a kind of synaesthetic representation of space, also echoes Moholy Nagy's earlier assumptions on photomontage - and superimposition -, which, he states, *demands a concentrated gymnastics of the eye and brain to speed up the visual digestion and increase the range of associative relationships.*[6]

In Richard Hamilton's collage title for Group Two's poster at the *This is Tomorrow* exhibition, the question *Just What Is It That Makes Today's Homes So Different So Appealing?,* may be understood, if read as rhetorical, as both a statement and a proposal - a statement, for it understates that, in fact, today's homes are already different and appealing; a proposal, because simultaneously the image appears to be presenting a kind of atmosphere which is understood as to effectively make a home *different* and *appealing*. So the significance of Hamilton's collage is twofold - at the same time it seems to recognize *today's homes* as already different and appealing (in which it becomes a kind of portrait), it also synthesizes and reveals that which may, in fact, produce such an effect (in which it projects a new image of what a *home* could, effectively, become). Produced to be included in the exhibition's catalogue (it was not part of the exhibit)[7], and subsequently used as a poster, it's making - which was achieved in a single morning - obeyed a guide list of *things* which Hamilton wanted to be represented: *Man, Woman, Humanity, History, Food, Newspaper, Cinema, TV, Telephone, Comics (picture information), Words (textual information), Tape recording (aural*

{R.Hm.1}

{R.Hm.2}

[6] László Moholy-Nagy, *Vision in Motion,* Paul Theobold Publisher, Chicago, 1956 (Fifth Printing), p. 212

[7] see David Robbins, Ed., *The Independent Group: Postwar Britain and the Aesthetics of Plenty* (Cambridge Massachustetts, 1990), p. 69

information), Cars, Domestic Appliances, Space.[8] Worthy of note, is the fact of Hamilton *explaining* a specific purpose for the items *Comics, Words* and *Tape recorder*, respectively highlighting the issues of pictorial, textual and aural perception. In this sense, such items/issues are included in the image conception as to produce an emphasis on the sensorial quality of the space depicted. In fact, a second collage made by Hamilton - which was placed at the front of the Group Two structure and also used in the exhibition catalogue - in which a large photograph of a head is depicted with several juxtaposed arrowed text labels indicating the human sensory organs and stating their purpose.[9] On the forehead, the word *Think* appears as a repeated - in an increasingly emphatic way - thought, while a comic-like balloon comes out from the subject's mouth mouth *expressing* an amount of seven question marks. Placing the collage at the front of the display thus reminds the visitors to become aware of their senses during their stay, to actually gain a conscience over the use of such senses and finally, to be able to come out with some kind of reasoning; this insistence on sensorial awareness carries a subliminal referent in the presence within the Group Two structure of the *Forbidden Planet* sci-fi film character *Robbie the Robot. Forbidden Planet,* released in 1956, revolves around the mystery of an invisible force having destroyed the Krell civilization that lived on Planet Altair IV. Such a civilization - and this is where we may encounter a thin liaison

{R.Hm.4}

{F.H.1}

{F.P.1}

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[8] see John-Paul Stonard, *Pop in the Age of Boom: Richard Hamilton's 'Just what is it that makes today's homes so different so appealing?'*, in *The Burlington Magazine,* CXLIX, September 2007. According to Stonard, *there is no copy of this list in Hamilton's archive.* The list is nevertheless reprinted in *R. Hamilton: Collected Works (1953-1982),* London, 1982, p. 24

[9] The picture used in this collage is that of President Tito; there is, however, a perspective visualization of the Group Two structure which was made to be included in a feature on the exhibition in the issue of *Architectural Design* for September 1956 in which a similar collage is depicted, only this time it uses a picture of french statesman and member of the french Radical Party, Pierre Mendes-France.

with the issue at hand - had, until their disappearance, developed a powerful technology that - as it is put by Ken Hollings - was *capable of harnessing the collective power of thought, sending it anywhere in the universe they chose in any shape or form they wished.*[10]. Marveling at such an achievement, Dr. Ostrow, one of the earth's visiting ship crew members to the planet wonders:

A civilization without instrumentality!

Interestingly, there are slight differences among the labels between the *Collage of the Senses* image that was put up at the front of the Group Two structure - to which the previous description relates - and the one used in the catalogue; in the latter, the words *LOOK!, LISTEN!, FEEL!* and *SMELL !* were, respectively, replaced by such expressions as *Beware of Shutitis*, DID YOU HEAR THAT?, the TOUCH appeal* and IT SMELLS. Also, and more noteworthy, is the fact of the previously expectant question marks being replaced by an actual expression in which is stated that, [*D*]*ozens of small details add up to great convenience.* {R.Hm.4} {R.Hm.5}

As used in the catalogue, the *Collage of the Senses* sounds as a teaser description of what a visitor might expect while inhabiting Group Two's structure, whilst simultaneously anticipating *Just what is it…?,* the latter appears indeed as an ambiance of *dozens of small details* which unfold as a mosaic of heterogeneous and apparently unconnected imagery, describing - and more importantly, encapsulating - architectural space as a perceptual field (of contemporary references). In this sense, *Just what is it…?* functions as a complementary image {R.Hm.2}

[10] Ken Hollings, *Welcome to Mars, Fantasies of Science in the American Century 1947-1959,* Strange Attractor Press, 2008, p. 177

to the effectively built structure exhibited inside the Whitechapel Art Gallery; designed by John Voelcker, the Group Two initial ideas for the exhibit structure are described by Graham Whitman as ranging from *an inhabitable Möbius strip to a crazy house such as one might find on a fairground. The final structure,* Whitman further states, *reflected the topological motive and housed two specific types of imagery: sensory stimuli and optical illusions from the Bauhaus and Marcel Duchamp (the theme of perception), and images from popular art, chiefly from the cinema and science fiction (the theme of what we perceive at the moment).*[11] {F.H.2}

The Group Two display acted as a perceptual device, a structure built to ignite one's senses towards the comprehension of the contemporary visual landscape as a field of sensory awareness and experience. We should of course acknowledge this complementarity in the context of the three part text that is also included in the *This Is Tomorrow* catalogue. In the first part, Richard Hamilton ends his contribution by stating that:

> *What is needed is not a definition of meaningful imagery, but the development of our perceptive potentialities to accept and utilize the continual enrichment of visual material.*[12]

Although Hamilton puts the emphasis on the *continual enrichment of visual material*, it does so under the idea that such material carries within itself a multi-sensory quality. It is not, in fact, a search for

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[11] Graham Whitman, *Exhibitions,* in David Robbins, Ed., *The Independent Group: Postwar Britain and the Aesthetics of Plenty* (Cambridge Massachustetts, 1990), p. 139

[12] Richard Hamilton, *This is Tomorrow* Catalogue

meaning what is an issue, but a question of sensory awareness towards the surrounding imagery. Read within this assumption, both the Group Two structure at Whitechapel and the collage *Just was it…* mirror {R.Hm.2} one another. In both cases we find an array of issues that attempt to incorporate the visual with a sense of material depth which resonates with *New Brutalist* effects, regarding that which may be considered under the guise of the term *image*; if we are to understand the visual as that which translates into/as an image, then, in a way, we could almost paraphrase Reyner Banham's definition of the term to better describe Hamilton's statement. In his seminal text *The New Brutalism*, written in 1955, Banham acknowledges the wide range of significance of the term image as *a word that describes anything or nothing. Ultimately, however*, Banham continues, *it means something which is visually valuable, but not necessarily by the standards of classic aesthetics.*[13] Hamilton's statement - following the Independent Group's attraction towards almost anything visual, i.e. advertising, cinema, both scientific and science fiction imagery, comics, etc. - subliminally invites one to, indeed, consider *the continuous enrichment of visual material* as an always valuable experience within a contemporary process of extending one's range of perception, and never as a way of circumscribing such material to a concern *with the creation of style.* Within Hamilton's statement resides a structural procedure that aims at translating the visual not as an aesthetic experience but as a sensorial construct. Under this assumption, it is possible to focus into Banham's analysis of the term image, in which he traces a shift to its definition within his interpretation of the *New Brutalism* paradigm. Banham writes:

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[13] Reyner Banham, *The New Brutalism*, in *A Critic Writes,* selected by Mary Banham, Paul Barker, Sutherland Lyall, and Cedric Price, University of California Press, 1996, p. 12. Originally published in *The Architectural Review,* 118 (December 1955), pp. 354-361

> *Where Thomas Aquinas supposed beauty to be 'quod visum placet' (that which seen pleases), image may be defined as 'quod visum perturbat' - that which seen, affects the emotions* (…) *What pleased St. Thomas was an abstract quality, beauty - what moves a New Brutalist is the thing itself, in its totality, and with all its overtones of human association.*[14]

Within the context of Hamilton's statement we could then say that an image is also something which seen, 'affects the senses'. And on affecting the senses, such an image instantly becomes a subjective experience of the *thing itself* within what Steven Lehar calls the *phenomenal world.* [15] According to Steven Lehar - and although he is specifically addressing the issues of visual perception - *there is no known physical mechanism that can possibly account for the external nature of visual experience.*[16] This means that our brain, as *the organ of consciousness* (…), *cannot in principle experience the world directly, but only indirectly, in response from to the two-dimensional images sent to it from the eyes. This fact,* Lehar further writes, *is in conflict with our conscious experience of objects and surfaces outside of ourselves, because our conscious experience appears to escape the confines of our physical being, to extend into the external world beyond our sensory receptors.*[17] According to Lehar, Immanuel Kant pointed out a possible *solution to this paradox;* departing from the conception that we *cannot actually experience the world itself as it is, but only an internal perceptual replica of the world,* Kant would divide reality into two *worlds: the nominal* - which stands for the *objective external world - and the phenomenal* - which stands

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[14] Ibid.

[15] Steven Lehar, *Gestalt Isomorphism and the Quantification of Spatial Perception*, in *Gestalt Theory,* No. 2, Vol. 21, 1999, pp. 122-137

[16] Ibid., p. 123

[17] Ibid., p. 122

for the *internal perceptual world of conscious experience.*[18]

This radical subjectivity on the process of perception of the *real,* actually brings Lehar to the assumption that not only does the process of visual perception create a *perceptual replica* of the outside world, but that [*T*]*he only way we can perceive the nominal world* - which Lehar describes as *the world studied by science,* (…) *populated by invisible entities such as atoms, electrons and invisible forms of radiation - is by its effects on the phenomenal world. Therefore,* Lehar concludes, *the world we experience as external to our bodies is not actually the world itself, but only an internal virtual reality replica of that world generated by perceptual processes within our head.*[19] This means that any image of the *solid spatial world that we perceive around us* is, beforehand, a *manifestation of activity within an internal representation*, an empirical build-up of an illusionary reality, projected as the one we are experiencing. This rather platonic take on the perceptual ability of our senses to effectively create an *objective* reality out of a subjective perceptual process, places the concept of the objective, and therefore of causality, into question. In this sense, John McHale's take on Group Two's intentions also appears as quite revealing:

> *Any change in man's environment is indicative of a change in man's relation to it, in his actual mode of perceiving and symbolizing his interaction with it.*
>
> *Therefore we are concerned simply with underlining the discrepancy between physical fact and perception of that fact, and the ways in which this discrepancy may be so magnified by traditional attitudes and assumptions as to obscure the significance of the factual reality.*
>
> *This by presenting a complex of sense experience which is so organized,*

[18] Ibid., p. 123

[19] Ibid.

or disorganized, as to provoke acute awareness of our sensory function in an environmental situation.[20]

McHale begins by stating the intrinsic relation between man's environment and the way it is perceived and represented; from here he states the concern in highlighting the traditional *discrepancy between physical fact and the perception of that fact,* thus establishing a phenomenological gap. From the existence of such a gap, maintained by *traditional attitudes and assumptions,* Mchale further states, results a repressed *significance of the factual reality*, within, we might add, the visual and conceptual reality of the phenomenal world. In this sense, to present a *complex sense experience* - which, paradoxically, is said to be either *organized, or disorganized* - is to create *an environmental situation* in which one's *sensory function* may experience a dense and juxtaposed dose of inputs and to generate a tight liaison between perception, cognition and imagination - an assumption one may retrospectively recognize as being expressed in the *Collage of the Senses*. In a letter sent to Richard Hamilton in November 1955 during his stay at Yale following a fellowship to study with Joseph Albers, John McHale confirms his interests in perception, along *visual illusions and science fiction*: *Main kick now is perception via [Adelbert] Ames etc coupled with Joe's [Joseph Albers] field of color vibration.*[21]

{R.Hm.4}

{R.Hm.5}

In fact, the Group Two display was filled with such perceptual and illusory mechanisms, ranging from Marcel Duchamp´s *rotoreliefs,* through an *Optical Illusion Corridor* - in which floor and walls were

{F.H.2}

[20] John McHale, *This is Tomorrow* Catalogue

[21] John McHale quoted in John-Paul Stonard, op. cit., p. 611

covered by *black and white undulating patterns* [22], to music from a jukebox, a giant bottle of Guinness - which definitely resonates with the Ames Room scale illusions - and a spongy floor that when stepped on emitted a strawberry scent. One of the major attractions was the presence of a cinema room, featuring a large *cinemascope* collage. The architectural structure itself, with its inclined surfaces, sequences of trapezoidal overtures and walls covered with illusory effects, echoes the spaces of german expressionistic film, where, as quoted in Anthony Vidler's text, {F.H.3}

> *Architecture and the Filmic Imaginary, in the words of art critic and New York Times correspondent Herman G. Scheffauer, a new 'stereoscopic universe' was in the making.*[23]

Vidler's concerns in its analysis of the filmic imaginary are to do mainly with how cinematic aesthetics - particularly that of early German expressionist films - articulated the architectural with the issues of time and space - a question he finds well encompassed within the term *cineplastics*, coined by art historian Elie Faure; and although the Group Two direct cinema references have nothing to do with early German expressionist cinema - explicit references shown are those of Marilyn Monroe's famous skirt flying scene from *The Seven Year Itch, Robbie the Robo*t, and of course the large *cinemascope* collage - besides the obvious geometric or perspectival distortions, we find that there exists an altogether cinematic implicitness - especially {F.H.1} {F.H.2}

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[22] Nigel Whiteley*, Reyner Banham, Historian of the Immediate Future,* The MIT Press, 2002, p. 113

[23] Anthony Vidler, *Architecture and the Filmic Imaginary*, in *Warped Space, Art, Architecture and Anxiety in Modern Culture,* The MIT Press, 2001, p. 103, first printing, 2000

in its expressionist expression - in the way in which the *funhouse* becomes a phenomenological experience. Writing about Robert Weine's 1920 film *Das Kabinett Des Dr. Caligari,* Vidler defines its *scenic* architecture as [*A*]*n advance on the two-dimensional world of the picture*, thence concluding that *films such as Caligari* expose the ability of the architect to dominate *furniture, room, house, street, city, landscape, universe!.* [24] Although symptomatically put in a crescent order of scale, Vidler's quote of Scheffauer does not seem to suggest that such a sequence or path is followed or implicit in the film; further extending in the reading of the art critic's analysis of the film, Vidler leads us to a quotation in which each space/scene depicted in the film is impressively described according to the effects they hold and provoke:

> *A corridor in an office building: (…) The floor cryptically painted with errant lines of direction, the floor in front of the doors shows crosslines, indicating a going to and from, in and out. (…)*
>
> *A street at night: (…) Doors and windows constructed or painted in wrenched perspective. Dark segments on the pavement accentuate diminishing effect. (…)*
>
> *An attic: A projection of white and black patterns on the floor, the whole geometrically felt, cubistically conceived. This attic is out of time but in space. (…)*
>
> *A room; or rather a room that has precipitated itself in cavern-like lines, in inverted hollows of frozen waves. Here space becomes cloistral and encompasses the human (…) A prison-cell: Here space turns upon itself, encloses and focuses a human destiny. (…)*

[24] Ibid., p. 104

A white and spectral bridge yawning and rushing out of the foreground (…)

Several aspects of the market place of a small town: … the town cries out its will through its mouth, this market place.[25]

The spaces are presented out of the order in which they appear in the film so there is not, in fact, any sense of sequence between them or any impressions that might lead us to a feeling of ordered narrative. Instead, Scheffauer presents a rather discontinuous and mosaicist depiction of *Caligari*, which nevertheless appears to convey a phenomenal experience creating a surrounding effect. *Caligari, then,* writes Vidler, *has produced an entirely new space, one that is all-embracing and all-absorbing in depth and movement.* [26]

All-embracing and *all-absorbing* are qualities that we may also attribute either to the *Funhouse* or to the collaged environment *Just was it…?*. Bringing to mind Vidler's quote of Scheffauer's, we actually realize that *Just what is it…?* also manages to include *furniture, room, house, street, city, landscape, universe!* establishing a sense of cosmic juxtaposition holding what Moholy-Nagy called an increased *range of associative relationships. Just what is it…?,* thus configures a field of multiple depths and offers an effect of intertwined disparate dimensions. If we recall Steven Lehar's assumptions on the making of the perceptual image of reality, we find that maybe Hamilton's collage is to be seen as an exterior/conceptual manifestation of such an image, thus bringing into reality an illusory percept presented as a sensorial effect. In this sense, *Just what is it…?* may be though upon as a spatial phenomenal

{F.H.3}

{R.Hm.2}

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[25] Herman G. Scheffauer, *The Vivifying of Space, Freeman* (24 November-1 December 1920), reprinted in Lewis Jacobs, ed., *Introduction to the Art of the Movies,* New York: Noonday Press, 1960, pp. 79-81, quoted in Anthony Vidler, op. cit., pp- 105-106

[26] Anthony Vidler, op. cit., p. 106

construction that embeds into the visual the qualities of other perceptual capacities, thence effectively creating a *different* and *appealing* place. And although constructed over a perspectival representation of a common living room - an advertisement image for the *Armstrong Royal Floors*, taken from a June 1955 issue of the *Ladies' Home Journal* was the basis for *Just what is it…?.* [27] - Hamilton's collage may better be read as a flat image in which an ambiguous figure and ground play establishes a feeling of simultaneity, rather than sequence. In fact, from the point of view of optical projection *Just what is it…?* holds several incorrections, leading us to understand in it, not an intention to *objectively* represent, but a will to subjectively conceive. This means that the scene depicted in *Just what is it…?* isn't primarily defined through geometry but through the interplay of two major situations which Hamilton patched alongside or over each other. Although we are led to understand the collage as a domestic scene with a twist of *pop* indulgence thrown at it - as the fact of using an image of the *Ladies' Home Journal* onto which are pasted several items of so called *pop imagery* may indicate - what results as particularly striking in Hamilton's collage to our present discussion is the juxtaposition of such a scene together with a glimpse of an aerial view of planet earth that occupies the whole of the upper space of the image where before a ceiling composed by painted wooden beams was present. Although occupying the most part of the image, the staging of the domestic scene is clearly on par with the density and subsequent presence of the planet. The portion taken from the *A Hundred Mile High Portrait of Earth* - from a double-page feature published in *Life* magazine (5th September 1955)[28] is actually turned upside down from its original orientation in the *Life* photograph, thus assuming a relative

{R.Hm.3}

{R.Hm.2}

[27] John-Paul Stonard, op. cit., p. 615

[28] Ibid., pp. 615-616

position towards the image of the room. In this sense, it doesn't work as an image patched onto the ceiling surface of the room, but as an independent figure, one that actually places the domestic scene within a cosmic scale. The room itself already showed an ambiguous scale, particularly with the inclusion by Hamilton of the image of a woman vacuuming the stairs, taken from an advertisement for the *Hoover Constellation,* a new vacuum cleaner holding an *exclusive double-stretch hose*. Cut out from the same issue of the *Ladies' Home Journal* where Hamilton had found the advertisement image for the *Armstrong Royal Floors* the image of the woman vacuuming the stairs was pasted over the previous existing cupboard, both the stairs an the woman introduce an abnomaly/ambiguity regarding the perception of the size and scale of the room, stretching it within its original state. The room thus holds a dimensional flexibility, which together with the presence of the *hovering* planet above it, establishes an extensible but inclusive spatial bias. The narrow black - or *negative* - space which *mediates* the image of the planet with that of the interior of the room is but a portion of a continuous background that, while holding both *realities,* is consequently determined by their presence and contour.

Just what is it…? is an image representing the overlapping status of the universal and the particular through a simultaneous interplay of the senses; the extension and depth of cosmic space resonates inside the room scene and articulates with the later's domestic atmosphere, thus establishing a spatial bias that indeed concentrates *furniture* and *universe*. *Just what is it…?* thus exposes a particular space capsule *enclosing* an existential composition of domesticity. Richard Hamilton's *today home* is an image composed out of sensorial mechanisms that are intended to expand one's perception. Among the array of visual references, the fact that a tape recorder is included and placed in a somewhat

straightforward position highlights the importance of *aural information,* thus turning sound into a sensorial quality of relevance. As true as it may be that, as Le Corbusier stated, *the eye is a tool of registration*, the mechanical ability to record and reproduce the recorded sound establishes a supplementary take on the creation of an inclusive and interactive environment.[29]

The fact that such an *environment* is presented as if gravitating Earth, rather then inhabiting it, embedded the imaginary of the (space) voyage within the domestic *world*. In this respect it presents to the

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[29] In the chapter entitled *1956: Greetings My Friend* from *Welcome to Mars,* Ken Hollings makes two references to *Just What Is It…?* The first rapidly interprets Hamilton's rhetorical title with the presence of *Robbie the Robot* itself in the opening of *This is Tomorrow;* the second, near the end of the chapter, relates the presence of the tape recorder in the domestic interior of the *today home* to the american *FEEDBACK* project attempting to merge new video tape system technology with the creation of an *orbiting satellite capable of recording what it sees on videotape as it crosses time zones around the world, just like a delayed television broadcast*. Hollings, however, puts the emphasis on what you see, rather than in what you hear, something implicit in Richard Hamilton's list description; furthermore, and unfortunately for his argument, he wrongly identifies the image of the planet put by Hamilton in substitution of the ceiling as a moonscape, rather than an image of earth: *Meanwhile* - Hollings writes after acknowledging *the first high-altitude flight of the U2 spy plane over the Soviet Union in 1956 - Richard Hamilton's 'Just what is it that makes today's homes so different, so appealing? features an inverted moonscape in place of a ceiling and a tape recorder dominating the immediate foreground., op. cit.,* pp. 188-189
For John-Paul Stonnard, the *Reporter* tape recorder of Hamilton's collage, suggests a connection with the *Remington* typewriter included in Raoul Haussmann collage *Dada Siegt*; although this *liaison* immediately serves as to establish the issues of resemblance between the collages - in terms *both formal (e.g. the segment of the earth on the ceiling) and thematic (in the connection drawn with America)* it is interesting to note that, for McLuhan, the typewriter holds an acoustic significance in the way as it *has given a tremendous impetus to the dictating habit… This means* [*not only*] *greater diffuseness.* Furthermore, McLuhan highlights the resemblance between writer and musician, describing how *poets like Charles Olson are eloquent in proclaiming the power of the typewriter to help the poet to indicate exactly the breath, the pauses, the suspension, even, of syllables, the juxtaposition, even, of parts of phrases he intends, observing that, for the first time, the poet has the stave and the bar that the musician has had.* John-Paul Stonnard, op. cit., p. 620; Marshall McLuhan, *Typewriter,* in *Understanding Media*, Routledge, 1964, pp. 281-282

viewer a bounded synaesthetic atmosphere that affects the very sense of *being in place,* a feeling also present - some six months before - in the *House of the Future model* from the *Daily Mail Ideal Home Exhibition.* {H.o.F..2}

According to Beatriz Colomina, the Smithson's *House of the Future* - built as a full scale model some months before the *This is Tomorrow Exhibition* as a feature from the *Daily Mail Ideal Home Exhibition* - also bared in its genetics the allusion to such an imaginary. Although having been described by the Smithsons as to have been *designed to build up into a dense mass* [30] the H.O.F., Colomina states, *was likewise a science-fiction vehicle. Even what was playing on TV reinforced the sense of a moving space cut out from the terrestrial world.* [31] As with the H.O.F., *Just was it…?,* depicted a kind of make-believe setting; in the issue of March 12, 1956, the *Daily Mail* newspaper presented a description of the *House of the Future*, as told by two special visitors, the brothers Barbara and Hugh Clift, of nine and seven years old. Beginning the article - written by Patricia Keighran, to whom presumably the brothers had described their views on the house - a title read: *The Clift children see a house of magic which will welcome them as grown-ups.* Accompanying the article, two images; the first one shows a mid-close documentary portrait of the Clift brothers, holding hands, standing on top of the elevator living-room table - as they themselves explain,[*W*]*ell we went into the living-room of the House of the Future and it was weird, and we felt a bit lost, especially when someone said we were standing on the table. The table turned out to be great fun. It comes out of the floor when you need it.*- looking up to the camera. The second image is much more elaborated; while the upper point of view is maintained, a wider view of the living-room is depicted - one that goes to show a glimpse of the {H.o.F..1} {H.o.F..3} {H.o.F..4}

[30] Alison and Peter Smithson in *Changing the Art of Inhabitation - The Smithsons*, Artemis, London, 1994, p. 115

[31] Beatriz Colomina, *Unbreathed Air*, in *Domesticity at War*, The MIT Press/ Actar 2007, p. 214

interior garden - with a couple of imaginary inhabitants - apparently called Anne and Peter. Juxtaposed to the picture, a series of comic-like labels - a technique that reminds us of Hamilton's *Collage of the Senses* {R.Hm.4} - identifies every item in view, including the fact that the characters are wearing *all nylon-clothes.* The labels mainly describe the gadgetry quality of the objects - among others there is a *Trolley with warmed compartment and infrared griller* an *Air-conditioning controls and loud-speaking telephone which records message* or a *Sunken self-rising bath;* as with Hamilton's *home of today*, the *House of the Future* was depicted as a contained environment {R.Hm.1} {H.o.F.4} filled with objects. This establishes a certain pictorial resemblance between Hamilton's image and the labeled photograph from the *Daily Mail* edition, even on the fact that the later also includes a couple of inhabitants. But what also puts both Hamilton's *today home* and the Smithson's *House of the Future* side by side is the fact that in both *images* spatial containment goes on par with a sense of juxtaposition and articulation of scales that, again, deal simultaneously with *furniture, room, house, street, city, landscape, universe!* In the same way that Hamilton creates in his collage a confrontation between the domestic scale and outer-space, the Smithsons also made such references; the context in which the *House of the Future* was to appear surely appealed to such a relation; as it is told by Colomina, *in the look and logic of the recently launched space program* [the *House of the future was*] - *a spaceship. A significant part of the the 'Daily Mail' exhibition of 1956 was dedicated to the space program and filled with imaginary rockets and spaceships.* In this sense, Colomina further writes:

> *Allusions to space fantasies were numerous in the H.O.F., starting with the architects request to the organizers of the 'Daily Mail' exhibition that among the list of objects to be included in the house should be a book, to lie open 'at a space man plate' on one of the chairs, and a 'snap of*

someone on MARS' to be placed in a silver frame in a compartment of the dressing room.[32]

Accompanying the *Daily Mail* article on the Clift brothers visit to the *House of the Future,* an exclamation that we may attribute to either the children or the inhabitants themselves, mediates the two pictures and states the fantastic allure of the space:

Look! We're in Wonderland. {H.o.F.4}

Both Hamilton's collage and the Smithson's model represented imaginary contrived settings characterized by a sense of the multiple - multiple objects, multiple scales, multiple meanings. On the left wall of the room depicted in Hamilton's collage, we understand an urban {R.Hm.2} scene through a window, a surrounding that creates a certain amount of ambiguity, regarding its outer-space other context; in a similar way, together with the outer-space references, the Smithsons further requested that *a color film such as 'Captain Cousteau's under the water-film' be shown on the back projection TV*. With this [T]*he H.O.F. became a submarine,* {H.o.F.8} Colomina recognizes, *moving underwater with the TV built into the wall as a porthole and with the gasket joints running across every surface, preventing any leaks.* [33] In this sense, both *Just what is it…?* and the *House of the Future* are representations of architectural vessels which surfaces act as imaginary surroundings that hold multiple scales; accordingly, its interior space is a kind of repository of objects that act as sensorial enhancers, thus providing an experience based on simultaneity.

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[32] Beatriz Colomina, op. cit., p. 216

[33] Ibid., p. 214

When describing Jules Verne's *oeuvre* at the beginning of "*Nautilus" et "Bateau ivre"*, Roland Barthes writes:

> *Verne has built a kind of self-enclosed cosmogony, with its own categories, its own time, its own plenitude, and even its own existential principle. Such a principle appears to me to be that of a continuous gesture of closure. The imagination of the voyage in Verne relates to an exploration of closure, and the existing understanding between Verne and childhood does not come from within a common mystique of adventure, but on the contrary, it is the result of a common happiness toward the finite, something we find on the child's passion for the cabin or the tent: to be enclosed and installed, such is the existential dream of both childhood and Verne.*[34]

In this idea of a cosmogony found in Jules Verne works, Barthes actually identifies a contraction of scales and a juxtaposition of a sense of motion together with a *fact of inhabitation*. As it is stated by Barthes, *the taste for the vessel is always the pleasure of enclosing oneself perfectly, of holding in one's hand the higher number of objects.*[35] To *hold in your hand the higher number of objects* is to transform the linear sequence of organization into a simultaneity, thus establishing an idea of superimposition. The space of the vessel, then, as it is put by Roland Barthes, may represent a kind

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[34] *Verne a construit une sorte de cosmogonie fermée sur elle-même, qui a ses catégories propres, son temps, son espace, sa plénitude, et même son principe existentiel. Ce principe me paraît être le geste continu de l'enfermement. Límagination du voyage correspond chez Verne à une exploration de la clôture, et lácclord de Verne et de l'enfance ne vient pas d'une mystique banale de l'aventure, mais au contraire, dún bonheur commun du fini, que l'on retrouve dans la passion enfantine des cabanes et des tentes: s'enclore et s'installer, tel est le rêve existentiel de l'enfance et de Verne.* Roland Barthes, *"Nautilus" et "Bateau ivre"* in op. cit., p. 75

[35] *Le goût du navire est toujours joie de s'enfermer parfaitement, de tenir sous sa main le plus grand nombre d'objets. ( ) le navire est un fait d'habitat, avant d'être un moyen de transport,* ibid., p. 76

of contracted and multifaceted experience within which *events occur on the threshold between dream and consciousness,* thus presenting - as Moholy-Nagy puts it in *Motion in Vision* where he describes the qualities of both superimposition and photomontage - a *tumultuous collision of whimsical detail* (…).[36] The most explicit post-war artistic experiment to explore over the qualities of superimposition - although at a rather conceptual level - may have been the *Parallel of Life and Art* exhibition. Although written years before its opening, Moholy-Nagy's statement clearly {P.L.A.3} anticipated it; echoing Moholy-Nagy's assumptions, Alison and Peter Smithson wrote in reference to *Parallel of Life and Art:*

> *The method used will be to juxtapose photo-enlargements of those images judged to be significant by the editors. These images cannot be so arranged as to form a consecutive statement. Instead they will establish the intricate series of cross relationships between different fields of art and technics. Touching off a wide range of association and offering fruitful analogies.*[37]

Thence *Parallel of Life and Art*, more than widening the *range of association* between representations of such disparate things and scales, actually exhibits an environmental sense of space, coming not {P.L.A.2} just from within each image per se, but resulting in essence from the surrounding effect of its (dis)-organization. Within this environment, the visual singular point of view becomes erratic and incapable of establishing a perspectival image or path that may constitute or build a completion achieved through a movement of continuity. It doesn't aim,

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[36] László Moholy-Nagy, op. cit., p. 212

[37] Alison and Peter Smithson, *Addendum: Texts Documenting the Development of Parallel of Life and Art,* in *The Independent Group: Postwar Britain and the Aesthetics of Plenty*, David Robbins Ed., The MIT Press, 1990, p. 12

however, at compromising the sense of unity, but at establishing such a sense through a *collision* of fragments which in themselves carry *hidden meanings* that may establish crossed and unexpected *liaisons*. Within this assumption we may understand *Parallel of Life and Art* as an inner panorama of simultaneous informational, structural and aesthetical inputs, a *place* that owes as much to the imaginary and fictional role of two dimensional representation as to the experience of a new system of perception which re-unites the dispersed or dismantled reality as a multidimensional, spherical-like space. *Parallel of Life and Art* sought to present an environmental whole as a dissected landscape/organism, fragmenting it within a wide range of fields, that, nevertheless, should convey for structured associations and analogies. Each of the images presented held a specific vitality and a formal autonomy thus functioning, as Hadas A. Steiner puts it, as *an amalgam of signs* that *ideally would provoke multiple significations in a viewer.*[38] The panel holding the *Dismembered Typewriter* image, may be seen to ilustrate in itself - as part of the fragmented whole - a sense of endless multiplicity although underlined by a desire for completion. The laying out of the parts of the typewriter, done in a somewhat neutral or a-compositional way, reflects the tone of the entire exhibit. Each part, or set of equal parts, actually lose their pre-asigned qualities and place, and become, as Irénée Scalbert writes, *constituted as signs*, adrift *in a semantic field of their own* (…).[39] The part becomes both a totality of its own and a fragment from an object dismembered and so transformed into an *as found* field, that one may simultaneously discover, shape and inhabit. Contrary to the *Serrure* image, it is no longer the final assembled object what is in

{P.L.A.2}

{H.B.2}

{P.L.A.4}

{L.C.1}

[38] Hadas A. Steiner, op. cit., p. 18

[39] Irénée Scalbert, *Architecture as a Way of Living: The New Brutalism 1953-1956*, paper presented on the expert meeting *CIAM and Team 10, The English Context,* held at the Faculty of Architecture, TU Delft, on November 5th 2001, p.66

display, but the hyper-associations that each part allows, while forming a *set of basic patterns for the universe.*[40] Apart from the treatment given to the pictures, through which *all the reproductions, wether of paintings or cells, shared a grainy texture* [41] the interest of Irénée Scalbert on Tom Hopkinson's quote, seems to be the fact that he is referring, not just to the aesthetic of the pictures, but to the similarities deriving from their materiality, i.e., to their ability to expose *a unique penetration into the material world, equivalent to a new faculty developed by man.*[42] As Hadas A. Steiner has also acknowledged, *Parallel of Life and Art* sought to display the expansion of the visual field through the juxtaposition of the technologies of *homing in and zooming out* (…) *brought about by new tools - the photographic enlarger, the aerial photograph, the x-ray, the wide-angle lens, and the microscope.* So while expanding the visual field, *Parallel of Life and Art* also contracted it into a sense of basic principles of association, thus indexing a kind of subconscious structural elasticity to the whole, attained through the *random* confrontation of different scales within a single experience. In this sense we should not forget the fact that the exhibit was arranged as to create a *spatial experience*, in which a multi-panelled room compresses an amalgam of images/signs from disparate sources into a simultaneously unique and multiple environment. In this, we may feel the influence and admiration of the Smithsons for the work of Charles and Ray Eames. In a text entitled *Just a Few Chairs and a House: An Essay on the Eames' Aesthetic*, Peter Smithson would write:

{P.L.A.5}

The Eames' aesthetic, crystallized in the house at Santa Monica Canyon,

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[40] *The basic idea for the collection', [Tom] Hopkinson wrote, 'is the visual likeness between objects of a totally dissimular nature… as if one had stumbled upon a set of basic patterns for the universe',* Irénée Scalbert, op. cit., p.66

[41] Hadas A. Steiner, op. cit., p. 18

[42] Irénée Scalbert, op. cit., p.66

California 1949 (as the machine-aesthetic was given canonical form in the 'dwelling unit' in the Pavilion de l'Esprit Nouveau at the Exposition des Arts Decoratifs, Paris, 1925), is based on an equally careful selection, but with extra-cultural surprise, rather than harmony or profile, as its criteria. A kind of wide-eyed wonder of seeing the culturally disparate together and so happy with each other.[43]

So *Parallel of Life and Art* recognizes and exposes a visually and structurally *unbuilt* field of references, as if stating that, no matter the sources, scale or subject, the experience of space should result into an experience of unity. {P.L.A.2}

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Within the Smithsons definition of the 1920's *work of art or piece of architecture* is implicit a sequenced and causal procedure in the making and thinking of its conceptual universe. Echoing the spirit of the assembly line, the *Esprit Nouveau* pavilion exhibited a process of assemblage that, we might say, although also ranging from furniture to universe, did so in a way as to - contrary to what the Smithsons claimed in relation to the organization of *Parallel of Life and Art - form a*

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[43] Peter Smithson, *Just a Few Chairs and a House: An Essay on the Eames' Aesthetic,* in Alison and Peter Smithson, *Changing the Art of Inhabitation*, *Eames' Dreams,* Artemis, London, 1994, p.72, first published in *Architectural Design.* In fact, as with the photographic panels in the *Parallel of Life and Art Exhibition*, the *Eames House* also had its paintings hanging from the ceiling; and in a close conceptual procedure as the one taken by the Smithsons in the *H.O.F.* - in which we recognize *a kind of skin structure built up in units comprising floor, walls and ceiling as a continuous way* - in the *Eames House*, Beatriz Colomina writes, *floor, wall and ceiling are treated in a similar way. Not only are they now given the same dimension (the sandwich* [which relates to the Mies Van Der Rohe premise] *being replaced by a box); they start to share roles.* see Beatriz Colomina,*Unbreathed Air*, in *Domesticity at War*, The MIT Press, Actar 2007, p. 197. Also see Beatriz Colomina, *Reflections on the Eames House*, in *Anyhow*, Anyone Corporation, New York, The MIT Press, 1998, p.198

consecutive statement.[44]

Describing the film *L'Architecture d'Aujourd'hui* from 1929, directed by Pierre Chenal with Le Corbusier, Beatriz Colomina writes:

> *There is also a figure of a woman going through a house in this movie. The house that frames her is Villa Savoye.* (…) *The camera shows the house from the distance, an object sitting in the landscape, and then pans the outside and the inside of the house. And it is there, halfway through the interior, that the woman appears on the screen. She is already inside, already contained by the house, bounded. She opens the door that leads to the terrace and goes up the ramp toward the roof garden, her back to the camera.*[45] {L.C.2}

The matter of interest in this fragment of the film's description is the fact that it is coincidental with the description of the house depicted in the film, thus exposing it through a sequential travel that, due to the process of montage, appears as a linear and coherent path. As described by Marina Lathouri, it was Sergei Eisenstein, who, working on the concept of montage, *used the movement along the ritual path of the acropolis to demonstrate the experience of space as a sequence of composed views.*[46] In *Montage and Architecture*, a piece written sometime between 1937 and 1940), Eisenstein starts by characterizing the meaning and use

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[44] In *Documents '53*, the Smithsons wrote on the issues concerning the exhibits method of *organization*: *The method used will be to juxtapose photo-enlargements of those images judged to be significant by the editors. These images cannot be so arranged as to form a consecutive argument* [emphasis added]. ibid.

[45] Beatriz Colomina, *Window*, in *Privacy and Publicity, Architecture as Mass Media*, The MIT Press, Fifth Printing, 2000, First Paperback Printing, 1996, p. 292-293

[46] Marina Lathouri, op. cit., p.60

of the word path *when talking about cinema*; he writes,

> [N]*owadays it is the imaginary path followed by the eye and the varying perceptions of an object that depend on how it appears to the eye. Nowadays it may also be the path followed by the mind across a multiplicity of phenomena, far apart in time and space, gathered in a sequence into a meaningful concept; and these diverse impressions pass in front of an immobile spectator. In the past, however, the opposite was the case: the spectator moved between a series of carefully disposed phenomena that he absorbed sequentially with his visual sense.*[47]

Eisenstein then further declares that [O]*nly the film camera has solved the problem of* (…) *fixing the total representation of a phenomenon in its full visual multidimensionality* (…) *on a flat surface, but its undoubted ancestor in this capability is - architecture.* So, we may ad, the film described by Beatriz Colomina links a set of frames that - as the movement along the ritual path of the acropolis as it is interpreted by Eisenstein - also demonstrates *the experience of space* - from the outside space surrounding the house to the interior space surrounded by the house and back to the exterior space at the top of the house - *as a sequence of composed views*. This, of course, resonates in Le Corbusier's *Promenade Architecturale*, a concept based on the idea of movement and sequence. The film described by Beatriz Colomina while framing the house as a whole, does so whilst following the woman's promenade, thus sequencing the whole into composed and edited parts that build up to an assembled unity:

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[47] Sergei Eisenstein, *Montage and Architecture*, in *Assemblage* 10, December 1989, p. 117

> [The woman] *appears to be moving from the inside of the house to the outside, to the roof garden. But this outside is again constructed as an inside, with a wall wrapping the space in which an opening with the proportions of a window frames the landscape.*[48] {L.C.2}

The voyeuristic sense of this description - acknowledged by Beatriz Colomina herself - includes, nevertheless, a carefully edited look at the architecture, linking outside and inside as elements with the same degree of importance. *The outside is always an inside* - as we remember - Le Corbusier wrote, and Colomina's description seems to confirm just that. Arriving at the top of the house - the roof garden - the woman, after walking along the limit wall, actually disappears as the camera shows a general view of the terrace; the architectural object having been walked through, means that the promenade is over. As Colomina describes, *the wall makes a curve to form the solarium, the woman turns too, picks up a chair and sits down. She would be facing the 'interior', the space she has just moved through.* She faces completion. The space of Le Corbusier's proposals is a carefully edited visual space composed as to configure a perceptually articulated environment. *The eye is a tool for recording*, Le Corbusier also stated, and as such it is through the eye that space is both apprehended and experienced. Addressing *the point of view of the experienced subject* on the *Esprit Nouveau* pavilion, Marina Lathouri describes how the *double-height interior of the cellular unit engaged the visitor in a kind of associative juxtaposition of frames - fragments of views, settings for living and programmatic moments.*[49] But in this case, to associatively juxtapose,

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[48] Beatriz Colomina, op. cit., p. 293

[49] Marina Lathouri, op. cit., p.61

states a deliberate will to compose a premeditated aesthetic, a visual and spatial effect, which is not the same as the *principle of chance* followed by the Smithsons with *Parallel of Life and Art*. The whole exhibit was based on the photographic image as medium; a total of one hundred twenty-two images, ranging through eighteen categories. None of the images held any caption or commentary that could inform of its origin or content; in addition, similarly to what happened in Robert {McG.1} Hooke's *Micrographia*, the scale of the images was formally leveled, thus promoting an approach to things through a similar degree of proximity or detail. As Hadas A. Steiner acknowledges, this manipulation of the {McG.2} *technologies of homing in and zooming out* would result in a *denial of scale*, one that ultimately could fulfill the Smithsons desire for establishing an *intricate series of cross relationships between different fields of art and technics.*[50] The displaying of the panels that supported the photographic images occupied the totality of the space in an apparent random way, either put over the floor, against the wall, or suspended from the ceiling. This, of course, should further transmit a paradoxical sense of whole, one that is to be perceived among an apparently disaggregated and fragmentary condition but upon which our senses are to extrapolate conditions of similarity. As it was put by the Smithsons, *the exhibit will provide a key - a kind of Rosetta Stone - by which the discoveries of the sciences and the arts can be seen as aspects of the same whole, related phenomenon, parts of the New Landscape which experimental sciences have revealed and artists and theorists created.*[51]

The method followed on the displaying of the images exhibited on *Parallel of Life and Art* denied any kind of path underlining some kind of criteria, thus *composing* an ambiance of mixed - not pre-arranged - phenomena and scales; this method actually echoes Moholy-Nagy's

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[50] Alison and Peter Smithson, ibid.

[51] Alison and Peter Smithson, ibid.

own experiments since the 1920's. In fact we may recognize this kind of juxtaposed representations in Moholy-Nagy's *synthetic* photographic installation of Room 1 on the exhibit *Werkbundausstellung Film und Foto*, held in Stuttgart in 1929. At the entrance to the space, Moholy-Nagy actually put up a panel that read:

{L.M.N}

> *In this room the most important stages of photography are shown. The emphasis is on the presentation of photographic elements, whose mastery can lead to synthetic photographic results. These elements are essentially the following: The possibility of producing genuine documents: static, kinetic in the modulation of light intensities, novel points of view, enlargements, microscopic and x-ray photographs, mechanical distortions of reality, direct design with light (photograms), penetrations and simultaneous projections whose predecessor is the photomontage.*[52]

Although organized in a rather rational way, the amalgam of images depicted in Room 1 aimed to bare, nevertheless its distinct disciplinary origins and scales, a sense of *structural* unity. Already in *Malerei, Photographie, Film,* Moholy Nagy´s first book originally published in 1925, images of the *natural* and the *artificial world* were displayed in confrontation as to demonstrate their intrinsic structural and formal resemblances, thus aiming to expose an aesthetic and structural universality between phenomena originating from distinct sources.

In *Verbi-Voco-Visual Explorations*, a revised version of *Explorations*

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[52] László Moholy-Nagy quoted in Prodest [Professor Doctor Erich Stenger] 1929b, *Werkbund-Ausstellung 'Film und Foto',* Stuttgart, 1929, 91, and 1929a, in Oliver A. I. Botar, *László Moholy-Nagy's New Vision and the Aestheticization of Scientific Photography in Weimar Germany*, in *Science in Context,* vol. 14, n. 4, Cambridge University Press, 2004, p. 547

8 originally published in 1957 and at the time solely edited by Marshall McLuhan[53], Victor J. Papanek would quote Moholy-Nagy's wishes for it to be:

> *…possible to create canvases on the interior surfaces of spheres, into which spectators could insert their heads. Thus the true nature of multi-dimensional, endlessly spherical space would be used fully and head-movements as well as peripheral vision would compensate for the static euclidean character of the easel painting.*[54]

Moholy-Nagy's wishful image actually replicates the qualities of perceived space which as stated by Steven Lehar is curved and bounded. *Phenomenological observation,* Lehar writes, *reveals that perceived space is not infinite, but is bounded.* Lehar explains how the distant stars *produce a dome-like percept,* while the *lower half of perceptual space is usually filled with a percept of the ground underfoot,* also becoming *hemispherical when viewed from far enough above the surface. The dome of the sky above and the bowl of the earth below therefore define a finite approximately spherical space that encodes distances out to infinity within a representational structure that is both finite and bounded.*[55] From this assumption, Mogholy-Nagy's *canvases on the interior surfaces of spheres* may be seen as a crude and literal attempt at materializing the perceptual qualities of the phenomenal world. {H.B.2}
Neither *Parallel of Life and Art,* the *House of the Future*, *Just what is it…?*

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[53] Richard Cavell, op. cit. p. 107

[54] László Moholy-Nagy, fom a text written in Czech-slovak avant-garde magazine *Telehor,* May 1936, quoted in Victor J. Papanek, *A Bridge in Time,* in *Verbi-Voco-Visual Explorations,* by Marshall McLuhan, with additional contributions by, V. J. Papanek, J. B. Bessinger, Marshall McLuhan, Karl Polany, Carol C. Hollis, David Hogg, Jack Jones, Something Else Press, Inc., New York, 1967, p.7

[55] Steven Lehar, op. cit., p. 128

or the *Funhouse* directly present such a spherical *reality;* each of them, however, conveys such a perceptual *image. Parallel of Life and Art,* much in the manner of the 1949 *Eames House,* acts as a *multiscreen performance*[56], simultaneously engaging eye and consciousness in a restless and somewhat endless associative voyage within its saturated engulfing environment. Moholy Nagy's considerations and sense on the *true nature of multi-dimensional, endless spherical space* would have already been noted in his 1925 book entitled *Malerei, Fotografie und Film,* which, as described by Victor Papanek, was *a large 16-page pot-pourri of typography, photographs, musical notes, symbols, letterforms and brief poems, called 'Dynamic Der Grosstadt' in which all the various visual units are to be heard simultaneously.*[57]

{P.L.A.3}
{Eam.2}
{Eam.4}
{H.B.1}

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In chapter III - entitled *New Education-Organic Approach* - of his later book *Vision in Motion*, first published in 1946, Moholy-Nagy outlines the guiding principles of his approach to the creative process within the Institute of Design in Chicago, a school he himself had

[56] Comparing Le Corbusier's film *L'Architecture d'Aujourd'hui* with the Eames' film *House: After Five Years of Living,* Beatriz Colomina writes: *And while Le Corbusier's film is all horizontal panning - like the modern house , which frames a horizontal view - the Eames film is just a collection of slides. This is consistent with the house itself: it is impossible to focus in the Eames House in the same way that we do in a house of the 1920s. Here the eye is that of a television viewer, not the 1950s, but closer to the one of today, looking at multiple screens, some with captions, all simultaneously. It helps to follow more than one story at once.* (…) *The Eames house is also a multiscreen performance.* Beatriz Colomina, *The Eames House*, in op. cit., p. 103-106

[57] Victor J. Papanek, op. cit., p. 7

opened back in 1939 under the name School of Design [58]; according to the overall organization of the book, the chapter is subdivided into several categories or subjects. Moholy-Nagy starts by identifying the basic principles of the old Bauhaus school at Dessau as the foundations for the Institute of Design's program, stating, however, that [*T*]*he goal is no longer to to recreate the classical craftsman, artist and artisan, with the aim of fitting him into the industrial age. By now,* Moholy-Nagy continues, *technology has become as much a part of life as metabolism. The task therefore is to educate the contemporary man as an 'integrator', the new 'designer' able to re-evaluate human needs warped by machine civilization.*[59] Asserting the need for the education of the contemporary man to be one based on the recognition of a multitude of references and subjects towards which a methodology of sensory apprehension should be acknowledged, meant an approach based as much on the search for correspondence among different fields of knowledge as on the use of the totality of the senses in order to get a comprehensive understanding of any given situation, object or

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[58] Moholy-Nagy had moved to Chicago in 1937 to direct a new school of design, sponsored by the *Association of Arts and and Industries*, a group of Chicago Business men interested in bringing the Bauhaus education to the United States; invited through a recommendation from Walter Gropius - at the time already teaching at Harvard University - Moholy-Nagy called the school the *New Bauhaus.* Shortly after, though, in June 1938, the school would close, which brought the artist back to commercial activity. With the support of a former member of the now extinct *Association of Arts and and Industries,* Walter P. Paepcke, Moholy-Nagy would open his own school in 1939 under the name of *School of Design.* In 1944, the school would be reorganized and renamed *Institute of Design in Chicago. Vision in Motion,* Moholy-Nagy's last book would set out and exhibit the educational principles followed at the Institute. see *http://www.moholy-nagy.org/Biography_3.html*

[59] László Moholy-Nagy, *Vision in Motion,* Paul Theobold and Company, Chicago, fifth printing, 1956, p. 64 A few lines down within the same text, Moholy-Nagy puts an emphasis on the expression *Intellectual Integration* as a fixture of the Institute´s curriculum, consequently explaining that *Integration, in this book, means the correlation of subject matters on the basis of a common methodology governing our life, and not a new philosophical system compiled or 'integrated' from the numerous other philosophical systems.*

process. In a section called *practising correlations,* Moholy-Nagy describes how within the *Institute of Design*'s educational program,

> [T]*he exercises are mostly built upon sensory experiences through work with various materials, with their technology, the skill of the fingers, the eye and the ear, and their coordination.*[60]

Within Moholy-Nagy's proposal for a (new) *vision in motion,* we can therefore recognize a kind of continuous feedback correspondence between the senses and that which he calls the *new dimension*, i. e., *the dimension of a new science and a new technology which could be used for the realization of all-embracing relationships.*[61] Furthermore, we may adjoin, this *new dimension* although more specifically referring to the terms in which reality came to be seen through the scientific lens - something to which, as Oliver A. I. Botar demonstrates, Moholy-Nagy's attention span soon focused on[62] - may particularly be understood as an echo of the discussion concerning the objective, causal or linear qualities of reality raised by findings within quantum physics sub-atomic *landscape*.

According to art critic Carl Einstein,

> [*Q*]*uantum theory tore apart the unitary continuity of the universe, and ultimately put into serious doubt causality, the soul of former science.*[63]

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[60] Ibid., p. 68

[61] Ibid., p. 10

[62] Oliver A. I. Botar, op. cit

[63] Carl Einstein, *Georges Braque,*, Paris, Chroniques du Jour, 1934, translated by E. Zipruth, p. 63-64, quoted in Gavin Parkinson, *Surrealism and Quantum Mechanics: Dispersal and Fragmentation in Art, Life, and Physics,* in *Science in Context,* vol. 17, Issue 4, Cambridge University Press, 2004, p. 559

The emergence of an awareness towards subjective understanding, rather than an objective or deterministic point of view towards the *reality* of the visual, turns the cognitive act into a constructive voyage within a new epistemological field *composed* of *breaks, ruptures*, *breaches, fragmentations and discontinuities*.[64] This characterization also compromises the neutrality of the observer in relation to what is observed, as much as it states that matter now holds a non-continuous or sequential behavioral pattern, thence producing a *new reality*, one which, according to Carl Einstein, would demand for a *reconstruction of the structure of vision/sight.*[65] Moholy Nagy's proposal for the possibility of creating *canvases on the interior surfaces of spheres, into which spectators could insert their heads,* thus aims at juxtaposing the act of representation to that of experimentation; to observe becomes a sensory multi-dimensional act through which one's perception is transformed into an action/feeling towards that which is observed. Thus to reconfigure the structure of vision also means to re-elaborate onto the formation of the perceptual field.

Within Victor J. Papanek text *A Bridge in Time*, a quote from Pablo Picasso states:

The only way to see the 'Guernica' is to feel oneself into its center.[66]

Together with Moholy-Nagy's wish of transforming the flat bi-

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[64] Gavin Parkinson, op. cit., p. 559

[65] … *une reconstruction de la structure de la vue,* Carl Einstein, ibid., p. 70

[66] Pablo Picasso, *Poemas y Declaraciones,* Mexico 1945, quoted in Victor J. Papanek, *A Bridge in Time,* in op. cit., p. 5

dimensional support of the traditional canvas into a convex interiorized surface rests a claim for a total experience, an in-depth leap into the *canvas,* where the distance between foreground and background looses its meaning and seeing becomes feeling/sensing. In the text that anticipates Papanek's *A Bridge in Time,* Marshall McLuhan recalls Siegfried Giedion's contribution in *Explorations 6,* in which he discussed the question of *Prehistoric Cave Paintings,* showing *how the cave painters avoided flat surfaces:*

> *This multiformity of the surfaces, their infinite freedom of direction and perpetual change, is at the basis of all primeval art… It would… have been possible to select vertical and horizontal planes. But this was never done.*[67]

Thus, according to McLuhan, [T]*he cave painters were men of auditory space who modeled and choreographed their images in all dimensions at the same time.*[68] The image/ concept of *auditory space* makes for an integrate and, most importantly, an integrative environment within which the subject becomes *objectively* engaged. For McLuhan, auditory space means a multi-sensory construct, one that exceeds the purely visual imaging of space - as with renaissance perspectival representation - and within which a re-founding for a phenomenological approach on perception arises. In fact, within Giedion's quote, we find the assumption of the caverns possessing *no space in our meaning of this word, for in them perpetual darkness reigns…*[69]

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[67] Siegfried Giedion, quoted in *No Upside Down in Eskimo Art,* Marshall McLuhan, in *Verbi-Voco-Visual Explorations,* Item 24

[68] Marshall McLuhan, ibid..

[69] Ibid.

In a text entitled *Of Light, Shadows and Narrative,*[70] Louis Marin writes:

> *The 'insides' of things are black. To say that black is an absolute nonlight and noncolor achieved through a negation of 'all the others' (and thus the negation of white, which is all of the other colors combined) is to say that black is a totally determined space - not an empty space, then, but one that is full, totally dense and closed.* (…) *Black space is the space of a trunk, a coffin, or a cell.* (…) *We cannot know or see what is going on inside it. What does it hold? It creates a distance.* (…) *The paradox,* Marin further adds, *is a matter of presenting a 'black' space to be looked at. it is valid to equate space, light, and whiteness, a black space is a contradiction in terms, a contradiction that I 'imagined' by means of a closed tomb.*[71]

Reading Caravaggio's paintings under the light of the significances of the *arca* Marin indirectly discusses the particularity and fragmented character of both the scene and the space upon which the scene is depicted; for Marin, Caravaggio's *narrations cannot transmit a message or tell a story* (…) *In Caravaggio's work, the glance is a gesture of "pointing", a wordless "this" that does away with suplementary discourses and descriptions, striking here and now.*[72] This opposes to Poussin's sequence of planes and motifs that, unlike Caravaggio's paintings, may create a narrative; in Caravaggio, instead, Marin acknowledges *the intensity of of a single instantaneous impression,* which becomes a *matter of maximal force and* {S.J.4}

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[70] Louis Marin, *Of Light, Shadows, and Narrative*, in *To Destroy Painting*, The University of Chicago Press, 1995, originally published as *Détruire la peinture,* Éditions Galilée, Paris, 1977, p. 150-164

[71] Ibid., p. 160

[72] Ibid., p. 164

intensity.

Within this *image* of space, McLuhan's concept of *acoustic space* gains a sudden *clarity;* in its metamorphosing of visual perception into a kind of sensory perceptual awareness, the acoustic - as Richard Cavell puts it - comes to represent space as both *emphatically aural (and thus non-linear)*, and *conflated with time - the space you hear, rather than the space you see.*[73] Thence, in a rather radical way, space is thought of by McLuhan as an entity to exist beyond the (classical) visual field, as a dynamic environment with which the subject becomes implicit and organically connected.

Parallel of Life and Art, exposes such a dynamic environment, manifested by *a contingent relationship between the images, their order, and the observer within a mediated space of relative position rather than of absolute categories.*[74] The photographic representations - leveled in terms of texture, scale and an intrinsic non-hierarchical organization - built up as all-surrounding surfaces, which, as in a cave, required the *viewer* to *continuously crouch*, *crane their neck, and twist. Parallel of Life and Art* proposes a space where the conventional linear process of the visual becomes blindfolded, thus opening up as an orchestration of effects more closely and conceptually related to the properties of aural and tactile perception. As the flattened condition of the objects, settlements and artefacts depicted through the mechanical representation of photography, the space of the exhibit also compresses and flattens its overall perception, thus forming a dynamic pattern understood as an image field of multiple depths. The perspective drawing *Sources* - made {P.L.A.3}

[73] Richard Cavell, op. cit., p. 11

[74] Christopher Hight, *Pervasive Intimacy, The Unité d'Habitation and Golden Lane as Instruments of Postwar Domesticity* in *The Intimate Metropolis, Urban Subjects in the Modern City*, Vittoria Di Palma, Diana Periton and Marina Lathouri Eds., Routledge, 2009, p. 228

by Peter Smithson as a way to describe the a plan for the exhibition - is quite paradoxical but objective in the way as it intends to represent such a dynamic field; *Sources*[75] was the first name given to the exhibit, when , in April 1952 it was presented as a proposal to the ICA. The choosing of a perspectival point of view as a means to describe such a mosaicist kind of spatial experience might at first feel as a contradiction; nevertheless, it manages to juxtapose the architectural technical attitude of *previewing* the type of spatial *organization* intended, together with a sense of simultaneity and multiplicity of depths. The fact that the panels that configure the exhibition are represented as ethereal entities either floating in space or placed upon the surfaces of the existing room compress a representational act together with a simulation of an effect. Such an effect, as Christopher Hight acknowledges, points out toward the viewer being *cast into a slurry of references*. *Sources* acts as a structural drawing for a phenomenological experience; in a way similar to the section-perspectives made for the Golden Lane project, the buoyant transparent panels feel like being pasted over the static and more *objective* representation of the ICA's room, creating a compression which somehow contradicts the profoundness of the perspective's vanishing point. Nevertheless, as Steven Lehar points out, *the perception of multiple transparent surfaces reveals that multiple depth values can be perceived at any spatial location*.[76] *Sources* takes the place of the architectural plan and signals a multi-sensorial tone to the exhibit's experience. This means that the *ordering* of the images to be depicted should be dealt by each viewer, thus turning the space of the exhibit into an environment immanent to his/her position and movement while maneuvering through the *slurry of references*. The properties of the photographic images exposed

{P.L.A.1}

{G.L.}

[75] Later it changed to *Documents '53* and finally to Parallel of Life and Art*,* in *The independent Group and the Aesthetics of Plenty,* p. 125

[76] Steven Lehar, op. cit., p. 125

- *extreme grain, heightened contrast, and cropping were dramatically employed*[77] - consciously contributed for the exhibit to spatially configure a *topological network of relations*. As Christopher Hight explains, contrary to Le Corbusier's Modulor in which measure - as *derived from nature, transcendental* and *fixed* - was the catalyst for *regulating architecture's task, that of containment,* the Smithsons *highlighted topological relationships and relative connections.*[78] This means that the Smithsons priviledged an idea of constant play and mutation within a certain *genus of order* over an order based on transcendental laws of proportion, through which any element - from unit to whole - *was subjected to a common measure ('commune mesure')*[79] In *A Bridge in Time,* Victor Papanek includes a quote stating that,

> *The admission of the energy of change into the static core of three-dimensional reality was bound to result in a wholly energetic world of total changeability. (…) The result is a wider and freer vision of a world with the stronger unity of irreducible open growth… Thus, the traditional three-dimensional static depth, appears as flat to the modern mind as the magic picture of reality once appeared to the rational mind.*[80]

The flattened appearance of depth, according to Papanek, results from the progressive shift provoked by the acceptance of the technological, from a static to a dynamic ethos; already in 1920 - a quotation included in Papanek's text - the constructivist manifesto states that *space, in a technic age can no more be measured by volume than by*

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[77] Christopher Hight, op. cit., p. 228
[78] Ibid., p. 223, 230
[79] Marina Lathouri, op. cit., p. 60
[80] A. Dorner, *The Way Beyond Art, N.Y. 1945,* quoted in Victor J. Papanek, op. cit., p. 8

linear measure… depth alone expresses the limitless/limited sphere that is space.[81] Papanek's text is filled with references confronting scientific and artistic issues, and builds up as a kind of dialogue disguised as a chorus of intertwined disparate voices; specifically acknowledging the *findings of modern science (Einstein, Booleia laws, Heisenberg's uncertainty principle, Non-Euclidian Geometry, Non-Aristotelian Logic, etc., etc.)* Papanek is lead to ascertain that [*W*]*hat now holds the world together is no longer the rigid framework of space represented by static material points, but the inter-penetrative force of energetic waves, a force which results in self-transforming spaces.*[82] Within a world now described as consisting of *absolutely individual events, objects, situations, abstractions, etc.*[83], transcendental strategies of harmonization are discarded as invaluable. Ending his text, Papanek includes a concluding quote from a manifesto found in a work from the Department of Architecture and Design, in which the fixed value of measure becomes replaced by the topological ethos of dimension.

> *The problem of dimension returns to us with great power after transcending the frozen trilogy of 'Line, Surface and Volume'. We realize now that dimension, wether apparent or real, physical or imaginary, third, fourth or fifth, represents our supreme ambition to govern the universe in a multitude of directions.*
>
> *Dimension, unlike measure, is flexible, and fundamental and dynamic*
>
> *Dimension, neither the third nor the sixth, but the nth human power to*

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[81] Pevsner, *Constructivist Manifesto, Moscow, 1920,* quoted in op. cit., p. 2

[82] Victor J. Papanek, ibid., p. 8

[83] Alfred Korzybski, *Science and Sanity: An Introduction to Non-Aristotelian Systems and General Semantics, 1933,* quoted in Victor J. Papanek, ibid., p. 5

study, project, and organize.[84]

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Subtitled *An attempt at non-euclidian aesthetics*, Papanek's text begins by naming machine technology as [*T*]*he most revolutionary subject affecting European designer-artists since the early part of the present* [twentieth] *century.*[85] Nevertheless, Papanek recognizes a kind of epistemological difficulty within the European *verbal* culture in structurally acknowledging the cultural shift represented by the *machine-object*, claiming that the European Avant-Garde erected *a myth-generating mechanism, a poetic bridge to ease the understanding of technological constructs.*[86] Through the oralization of verbal communication, the European Avant-Garde - from Futurism and Constructivism through Dada and Surrealism to Bauhaus practice - would seek to incorporate the motion and dynamics *found* within the machine into the creative process of simultaneously absorbing and constructing the principles of a new reality. Although to follow the *history* of how the understanding of motion and its inclusion on the creative, scientific and cultural process of modernity is not, per se, what is of interest in the present discussion, it seems appropriate to underline how the initiative on capturing and representing movement would affect our sensory sensibility towards the understanding of space as a dynamic and flexible dimension.

In Part II of *Mechanization Takes Command* - entitled *Springs of Mechanization* - Siegfried Giedion begins with an analysis of the concept of *Movemen*t, which, as he states previously, *underlies all mechanization.*[87]

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[84] Manifesto from Vol. I of *Dimension,* Dept. of Architecture and Design, Univ. of Michigan, 1955, quoted in Victor J. Papanek, ibid., p. 10

[85] Victor J. Papanek, ibid., p. 1

[86] Ibid.

[87] Siegfried Giedion, op. cit., p. 5. *Part II - Springs of Mechanization,* pp. 13-44

Corroborating this assumption, physicist Werner Heisenberg would write:

> *The new science started with astronomy, and therefore the positions and velocities of of bodies were natural first concepts for describing the phenomena.* [*Newton*] *introduced "the quantity of motion" which is essentially what we call momentum, and later such concepts as kinetic and potencial energy completed the conceptual basis of mechanics.*[88]

Giedion begins by stating that reality, [*E*]*ver in flux and process, cannot be approached directly;* [89] thus, to grasp reality, one must assume, is to apprehend and monitor its state of continuous motion and, especially, change. This statement actually brings into the phenomenology of common reality part of Werner Heisenberg's assumption on the impossibility of directly describing the conditions of the subatomic dynamics, an impossibility characterized by the fact that one cannot simultaneously identify - i. e., see - the time and place of an electron's position on its orbit around the atom's nucleus.[90] Within this *fact* lies the

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[88] Werner Heisenberg,*Tradition in Science,* from *Science and Public Affairs - Bulletin of the Atomic Scientists,* 29, No. 10, pp. 4-10, 1973, reprinted in *Encounters with Einstein And Other Essays on People, Places, and Particle*s, Princeton University Press, first paperback printingm, 1989, first published as *Tradition in Science,* 1983, p. 12

[89] Siegfried Giedion, op. cit., p. 14

[90] *The state of the electron* (…) *does not allow us to ascribe to* [*the electron*] *in its orbit definite properties such as coordinates, momentum and so on. All we can do is to speak about the probability of finding - under suitable experimental conditions - the electron at a certain point, or a certain value to its velocity. W*erner Heisenberg, *Development of Concepts in Quantum Mechanics,* from *The Physicist's Conception of Nature*,ed. J. Mehra, D. Reidel Publishing Co., Dordrecht, Boston, 1973, pp. 264-75. (Lecture at the Symposium on the Development of the Physicist's Conception of Nature in the Twentieth Century, held at the International Centre for Theoretical Physics, Miramare, trieste, Italy, September 18-25, 1972; written in English, reprinted in *op. cit.*,, p. 30

phenomenon in which the electron seems to appear in different places without describing a trajectory; this acknowledges a paradoxical state of being towards which neither sequence nor causality can be assigned. Giedion, however, begins by describing how the representation of movement, rather than that of the resting object or figure, would have started since the hypothesis of the world's own movement first arose. From this assumption on - first raised, according to Giedion, since the religious idea that *the world was created and set in motion by an act of will* [91] - to correctly comprehend the *pulse of nature* [92] would be to represent the manifestations of that pulse, i.e., to represent the forms of motion. From the *first graphical representation of movement* in the Fourteenth Century - achieved by Nicolas Oresme, Bishop of Lisieux within his treatise *On Intensities* in which the changing intensity of a quality of an object is measured through a graphical method - to the acknowledging that also in physics *the essence of the phenomenal world has been increasingly regarded as motion process,* Giedion entails a thorough description of the processes through which several authors invested on registering the perception of movement. One of such authors, a Nineteenth Century French physiologist called Étienne Jules Marey, would - after several experiments recording movement *in the blood stream, in the stimulated muscle, in the gait of the horse, in aquatic animals and molluscs, in the flight of birds and insects* - attempt at recording *the true form of movement as it is described in space.* To be able to capture such a form is to make that whic*h escapes the eye* visible[93]*,* hence Marey's choice to use photography as a means to enhance one's visual precision in order to record the process of movement, not just its consequence. Although taking as reference the photographic studies of Eadeward Muybridge,

[91] Siegfried Giedion, op. cit., p. 14

[92] Ibid., p. 17

[93] Ibid., p. 21

who worked with several cameras in order to catch each moment of a movement, Marey searched for a method of capturing movement from a single point of view and on a single plate. This he had seen in 1873 during the presentation of an Astronomer in the Académie des Sciences, where four successive phases of the moon had been shown on a single plate;[94] this would produce a sequenced juxtaposition where a record of *continuous motion* could be obtained. Unlike Muybridge, whose method showed the moving subject in different stages of its path, Marey was actually trying to detach the representation of movement from the subject in motion, thus seeking to isolate and determine the phenomenon as a subject of its own. Several experiences led Marey to record on the plate an *image of movement* which appeared in the form of a continuous *luminous trail*, *an image without end,* as he put it, *at once manifold and individual.*[95] The fact that Marey acknowledges in such images a simultaneous plural and individual character, mirrors a feeling of integrity together with a sense of multiplicity. In itself, the lightful image of movement was an abstract figure which rendered impossible to define where it started or ended; nevertheless, it revealed a wholeness that compresses the sequence that rendered it. Movement gets to be represented by a continuous *figure,* rather than by a sequence depicting the *object* under analysis in repeated and juxtaposed positions that induce the *feeling* of movement. As McLuhan states in *The Gutenberg Galaxy,*

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[94] Ibid.

[95] Étienne Jules Marey, *La Chronophotographie,* Paris, 1899, p.11, quoted in Siegfried Giedion, op. cit., p. 24 - *To visualize movement as it evolves in space, Marey first tried describing his name in mid-air with a shiny metal ball, and found its signature clearly written on the plate. He attached a strip of white paper to the wing of a crow, which he let fly before a black background (c. 1885). The trajectory of each wing beat appeared as a luminous path. Around 1890 he placed a brilliant point at the base of the lumbar vertebrae of a man walking away from the camera. In a latter lecture (1899) he speaks of these curves as 'a luminous trail, an image without an end, at once manifold and individual'.*

> *the object is translated out of organic or simultaneous form into a static or pictorial mode. By revolving a sequence of such static or pictorial spaces at a sufficient speed, the illusion of organic wholeness, or interplay of spaces is created.*[96]

This means that the depiction of movement - or rather the representation of the illusion of movement - by means of its capture through a set of fragments - is replaced by one single *configuration* with no broke-up succession of the object's progress to be followed; as stated by Giedion in *Mechanization Takes Comand*, [*f*]*irst, movement is dissected into separate phases so that the forms appear side by side or overlapping* - this was representative of a mechanical driven process leading to a continuous but static conception of space that freezes the structure of motion; [*T*]*he second stage,* Giedion continues, *makes the 'form' of movement into an object of expression*[97] - this was representative of what McLuhan would come to see as *the end of the mechanical era and the beginning of the electronic - which is to say, the end of the visual and the beginning of the audible/tactile in their fusion of space and time,* for the latter kind of representation would highlight *those aspects of motion invisible to the eye.*[98] For McLuhan, the ability of such an image in transmitting an awareness of a phenomenon which was not, *objectively/effectively* represented, meant a break with the prevalence of the specific properties of the visual within spatial perception. This also means a shift from the aim of

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[96] Marshall McLuhan quoting Siegfried Giedion discussion in *Mechanization Takes Comand* of Eadwaerd Muybridge's stop-action photographs, and Étienne Jules Marey's use of the 'myograph', quoted in Richard Cavell, op. cit., p. 50

[97] Siegfried Giedion, op. cit., p.

[98] Richard Cavell, op. cit., p. 105

representing the movement of the *body* in space to the representation and understanding of space as an effect of the movement of the *body*. This dislocation of the concept of space as a static *ground* where bodies move, to the understanding of space as, instead, an effect of the body's movement would indeed transform it into a dynamic and organic *figure*.

This obviously resonates with the founding argument of Einstein's *Theory of Relativity*; as it is put by Paul Davies, [99] in his introductory text to Werner Heisenberg's 1989 Penguin's Edition of *Physics and Philosophy,*

> *the central lesson of the theory of relativity is that space and time are not merely the arena in which the drama of the universe is acted out but part of the cast. That is, space-time, is as much a part of the physical universe as matter; in fact, the two are intertwined.*[100]

This, as Gavin Parkinson writes, *abolished forever the notion of the absolute conditioning of phenomena. Because the cognition of every act was now subject to an infinite number of variables,* Parkinson further writes, *physics had put paid to the validity of a static contemplation 'according to an unchanging background, which, blocking sight and forming a screen, would allow*

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[99] Paul Davies is a physicist, director of BEYOND: Center for Fundamental Concepts in Science at the Arizona State University and co-director of the ASU Cosmology Initiative. At the time of writing the Introductory text to Penguin's edition of Werner Heisenberg's Physics and Philosophy he was Professor of Natural Philosophy at the Australian Centre for Astrobiology, Macquarie University, Sidney and held a Visiting Professorship at Imperial College in London.

[100] Paul Davies, Introduction to Werner Heisenberg, *Physics and Philosophy*, *The Revolution in Modern Science,* Penguin Classics, 2000, first published in the USA by Harper & Row Publishers, Inc., New York, 1962, first published in Great Britain, by arrangement with Harper & Row Publishers, Inc., by Pelican Books, 1989, pp. viii-ix

representation'.[101] To this, quantum physics would adjoin a conception of *reality* based on the impossibility of a strict determinism, thus placing the Kantian assumption of a *nouminal world* - described by Lehar as *the world studied by science*, i.e., *the objective external world -,* in a route of incompatibility with modern physics assumptions; on analyzing Kant's position regarding physics, Werner Heisenberg starts by acknowledging the former's principle of *a priori* knowledge, in which are included. among others, the pure intuition of time and space or the law of causality. But, as Heisenberg describes, *the theory of relativity* (…) *has in fact revealed entirely new features of space and time of which nothing is seen in Kant's a priori forms of pure intuition,* while at the same time, *the law of causality is no longer applied in quantum theory.*[102]

On explaining the processes of determining the state of the electron's orbit around the nucleus of an atom, Heisenberg would describe the notion of *objective description* as inadequate; *Einstein, for instance,* wrote Heisenberg, *thought it must necessarily be possible to give some kind of objective description of the state of affairs, the state of an atom, in the same sense as had been possible in the older physics. But it was indeed extremely difficult to give up this notion,* Heisenberg continues, *because all our language is bound up with this concept of objectivity.* (…) *The statement that such an objective description is not possible in the world of the atoms* (…) *- such a statement was indeed very revolutionary.*[103] Unlike with Marey's light images registering the path of motion or the later experiences of Frank B. Gilberth - which incorporated, using similar methods, the study of time and motion as a

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[101] Gavin Parkinson, op. cit., p. 561. The sentence between comas is a quote from Henri-Charles Puech taken from *Signification et Representation,* in *Minotaure,* Winter 1934-35, 6:52: *en fonction d'un arriér-plan immuable qui, bloquant la vision et formant l'écran, permettrait la représentation.*

[102] Werner Heisenberg, *The Development of Philosophical Ideas Since Descartes, in Physics and Philosophy,* p. 48-49

[103] Werner Heisenberg, *Concepts in Quantum Mechanics,* op. cit., p. 30

process for measuring the workers efficiency[104] - Heisenberg describes how in quantum physics there is no such thing as the ability to observe the path of an electron inside an atom. And when, after a lecture in Berlin in 1926, Einstein questioned Heisenberg over the fact that in his mathematical description *the notion of 'electron path' did not occur at all,* the latter stated that *we cannot, in fact, observe such a path; what we actually record,* Heisenberg replied, *are frequencies of the light radiated by the atom, intensities and transition-probabilities, but no actual path.*[105]

Einstein, however, wouldn't accept such a theory, specifically because it only included such quantities as can be directly observed, an idea previously written down by Einstein himself and to which Heisenberg had recurred. According to Einstein, however, a theory *employing only observable quantities simply cannot be consistently carried out. Every observation,* Einstein argued, *presupposes that there is an unambiguous connection known to us, between the phenomenon to be observed and the sensation which eventually penetrates our consciousness. But we can only be sure of this connection, if we know the natural laws by which it is determined. If, however, as is obviously the case in modern atomic physics, these laws have to be called in question, than even the concept of 'observation' loses its clear meaning.* For Einstein, the fact that direct observation of a phenomenon actually rendered that phenomenon as a *fact* characterized by a state of indeterminacy, made the concept of observation to be that which he ultimately found inadequate. For Heisenberg, notwithstanding, it is the concept of objectivity what effectively is in question, in the way that, for him, to be objective within quantum mechanics is to be able to accept the probable instead of the certain. As Heisenberg puts it,

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[104] Siegfried Giedion, *Scientific Management and Contemporary Art,* in op. cit., pp. 101-113

[105] Werner Heisenberg, *Encounters with Einstein,* op. cit., p. 113

> *Einstein could always set out from the idea of an objective world subsisting in space and time, which we, as physicists, observe only from the outside, as it were.* (…) *In quantum theory this idealization was no longer possible. Here the laws of nature were dealing with temporal change of the possible and the probable.*[106]

As it is explained by Paul Davies, Einstein held a classical world view, in which *our observations do not 'create' reality: they uncover it.* On the other hand, Heisenberg denied the *objective reality of an external world;* this means that, [*O*]*ne cannot meaningfully talk about what an electron is doing between observations because it is the observations alone that create reality.* Thus, *reality is in the observations, not in the electron.*[107] This obviously contradicts the notion that scientific investigations *actually refer to something real 'out there' in the physical world and that the lawful physical universe is not just the invention of scientists.*[108]

This notion or belief is labeled by Heisenberg as *Dogmatic Realism,* as opposed to *Pratical Realism,* in which the existence of the physical world is not seen as independent from the statements that the scientist, through *simple mathematical laws*, produces on it. So according to Heisenberg and the fundamentals of quantum mechanics, although there is the acceptance of some sort of *macrocosmic environment within which the quantum microworld takes place,* to *scientifically* visualize the physical world is not to *uncover* an image of what already exists 'a priori', but to conceptually *picture* that which, in fact, was non existent until it is

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[106] Ibid., p 122

[107] Paul Davies in op.cit., pp. xi-xii

[108] Ibid., p. xiii

perceived, articulating direct observation and theoretical conception.[109]

Within the quantum world, then, one cannot assume a determinate point of view from which to observe the universe as an orderly arrayed *visual* landscape; instead, one is only able to recognize the existence of a *simultaneity of events occurring within a single, temporal 'structure',* within which lies an *affirmation of the 'formless' of visible phenomena.*[110] For McLuhan - as earlier for art critic Carl Einstein - Cubism incorporates many of modern physics assumptions, especially in the way it *substitutes all facets of an object simultaneously for the 'point of view' or facet of perspective illusion.*[111] By representing the idea of simultaneous awareness, Cubism approaches the representation of the integral object towards the image of a fragmented field of superimposed - and seldom contradictory - views. McLuhan further writes,

> *In other words, cubism, by giving the inside and outside, the top, bottom, back, and front and the rest, in two dimensions, drops the illusion of perspective in favor of instant sensory awareness of the whole.*[112]

Already in *Georges Braque,* Carl Einstein stated that with cubism,

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[109] Recent developments taking place after Heisenberg's death, stipulate that - contrary to the idea of the *classical world* being *some sort of macrocosmic limit of the quantum world,* i.e., a macro environment within which *quantum effects dissipate - if the entire universe is the quantum system of interest, there clearly does not exist a wider macroscopic environment* (…) *into which quantum fuzziness can fade away. This means serenely accepting the full range of quantum alternatives as actually existing realities.*

[110] Gavin Parkinson, ibid.

[111] Marshall McLuhan,*Understanding Media,* Routledge Classics, 2008, p. 13, First published in the United Kingdom by Routledge and Kegan Paul, 1964; First published in Routledge Classics 2001

[112] Ibid.

man ceased to place himself before things at a distance, transforming the act of seeing in an act of experiencing. This, Einstein declares, *extends the act of seeing beyond any type of perception.*[113] For Einstein, to consider perspective as an *authentic process* or as a *law* within spatial apprehension and representation means to eliminate what he calls the process of *optic creation.*[114] Instead, through cubism he recognizes a comeback to the process of seeing, as opposed to the Renaissance *passive* representation of a fixed or inert *object*. Cubism thus transforms the object as resultant of classic representation into a figure in a constant state of being experienced. This implies that, through the process of apprehension, the resultant figure becomes a complex of *breaks, ruptures, breaches, fragmentations, and discontinuities*[115] Einstein points out, however, that although based in such a convoluted process of apprehension, cubist representation does not lack a sense of unity. In the paintings of Georges Braque, Einstein thus recognizes a technique for turning the disparate and the *formless* into an image of uniformity:

> *Braque would even the abrupt, multiple or contrary movements of observation, or the phases of the formation of the figure, in the following*

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[113] *Or, celá étendit l'acte de voir au-delá de toute perception. C*arl Einstein, op.cit., p. 74

[114] *Mais en présupposant la perspective comme une loi, le processus authentique, le processus de la création optique avait été éliminé.* or, further, *La dominance 'a priori' d'une représentation fixée de l'espace signifiait que l'acte de voir était par avance enfermé dans des limites lui faisant perdre toute possibilité créatice.* ibid., p. 71-72

[115] These terms are used by Gavin Parkinson on describing the kind of language used by Einstein. Parkinson writes, *In Georges Braque, he* [Einstein] *draws upon an extensive knowledge of modern physics, and the philosophy of science, seeking to map an epistemological field that will accomodate quantum theory, psychoanalysis and cubism. This is effected through a language strikingly similar to Bachelard's* [in *Le Nouvel Esprit Scientifique*] *- of breaks, ruptures, breaches,fragmentations, and discontinuities - that we would now associate more readily with the rhetoric of poststructuralism and postmodernism.* Gavin Parkinson, op. cit., p. 559

way: 1. by reducing it to a leveled surface, 2. by formal analogies.[116]

This means that cubism explores a multi-levelled sensorial awareness exclusively through two-dimensional techniques of representation. In fact Einstein goes further in describing the cubist figure as non definitive, although reflecting a *changing crossover of experiences.*[117] Marshall Mcuhan assumptions on cubism are, as we have seen, totally akin to Einstein's analysis. For McLuhan, cubisms's *instant total awareness* was indicative of a major shift in the sensorial bias, in which *specialized segments of attention have shifted to total field.* Thus McLuhan rhetorically asks, *Is it not evident that that the moment that sequence yields to the simultaneous, one is in the world of the structure and of configuration? Is that not what has happened in physics, as in painting, poetry and in communication?*[118]

As put by Richard Cavell, *McLuhan's project involved a dynamization of the total field of perception* and within this assumption, he would develop the concept of acoustic space, one which - besides the notion of the audile or aural - incorporates a tactile feeling. Banham's concept of image, as we have seen, also incorporates a sense of the tactile in the way that it is through the production of images that the *New Brutalist* reveals its interest in *the thing itself.*[119] As was stated on the beginning of the chapter, McLuhan associated the *audile* with the two-dimensional, thus pursuing Von Béséky's paradoxical assumption that the *two-dimensional* [*mosaic*] *is, in fact, a multi-dimensional world of*

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[116] *Braque uniformisa les mouvements du regard abrupts, multiples ou contraires, ou phases de formation de la figure, par les moyens suivants: 1. par une réduction a la planéité, 2. par des analogies formelles.* Carl Einstein, op.cit., p. 104

[117] *Ici, la figure n'a rien de définitf, mais reflécte l'entrecroisement changeant déxpériences vécues.* ibid.

[118] Marshall McLuhan,*Understanding Media,* ibid.

[119] Reyner Banham, op. cit., ibid.

interstructural resonance.[120] Indeed, Cavell's mention of Von Béséky's suggested confluence of the acoustic dynamic with that of the figure/ground gestalt is complemented by an ulterior reference to the concept of resonance, also adapted by McLuhan.

> *'Resonance',* Cavell writes, *conceptualizes the break in the uniformity and continuity of space as visualized; it is a sign, in other words, of the discontinuity of acoustic space, of the fact that it produces meaning through gaps.*[121]

Colomina's description of Le Corbusier's film - in the same way as Eisenstein's inception on the path of the Acropolis depicts the construction of sequenced visualized space; through montage, one achieves a feeling of continuity, one that assembles different parts and scales within a sense of uniformity. On the other hand, in a film like *Caligari,* we are able to understand an agglomerate of situations and spaces that most significantly resembles a collage; the syncopated rhythm of the film leads the viewer to accumulate experiences, more than follow a continuous path. This is further corroborated by Scheffauer's take on the film, in whose description we recognize a leveling of its constituent *scenarios*, thus *proposing* a reading of the film that undertakes a collapse of sequence and narrative and transforms it into an *orchestration* of effects. {L.C.2}

The modernist *living cell* - proposed as *minimum dwelling* - held in itself a *programmatic, architectural, technical* plan of development

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[120] Richard Cavell, op. cit., quote from Marshall McLuhan*, The Gutenberg Galaxy,* p. 43

[121] Ibid., p. 23

and assemblage, from *basic unit* to *urban fact.*[122] The postwar capsule holds an overlapping of scales and images which configure a sense of isolation and totality. Such an environment translates as a field of events playing as a figure/ground gestalt percept, creating a space of aural - instead of plain visual - qualities. Whilst for Le Corbusier the eye was the privileged tool of perception,[123] for McLuhan, it is the sensorial capacity of the ear that which may better characterize the saturated environment of the electric age. And so the Corbusian eye - often represented independently in his drawings - gives place to the ear in George Morris, Jr. work of 1943; the image, published in Moholy Nagy's *vision in Motion* was used by McLuhan as a frontspiece in *Verbi-Voco-Visual Explorations,* thus attributing to the act of seeing the acoustic properties of the ear.

{G.M.}

This makes for a *flattening* of the spatial experience in which we cannot, however, find an effective quality of figure over ground, but rather a resonance of figure *as* ground, and vice versa. Within the space of the capsule - from Hamilton's *today home,* through the Smithsons *House of the Future,* to David Greene's *Living Pod,* we may recognize such an environment of resonance, *and that is acoustic, that is acoustic space*.

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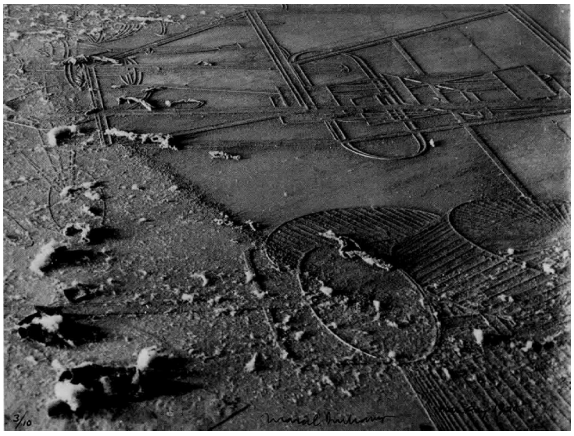
[122] Marina Lathouri, *'The Necessity of the plan': Visions of Individuality and Collective Intimacies,* in *Intimate Metropolis,* Vittoria Di Palma, Diana Periton and Marina Lathouri, Eds., Routledge, 2009, pp. 153-174

[123] *L'oeil est l'outil d'enregistrement,* La Maison des hommes, 1942

The Capsule and Postwar Architectural Avant-Garde, *circa* 1956



TERRITORY

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Whether in an urban setting or in nature, all creative activity relies on being cocooned. Such a sense of inviolability relies on its 'fragment' of functional space being within an 'enclave', encapsulated in its turn within a protective territory., Alison Smithson[1]

To feel enclosed, implies an awareness of the limit that configures the space where one is situated. In this way, one may clearly establish a distinction between inside and outside, i. e., that which is outer limits. But it may also allow for an action of controling one's world transformed into a private cosmogony, as Roland Barthes interpretation of Jules Vernes' *Nautilus*, so well demonstrates. Modern architecture - in its most extreme configurations - anchored in the technological evolution of building materials and systems, but also because of its endeavor for a functional structured and clear spatial interaction,

[1] *Saint Jerome, The Desert… The Study*, in *Alison and Peter Smithson - from the House of the Future to a house of today,* Dirk van den Heuvel and Max Risselada Eds., 010 Publishers, 2004, pp. 224-231

chose to blur such a distinction, its limits becoming *picture windows*. Nonetheless, the Mies Van Der Rohe collages for the *Resor House*, which transform the limits of the house into actual pictures, bring a sense of detachment to the interior, thus actually decontextualizing the house from a precise location; both the Smithson's *House of the Future* and Hamilton's *Today Home* share and radicalize this sort of ubiquity, and establish a sort of territorial demarcation that is bounded by a paradoxical appropriateness of a sense of exteriority. Inversely, *Patio & Pavilion,* configures a tautological gesture by collapsing interior and exterior within an artificial site acting as an expanded field that incorporates a sense of interiority. In this sense, Alison Smithson's considerations on St. Jerome's habitats, becomes determinant as a means to demonstrate that both interiority and exteriority work intimately as a means to provide both a sense of completeness and a status of partiality.

The term territory is seldom used in architectural discourse as a reference to an untamed dimension of land that carries a deepness that doesn't hold a precise architectural limit. It is, concurrently, also a term used to state a condition of exteriority, an extensive exteriority. Additionally, in architecture, the term territory stands as a synthesis for a juxtaposition of spatial facts, articulating its sense of limitlessness with that of a complex system of surfaces, topographies, climates, textures. However, outside of the architectural common discourse, territory isn't but bounded, controlled and mapped space. Deriving from the latin word *territorium* (which decomposes as *terra* - earth or land - plus *orium* - a suffix denoting place), the term territory means a *land under the jurisdiction of a town, state, etc.* or *a land around a town, domain, district*. But the term further suggests a derivation from *terrere* - to frighten - thus connoting its meaning with *a place from which people are*

warned off. Territory, then, carries a paradoxical meaning, for it both stands as a controlled and circumscribed land and as a protected place, one that warns off. So, it may be said, territory, in its more broader definition, collapses a meaning of appropriation and occupation while holding a foundational fear from the unknown.

The postwar environmental *acoustic* space, we will argue, also manages to build up as a kind of territorializing act, both in the sense of it being conceived as an appropriation and of establishing itself as an interiorized setting bounded from an indeterminate exterior. In his 1909 essay *Bridge and Door,* Georg Simmel wrote,

> *The human being who first erected a hut, like the first road-builder, revealed the specifically human capacity over against nature, insofar as he or she cut a portion out of the continuity and infinity of space and arranged this into a particular unity in accordance with a 'single' meaning. A piece of space was thereby brought together and separated from the whole remaining world.*[2]

The whole remaining world thus becomes a segregated space, one that is kept outside, as exterior. In this way the act of building is primarily an action of separateness, one that puts in motion the notions of inside and outside, interiority and exteriority, controlled space and wilderness. {H.o.F.5}

Giorgio Agamben, nevertheless, defines the exterior as *not*

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[2] Georg Simmel, *Bridge and Door,* in *Rethinking Architecture - a reader in cultural theory,* p.66

another space beyond a determined space[3], but as a passage, as that which constitutes a connection with an expectant void. Thus, to territorialize may be seen as the act of collapsing a feeling of closure with a sense of limitlessness.

In the *House of the Future*, the Smithsons created a space within which a piece of the outside - which may accumulate as a memory, or as a fragment of an outer, anonymous wilderness - is kept, as in captivity, surrounded. Here the interior space of the *H.O.F.* surrounds a captured territory, not the other way around. In fact the *H.O.F.* itself stands as a place apart, oblivious of an outside but the one that it holds inside. This attitude of demarcation thus comes together with a sense of detachment; while it determines an appropriation, it also reveals and incorporates the outer, that which while staying *outside,* becomes nothing else but a place of expectancy.

This assumption brings back Roland Barthes' writing on the *Nautilus*, in which the author recognizes the gesture of a continuous exercise of *enclosing oneself perfectly.*[4] As previously stated, the *H.O.F.* also bares this gesture of enclosure, becoming, as Beatriz Colomina writes,*only an inside. There is no outside*, Colomina ads; *Like a submarine or a spaceship, the walls of the craft are pierced at only one key point where entry is infrequent and carefully controled.*[5]

{H.o.F.8}

There is a a shift on the dichotomy of interior/exterior as the inside turns toward itself. Not only the *H.O.F.* may be compared to a submarine, then, but we find that the autonomous enclosed vessel articulates a sense of completion together with the idea of an eternal

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[3] Giorgio Agamben, *Afuera,* in *La Comunidad que Viene,* Pré-Textos, 1996, pp. 43-44

[4] Roland Barthes, *Nautilus et Bateau Ivre,* in op.cit, p. 76

[5] Beatriz Colomina,*Unbreathed Air*, in op. cit., p. 227

drift, one that, as again Barthes recognizes, doesn't relate to *romantic voyages or mystic plans of infinity*, but to the fact that the world must be *reduced to a known and enclosed space, one that man could then comfortably inhabit.*[6] Thus Peter Sloterdijk's argument on classifying the living unit as a *wordly space,* does nothing else but to expose it as what he calls a *micrototality*, a place where you may experience *the island effect that every cell claims for itself.*[7] The representations of the *H.O.F.,* concurrently, usually depict it as either an isolated unit, either taking part in a conglomeration of repeated units; in fact, as we know, *it was designed to built up into a dense mass*, although, even into a dense mass it remains an object in isolation;[8] it keeps its functional autonomy, and, to some extent, its formal identity, in spite of the broader image. The *H.O.F.*, thus, enlightens its *island effect*, not only for its interior wordly space but also for its ability in maintaining - following Sloterdijk's argument - a *connected isolation*. As a living unit, although re-engaging upon the legacy of the modernist cell - that is, *the ability to unfold in an expanding pattern* - , it ends up emerging with a more vital premise in relation to its own dynamics as an *enclosed cosmogony*.[9]Hence interior and exterior become collapsed notions within the capsular multi-leveled environment.

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With modern architecture, interior space would build up as *to compose* with its surroundings, and, within its most radical form, the space inside the modernist glass enclosure continuously relocated man

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[6] Ibid., p. 76

[7] Peter Sloterdijk, op. cit., p. 93

[8] Alison and Peter Smithson, *The Appliance House*, *The Smithsons*, in *Changing the Art of Inhabitation*, p. 115. Originally published in *Architectural Design*, April 1958 and *Design*, May 1958

[9] As we have seen, the *Nautilus*, according to Barthes, incorporates these premises. The *H.O.F.*, we believe, shares these premises with the *Nautilus*., Roland Barthes, *op. cit.*,p. 75

into a broader physical and visual context. In *Toward an Architecture*, Le Corbusier writes that the *outside is always an inside*, thus establishing a structural connection between interior and exterior, one that explores an inversion of roles between the primacy of the site over architecture. [10] Writing from the point of view of the wondering human eye, Le Corbusier's statement puts, first and foremost, the *outside* as a matter of the *inside*, thus reinforcing the presence of the site as a tool for the organizing of the architectural intervention. *The elements of the site rise up like walls rigged out to the power of their 'cubic' coefficient, stratification, material, etc., like the walls of a large room*, Le Corbusier ads to its initial statement, then concluding that *it is necessary to compose with these elements.*[11] What this means is that for Le Corbusier, the outside will be exposed in its structure from the way the moving eye is able to frame it from the inside, and, reversely, the inside will compose in itself the elements of the site, thus becoming as much a part of those elements as an epicenter from which the eye should experience a sense of wholeness. *The human eye,* Le Corbusier further writes, *in its investigations, is always turning and man also turns to the right, to the left, clear round. He takes in everything and is drawn toward the center of gravity of the site as a whole.* (…) *The neighboring houses, the near or distant mountain, the low or high horizon are formidable masses whose cubic volumes make a powerful effect. The apparent cubic volume and the real cubic volume are gauged instantaneously, anticipated by intelligence.*[12] So, according to Beatriz Colomina, for Le Corbusier *[T]he House* [in this particular case Beatriz Colomina is arguing about the *Petite Maison*] *is drawn with a picture in mind. The house is drawn as a frame to that*

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[10] Le Corbusier, *Architecture II - The Ilusion of the Plan*, in *Toward an Architecture,* Translation of the 1928 printing of Le Corbusier, *Vers une architecture (Paris: G. Crès, 1924)*, Frances Lincoln Limited, 2008, p.p.213-230

[11] Le Corbusier, *op. cit.,*p.224

[12] Corbusier, *ibid.*

picture.[13]

Writing about the modern picture-window house, Colomina seems to radicalize Le Corbusier's argument about the outside always being an inside, stating that the interior actually ceases to exist. *It is not, as is commonly assumed,* Colomina writes, *that the house exposes its interiority.*[14] And, she ads to the presumption, it is not the interior of the house which gets looked at from the outside, but it is the surrounding that which becomes observed; as if the interior space of the house actually forced the outside territory into its gaze, not the other way around. Hence, within the modern picture house, *there is no interior.*[15] {M.v.d.R.1}

Analyzing Mies Van Der Rohe's collages for the *Resor House* project, Neil Levine points out the fact that *the compositions of cut and pasted photographs sandwich the room and compress the space into a strange, depthtless void.* And he ads: *Architecture, as construction, disappears in this photographic tabula rasa.*[16] In these collages, which are in fact perspectival drawings that put the observer inside the house looking out, Mies aims at representing the interior - minimally depicted through the spatial positioning of the cruciform-shaped columns in front of the picture window - by fundamentally framing the image of the facing exterior landscape. But in these representations, - contrary to Le Corbusier's aim in the *Esprit Nouveau* diorama - we actually notice that the confrontation between the drawn architectural elements that configure the interior space and the manipulated photographic representation of the landscape makes for the latter to reinforce the former's sense {M.v.d.R.2}

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[13] Beatriz Colomina, *Window*, in *Privacy and Publicity, Architecture as Mass Media*, The MIT Press, Fifth Printing, 2000, First Paperback Printing, 1996, p. 315

[14] Beatriz Colomina, *X-Ray Architecture*, in *Domesticity at War*, p. 168

[15] Beatriz Colomina, ibid. p. 168

[16] Neil Levine, *'The Significance of Facts': Mies's Collages Up Close and Personal*, in *Assemblage* 37, The MIT Press, December 1998, p. 78-79

of enclosure, rather than presenting an ethereal limit to it capable of blurring its existence. Furthermore, in the South viewing collage, where Mies superposes the image of an enlarged Paul Klee painting and that of a wood-veneer service bar to the image of the mountains ahead, *the play on distance and perspective*, as it is put by Levine, actually suggests a further contrast between the sealed in objects of the house and the *distant, alien and unfamiliar nature.*[17] In fact what this particular collage further brings into play is a sense of identity to this interior, while withdrawing from the outside landscape any sign of reconnaissance, turning it into an anywhere place. The images of the mountain landscapes that Mies puts in front of the apparently *blasé* interior views of the Resor House, *hermetically sealing it from the outside* may, according to Neil Levine, replicate the role of the exterior walls of the architect's patio-houses, from a few years earlier. In these, Iñaki Ábalos notes, it is the privacy of their imaginary male occupant what may in fact be the issue, although there is no doubt about the mixed sense of freedom and enclosure provided by the confrontation of the glassed in interior with the immediate walled exterior.[18] The architectural abstraction of the exterior walls and the inexistence of any kind of ulterior references also attests to an *anywhere* localization of the houses, turning them into protected and embedded territories in themselves; the zoomed in images of the mountains that surround the Resor ranch taken as the only exterior reference decontextualize the house, at the same time bringing an uncanny feeling to it, probably due to the pressure of its overwhelming scale. The glassed interior space of the *Resor House* becomes a protected territory by that which also represents a kind of contextual unrest.

{H.o.F.5}

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[17] Neil Levine, ibid, p.79-81

[18] see, Iñaki Ábalos, *La Casa de Zaratustra,* in *La Buena Vida: Visita Guiada a las Casas de la Modernidad*, Barcelona, Editoral Gustavo Gili, 2001, pp. 13-36

In the *House of the Future,* instead of a glassed in interior we encounter a glassed in exterior, protected by the house, itself thought as an interior cut out from the terresterial world. Indeed in Mies we find a confrontation between interior and exterior, with the latter either pressing and sealing the interior it faces, or acting as an extended limit of that interior. Nevertheless, we may say that the outside landscape of the *Resor House* - which Mies turns into a rather anonymous place - , becomes a presence within the interior, something that the *H.O.F.* literally manages to put into play; at the same time the Smithsons encapsulated a portion of the outside - often referred to as either a patio or a garden - the additional references of other imaginary landscapes or surroundings included in the house worked as a demonstration of its ability to survive in any type of environment, at the same time enunciating a sense of autonomy from any kind of exterior circumstances.

{M.v.d.R.1}

{M.v.d.R.2}

Bringing to mind the *Esprit Nouveau* pavilion, we find inside its cylindric element dioramas of the *Ville Contemporaine* and of the *Plan Voisin*, as *framed representations of the future city.*[19] *The diorama*, explains Marina Lathouri, *functions by subjecting a stationary observer to the mechanical unfolding of an optical experiment in time. Its effects depend on the distance between the observer and the objects depicted on a screen; in the case of 'Ville Contemporaine' and 'Plan Voisin', the intended effect was to create a unifying order.*[20] Simultaneously to the presentation of the dioramas inside the cylinder, the cube itself was also *perforated by the void of an indoor garden, simultaneously framed and engaged with the realm of the domestic and what lays beyond it.*[21] So either by including a portion of the exterior (the indoor

[19] Marina Lathouri, op.cit, p. 61.

[20] Ibid.

[21] Ibid, p. 60

garden) or by depicting images from fictional cityscapes (the fragments of the actual city inserted into the fictional projections of the future cities), Le Corbusier carefully framed a sense of correspondence between interior and exterior, between house and city. And indeed, as Colomina stated, this house - the *Esprit Nouveau pavilion,* a model for the modern cell - was thought - as a frame - with a picture in mind. Instead, in the *Resor House* collages, Mies' framing of the exterior world holds a sense of compressed cohabitation between an estranged condition of the outside and a certain universality of the interior. And so, while in Le Corbusier's *Esprit Nouveau* Marina Lathouri discovers a *spatial ambiguity* between the *micro-and the macro-scale*, in Mies' *Resor House* collages we may instead recognize a kind of laconic/cinic superposition of the inside over the outside - in the collage of the interior perspective looking south this is particularly noticeable as the objects on the inside gain presence over the outside landscape. This means that, however in permanent sight, the outside is always kept at large, as a still view; in Neil Levine's words, *the photographic representation of the landscape preserves and asserts 'its' exteriority to the perceiving object.*[22] So whilst *brought* inside by its frontal and objectified framing, the outside in the *Resor House* collages remains an exteriority, a detached piece of a whole impossible to reconstruct; inversely, the correspondence between *frame* and *framed* in Le Corbusier's *Esprit Nouveau* pavilion induces a *same degree of reality*.[23]

The *Esprit Nouveau* pavilion, as explained by Marina Lathouri, thus becomes the experience of a threshold, with room and city - *frame* and *framed* - built as a *perceptual unity* through the eye of the observer. Looking into the frame, then, means to look at an outside in correspondence with the interior from which it is observed. While in

[22] Neil Levine, op. cit., p.81

[23] Marina Lathouri, op.cit, p. 61

itself the diorama unfolds as *an optical experience in time*, its appearance inside the pavilion sets for an optical experience in space. It makes for a fictional framing of the larger totality of which the pavilion is both a provider and a part. So whilst Mies' *Resor House* collages reinforce a sense of autonomy and distance from the outer setting, Le Corbusier's careful framing of the exterior longs for a structural and sequenced engagement between interior and exterior.

We remember how, inversely to her statement on the modern picture house - specifically according to Le Corbusier's ideals - Colomina declared that, within the conception of the *H.O.F., there is no outside*. By re-creating a territorial sensibility of its own, the *H.O.F.*, does not, in fact, recognize the existence of an outside, besides that which it already holds; this however, is less due to a refusal of acknowledging such a *reality*, than to its topological approach in which the perception of inside and outside, become engaged in a process of territorial demarcation.

{R.Ham.2}

Richard Hamilton's *Just what is it…?* collage while establishing a bounded environment, paradoxically includes fragmented representations of exterior landscapes, thus forcing upon them a condition of inclusiveness. These cut and pasted images work as if they were outer side surfaces turned outside in. Such images describe, nevertheless, a multiplicity of territories meaning that to enclose them is - to use a loosely Barthesian terminology - to enclose the knowledge of the world. The inside space represented in Hamilton's image, establishes a mixed connection with both Mies' *Resor House* collages and Le Corbusier's *Esprit Nouveau* installation and cinematic experience; while composed of cut and pasted images with no previous relation among them, *Just what is it…?* is in itself an *image* in Banham's

terms, depicting a topological quality over a compositional or purely geometrical bias. *Within* its space, the pictures of interior and exterior scenes seem to hold similar qualities implicit in the more wide concept of depth, thus collapsing as subjective ambivalent properties. Both the *Esprit Nouveau* pavilion and the collaged representations of the *Resor House* acknowledge the presence of an exterior toward which to relate - in different ways - through the window frame. In her analysis of the *Esprit Nouveau* spatial effects, Marina Lathouri writes that,

> *If looking out a window is like looking at a picture, what we see in the frame is not in fact the real world. But whereas the presence of a frame usually brackets the reality we inhabit by making us oblivious to what lies beyond its borders, the pavilion supported a fusion of realities and scales.*[24]

Concurrently with Marina Lathouri's assumptions on the *Esprit Nouveau* pavilion, *Just what is it…?,* also supports the feeling of a spatial ambiguity; this, however, does not happen through a programmed opposition between frame and framed, but through a topological inclusiveness that flattens a convolution of *realities and scales*. Contrary to Le Corbusier's intentions - *I will begin by drawing attention to this crucial fact: a plan proceeds 'from the inside out'*[25]- Hamilton's *today home* exposes itself as an all embracing territory with no ontological hierarchy between interior and exterior. In fact, *Just what is it…?* may simultaneously be seen as representation of a *contemporary* picture-window room and as a space age *chambre à ciel ouvert*. If, as Marina Lathouri states, in reference {L.C.3}

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[24] Marina Lathouri, op.cit, p. 61

[25] Le Corbusier, *Architecture II: The Illusion of the Plan,* in *Toward an Architecture,* p. 216

to the *Esprit Nouveau* pavilion, *looking out a window is like looking at a picture,* inside the *today home* of Richard Hamilton, to look at a picture is like evoking a connection through the recognizing of an imaginary distance from - or presence in - any *outer* landscape. Inversely to Le Corbusier's aphorism, in the postwar space of the capsular *today home*, the interior *is* always an exterior, not the other way round. The outside, however, working as the surface that bounds the interiority of the space - in a rather similar way as in Mies' *Resor House* collages - implicitly holds a *line* of control and demarcation. So while *objectively* opposing inside to outside, the enclosed space of the room subjectively characterizes its radical interiority according to a mixed desire of appropriation and limitlessness - thus juxtaposing to the political act of demarcation a poetical gesture of wonder and exploration. In conjunction with its identification with the vessel, the postwar capsule further impregnates the image of its interiority with a sense of constant boundary transgression. Interiority then, becomes tied to a knowledge of *outsideness.*[26] {R.Ham.2}

We remember Roland Barthes who in reference to the *Nautilus*, considers the image of the boat as one that *may well be symbol of departure*, but is, *more profoundly, a mark of closure*:

> (…) *to love vessels is, beforehand, to love a superlative house, inexorably closed, not the vague departures: the ship stands as a fact of inhabitation before being a means for transport.*[27]

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[26] Christine McCarthy, *Toward a Definition of Interiority,* in *Space and Culture,* vol. 8, no. 2, May 2005, p. 116

[27] Roland Barthes, op. cit., p. 76

The vessel being, beforehand, *a superlative house,* means that it stands - primarily - as a *locale,* thus embedding in its enclosing gesture a geopolitical sense. Mirroring the ontology on Barthes' description of the vessel, both the *today home* and - more explicitly - the *House of the Future* engulf images of exteriority in their act of appropriation. The *H.O.F.'s* wall embedded TV showing underwater landscapes is equivalent to the *today home* open sight of planet earth, hence putting each one of the *interiors* in close contact with inhospitable environments. Thus, to be inside is to inhabit a subjectively attainable desire for the very same exterior that one wishes to relinquish. The boundaries of both the *today home* and the *H.O.F.,* may thus be recognized as a promise of infinity, *a point of transition or a sudden jarring into somewhere else, into another place, another spatial or temporal condition. (…) The boundary is a point of transit and transportation.*[28]

Interiority is thus achieved through the encompassing presence of images of exteriority; but contrary to those images involving the modern picture-window house - which are like postcards found in front of the house - the images found in *Just what is it…?,* or in the *House of the Future* appear themselves as invoking presences of the *exterior.* So while in the modern picture-window house, the interior is but limited by the exterior line of the horizon[29], within capsular space, there is no horizon, hence, no *horizontal* extension toward the outside. Inversely, interior space becomes contracted and quite determined by a *collage* of exterior *spaces* that act, not as pictures framed by the house but as *images* framing an act of appropriation. This represents a shift in the role of the picture-window image, from an outside visual limit to an inside spatial effect. Hence, in spite of the dominating transparent

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[28] Christine McCarthy, op. cit., p. 114-115

[29] Colomina em *Battle Lines, E 1027*, em Christine McCarthy

or immaterial frame that provides a *view* from the interior toward the outside, the enclosed space of the capsular *today home* bares an opaque territorial demarcation in which imprints of exterior *stills* ventilate a feeling of ubiquitous placement and idealized connections. This is also true in the *House of the Future,* where the entrapped *garden* acts as much as an evoking image as the underwater movie or the specifically chosen portrait of *someone on Mars.* Inversely when, one year before man landed on the moon, Roger Vadim turns Jean-Claude Forest's *Barbarella* into a movie, the character's spaceship holds in its interior - pasted upon its furry surface - the 1884 painting by Georges Seurat called *La Grande Jatte.* {B.b.1} {B.b.2} {G.S.}

Something which is curiously common to both the *House of the Future* and *Just what is it…?* however, is the subliminal reference to the *Garden of Eden;* whilst in the *today home,* Richard Hamilton refers to the two naked inhabitants as *Adam and Eve*[30], Peter Smithson, refers a fifteenth-century German panel painting entitled *The Garden of Paradise* as one of the *conscious cribs* of the *H.O.F.*[31]. Colomina, while identifying, the elements that compose the original painting in the *H.O.F. - It is not just that the coloration for the house had been taken*[from] *this painting, as he* [Peter Smithson] *said, but that the entire scene is reproduced in the house* [32]- describes its garden as a place *best understood as a safe space in an imaginary world after or before fear. Indeed,* Colomina concludes, *its* [the *H.O.F.*] *precise purpose seems to be to use the latest technology, real or* {R.Ham.2} {G.o.P.}

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[30] John-Paul Stonnard, op. cit., p. 618

[31] Beatriz Colomina, *Unbreathed Air,* in op. cit., p. 34; for the testimony of Peter Smithson see also Beatriz Colomina, *Friends of the Future: A conversation with Peter Smithson,* in op. cit., p. 24

[32] *The Smithsons requested from the 'Daily Mail' exhibition organizers that the garden include a tree, some spring flowers, water, a bird (…), a musical instrument 'appropriate for the future, and so on.*Beatriz Colomina, *Unbreathed Air,* p. 235

imagined, to reconstruct the garden that preceded all technologies, all fear: the Garden of Eden. Colomina further reinforces this idea of a safe and pure territory accomplished through the house's ability to *filter out the world and produce a quasi-theological encounter with an open sky, a sky made private by the house.*[33] Concurrently, the upper space *view* that substitutes the *today home's* ceiling, places Hamilton's *Adam* and *Eve* in an out of this world place, looking *down* on planet earth. Here the ideal garden turns up as a *differen*t and *appealing* home, where life seems relaxed, protected, fearless, and, of course, guiltless. In this sense, the *today home* exposes it's self-sustainability while holding within itself a sense of territorial universality. Nevertheless, in a way similar to the *H.O.F.* - that was primarily meant to *build into a dense* [urban] *mass* -, Hamilton's *today home* also refers to an urban, terrestrial setting, through the pasted image of the window. Both the Smithsons and Richard Hamilton, then, establish a specific liaison between the domestic as a place of Edenic qualities, the feeling of wandering off - and the city. This, however, provokes an ontological paradox.

According to the biblical myth of creation, the succumbing of Eve to the serpent's temptation and her having fed Adam with the forbidden fruit, provokes God's anger; Adam and Eve are then expelled from the garden and have multiple children. The eldest child, Cain, will later kill his brother Abel out of an act of jealousy. For that he is condemned to live as a renegade, away from God's presence. Cain then leaves the presence of God and sets up a city.

Taken as Cain's inheritance, the city may then be - accordingly with Giuseppe Zarone's metaphysical reading[34] - interpreted as a

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[33] Ibid.

[34] Giuseppe Zarone, *Metafísica de la Ciudad: Encanto Utópico y Desencanto Metropolitano,* Pre-Textos, Universidad de Murcia, 1993

material consequence of a state of exile. In this sense, the urban setting becomes a consequence of an act of de-territorialization. For this, the *H.O.F.* - which is to be seen, inversely, as an an act of territorialization - while being stated as an urban *fact*, simultaneously encloses the city off, as if acting *against* it. For this, as Colomina acknowledges,

the H.O.F. ignored the horizontal landscape to face the vertical landscape. It was a camera pointing up, to the sky, to outer space - a kind of telescope looking beyond the contemporary world. In 1956, with Sputnik about to be launched, the spatial order was about to change. Site was no longer global, as it had become with the previous generation of modern architects, but planetary. The house itself was in orbit.[35]

Hamilton's *today home* also represents such a house, orbiting earth as a manned satellite.

Both Hamilton's *today home* and the Smithsons *H.O.F,* in its adoption of a *self-contained isolation,* actually may be seen as echoing some of the original principles from american suburbia houses. In the first chapter of *Welcome to Mars,* Ken Hollings addresses the *qualities* of american suburbs as *an ever-expanding, subdivided track of land* which will *constitute the location for a project that will connect humanity directly with outer space, with the future and with its own emergent self.*[36] Describing the origin of Levittown, only two years after the end of World War II, Hollings states that it *articulates the concept of encountering space-age technology in a space-age home. In its self-contained isolation,* Hollings adds, *the suburban colony becomes a model for life not just on this planet but on all the others too.*[37] As an active part on the *self-contained isolation* feeling, each Levittown house

[35] Beatriz Colomina, op. cit., p. 234.

[36] Ken Hollings, 1947: Rebuilding Lemuria - *From the Suburbs to Outer Space* in op. cit., p. 4

[37] Ibid., p. 5

comes with a built-in TV set, together with a high-fidelity stereophonic sound system, and of course, its own garden. Both appliances, we remember, are present in Hamilton's *today home* and in the *H.O.F.*. Also, occupying a landscape where *there had once been only fields and wasteland*, the detached single-family Levittown house - seen as a space-age home - holds a feeling of being placed within an also detached and unexplored territory.

So the Levittown *space-age home* becomes a sort of outer space device built with a mission for *conquering* and exploring lost lands. Again, we recognize a sense of newness, a wish of colonization and territorial occupation. In the same way the *today home* and the *H.O.F.* specifically refer to the image of Eden, the american suburban home epitomized a new founding act of the *good life* as a structure that would, nevertheless, already portray itself as a cold war artefact, an Edenic scenery intended to act as a *shock absorber.*[38] According to Ken Hollings, Levittown was inspired in a *planned community created in secret at Oak Ridge, Tennessee to house the technicians and scientists of the 'Manhattan Project' busily engaged in developing the first atomic weapon.*[39] In the same year, as the *Bulletin of Atomic Scientists* evolves from a newsletter to a magazine, its cover portrays for the first time what came to be called *The Doomsday Clock;* as it is explained, the clock *symbolizes the urgency of the nuclear dangers that the magazine founders try to convey to the public and political leaders around the world.*[40] Meanwhile, Project RAND - originally established in 1945 as *an Air Force think tank of scientists and mathematicians* (…) *became an independent division of the Douglas Aircraft Company in March 1946.*[41] A shortening

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[38] Beatriz Colomina,

[39] Ken Hollings, op. cit., p. 3

[40] see *www.thebulletin.org/content/doomsday-clock/timeline*

[41] Ken Hollings, op. cit., p. 7

of *Research and Development*, Project RAND issues its first official publication *on the feasibility of earth-orbiting satellites.*[42]

After a long race, the Soviet Union would be the first country to successfully launch an artificial satellite into the earth's orbit, on October 4, 1957. An year and a half earlier, the Daily Mail newspaper, on its edition for Saturday, March 3, included a piece that read:

> *Ideal Home Exhibition previews space travel.* (…) *Models of Britain's new space-exploration rockets (details of which were disclosed by the Ministry of Supply yesterday) will be on show to the public for the first time next week in the Daily Mail Ideal Home Exhibition at Olimpia.*[43]

Commissioned to integrate the *'60 years On'* feature of the *Daily Mail Jubilee Display*, the *H.O.F.*, actually went on to predict only 25 years ahead, for it was found by the architects that, *this period is likely to produce as many revolutionary changes as the past one hundred years.*[44] As well as its space program counterparts, the *H.O.F.* would primarily stand as an image to be consumed; Colomina's intelligent and creative analysis, in fact, is made by slowly unveiling and describing the properties of such an image. Beginning with *Plastic,* Colomina goes on with *Image*, *Car, Clothing, Spaceship, Peep Show, Bunker, Air.* All of these images are the result of a conceptual dissection of the house that simultaneously reinforces its encompassing qualities. In this sense, to superlatively

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[42] Ibid.

[43] Daily Mail, March 3, 1956, p. 4

[44] Beatriz Colomina, *Unbreathed Air,* in op. cit., p. 215-216; quote from Alison and Peter Smithson, *The House of the Future, Daily Mail Ideal Home Exhibition, Olympia, 1956,* exhibition catalogue, p. 97

consider the *H.O.F.* as the staging of a territory means that it primarily suggests an act of appropriation juxtaposed to a defensive action. In an age of impending military and political conflict - only three years early the Doomsday Clock had its hand at two minutes to midnight - that got nourished by the space race, the Smithsons glamoured house was a structure ready to either be built in or cut off; either as a car, a bunker or a spaceship, the *H.O.F.* turns the domestic into an encapsulated political and geographical territory, portraying it as either a wishful functional and *cosy* scenario or an outer space setting, a self-sufficient unit that left earth and subsists at some far away destination.

Along the same article, while describing the items in exhibition in the Daily Mail Jubilee Display, pressure-suits are highlighted as being on show, along with the credits for the design. *No science fiction here,* the text states,

> *These are the people who know… the people who will lead Britain into the conquest of space.* {E.P.3}

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Shaped as a flying saucer, *Forbidden Planet's* house of Dr. Morbius and his daughter Altaira share several qualities with both the *H.O.F.* and Hamilton's *today home.* The residence - which is how Robbie the Robot refers to it when meeting with Skipper J.J. Adams and his crew upon their arrival on planet Altair IV, although placed on a sterile and wild landscape, is surrounded by a luxurious garden. According to a previous scan analysis to the planet's conditions and level of activity done from the visiting ship from earth before landing, Lt. Jerry Farman would state, *I maybe missing some individual structures, but there are no cities,* {F.P.5}

ports, roads, bridges, dams… there's just no signs of civilization at all!. Indeed he was missing the residence of Morbius, Altaira and Robbie, which becomes the single living unit to exist on the planet. Unlike the *House of the Future,* it is the garden - which in itself determines a perfectly visible limit of property - that surrounds the house creating an idilic territory within a deserted and dreadful landscape. Somehow contradicting its exterior artificial autonomy and isolation, the interior of the house appears connected to the surrounding rocky mountains, giving it a cavernous feel. During the first half hour of the film - while becoming aware of the basics of the plot - we watch the characters interacting within the premises of the residence; space is continuous between house and garden, with the latter reinforcing its foundational quality by revealing the presence of wild animals - dears, a tiger, a monkey - living freely within it. The innocence of young Altaira ads a an altogether {F.P.3} virginal sense to her character - sexual, as well as social and intellectual - which extrapolates into the *enclosed* space of the residence as a feeling of it being the locale of a new beginning, i.e., an outer space Eden.[45] As in the case of the Smithson's *H.O.F.* or Hamilton's *today home,* then, the residence of Altair IV is not *different* and *appealing* just because of its technological and formal apparatus - and in these categories we must include Robbie the Robot (*quite a housewife's dream,* skipper J. J. Adams states after being taught about its incredible capabilities by Dr. Morbius) - but mainly because of its qualities as a mechanism for survival built as an idealized territory. Like the *H.O.F.,* the residence on Altair IV appears as a *safe place in an imaginary world,* after, or more accurately, during fear; in fact, Dr. Morbius and his daughter Altaira are the only survivors of a former expedition party that had arrived on

[45] Upon the first appearance of Altaira, 'Doc' Ostrow, admiring the girl's beauty while in the garden, declares: *Back from here the view looks just like heaven.*

Altair IV some twenty years ago, whose remaining members *succumbed*, in the words of Dr. Morbius himself, *to a sort of planetary force*, (…) *some dark, terrible, incomprehensible force.* In order to prevent this subliminal danger, Dr. Morbius shows to the visitors that, with a single gesture over a sort of photo - electrical cell the house encloses itself completely and rapidly, thus becoming a domestic armored fortress. Nearby, the earth ship commanded by skipper J. J. Adams adopts a similar defensive attitude; a perimeter is set around the ship, along which an electrical {F.P.2} fence - in a way acting like the steel panels that surround Dr. Morbius house - reinforces the ship's sealed surface. Here, as in the *H.O.F., the latest technologies are used to establish a sense of security.*[46]

Without its security system activated, the Altair residence acts almost as a Mies' patio house, replacing the latter's walls by a surrounding garden. Nevertheless, the garden is not able to completely withdraw the outer wilderness from sight. In fact, ending the first encounter between the earth spaceship crew members and Dr. Morbius, the latter insists on warning commander Adams on the perils of staying in the planet. To reinforce his point, he reveals the place where the dead crew members of his own party are buried; a graveyard, well within the house's visual range, is sighted by both, establishing an uncanny {F.P.4} transition between the garden and the wild landscape surrounding it. The Eden-like setting, then, while representing a place of quietude and purity, still exists within an area of impending disaster and holds the memory of death. Throughout the film, we end up learning that Altair IV holds in its center a nuclear core with an almost unlimited power that feeds a fully functional technological center once pertaining to an incredibly advanced civilization; such spaces are, in turn, connected to

[46] Beatriz Colomina, *Unbreathed Air,* p. 228

the house by bunkered underground corridors. This power, we find out later in the film, is the same that, upon contact with the mind, unleashes its most darker fears as ghostly electrical monsters that attack anything which it subconsciously feels as representing a menace. Thus, the domestic armored house of Altair IV - half spaceship, half cave -, with its immanent Edenic quality becomes, simultaneously, a territory of defense and the womb of a subconscious anxiety on gaining control over the unknown.

For Colomina, *the H.O.F. is a kind of bomb shelter.* Its structure, Colomina adds, *smoothly seals itself off from the dangerous outside with a series of prophylactic layers.*[47] For the Smithsons, then, the future felt as a dangerous place, and this feeling would impregnate the house's conception, provoking a design of reaction against it. In this sense, the *House of the Future*, represents as much an *arca* - for an existence seen as a continuos new beginning -, as a tomb - a place doomed to be underground, as buried. {H.o.F.8}

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Later in the same year, the Smithsons, once more in collaboration with Nigel Henderson and Eduardo Paolozzi, would join the *This is Tomorrow* exhibition as Group Six. As a sort of gesture of refusal on adopting an aesthetic position *Patio & Pavilion,* would appear as more of as *a statement of occupancy and territory than a program announcing a particular style or approach.*[48] {P.a.P.2}

According to Peter Smithson, the actual outcome of *Patio & Pavilion* was almost a matter of chance, for if the Smithsons did design

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[47] op. cit., p. 227

[48] Graham Whitman, *Exhibitions, Group Six,* in *The Independent Group: Postwar Britain and the Aesthetics of Plenty*, p. 141

the architecture, all of the objects and images that inhabited it were exclusively chosen, produced and placed by both Nigel Henderson and Eduardo Paolozzi.[49] The result would come to be somewhat disconcerting; contrary to the other installations, *Patio & Pavilion* would neither represent a disciplinary approach toward the construction of form, nor would it embrace the cult of (american) pop imagery, so intricate in the *Independent Group* concerns over the enlightenment of everyday life, culture and its *natural* influence over the fine arts. *Patio & Pavilion* functioned instead as a *texture*, as both object and fabric, as both acknowledgment of space and occupancy of such a space. In this sense, *Patio and Pavilion* depicted an image of roughness that neglected the concept of formal endeavor in favor of an *as found* reality.

{P.a.P.1} {P.a.P.3} {P.a.P.8}

Contrary to the *H.O.F.*, which started as a vision in the present of a house from 25 years later, *Patio & Pavilion,* as it is put by Graham Whitman, appeared as a structure holding a *timeless quality;* similar to the *H.O.F.,* however, *Patio & Pavilion* delivered a powerful *image*. If the *House of the Future* represented - as an object - a sort of *armored* and protective territory, *Patio & Pavilion* was presented as a convoluted landscape that - in a more subjective way - build up as an experience. Whilst in the *H.O.F.,* the visitors were only allowed to walk around the perimeter of the house, taking a detached upper view of it's interior, *Patio & Pavilion* was to be walked through, *inhabited* as was; so in the sense that it juxtaposed experience to representation, *Patio & Pavilion,*

{H.o.F.5} {P.a.P.5}

[49] Peter Smithson: …*You Know the way it was done? We designed a shed and an alluminum-faced plywood enclosure. And this sketch was all we did as architects. Then we went to Dubrovnik, and the two boys*… Beatriz Colomina: *Nigel and Eduardo?* Peter Smithson: *Yes. They did the rest. That is, it was not in any way preplanned. The text says the architect makes the space, the occupier takes possession by doing his thing.* in, Beatriz Colomina; Peter Smithson, *Friends of the Future: A Conversation with Peter Smithson*, in *October*, Vol. 94, *The Independent Group*, Autumn 2000, p. 23

more than providing a *locale,* became primarily the determination of a *site.*

As it is described by Mark Wigley, Le Corbusier, considered the act of building on par with the making of the site by *controlling the view.*[50] Although Wigley begins by stating that *the site, supposedly precedes the project,* he immediately adds the fact that *there is no site without project.* Therefore, Wigley partially concludes, *the project actually produces the site it appears to be aimed at.*[51] So any landscape is dependent on the existence of a project to become a site, i.e., to become specific. As a structure for an exhibit, *Patio & Pavilion* didn't actually have a physical landscape which to address to, i.e., to project a site onto it. So the structure juxtaposes the idea of site and architectural intervention. For Le Corbusier, Wigley reminds us, *the project turns the site into a 'room' that can be occupied: 'A project is not made only of itself: its surroundings exist. The surroundings envelop me in their totality as in a room'.*[52]

Echoing Colomina's assertions, Wigley further adds the fact that for Le Corbusier, to design a building is to design the site of that building, hence *annexing the territory by controlling the view of it.*[53] Through a rather detached relation attained from the architectural frame towards the carefully elected surrounding views, architecture extends its artificial condition toward its *little visual empire.*[54]

In *Patio & Pavilion,* however*, site* is less a landscape to be visually tamed and more the creation of a *situation* in which the architectural

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[50] Le Corbusier, quoted in Mark Wigley, *On Site,* in *Lotus International,* December 1997, No. 95, p. 123

[51] Ibid., p. 119

[52] Ibid., p. 120

[53] Ibid., p. 122

[54] Ibid., p. 124

project merges both building and surroundings.

> *Patio & Pavilion represents the fundamental necessities of the human habitat in a series of symbols. The first necessity is for a piece of the world, the patio; the second necessity is for an enclosed space, the pavilion. These two spaces are furnished with symbols for all human needs.*

These words, handwritten by Nigel Henderson on the first of the Group Six's three double-page spreads included on the *This is Tomorrow* catalogue, were accompanied by a one-point upper perspectival drawing of the installation, depicting the enclosed patio, the structure and inside of the shed-like pavilion - its corrugated plastic roof would here appear as invisible - and some of the object-symbols that would represent *all human needs.* As it is stated, the first and second *fundamental necessities of the human habitat* are for a piece of the world and for an enclosed space; like the *H.O.F.,* before it, *Patio & Pavilion*, quite literally, creates an enclosed cohabitation between outside and inside, only this time more accurately aiming at representing a sort of archetypal setting for human dwelling. As described by Marina Lathouri, [*I*]*n contrast to the Esprit Nouveau pavilion, where the device of frame invited a distanced and aesthetic view, the intention here* [in *Patio & Pavilion*] *was to 'provide a space and shelter' to be occupied by 'signs of habitation'.*[55] Space, shelter and *signs of inhabitation,* share a condition of simultaneity in their significance in the sense that all build up as an *as found* situation; nevertheless, the dispersed *organization* and *quality* of the *signs* occupying both patio and pavilion, portrays a sort of uncovering of a post-apocalyptic setting; upon

{P.a.P.2}

{P.a.P.5}

[55] Marina Lathouri, op.cit, p. 64

visiting the installation, Reyner Banham would, in fact, state that *one could not help feeling that this particular garden shed, with its rusted bicycle wheels, a battered trumpet and other homely junk, had been excavated after the atomic holocaust.*[56] Complementing Banham's impressions, Marina Lathouri acknowledges that these *'finds' fused the distant past with the immediate future by reducing the promise of postwar abundance to fragments or ruins*;[57] *Patio & Pavilion,* then becomes *the presence of the unthinkable in the midst of civilization,* thus representing *a crisis in the orderly progress of the machine era.*[58] {P.a.P.6}

The *as found* items, either laid out onto the sand floor of the patio, either *dropped* upon the translucent plastic roof of the shed appear simultaneously as integral and estranged towards the setting; as such, these objects and images tended to appear as generic symbols as much as elements particular to the specific space/structure to which they are part. Juxtaposing the title of the overall exhibition - *This Is Tomorrow* - to *Patio & Pavilion*, also creates a paradoxical feeling, for if Group Six's installation appears to be far from glorifying the classic avant-garde disciplinary revolution based on the engagement with technological progress, it nonetheless wonders on the idea of tomorrow based on, as Marina Lathouri describes, a *temporal overlap* which in turn *creates a territory that appeared to have always been there.*[59] In this territory we find that together with *the wheel & aeroplane - for locomotion & the machine* there are *rocks & natural objects - for stability and decoration of man made space*, but also a *head - for man himself - his brain & his machines* and *artifacts* {P.a.P.7} {P.a.P.9} {P.a.P.10}

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[56] Reyner Banham, *The New Brutalism, Ethic or Aesthetic? (Stuttgart: Reinhold Publishing, 1966), p. 65,* quoted in Beatriz Colomina, *Unbreathed Air,* op. cit., p. 229

[57] Marina Lathouri, ibid.

[58] Stephen Petersen, *Explosive Propositions: Artists React to the Atomic Age,* in *Science in Context*, 17 (4), 2004, p. 589

[59] Ibid.

& pin-ups - for his irrational urges. All these symbols, joined with the architects' *framework,* carried in themselves, simultaneously, an aura of specificity and a global appeal, thus configuring a generic context fulfilled with a sense of juxtaposed particular actions. The reflective aluminum walls that enclosed the installation would thus stand as both a means to include the visitor as specific content and as a device to turn the *richness and authenticity* of the inside into a subjective landscape. As it was described by the Smithsons, *Patio and Pavilion* could either be understood as *a house abandoned by the owners* or *a ruined mine-working shut down by impending disaster.*[60] Either way, there's a sense of it presenting the *objects of occupation* as remains that not only remind us of the *basic human needs* but also reconfigure and extrapolate as pieces of a new territory. For if Henderson and Paolozzi's objects may be looked upon as disparate fragments which are reunited as signs of loss, they could also be recognized as *functional parts* building up as aggregates. If *Patio & Pavilion* may, then, be seen as a convoluted *whole* it should be more specifically characterized as a place of multiple variables, through which inside and outside, - as well as present, past and future, limit and infinity - become entrapped into one and only dimension. Through the reflective wall, the interiority of the site becomes intensified, thus bringing any domestic reconnaissance into an exploration of one's own subjective spatial and temporal existence/experience. Both the patio, i.e., *a piece of the world* and the pavilion, *an enclosed space* symbolically push the representation/conception of human habitat into a form of paradox - whilst primarily conceiving of it within a clear spatial relation between the idea of shelter and that of a protective enclosure,

{P.a.P.5}

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[60] Alison and Peter Smithson, *Phenomenon in Parallel: Eames House and Patio and Pavilion*, lecture delivered in relation to the exhibition *The Independent Group,* in Alison and Peter Smithson, *Changing the Art of Inhabitation*, *Eames' Dreams,* Artemis, London, 1994, p.99, first published in *Places,* 7, 3, 1991

it also conceives of it as an *open* site occupied by a series of objects and collages that together form an intricate and fenceless maze.

Whilst Le Corbusier claimed to artificially transform the surrounding landscape into a room, with *Patio & Pavilion,* the Smithsons actually create such a landscape *room* as a reflection of the interior. Within *Patio & Pavilion,* it is the interior that which becomes the surrounding, thus defining the site as a tautological representation of the interior experience. In this sense, we could say, the Smithsons bring a new meaning to Le Corbusier's assertion that *the outside is always an inside*. The enclosing wall becomes an inward window, thus collapsing frame and framed.

Although dismissed by such figures as Reyner Banham as a withdrawal from the idealized object of the future that had been the *House of the Future* towards an archeological ruin which he found too *submissive to traditional values*[61] - much later Peter Cook would still declare: *For those of us in the next generation, the puzzlement remained as to 'why' the Smithsons chose not to continue on the line of exploration started by the House of the Future* (…)[62] - the Smithsons claimed that both the *House of the Future* and *Patio & Pavilion* shared common architectural principles:

> *Many of the ideas of Patio and Pavilion… had already been explored in the Spring of that same year in the House of the Future… Patio and Pavilion was a pavilion in a patio. The House of the Future was a* {P.a.P.1}

[61] Reyner Banham, *This Is Tomorrow Exhibit,* in *Architectural Review* 120, no. 716, (September 1956), p. 188, quoted in Nigel Whiteley, Reyner Banham, Historian of the Immediate Future, The MIT Press, 2002, p. 131.

[62] Peter Cook, *Time and Contemplation: Regarding the Smithsons*, in *The Architectural Review*, July 1982, Vol. CLXXII, No. 1025, pp. 36-43

patio encapsulated by its pavilion.[63] {H.o.F.2}

We should note that in Alison Smithson's statement - which, according to Colomina, could have been made as a response to criticism - there is a sort of topological approach establishing the *liaison* between the two projects, one that probably Reyner Banham himself either did not promptly realize or even neglected; as we recall, in his 1955 text *The New Brutalism,* Banham made specific reference to topology as a *discipline of architecture* that *has always been present* although in a *subordinate and unrecognizable way - qualities of penetration, circulation, inside and out, have always been important* (…).[64] Banham made reference to the term topology as a way to qualify the relationships within the visual world *in terms of something other than geometry.*[65] According to him, the *intuitive sense of topology* found in the Smithsons Sheffield design was something that dismissed a mere *rule-and-compass geometry;* instead of referencing it as a question of *composition*, Banham was more keen in highlighting the design's *conceptual* qualities, which according to him were the ones capable of *image-making*. It is in this conceptual quality that Banham acknowledges the *topologic* factor as responsible for the making of *great architecture,* a factor crucial to its apprehension as an *image*. So it becomes rather surprising that Banham's commentary on *Patio & Pavilion* should come across as so focused towards its symbolic ethos and less in relation to its architectural *configuration*. As he also acknowledged, already in *Parallel of Life and Art* had the Smithsons discard any *formal*

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[63] Alison Smithson, *Patio and Pavilion, 1956,* p. 10 in Beatriz Colomina, *Unbreathed Air,* p. 229

[64] Reyner Banham, *The New Brutalism*,1955, in *A Critic Writes, Essays by Reyner Banham*, p.14

[65] Ibid., p. 15

relationship within the organization of the material being exhibited. Commenting on the exhibition, Tom Hopkinson - *a one-time editor of Picture Post* - wrote on the conceptual basis of the exhibition being *the visual likeness between objects of a totally dissimilar nature… as if one stumbled upon a set of basic patterns for the universe.*[66] Because in *Parallel of Life and Art,* the visual was meant to be read as structural, the *likeness between objects of dissimilar nature* was based on a topological sense, not on a compositional, geometrical, or even symbolical one. Thus, to unveil such things as *patterns of association among the* disparate images would become one of its main goals. Topology - as a motif - had appeared before on one of the first exhibitions to have happened at the ICA; *On Growth and Form* had opened on July 3, 1951, and although originally to be organized by Richard Hamilton, Eduardo Paolozzi and Nigel Henderson, it ended up being taken on single-handedly by Hamilton.[67] Conceived *under the intellectual aegis of D'Arcy Thompson's work,*[68] it was accompanied by a symposium chaired by physicist Lancelot Law White, who, in its conclusion, characterized the contemporary concept of form according to such categories as *configuration, structure, patterns, organization* or *system of relations.*[69]

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[66] Tom Hopkinson in *Manchester Guardian,* 22, September 1953, quoted in Irénée Scalbert, *Architecture as a Way of Life: The New Brutalism, 1953-1956,* p. 10.

[67] Graham Whitman, *Chronology, 1951,* in *The Independent Group and the Aesthetics of Plenty,* p. 16

[68] Architectural historian D'Arcy Wentworth Thompson originally published *On Growth and Form*, in 1917. The work would then be re-edited in 1942 and 1952. Topological matters appear in the second volume of the work, in a passage that *alludes only briefly to the future potential of topology as a mathematical means of describing complex patterns such as that of the wing of a fly or a butterfly. Yet the numerous plates illustrating various morphological transformations, published just a few pages later in the same volume, must have held far greater appeal for the architecture historian and his contemporaries.* Laurent Stalder, '*New Brutalism', 'Topology' and 'Image': some remarks on the architectural debates in England around 1950.,* in *The Journal of Architecture,* Vol. 13, no. 3, 2008, p. 268

[69] Ibid., p. 273

So when Alison Smithson declares a conceptual continuity between the *House of the Future* and *Patio & Pavilion* in terms of *a patio encapsulated inside its pavilion* vs. *a pavilion in a patio*, it is done under the *topological* sense of both projects representing different natures of a same issue - the issue of *inside and out* permutations within a delimited setting. Alison Smithson's statement, then, implies that - in topological terms - the *House of the Future* and *Patio & Pavilion* conceptually share the same *shape*, in the same way that - following Banham's explanation of the term in *The New Brutalism - a brick is the same 'shape' as a billiard ball (unpenetrated solid) and a teacup is the same 'shape' as a gramophone record (continuous surface with one hole).*[70] *Patio & Pavilion* and *House of the Future* thus may be said to stand as *images* of an embedded nature of *building* and *site* in which the former territorializes as the latter. In both proposals, in fact, we encounter a *setting* in which issues of territorial demarcation, defense and haunt appear entangled with the *fundamental necessities of the human habitat - a piece of the world* and *an enclosed space.*

Under this assumption, we feel a sort of retro-resonance from Alison Smithson's after words, when reflecting upon the figure of Saint Jerome and his habitats as portrayed by Renaissance painting.[71] For Alison Smithson, both the *Desert* and the *Study share a quality of encapsulation* and are - *in allegory - about places-apart, first drawing man one way, and then attracting him towards the other extreme.*[72] What is interesting in this assertion is the fact that Alison Smithson identifies a quality of encapsulation both in the *Study* and the *Desert*, juxtaposing in the

{S.J.2}

{S.J.3}

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[70] Reyner Banham, op. cit., p. 14

[71] Alison Smithson, *Saint Jerome, The Desert… The Study*, in *Alison and Peter Smithson - from the House of the Future to a house of today,* Dirk van den Heuvel and Max Risselada Eds., 010 Publishers, 2004, pp. 224-231. First published as a loose pamphlet as support of TECTA's furniture stand at the Milano Fair in April 1991.

[72] Ibid., p. 225

same enclosed category either a configured and limited architectural environment together with an open, exterior space. The latter, states Alison Smithson, may be allegorically seen as *the restorative place in nature* which would be complementary to the *energizing cell* [the *Study*] *supported by urban order.*

Either *exposed* in nature or *enclosed* in the study, St. Jerome always inhabits, within Alison Smithson's rhetoric, a place-apart. Within this condition, St. Jerome's *ideal alternatives* merge as *fragment*, constituted as an *enclave.* Describing St. Jerome's Study, Alison Smithson declares that it may *stand as an allegory for… the desire to enjoy built order; the support by civilized services; the shutting out of inclement weather, the ability to temper the climate; a perfected sufficiency in the functional place of work, with the tools of profession, trade, housekeeping, to hand.*[73] On following this allegorical characterization of St. Jerome's Study, one cannot avoid the feeling of being, simultaneously, following a description of the *House of the Future;* in fact, the *H.O.F.* – as put by Alison Smithson - was to primarily build into an urban mass and group together as to form a *compact community*, hence to *enjoy built order;* through its ability to manage the air temperature - in its edition for Friday, March 2 1956, Patricia Keighran, writing a column on *The 1980 House,* reported: {H.o.F.1}

A most important point to me at the moment is 'will it be warm'?

'As warm as you wish', said Stubbs.[74] *'You will live in exactly the kind of*

[73] Ibid., p. 226

[74] Stubbs Walker, as described in the same article, wasthe *Daily Mail* Science Correspondent, *who has been associated with a specialist pannel which has designed the House of the Future for the Daily Mail Ideal Home Exhibition.*, The Daily Mail, Friday, March 2, 1956, p. 8

atmosphere you care to choose and that will be maintained electronically despite the outside temperature.'

- it shuts out the *inclement weather;* as a specific approach to the *appliance-way-of-life*[75], the *House of the Future* was revealed as full serviced - in the captioned image published in the Daily Mail edition for March 12, one is informed on its *Pantry with gamma-ray treated milk and food in sealed containers,* its *eye-level built-in cookers,* its *shower-cum-drier,* its *cupboard and drawers which open in kitchen too,* as well as, amongst other things, {H.o.F.4} *a trolley with warmed compartment and infrared griller* or the *air-conditioning controls and loud-speaking telephone which records message.* Further ahead in her description Alison Smithson similarly describes St. Jerome's Study conveniences, from its *cooled water, shapely wash bowl* and *fresh towel,* {S.J.2} through its *growing flowers, birds and animal as man's companions,* to the *books, writing materials, warm clothes* or *wine.*[76] Both St. Jerome's Study and the *H.O.F.* appear - in the same way as Alison Smithson interprets the interiors in Beatrix Potter children's books - as spaces that are to be *comforting, responsive and protective* (…) *here then,* Smithson adds, *we find basic needs raised to a poetic level: the simple life, well done.*[77]

In St. Jerome's Study, Alison Smithson discovers the *reinstatement of a sense of the inviolate*, a feeling complementary to the one she identifies in the alternative wilderness settings to which St. Jerome would travel in ascetic retreat - *nature so immutable, omnipresent that man*

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[75] Peter Smithson, *The appliance House,* in , Changing the Art of Inhabitation, p. 115,

[76] Alison Smithson, *Saint Jerome, The Desert… The Study,* p. 227

[77] Alison Smithson, *Beatrix Potter's Places,* in *Alison and Peter Smithson - from the House of the Future to a house of today,* p. 213

is relieved of responsability.[78] In her analysis of St. Jerome's allegorical Renaissance representations showing alternative habitats - the Study and the Wilderness - Alison Smithson notes the fact that both act as *magnetic poles that* (…) *seem always to be at work*; in this sense, simultaneously addressing issues of enclosure and openness as matters of limit and dislocation, establishes a sensible connection between the inside and outside of things.

As mentioned earlier, in his discussion on Caravaggio's paintings, Louis Marin, in contrast, establishes an opposition between the former's *arcanian space* and Poussin's *arcadian* landscapes. Marin writes: *White is the color of the air. Light is 'white' light. White is 'space', the total color. (…)* Marin continues: *Black space* (…) *is wholly bounded, like a tomb sealed forever.* (…) *Caravaggio's 'black', 'arcanian' space stands in opposition, then, to poussin's 'white' Arcadian space.*[79] Louis Marin characterizes the space of the *arca* as a negative to that of the *arcadia*, a space which stands separated or oblivious of any surrounding or context. Furthermore, the *arca* holds an inviolated dense space, turning it into an enclave, a protected territory. In Marin's dramatic description of *arcanian* space, we recognize a sense of closure that, according to Christine McCarthy, promotes an *illusion of unitary completeness and indivision.*[80] In this sense, it becomes a superlative manifestation of *interiority*. While resonating with the introspect status of St. Jerome's ascetic life, this notion is, according to McCarthy, *grounded in circumspection, rather than relative location, and it is 'opposed in all sense and uses to exterior'.*[81] Nevertheless, interiority, *while deluding itself with an image of coherence and completeness (the ability to inhabit*

{S.J.4}

[78] Alison Smithson, *Saint Jerome, The Desert… The Study,* p. 225

[79] Louis Marin, op. cit., p. 159-160

[80] Christine McCarthy, op. cit., p. 116

[81] Ibid., p. 112

the world independently), paradoxically maintains conscience of *its partiality.* This conscience, as quoted previously, *ties interiority to* a *knowledge of outsideness.*[82]

When Alison Smithson recognizes an overlay of *Desert* on *Studio* in St. Jerome's outside settings, she is, quite literally in fact, {S.J.1} acknowledging interiority being built within an *outside.* In fact, as Christine McCarthy states, *Interiority is not a guarantee of an inside location.* This means that, while inside and outside *are prescriptions tied to the boundary of building, interiority and exteriority weave within and without the built constraints of architecture, sometimes between them, and sometimes independent of them.*[83] This determines, McCarthy ads following Mark Wigley's reading of Derrida, *interiority* as something *constructed via identification and placement,* turned into *mechanisms of domestication.*

To *domesticate*, simultaneously holds in its meaning an act of *overcoming wilderness*, together with the status of *belonging to the household.* St. Jerome's cave, then, transforms *the Renaissance imagery of 'place of withdrawal in the Desert'* into *an in-landscape Grotto;* this *encapsulation of Desert within the Study* - where before we witnessed an overlay of *Desert* over *Study* -, thus means an act of bringing a sense of interiority onto the wilderness, hence turning exposure into containment. *Thought of it in this way,* alison Smithson concludes, *there seems not such a dramatic divide between Jerome's two alternatives as the polarity of Renaissance art has led us to believe.*[84]

In *Patio & Pavilion*, we are confronted with *a piece of the world* - the patio, inhabited by an *enclosed space* - the pavilion; the patio, we

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[82] Ibid., p. 116

[83] Ibid.

[84] Alison Smithson, *Saint Jerome, The Desert… The Study,* p. 228

could argue, stands - in Alison Smithson's terms - as an *enclave,* within which the *pavilion* - a shed instead of a cave - appears as a *fragment;* the perimeter wall, while demarcating the *enclave* - in itself an enclosed territory -, lifts from the ground, letting the floor of the patio expand into the surrounding territory. *Enclave* and *fragment* configure the inside within a tautological gesture; the reflective enclosing wall, while keeping the surrounding territory out - thus highlighting the boundary's act of exclusion -, paradoxically turns that which is contained into an illusory expansion. To be inside and look at the boundary, then, establishes a paradoxical moment in which the space where one is contained appears as framed. By simultaneously containing and framing the interior, the inside reflective boundary enables an understanding of *Patio & Pavilion* as a domesticated and introverted territory. So while in Le Corbusier, as Mark Wigley explains, *the artifice of the project naturalizes the site*, in *Patio & Pavilion*, the artifice of the project identifies *as* site. Site, though, as an architecturally contrived landscape, an artificially convoluted place juxtaposing foreclosure and limitlessness.

Commenting on one of Le Corbusier's lectures in South America, Mark Wigley highlights the fact of architecture being insistingly depicted as *the product of man. In the end,* Wigley declares, *it is about the domination of site. If the site is largely the product of the architect's imaginations, it is a fantasy of a subordinated other, a fantasy that is applied everywhere, indeed has to be applied everywhere.*[85] Using Le Corbusier's rhetoric, in which the site must be architecturally - read artificially - reconfigured in order to actually *become* a site, Mark Wigley writes:

The project actually produces the site it appears to be aimed at. The project is

[85] Mark Wigley, op. cit., p. 129-130

never simply a view of disruption or reinforcement of a site. It projects a site rather than projects onto or from it. Architectural projecting are projectors, mechanisms for constructing the effect of site, the effect of that which supposedly precedes them, an effect that is never more than an image, an image that, like all images, can be occupied. In a sense, the project is never more than the construction of a site. Indeed, it is the site that is realized and occupied, not the project.[86]

House of the Future formally inverts *Patio & Pavilion*'s spatial structure; in here, Alison Smithson's assumption of the *Desert* encapsulating within the *Study* has a literal correspondence. On another hand, under this assumption, the layered sequence of territorial definition between surrounding, enclave and fragment of enclave becomes less clear. In the *H.O.F.,* a piece of the arcadia - a *piece of the world?* - is enveloped by the arca - an *enclosed space*, which means that the *fragment* engulfs the *enclave.* Etymologically enclave means to enclose - from the french *enclaver -,* but also to *shut in* or to *lock up* - from the latin *inclavare.* Indeed, the *H.O.F.,* we recall, bares at its core a remembrance of innocence lost, an allegory of the garden of Eden; the *shutting in* or *locking up* of such a space thus brings into the house a convoluted feeling of hedonistic protection and rational unrest. In the end, the *H.O.F.* stands as a mechanism of encapsulating domesticity as a radically private and self-indulgent territory, built as an extremely controlled place, a *maison close* showing itself to the visitors of the *Daily Mail* exhibition through a closely regulated performance.

{H.o.F.5}

As Beatriz Colomina notes, *with its windowless facade and forbidden access, viewing the house meant peeping through openings made in the walls*

{H.o.F.2}

[86] Ibid., p. 119

specially for that purpose.[87] *In this sense,* the *H.O.F.* boundary assumes, indistinctly, *an action of exclusion, as much as one of inclusion*. At the same point, precisely because of the *openings made in the walls specifically* for the purpose of allowing for specific ways of looking in, the *H.O.F.* reinforces the character of its boundary as *a point of decision, rather than one of indecision. The degrees of boundary permeability allow or disallow,* writes McCarthy: *weather, intrusion, vermin, noxious substances, children, views in or out, interruptions.*[88] Within the *Daily Mail Ideal Home Exhibition,* the *House of the Future* shows how much its is capable of accomplishing interiority. For interiority, as McCarthy explains, *is regulation. Interiority*, she adds, *is the vested interest in regulation that exteriority does not have the luxury or responsibility of having because regulation conditions habitation. Regulation is a form of interiorizing shelter.*[89] Without the artificial *exhibit* openings, the *H.O.F.*'s only physical connection with the outside is through its cave-submarine-like door; even so, this opening only allows anyone to enter after going through a *curtain of warm air to remove dust* - which automatically ignites after the shutter control is operated. In *Bridge and Door,* Georg Simmel actually considers the door to be that which reinforces the act of architectural separateness. Simmel writes, {H.o.F.8}

> *By virtue of the fact that the door forms, as it were, a linkage between the space of human beings and everything that remains outside it, it transcends the separation between the inner and the outer. Precisely because it can also be opened, its closure provides the feeling of a stronger isolation against everything outside this space than the mere unstructured wall.*[90]

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[87] Beatriz Colomina, *Unbreathed Air,* p. 217

[88] Christine McCarthy, op. cit., p. 113

[89] Ibid.

[90] Georg Simmel, in op. cit., p. 67

The fact of becoming isolated *against everything outside* reinforces the notion of interiority as *a condition that requires a controlled crossing of a boundary,* hence enabling *interiors to contain, protect, imprison, secure, and shelter* as well as *to refuse escape, convexity, inhospitable climates, and illicit breaches.*[91] The *H.O.F.* incorporates such a condition of regulation and control, enclosing itself as if holding in something precious or secret, adding to its overall feel, in a way, some qualities and mechanisms that we may associate with the late nineteenth century *cabinet*.

According to Emily Apter, *the word ´cabinet´ has multiple associations, from work space and display case to water closet (commodité, les lieux, les vécés).*[92]

Departing from an analysis of the end of nineteenth century literary *genre* known as *Cabinet Fictions,* Apter traces the spatial significances of the term *cabinet* from a *gendering divide within the interior*, through to a *simple room within the home* (…) *as a space in which assembled treasures nested and multiplied, habitually contained familial icons, 'objets d'art' or private papers,* or as a *consummate metonym for the 'maison close (literally 'closed house'), itself already a subversive catachresis, yoking the bourgeois notion of 'home' to the morally tainted connotations of 'closet' sexuality.*[93] Colomina describes the *H.O.F.* as *highly sexualized, a private house as an erotic space for both those inside it and those looking in.*[94] As well as the nineteenth century *cabinet fictions,* which according to Emily Apter *highlighted a thematics of transgressive, erotic collecting both inside and outside the protected, bourgeois confines of 'home'*, so too does the *H.O.F.* engage as a mechanism of

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[91] Christine McCarthy, ibid.

[92] Emily Apter, *Cabinet Secrets: Fetishism, Prostitution, and the Fin de Siècle Interior,* in *Assemblage* no. 9, June, 1989, p. 7

[93] Ibid., p. 7-8

[94] Beatriz Colomina, *Unbreathed Air,* p. 217-218

voyeuristic escapades; Colomina specifically addresses a picture from the bedroom with two identical couples; a *black lace semitransparent nightgown lies spread over the bed,* leading Colomina to wonder *what exactly is going on there.* But what actually resonates with the notion of the house as a protected private territory is the fact that the picture is taken from an uncommon point of view, thus reinforcing the *impossibility* of a horizontal view inside; the two female models stare at the camera, glamorously acknowledging the awareness of the exhibited *privacy* of the scene, but also of its absolute artificiality. The image in question obviously depicts a staged, teasing scene, but one that, paradoxically reversely infiltrates the imaginary of the visitor. The looking out into the eyes of those who look in, in fact, reminds the outsiders that they are being allowed to see only that which the insiders are willing to let them see. Internally, however, the inhabitants could or would be under continuous *surveillance* from each other, for the glazed curtain wall surrounding the patio allows for an uncensored and uncontrolled level of intimacy. So the radical cut out from the eyes of the *whole remaining world* type of domestic territory that the *H.O.F.* provides is inversely proportional to the level of intimacy that it creates; as it is explained by Christine McCarthy, interiority also represents a condition of forced intimacy *because of the 'limitations of space (the impossibility of separation or personal distance in limited quarters)'.*[95] *Intimacy,* McCarthy further writes, *can be erotic, desirable and intoxicatingly additive, but it is closeness and enclosure, rather than pleasure, pain, or security, that are interiority's priorities.*[96]

{H.o.F.6}

Within this interpretation of the capsular interiority of the *H.O.F.* being presented as a space of intimacy traversed by a sort

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[95] Christine McCarthy, quoting Sarah Treadwell, *The motel: An image of elsewhere,* in, *Space and Culture,* 8, 2005, pp. 214-224, in op- cit., p. 117

[96] Ibid.

of fetishistic and transgressive desire held as a *cabinet secret,* we may further acknowledge the similarities between the picture addressed by Colomina in the *Peep Show* section of *Unbreathed Air*, and Édouard Manet´s painting *Nana, a premonition* according to Emily Apter, of the Emile Zola novel to come.[97] According to Apter, Manet's picture *perfectly captures the built-in stereoscopy of the cabinet: a scene of secret beholding is itself 'caught in the act of looking' because of the projection of an imaginary spectator, who, though anonymous and intangible, is not less fully present.*[98] The presence of the *imaginary spectator,* much more than the context of the scene per se, definitely puts both the intimate space of the *H.O.F.* and Nana's boudoir *dramatically around the fetishistic conceit of 'showing and telling' what was* (…) *sealed behind closed doors.*[99]

{E.M.}

Following such similarities, we find that, curiously in the same tone of the *H.O.F.* room picture, when group Archigram - through Warren Chalk - first represents the *Capsule Home* in 1964, does so though an upper perspective that voyeuristically shows the interior with two female inhabitants in sexy and relaxed poses - as stated by Peter Cook, we recall, homage was offered *quite openly* to the *House of the Future* by David Greene and Warren Chalk. In the *Capsule Home* image, although we cannot tell if, at least, the blonde woman is actually staring at the *imaginary spectator,* the staging of the scene becomes obvious in the fact that the brunette model, while holding a book in her hands, is not in an actual reading position, but blatantly posing.

{C.H.}

While the *H.O.F.* exposed the domestic as a territory of privacy, intimacy and secrecy, *Patio & Pavilion* enclosed a territory of discovery

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[97] A premonition, for *at the time Manet painted the picture, 1876-1877, Zola had only described Nana as a young girl in L'Assomoir.* Emily Apter, op.cit., p. 10

[98] Ibid.

[99] Ibid., p. 8

and revelation - in which, as stated on page six of Group Six' section of the *This is Tomorrow* catalogue, we should consider the inclusion of *Artifacts & Pin-Ups - For his irrational urges*. In the Smithsons' *archeological site*, as it is described by Marina Lathouri, *as found* images and objects may actually be seen displayed as in a collector's cabinet or a cabinet of curiosities. *The method of work,* as written by Peter Smithson, *has been for the group to agree on the general idea, for the architects to provide a framework and for the artists to provide the objects. In this way the architects' work of providing a context for the individual to realize himself in, and the artists' work of giving signs and images to the stages of this realization, meet in single act, full of those inconsistencies and apparent irrelevancies of every moment, but full of life.*[100] *Patio & Pavilion* configured a sort of illusory territory, where the whole world becomes present through each of the objects.[101] For Walter Benjamin, *the object provides access into origin and past, but also into the future, into prospective worlds and future modes of dealing with objects.*[102] By walking into *Patio & Pavilion*, the visitor - ever present in the enclosing aluminum wall - would become part of an environment that established a sort of re-visioning over the act of inhabiting. This is viewed by the Smithsons as a matter of occupation, appropriation and the leaving of marks. With the *as found* aesthetic, the Smithsons meant *all those marks that constitute remembrances in a place,* things that ignite a *perceptive recognition.*[103] *Thus the 'as found',* the Smithsons write, *was a new*

{P.a.P.10}

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[100] Peter Smithson, *Summer 1956*, *The Smithsons*, in *Changing the Art of Inhabitation*, p. 109

[101] This is a loose adaptation of Esther Leslie's phrase, *Benjamin explains how, for the collector, the whole world is present in each of his objects.,* Esther Leslie, *Telescoping the Microscopic Object: Benjamin the Collector,* in *The Optic of Walter Benjamin*, Alex Coles, Ed., Black Dog Publishing Limited, 1999, p. 69

[102] Ibid., p. 70

[103] Alison and Peter Smithson, *The 'As Found' and the 'Found',* in *The Independent Group: Postwar Britain and the aesthetics of Plenty*, p. 201

seeing of the ordinary, an openness as to how prosaic 'things' could re-energise our inventive activity.[104] In this sense, the visitor in *Patio & Pavilion* is invited {P.a.P.5} to see anew, to become an inhabitant within the apparent chaos of this collection of objects and images that appear to have been *excavated after the atomic holocaust.*[105] These precise objects and images, *found,* collected, assembled and displayed by Eduardo Paolozzi and Nigel Henderson were meant to be *appropriated* by the visitor's themselves; together with the architectural *framework,* the *prosaic* things in exhibition should turn *Patio & Pavilion* into a highly subjective and personal image for each one of the temporary dwellers. To be inside *Patio & Pavilion,* then, would be to inhabit an experience of *identification and placement*; it becomes, in this sense, a multi-evocative and private experience. {P.a.P.4}

The roughness of the object-fragments and collages materializes the *brutalist* concept of *image* as it was acknowledged by Banham, thus making framework and content relate less through the visual and more through a tactile sensibility. Paradoxically, as Peter Smithson stated, in *Patio & Pavilion nothing was concrete*, *nothing was real, everything was metaphorical;*[106] it is the perceptive experience of the *fully embodied subject,* then, that which will create *an illusion of life*,[107] hence contracting the *abandoned* site into *domestic territory. Patio & Pavilion* houses not a mere *accumulation of inert objects, but rather an imaginative transformation of objects into desired deposits.*[108] As it is put by Marina Lathouri, *in Benjamin's terms, the collector, having rescued objects from their original functions, brings them into a context with other, similar objects, reassembling reality and history in*

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[104] Ibid.

[105] Reyner Banham, *The New Brutalism: Ethic or aesthetic?,* p. 65, quoted in Victoria Walsh, *Nigel Henderson- Parallel of Life and Art,* p. 115

[106] Peter Smithson, in *Friends of the Future,* p. 27

[107] Marina Lathouri, op. cit., p. 65

[108] Esther Leslie, op.cit, p. 65

new configurations. The collector's activity, Lathouri further writes, *therefore encapsulates both a negative moment - the destruction of the original context - and a positive one - the setting of the object in a new order and social vision.*[109] In this sense, *Patio & Pavilion* becomes simultaneously a place of destruction and reconstruction, a collector's cabinet fusing *the distant past and immediate future by reducing the promise of postwar abundance to fragments or ruins.*[110] The brutalist aim of grasping at the *thing itself*, through the staging of this archaeological excavation and consequent display of the *as found* objects, here resonates with Benjamin's memory explorations into the *thing world* of his childhood.[111]

McCarthy also argues, however, that equally to interiority not being a *guarantee of an inside location,* the *inside is able to sustain exteriority.*[112]

As a collector, Benjamin sought to build a subjective layered thing-world, either through his direct memory of infancy or through the objective of his subliminal telescope, a device he simultaneously chose to use as symbol and theoretical instrument. This carefully built telescope, meant to operate from within Benjamin's memory towards the past reality is, consequently, as much an optical device as a temporal cut-through, delivering a fresh insight into the past's scale of historic,

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[109] Marina Lathouri, op. cit., p. 64

[110] Ibid.

[111] *He [Benjamin] dissolves himself into social spaces and speculations on things. (…) Benjamin scents out the 'thing-world' of his childhood. This thing-world is an assortment of spaces congested with the splinters of urban bric-a-brac: telephones, chocolate machines, trains and railway stations, postcards, cluttered plush interiors, optical toys, rebus puzzles, sewing machines, velvet-lined caskets, stamps, majestic stone and metal monuments that crown tree-lined avenues or nestle alluringly in Berlin's cultivated Tiergarten.*, Esther Leslie, op.cit, p. 59

[112] Ibid.

social and spatial ordering.[113] But this cut-through is not meant as a means to a nostalgic dive into past memories or feelings, it is, rather, a means to reunite past and present in one single plane, decontextualizing the former's into microscopic happenings in order to re-position them into a new temporal landscape. The collector's re-ordering of these items means a kind of recomposition of the present experience through a proximity lens that puts us in a state of attentive and relative cultural and spatial travel. This looking back of Walter Benjamin then, primarily means that the social, cultural and material territories are definitely intertwined, in such a way that to look at one of them is to carry the shadowy and uncanny presence of the others. This territorial junkyard in which Benjamin will base his reflections and his reading of the present will definitely undermine the new sensibility that the post-war awakening will bring with itself. Ultimately, what is of interest within the notion of territory that we may induce from Benjamin 's conceptions is the idea of a relativeness of positioning towards reality and ideal. In this territory we find a *topology* of historic and symbolic debris, which is to be re-collected and re-addressed, providing the present with new insights from an amount of items that may help to shape the idea of present experience as future upbringing. In this sense, in *Patio & Pavilion,* as it is put by Marina Lathouri, *each new excavation is a step into the future.*[114]

Patio & Pavilion does appear as a territory of present things, *built* through an amalgamation of images, objects, and spaces until

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[113] *A letter from 1935 introducing the "The Work of Art in the Age of Mechanical Reproduction" to a friend conjured up an optical device - a telescope - to figure this revisioning with its emphasis on seing more and anew.(…) Benjamin's telescope has a line of sight that cuts through time itself, spying a fantastic image of the nineteenth century as a mirage seen through a bloody fog, in a future, liberated condition*. Esther Leslie, ibid.

[114] Marina Lathouri, op. cit., p. 66

it becomes a kind of dreaming landscape, one that might be as microscopic and concise as wide and ambiguous. The fragments that define this landscape, as previously noted, do not emerge from the ensemble they are in; it is the recontextualizing of the fragments that defines the landscape, thus shaping a rather discontinuous but subjectively operative territory. In this sense, also, that Benjamin seeks to reconstruct the trails that lead to his present, which then turns into a landscape enclosed into a wide world of possible futures. This means that to look at what has passed is to look at a memory, an object or a space from another reality, which, again, means a fresh and new look. But to look as Benjamin looked, with this sense of both collecting and reliving, means a tactile look, a haptic analysis. Benjamin's thing-world is thus a world of touch, of proximity and material depth, not one of contemplation and systematic projection. It's a world where we always stand inside, where the outside doesn't exist as real matter, only as (im)possibility. For Benjamin, this inner landscape, full of objects and images, determines the space of dwelling, one that, as a cave, re-unites all of the dwellers actions.[115]

For Walter Benjamin, *the primal form of dwelling is not a house but a case.* (…) *Taken to a extreme the dwelling becomes a case.* Looking into the nineteenth century, Benjamin acknowledges its *thought of dwelling as an etui* [that] *tucked the individual and all his belongings so far into it that it reminds one of the inside of a bow of compasses in which the instrument together*

[115] *The cave is not bare, but crammed with fossilized vestiges. Benjamin notes that the bourgeois interiors of the 1880's, around the time of his birth, appear as casings for humans, padded cells of cushions and velvet and plush, themselves stuffed full of encased objects, of coverlets and linings, made of materials in which the imprint of things is left behind.*, Esther Leslie, op. cit., p. 75

with all its accessories is sheeted in deep, usually violet-colored velvet cavities.[116] In another place Benjamin further writes: *The interior is not only the universe, it is also the etui of the private individual.* (…) *Coverlets and antimacassars, cases and containers are devised in abundance.*[117] This description holds a curious resemblance with some of Sylvia Lavin's considerations on both the Eames' house and the *House of the Future;* on the former Lavin writes:

> *Every surface of the Eames House was partially covered by another surface: blankets on sofas, rugs on the floor, paintings suspended from the ceiling.*[118] {Eam.3}

According to Lavin, with the Eames House, *the interior became a topology of exposition, soliciting a continuous reconsideration of the curatorial impulse and producing spectacular effects. If Mies framed a permanent view* [Lavin is making a reference to the South view collage of the Resor House], *the Eameses multiplied the frame to produce not a view but an atmosphere of contemporary viewing.*[119] According to the Smithsons,the *Eames House and Patio & Pavilion can be considered as phenomena in parallel.*[120] Both are set as defined territories holding *an atmosphere of contemporary viewing,* i. e., *a* {Eam.2} {M.v.d.R.2}

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[116] Walter Benjamin, *Reflections* p. 303, quoted in Hilde Heynen, *Architecture and Modernity,* The MIT Press, 1999, p. 111

[117] *El interior no sólo es el universo del hombre privado, sino que también es su estuche.* (…) *Se imaginan en gran cantidad fundas y cobertores, forros y estuches* (…)., Walter Benjamin, *Luis Felipe O El interior,* in *Poesía y Capitalismo,* Taurus, 1998, p. 183

[118] Sylvia Lavin, *The Temporary Contemporary,* in *Perspecta* 34, Spring 2003, p. 133

[119] Ibid.

[120] Peter Smithson, *Phenomenon in Parallel: Eames House, Patio and Pavilion,* lecture delivered in relation to the exhibition *The Independent Group* in which the reconstructed *Patio and Pavilion*, traveled London, Valencia, Los Angeles, Berkeley, Dartmouth, Buffalo, 1990-91. Originally published in *Places* 7, 3, 1991. In *Alison and Peter Smithson, Changing the Art of Inhabitation,* p. 99

sense of completeness - territory, pavilion, objects of occupation.[121]

The *House of the Future* becomes, in these terms, a sort of {H.o.F.2} atomized experience, compressing in a single unit the superposed or collaged layers that we may find in both the *Eames House* and on *Patio & Pavilion*, and encapsulating them all within an inviolated case; the *H.O.F* thus stands as the paradigm for the contemporary etui-house, and becomes literally a case. In this *case*, as Sylvia Lavin writes, *Peter and Alison Smithson thickened the architectural surface, using its viscous porosity to stage a new array of temporal effects and using the categories of consumer culture to this end.*[122] Within the *H.O.F.,* everything was built in,[123] including *a piece of the world.* On absorbing even exterior space - and specifically basing it on such a metaphysical idea as the *Garden of Paradise* -, the *H.O.F.* {G.o.P.} erases the view - and therefore the *image* - of the *real* outside. Instead, along with its *private wilderness* the *H.O.F.* becomes inhabited by ulterior landscapes, where one could only survive if adequately shielded. As a *living unit*, the *H.O.F. emancipates* itself from any type of ensemble, at the same time embedding macro-scale values. In this sense, it stands as a condensed and finite *arca* of particularities within which a sense of wholeness could be envisaged. Its fragmentary quality is on par with its elementary value, thus incorporating a *functional and programatic consideration* on questioning the role of architecture itself and pre-configuring itself as an *effect* created by mixed and juxtaposed readings

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[121] Ibid.

[122] Sylvia Lavin, *The Temporary Contemporary,* ibid.

[123] *Rather than be left exposed, as Le Corbusier's sink at the Villa Savoye stood isolated, worshiped as an enduring moment to the future, the Smithsons absorbed refrigerators, vacuums, and televisions into malleable walls.,* Sylvia Lavin, *The Temporary Contemporary,* p. 134 Also see Peter Smithson, Beatriz Colomina, *Friends of the Future,* p. 24 - Peter Smithson on the *House of the Future: It was based on a place in the South of France, Les Baux, whic h is like in Tunisia, where they carved the houses out of the rock and there is a container cut in the rock for everything, for your toothbrush, for example.*

between a sense of foreclosure and that of limitlessness.[124]

The *H.O.F.* - as well as Hamilton's *Just what is it…?* ultimately incorporates an act of becoming territorial. Within these capsular spaces, the cosmic and the intimate juxtapose; as with the Eames' picnic scene in *The Powers of Ten*, it situates itself *within an expanded scale that includes the outer reaches of interstellar space and the inner recesses of the body.*[125] Complementary, within Benjamin's considerations on the interior he states that for the *private man the interior represents the universe.* In this sense, both the *H.O.F.* and Hamilton's *today home* - understood as precocious and paradigmatic manifestations of postwar experiments over the theme of the capsule - collapse both *fragment* and *enclave* as a wholesome *protective territory.*

{R.Ham.2}

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[124] *Whereas a writer, following on Poe's words, might first have in mind a desired effect, and subsequently find the situations, persons and images which will produce that effect and no other, the architect appears to begin with functional and programatic condsiderations*, Marina Lathouri, *Frame and Fragment - Visions for the Modern City*, in *AA Files 51- The Journal of the Architectural Association School of Architecture*, Winter 2005, p. 60. The text was first presented in *The Intimate Metropolis: Domesticating the City, Infiltrating the Room* Conference held at the Architectural Association in Autumn 2003

[125] Vittoria Di Palma, *Zoom*, in *Intimate Metropolis, Urban Subjects in the Modern City,* Routledge, 2009, p. 260

The Capsule and Postwar Architectural Avant-Garde, *circa* 1956

EPILOGUE

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In a recent interview, Peter Sloterdijk began by stating that *human evolution can only be understood if we also bear in mind the mystery of insulation/ island making [Insulierungs-geheimsis] that so defines the emergence of humans.*[1]

Interestingly, in Sloterdijk's statement we find that, paradoxically, it is the *mystery of insulation* that which defines the *emergence of humans.* In this respect, we recognize that the creation of distance - in the sense of becoming *apart* - is for Sloterdijk something that lies embedded within the action of becoming *apparent*. It is in this respect that Sloterdijk acknowledges a *new view of the universe as something that does not consist on a single soap bubble which we have blown up so large as to go well beyond our horizons and assume infinite proportions, and is instead made up of millions of closely demarcated soap bubbles that overlap and intersect everywhere.*[2] In this way the cosmos, according to Sloterdijk, is no longer a universal house or *shared stage for all living creatures* but a *multi-chambered system made up of relatively*

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[1] Peter Sloterdijk, *Sphere Theory: Talking to Myself about the Poetics of Space, a lecture with Sloterdijk asking himself questions,* Harvard University Graduate School of Design, in, *Harvard Design Magazine* 30, Spring/Summer 2009, p. 127

[2] Ibid.

stabilized personal worlds.

For Sloterdijk, the metaphor of the soap bubble stands as a biological unit that translates as a *cellular world-bubble.*[3] Such a *world-bubble* forms a container that, nonetheless, holds an atmospheric sense. What this means is that, within the concept of the *world-bubble,* we may find a universal vitality juxtaposed to a self-assigned *living* unit; it is in this sense that Sloterdijk further enunciates the meaning of the term *world* as that which is *plural and [*has] *an insular structure.*[4] For Sloterdijk, *islands are miniatures of worlds that can be inhabited as world models.*[5] Islands, in turn, are divided into categories, from the *absolute island* to the *anthropogenic island;* while the first category refers to a type of *island such as a space station, which is placed as a completely implanted lifeworld into a milieu inimical to life,* the second category exposes an ontological and generating principle and builds up as a *a space where humans can emerge.*[6] In this respect, the anthropogenic *human-generating island*, is conceived as a multi-dimensional *organon,* in which *human-generating effects* are to be triggered; within this emphatic sensorial world, one is simultaneously presented with such *dimensions* as the *chirotope* (the place of the hand, in which Sloterdijk embeds a *theory of action*), the *phonotope* (for the space of sound), the *uterotope* (the space of the cave), the *thermotope* (as a space of warmth) and the *erototope* (which composes as a *place of jealousy* and a *field of desire*).[7] All these dimensions appear to fulfill the *primacy of the secluding atmosphere* which is how Sloterdijk describes the place of the private residence seen as *cuddly spot*; in this sense, he writes,

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[3] Peter Sloterdijk*, Cell Block, Egospheres, Self-Container*, in op. cit., p. 90

[4] Peter Sloterdijk, *Sphere Theory: Talking to Myself about the Poetics of Space*, p. 131

[5] Ibid.

[6] Ibid.

[7] Ibid.

> *if you have recognized the primacy of such a secluding atmosphere, indeed the primacy of the atmospheric per se, then architects can definitely infer from this that they cannot take geometric ideologies as their starting point. Instead, they need to think in terms of the atmospheric effect of space.*[8]

For Sloterdijk, this atmospheric primacy holds the fundamentals of existential space, which, he argues, the contemporary *talk of nets and fabrics tends to neutralize.* Sloterdijk's *interiorized* world cells - in a rather coincidental way with that which we attempted to demonstrate through the idea and invention of the postwar capsule - although complying with the existence of networks and systems of dots and interfaces, retain a sense of depth which, in contrast to the *lack of volume* of the graphical *anorexia* - as he puts it - of net thinking, contain *intrinsic expansion.*[9]

In Peter Sloterdijk's terms then, the postwar capsule - as enunciated through Hamilton's *Just what is it…?,* the Smithson's *House of the Future* or David Greene's *Living Pod,* is not *a dot bereft of extension*, but rather hold *the character of a microworld.* {R.Ham.2} {H.o.F.2} {L.P.6}

In the sense that the capsular or *cell world* - which is how Sloterdijk names the apartment understood as a *vital capsule*[10] - may be seen to hold a sort of elementary particle quality within the architectural universe, perhaps it should not be too unfit to recall Werner Heisenberg's description of the quantum physics paradox, in

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[8] Ibid.

[9] Ibid., p. 136

[10] Peter Sloterdijk*, Cell Block, Egospheres, Self-Container*, in op. cit., p. 92

which, *every particle consists of all other particles.*[11] Such a paradox seems to resonate with Peter Sloterdijk's description of the architectural preposition *in* as *most enigmatic;* because it juxtaposes the *being-contained-in* with the *being-outside*, being *in* becomes a twofold dimension condensing both *interiority* and *exteriority.*

As we have seen, these two terms are wrapped together through the existence of the boundary; Christine McCarthy's description of interiority as *construed by the displacement and the controlled filtering of exteriority*[12] meets, at this point, with Sloterdijk's assumption that *it is spatial immune systems that enable us to give being-outside a tolerable form.*[13] In this respect, the defensive mechanisms of the *House of the Future* {H.o.F.8} configure it's interior as an immune system while, nonetheless, holding and *protecting* a piece of the outside territory where effectively, it is held. In the same way, the *Living Pod* - which also contains cleansing {L.P.1} and climate mechanisms that accentuate its *immunity* towards the open exterior - was imagined as a vital capsule to act as a metabolic insulator, a sort of subjective organic enhancement of the biological body. But this immunological devices are only relevant because its inhabitant's existential ethos, according to Sloterdijk's reading of Heidegger, is revealed to be one of permanent *outsideness*. *In the ontological sense,* Sloterdijk writes, people are *'outside' in the world, but they can only be outside to the degree that they are stabilized from within from something that gives them firm support.*[14]

Thus conceived, the capsule acquires a prophylactic quality which provides containment and so allows for *exposure*; we may then, for a

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[11] Werner Heisenberg, *Encounters with Einstein,* p. 35

[12] Christine McCarthy, *Toward a Definition of Interiority,* p. 116

[13] Peter Sloterdijk, *Sphere Theory: Talking to Myself about the Poetics of Space*, p. 137

[14] Ibid.

moment, return to Sloterdijk's initial statement, in which the *mystery of insulation* defines the *emergence of humans*. For Sloterdijk, in fact, the *apartment*, *is simultaneously a cave and a stage*, and it provides as much *accompaniment for the debut of the individual as it does for his return back into irrelevance.*[15] Throughout his description of the *human generating island*'s dimensions, Peter Sloterdijk also unfolds a description of selfness. *As it is all immanence*, the author writes, *the apartment becomes an integral toilette: everything that happens here is under the premise of end use in every respect: Eating/digesting; reading/writing; watching television/opining; self-recovery/self-engagement; self-arousal/self-release.*[16]

We recall, regarding Sloterdijk's classification of the *apartment* as an *integral toilette*, how the *House of the Future* is frequently compared to Buckminster Fuller's *Dymaxion Bathroom,* mainly *because of the continuous surface and the fact that it is all molded as one unit.*[17] But indeed, these morphological similarities of the former towards the latter become enhanced by self-sustainability, from the closed air conditioning circuit providing both *health and comfort*, to the sound and fireproof walls, to the rainwater recycling system; the house, mirroring the individual within it, becomes a *microtheater of autosymbiosis.*[18] {H.o.F.2}

Mirroring Charles Eames' diagram *What is a House?*, the capsule embeds in its conceptual core an action of role playing as a mechanism for subjective emancipation and survival. Within its enclosed shell-like boundary, the capsule allows for a sensorial experience that transforms the horizontal and sequenced logic of the visual into an atmosphere of acoustic effects. In this sense, if - as Cristopher Hight {Eam.1}

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[15] Peter Sloterdijk*, Cell Block, Egospheres, Self-Container*, in op. cit., p. 100

[16] Ibid.

[17] Beatriz Colomina; Peter Smithson, *Friends of the Future: A Conversation with Peter Smithson,* in op. cit., p. 24

[18] Peter Sloterdijk*, Cell Block, Egospheres, Self-Container*, ibid.

states - *through the Modulor, architecture became a biopolitical vision machine of subjective incorporation,*[19] then we might say, through the capsular postwar experiments, architecture creates a very specific spatial form that unveils as a biopolitical environmental machine of subjective emancipation. Its encompassing topological spatial sensibility determines a dynamic mode of perception through which the objectivity of geometrical order becomes superseded by the subjective organization of effects. The body of the observer no longer appears placed in front of the architectural image but becomes, as framed, literally thrown into such an image. *Parallel of Life and Art,* as noted, became in this respect a paradigmatic event, through which, as Christopher Hight observes, the viewer appears as *cast into a slurry of referents as if into a dynamic field.*[20] The mix of scales and territories that appear embedded in both the *H.O.F.* and Hamilton's *today home,* engage its inhabitants into a sense of journey and occupancy that compresses any perspective of the open arcadia into a play of arcanian depths.

{P.L.A.3}

Patio & Pavilion, in this sense, may have been the most *capsular* experiment to have taken place; its mirror aluminum enclosure, more than delimiting a place of ambiguous status - is it destroyed, is it abandoned, is it a mere reflection of our ontological fears, is it all metaphor, is it a beginning, a manifesto or an image, a precise place or an unknown territory - configures a convoluted geography of objects and images that materialize as traces of inhabitation. The reflected figures of the visitors turned inhabitants of such a geography accentuate the materiality of *Patio & Pavilion* as *image*; as in the Nigel Henderson's *Head of a Man* collage that inhabits it - which *seamlessly*

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[19] Christopher Hight, *Pervasive Intimacy, The Unité d'Habitation and Golden Lane as Instruments of Postwar Domesticity*, in op. cit., p. 235

[20] Ibid., p. 228

juxtaposes photographic fragments of landscape, rock strata and other natural forms[21] - *Patio & Pavilion* incorporates *real images* and juxtaposes them as *abstract*. Conversely, *Patio & Pavilion* feels itself like a *situation trouvé;* when speaking about the process of the *as found,* Nigel Henderson would state, {P.a.P.7}

> *It feels as if it has dropped from outer space at that precise spot to intercept your passage and wink 'its' message specifically at & for you… I greatly enjoy incorporating things I've found this way. I like the feeling of being ' plugged in' to my universe; that it has signals laid for me like a paper chase (a cosmic nudge, a muffled snigger).*[22]

Patio & Pavilion thus creates a landscape of accumulation, one that, seen as territory, also mirrors Henderson's collage *Atlas*, a map - *rather like Africa in shape* - made of *electron-microscope readings, metal and charred wood seen under the plate camera etc.*.[23] {N.H.2}

Furthermore, its paradoxical interiority/exteriority ambivalence, together with its rather a-temporal and *dropped from outer space as found* quality, engages the visitor into an uncanny voyage, to a place that juxtaposes t*he world as apartment* to *the world as agora;*[24] Although this juxtaposition seems to enunciate a figure/ground image of *apartment* {N.H.1}

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[21] Victoria Walsh, *Nigel Henderson, Parallel of Life and Art,* Thames & Hudson, 2001, p. 118

[22] Nigel Henderson, *Letter to Chris Mullen,* n.d. in Victoria Walsh, op. cit., p. 123

[23] Victoria Walsh, op. cit., p. 123

[24] *Someone who builds a dwelling or erects a building for an institution makes a statement on the relationship between the ecstatic and the ensatic, or, if you will, between the world as apartment and the world as agora.,* Peter Sloterdijk, *Sphere Theory: Talking to Myself about the Poetics of Space*, p. 137

over *agora*, in fact it may better illustrate something quite different.

In its correspondance to *Patio & Pavilion*'s interior/exterior play, the *House of the Future* encapsulated *a piece of the world;* in this respect, we might say, the Smithsons encircled the *agora* with the *apartment*. Hence, the enclosed space of its interior, while *dependably fulfilling its defensive functions as an insulator, an immune system, a dispenser of comfort, and a source of distance, remains a wordly space.*[25]

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When Archigram depicts the *Living Pod inside* one of Piranesi's *Carceri*, one is left with a similar feeling as when observing the documenting images of *Patio & Pavilion*; in Piranesi's etchings, Tafuri writes, *the space of the building - the prison - is an infinite space.* (…) *But the prison, precisely because infinite, coincides with the space of human existence. This is very clearly indicated by the hermetic scenes Piranesi designs within the mesh of lines of his impossible compositions.*[26] In this context, the presence of the *Living Pod* may be seen as an ironic statement over the hermetically closed space of the capsule seen as prison, or, on the contrary, as an optimistic look at the capsule as a paradoxical powerful defensive mechanism against the pressure of the primacy of order and form. Piranesi's *Carceri* thus represents, in Tafuri's terms, a *sadistic atmosphere* that *essentially is the* [architectural] *struggle between the demand for order and the will to formlessness.*[27]

{L.P.7}

In this respect, the capsule enhances its quality as a life support *organon*, which, among the ruins of such a repressive space, emerges as a territory of escape - or, perhaps more precisely, of survival. The supposed infinity of Piranesi's prison, its fragmentary destructive

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[25] Peter Sloterdijk, *Cell Block, Egospheres, Self-Container*, p. 102

[26] Manfredo Tafuri, op. cit., p. 18

[27] Ibid., pp. 14-16

excess, brought to contemporary discourse by the *Living Pod,* cynically and regressively meets with Group Six's *Patio & Pavilion.* And so, if, as it seems, the image of the *Living Pod* in the *Carceri* is also announcing that *This is Tomorrow*, then, the capsule may in fact be representative of what Sloterdijk calls *shells for life,* i.e, *a series of uterus repetitions in outdoor milieus*,[28] a *dispositif* (apparatus) for life.

Hence, I finally suggest, the capsule represents - in its most radical *raison d'être* - a foundational image of an enclosed and protective *millieu* as *Open.* And in this sense, it still remains as both a relevant and enigmatic architectural construct towards the experience of *being* within a process of *humanization.*

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[28] Peter Sloterdijk, *Sphere Theory: Talking to Myself about the Poetics of Space*, p. 129

What is proposed then, is a portrait - but not a psychological portrait; instead a structural one which offers the reader a discursive site. the site of someone speaking within himself, amorously, confronting the other (the loved object) who does not speak.

Roland Barthes

É um retrato - se assim o quisermos entender - o que aqui se propõe; mas este retrato não é psicológico; é estrutural: permite conhecer uma situação da palavra: a situação de alguém que fala por si, apaixonadamente, diante do outro (o objecto amado), que não fala.

The Capsule and Postwar Architectural Avant-Garde, *circa* 1956

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