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An examination of the fascinating film work of Charles and Ray Eames, presenting their Case Study House #8 in the visual and political cultures of the post-WWII period.

Screening *House*: film and material representations of the Cold War's anxieties

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In 1945, the magazine *arts & architecture* organised the Case Study Houses Programme, aiming to supply an answer to the new living problem at the end of the Second World War. This new scenario was characterised by social and economic changes where new techniques and distribution of new materials were expanding the definition of what a house is.[1] In the announcement of the programme, the publication declared:

> What man has learned about himself in the last five years will, we are sure, express itself in the way in which he will want to be housed in the future. Only one thing will stop the realisation of that wish and that is the tenacity with which man clings to old forms because he does not yet understand the new.[2]

Two conditions defined this new environment: the technological development and skilled labour gained during the war, and the urgency to build new houses to receive the veterans returning from the conflict. In an article written six months earlier, the magazine already raised these concerns, calling for the use of new building techniques as the only solution available to relieve the housing shortage in the US left by the end of the war.[3]

The programme put into practice the new technologies and materials available in the market for the construction of the first eight houses.[4] According to the publication, the magazine would be the client, and the architects would be the designers who would follow these new techniques and materials available (even though they were not obliged to do so). In this context, Case Study House #8 – originally designed by Charles Eames and Eero Saarinen – was planned with the purpose of demonstrating how military technology could be recycled and applied to the domestic market. But also with the intention to show how domesticity could be unfolded within the kind of structure that had been used for the construction of barracks and hangars during the war [1].[5]

Case Study House #8, designed for a plot acquired by the editor of the magazine, John Entenza, in the Pacific Palisades close to Los Angeles, is comprised of a house and a workshop. The original structure was a long volume formed by two trusses spanning over the small hill of the site, each supported on the ground by two steel columns [2]. Its spaces were designed for a new living standard that promotes the domestic space as a productive centre. As Charles Eames and Eero Saarinen explain:

> The whole solution proceeds from an attempt to use space in direct relation to the personal and professional needs of the individuals revolving around and within the living units inasmuch as the greater part of the work or preparation for work will originate here. These houses must function as an integral part of the living pattern of the occupants, and will therefore be completely 'used' in a very full and real sense. 'House' in these cases means centre of productive activities.[6]

This idea is reinforced by the design of the workshop at the back of the house, where according to the publication, both the house and the workshop are designed for a married couple, professionals with mutual interests, where life and work are merged.[7] However, in 1948, the Eameses decided not only to change its design, but also Eero Saarinen's contribution was replaced by Ray's. Due to a delay in the delivery of the steel and an increase in its price, Charles thought to enclose more space with the same amount of steel to justify its cost.[8] With more time to rethink the original proposal, the Eameses decided to rotate the whole structure and place it along the line of the existing eucalyptus trees. The house was now camouflaged within the site, the line of trees covering the main façade of glass panels and filtering the interior and exterior views [3].

But perhaps one of the biggest challenges was not just technical, but aesthetic. How can a technology and aesthetic that recalls the design of wartime hangars and barracks be turned into a modern and pleasant conception of domesticity? Furthermore, the way in which the house is inserted into the landscape, and the deployment of the domestic artefacts disguising the structure of its interior, gives the impression that the house is constantly playing a game of revelation and concealment. This is a struggle between its industrial presence and the way this presence is concealed or camouflaged. After thirteen years of living at the house, 'the structure has ceased to exist. I am not aware of it', says Ray Eames.[9]

1 Snapshots from the film *House: After Five Years of Living* (Charles and Ray Eames, 1955).
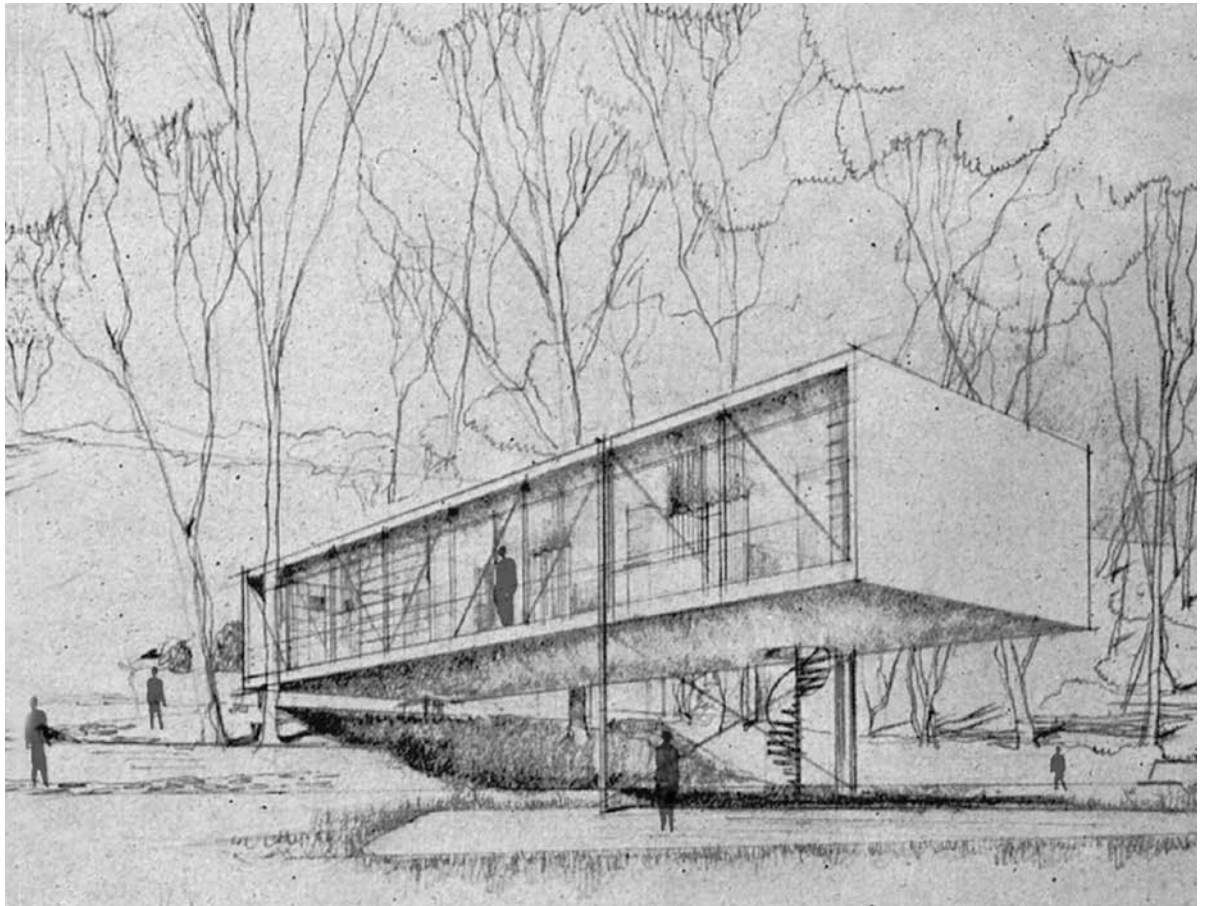
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This idea is manifested in many of the photographs advertising the house, which show the reflection of the trees and the landscape upon the glass surface. The house is like a surface camouflaged in its environment. This camouflage, however, is not only exterior but also interior, as Charles and Eero Saarinen explain in the first proposal for the house, in *arts & architecture*: 'The house must make no insistent demands for itself, but rather aid as background for the life in work.'[10] The house – its structure – is described as a prompt for the unfolding of domestic space, a prompt that is dressed up and disguised.[11] The house becomes a screen on which the domestic life is played out.

The film technique: the photographic screening.
In 1955, the Eameses gathered in a film, called *House: After Five Years of Living,* more than three hundred photographs taken during the first five years they lived in the house [1 refers]. Accompanied by the music of Elmer Bernstein, the film showed pictures of the house and their studio. This unusual production of motion picture film out of colour slides follows a route that starts from the outside and navigates through the main spaces of the house and the workshop. The use of film by some architects, as a way of presenting their work and promoting their ideas, was not new. An example of this was the collaboration between Pierre Chenal and Le Corbusier in *L'Architecture d'Aujourd'hui* (1930). Divided into four parts, one section of the film portrays some of Le Corbusier's domestic architecture: Villa Stein-

2 Original design for the 'Case Study House 8', Charles Eames and Eero Saarinen, *arts & architecture*, December 1945.

3 Case Study House #8. Reflections of the landscape in one of its façades. *arts & architecture*, December 1949.

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De Monzie in Garches (1925–6), Villa Church in Ville d'Avray (1927), and Villa Savoye in Poissy (1928–30).

For the architectural theorist Beatriz Colomina, in the scene portraying Villa Savoye, we, as viewers, seem to embody the place of a voyeur. Through the camera, we follow the route of a woman inside and outside the space, and what we see is a voyeuristic view of the house.[12] In contrast, one of the peculiarities of *House: After Five Years of Living,* is that there is no human presence and no camera movement; instead, we circulate from the outside to the inside through a series of visual staccatos, bouncing from one place to another. On the screen, the images of the house are merged with the images of the Eames's domestic life (small figures, pieces of their work in progress, decorative objects, crockery sets) among small elements from nature, all resized to the dimension of the screen.

In the film, we are introduced to the house through an axonometric animation where all its structural elements are assembled. Once the house is completed, the camera starts to display the landscape in which the house sits. The first image of the house is a close-up of a eucalyptus trunk where a part of the house can be seen behind it. The house appears, firstly too close, and then too far, with its position behind the eucalyptus trees making it difficult to portray it entirely in a single frame. The exterior images are fragments of the house, reflecting the trees, flowers, and plants, but also fragments reframed by these same elements of the exterior. It is as if the house were an inseparable element of the landscape, taking part in it but also reproducing it in its reflection: the house appears camouflaged in it.

However, in *House: After Five Years of Living*, camouflage is not just reduced to the relationship between construction and nature, handcrafted objects and industrial presence. But rather, it seems to operate as a screen mediating reality and representation, culture, and technology. In the film, the concept of the screen becomes a material practice, where the photographic records are masked by the filmic artifice. The small shaking in the image suggests that the film was recorded with a handheld camera such that the hand movements are impressed upon the image. What is interesting about this is that the camera was not actually recording the space, but rather colour slides previously taken during those five years. The process required a rig constructed as a solid base to hold the whole artifice.[13] The rig, placed over a table, holds at one extreme a Kodak SlideMaster slide projector as a source of light to backlight the slide being shot. At the other extreme, pointing back to the projector, is the film camera, a Mitchell standard 35mm. In the middle (as a screen) is the colour negative slide held by a slip-in pocket addition to an old bombsight device.[14] In this arrangement, the slide is illuminated by the light source while partially masking it, revealing the image to the film camera. The film performs as a media struggle between two systems of representation, a kind of photographic repression whose presence, however, cannot be entirely masked by the filmic apparatus.

In *House: After Five Years of Living,* the house moves between moments of recognition and absence, almost as if – through the camera – it was playing a game of hide-and-seek. These moments of absence replace the view of the house with small details, objects, and fragments of the landscape; there is a conflict between the representation of the space and its objects, or between the container and what is contained. The intense close-ups seem to scrutinise the space instead of just presenting it. But what does the camera show us and what is it trying to discover? Maybe there is an anxious search for the domestic in the objects, the architecture, the landscape and its reflections. Domesticity seems to be a new environment worthy of inspection, a new *milieu* that needs to be domesticated, recognised, and controlled. In the film, we witness the large and the small, through the lens of the camera our position is mediated and the size of things are relative to this position. The small becomes the large and the large becomes the small in a game that seems to reproduce Gulliver's travels in a fragmented sequence. On the screen, things grow and shrink and the human body is no longer a scale reference for this new dimension; perhaps this is the reason why there is no human figure in the film. In *House: After Five Years of Living,* the scale of the house is suspended and transformed into a territory, a world in itself that, although visually captivating, appears as illusive and disruptive.

Through a visual sequence of frantic acceleration, occasionally interrupted by moments of slow pace, the film embodies a struggle to control contain and, of course domesticate this new territory. This effect is accomplished by two editing techniques, the 'fast cutting' (a rapid succession of still views) and the 'dissolves' (where the image on the screen fades into the presence of the next one). While the former produces a rhythmical acceleration of the sequence, the latter seems to resist its pace, partly slowing down the sequence. However, although these two modes of display are distinguishable from one another – and to some extent they are even able to create certain tension – the constant acceleration of the images prevails throughout the film.

A screened territory: Cold War domesticity beyond its walls

In the film, this visual struggle to contain this new territory – the domestic space – is not only the deliberate outcome caused by its editing technique. Rather it appears to reproduce, among other things, a broader political context deployed by the US government known as the politics of 'containment'.[15] To survive in a Cold War era was to contain the external threats. The influence of the Soviet Union can be limited to specific zones; the nuclear technology can be controlled for specific purposes; and communist influences must be repressed (or contained) to secure political stability. The politics of containment was not only applied on a global scale, but was also brought into the house where the threats of the Cold War could be tamed through family and political values, reconfiguring in return the very significance of the domestic space.[16]

4 *We are Building a Better Life* (Berlin, 1952). A typical American suburban house was displayed with diverse domestic items labelled with the number of working hours needed to purchase them instead of producing them.

Alongside the penetration (or perception) of external dangers into the domestic environment – and almost as a counter-offensive measure – a new notion of domesticity expands its field of influence to a territorial scale. Beyond the suburbs and the urban areas, domesticity was promoted towards other nations where it was used to tame Western countries under the US political agenda. Domesticity is not at home anymore, it has been projected like an image on a screen towards other spheres; to the political, economic, and military terrains. Multiple exhibitions in European nations were used to advertise American values through domesticity. This was a form of soft power, promoting American corporate capitalism against the communist system of the Soviet nations. *America At Home* (West Berlin, 1950), for example, exhibited a prefabricated house where German visitors could watch female students vacuuming, preparing toast, and using diverse types of appliances that make the life of the homemaker easier.[17]

Similarly in Berlin, *We are Building a Better Life* (1952), displayed a typical American suburban house with diverse domestic items labelled with the number of working hours needed to purchase them instead of producing them *[4].*[18] Other exhibitions like *Peoples' Capitalism* (Poland, 1956), *Supermarket USA* (Zagreb, 1956), or *The American National Exhibition* (Moscow, 1959), all revolved around the idea of the suburban house. More importantly, perhaps, was the display of consumer goods and the family values they promoted as symbols of American hegemony: the domestic became the new battlefield.[19]

By overtly embracing and promoting new aesthetic representation, gender roles, the distribution of consumer goods and the new information technologies, Cold War domesticity becomes a comprehensible and intelligible system of representation, one in which complex geopolitical narratives are translated into new modes of consumption and materialism.[20]

This strategy was deployed in 1959 at the United States Pavilion at the Moscow Fair. The exhibition was an agreement between the US and the USSR governments to create an environment of exchange between the two superpowers. With that purpose in mind, a Soviet exhibition was opened in New York in June of 1959 while their American counterpart did the same in Moscow in the month of July of the same year. One of the main attractions called the 'splitnik' (called that by the Russians in allusion to the 'Sputnik 1', the first man-made satellite launched into the universe), was a house split into two, and specially constructed for the exhibition.[21] At the 'splitnik', visitors experienced not only the 'typical' American middle-class house (or what was supposed to be one), but also the famous dialogue known as the 'kitchen debate' between the leader of the Soviet Union, Nikita Khrushchev, and the US Vice-President, Richard Nixon. The discussion was focused not on missiles, rockets, and military technology (as during that time the United States was disadvantaged in relation to its Soviet counterpart), but rather on the application of technology in the domestic space and the penetration of the consumer object as evidence of American superiority. Domesticity becomes a system of representation, an image (comprising a series of behaviours and material preoccupations) mediating between reality and representation, between a complex world of military instability and the promise of a secure interior. As such, it carries within it all the preoccupations, anxieties, and paranoias of a chaotic world. In this sense, the 'splitnik', can be seen as an allegory for that new and artificial world described by Hannah Arendt in allusion to the Sputnik. This new world in which artifice and illusion emerges as an effect of alienation.[22]

The fleeting image; disciplining the eye

In *House: After Five Years of Living*, the relationship established between spectator and image seems to be more one of perceptual confrontation rather than just 'attentiveness'. This form of addressing the viewer is described by the American film director Paul Schrader as 'information-overload' where the viewer is given more information than she can possibly process.[23] This effect – as has already been mentioned – is the consequence of an editing process, which in the case of *House: After Five Years of Living* is executed by both, the 'fast cutting' technique and the 'dissolves'. Information overload was experienced in other films and multiscreen presentations produced by the Eameses, such as: *Two Baroque The Day of the Dead* (1957), *Glimpses of the U.S.A* (1959), and *Think* for the IBM Pavilion at the 1964–5 New York Fair. The Eameses' use of different editing techniques and projection methods can be seen as symptoms of their preoccupation with a viewer, constantly exploring the subject's capacity to handle visual information. In *House: After Five Years of Living,* the display of each image on the screen – sometimes less than one second – implies that the emphasis was not intended to be found in the single image, but in the way information can be visually conveyed in a short period of time. As Ray explains, 'the film was an experiment to use stills to look at architecture', in this case, an effective way of

conveying the big number of photographs that the Eameses took during the first five years they lived at their house.[24]

The use of media technologies to test and measure the subject's visual capacity for retention, recollection, and associations can be situated within an earlier interest in psychophysics, and its later implementation in the instruction of military manoeuvres. In *War and Cinema: The Logistics of Perception,* the French philosopher Paul Virilio thoroughly describes the enormous impact of the new visual technologies in the reconfiguration of war. During the Second World War, the constant search for camouflage and concealment from the enemy led to the development of new tools and technologies able to see beyond the camouflaged landscape.[25] In such situations, human vision was challenged and new devices and technologies came to enable its expansion, or even to replace it. These new devices were developed to increase in the capacities of human vision, in a new environment defined by the amount of information available. This new visual condition required a trained eye able to decipher the instruments and the ever-changing amount of data.[26] Technology was developed to conceal the presence before the enemy, but also to uncover it.[27] As Virilio writes:

The problem, then, is no longer so much one of masks and screens, of camouflage designed to hinder long-range targeting; rather, it is a problem of ubiquitousness, of handling simultaneous data in a global but unstable environment where the image (photographic or cinematic) is the most concentrated, but also the most stable, form of information.[28]

In this war environment, psychological challenges arose around the complex interaction between man and machine. The fatigue and lack of attention of the radar operator, for example, posed a serious problem for a person who must be in a constant state of alertness, scanning the ever-changing radar screen. Numerous experiments and reports testing the capacity of attention, reaction, and the rate of recovery of the soldier were produced in an environment highly influenced by the speed of information transmission.[29] Among them are the studies of visual and auditory monitoring carried out by British psychologist Norman Mackworth, or the ones produced by American psychologist James J. Gibson, who conducted visual experiments for the AAF Training Command through the use of filmic material. In his research, using different film techniques, pilots had to learn to discriminate valuable information in an unstable environment as an important skill for survival.[30] The capacity to acknowledge their own position in space, through the scanning of their environment, was meant to be learnt and incorporated into the reactions of the pilot through visual training.[31] For Gibson, film had the advantage of providing pilots with a very accurate simulation of movement, sequence, pacing, and realism.[32] However, film was not only intended to simulate an environment, but also to advance the learning of habits, the capacity to improve decision-making and memory span.[33]

These kinds of new visual practices, which were aimed at disciplining the eye in a new visual environment, were soon translated from the wartime battlefield to other areas of research by architects and designers. Among them, it is possible to name George Nelson, Alexander Girard, and the Eameses, who – through new modes of presentation techniques and learning processes – aimed to train the eye of an observer in an informational environment that needed to be decoded and interpreted.

In 1952, the Eameses, Nelson, and Girard organised the course 'A Rough Sketch for a Sample Lesson for a Hypothetical Course'. Commissioned first by the University of Georgia Art Programme and developed later by the Engineering School at the UCLA, the purpose of this course was to reduce the gap between different disciplines.[34] The course employed new learning techniques, which delivered the highest amount of information to the audience in the minimum time possible.[35] The Eameses, Nelson, and Girard developed a complex system of presentation in which film was complemented by other types of information, such as narration, slides, graphic panels, music, and even smells injected inside the room [5].[36]

'A Rough Sketch for a Sample Lesson for a Hypothetical Course' was an experiment involving perception in which the audience was flooded with apparently unconnected types of information and exposed to different modes of communication. By doing so, the programme explored new ways of increasing the subject's optical ability, giving the observers the capacity to create and build their own connections. As part of significant transformations

in the field of communication technologies during and after the war, these kinds of practices – involving the agency of vision in a new information landscape – also permeated the work of other designers and academics like the Hungarian artists Gyorgy Kepes and László Moholy-Nagy.

Through the School of Design in Chicago, both Kepes and Moholy-Nagy actively participated in the new urgencies impelled by the war. Notably, they were both involved in a course on camouflage at the Design School, which sought the active involvement of the office of Civilian Defence in Washington and the participation of military experts.[37] Among other subjects, the students were trained in 'infrared and night photography, the physiology of the eye, and optics'.[38]

For Kepes – who would later found The Center for Advanced Visual Studies at the MIT – 'New technological discoveries have extended and reshaped the physical environment.'[39] In his work *Language of Vision,* he describes a new world no longer fixed in a stable visual environment, but in a mobile and dynamic flow of visual information. However, for Kepes, motion was an effect caused by the constant displacement of the vanishing point, which 'was shifted left, right, up and down into almost all

5 Second presentation of 'A Rough Sketch for a Sample Lesson for a Hypothetical Course'. University of Los Angeles, California, May 1953.

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possible positions'.[40] Through the expansion of existing technologies like photography and the abundant circulation of images, new unknown perspectives of the world begin to be disseminated: 'the view from above, the bird's-eye view, and that from below, the frog's eye view, were recorded.'[41] In this sense, Moholy-Nagy stresses the feeling of confusion caused by what he refers to as 'faulty photographs': the representation of new perspectival views, displaying 'true distortions, deformations, foreshortenings, etc.', allowing us to see the world with different eyes.[42]

This visual environment described by Moholy-Nagy – characterised by an unstable viewpoint and disruptive perspectives – is re-enacted by the Eameses in *House: After Five Years of Living*. In the film, there is a rapid sequence of images where the position of a stable viewer is disturbed by the juxtaposition of different perspectives of the house. Not only does the scale of their parts constantly change on the screen, but also it is shown from difficult angles. The way in which the house is framed by the camera gives, at times, the impression that there is not a stable plane of reference, and these seem to be constantly changing their orientation; a piece of the ceiling can be either a piece of a floor or a wall. Thus, these perspectives unsettle any stable reference in the space – the eyes of the viewer lose their ground. In the film, the camera replaces the human eye with one that can experience a diversity of perspectives in an accelerated sequence of images' displacements – that is, the grounding of human scale is entirely absent.

Information processing

The Eameses' work must be understood alongside the new technologies that were transforming the way in which information was gathered, organised, and disseminated. In this new scenario, their work is not only the reflection of this information landscape, but also a producer of it. A year after their course at the University of Georgia, the Eameses translated the experience of 'A Rough Sketch for a Sample Lesson for a Hypothetical Course' into the film called *Communication Primer* (1953). Addressed to architects and city planners, this introduced Claude Shannon's theory of communication to encourage effective methods in city planning and design. This led Charles to envision years later, the new modes of city planning as the way a war room works, as he asserts in one of his Norton Lectures in 1970:

> *In the management of a city, linear discourse certainly can't cope. We imagine a City Room or a World Health Room (rather like a War Room) where all the information from satellite monitors and other sources could be monitored [...] The city problem involves conflicting interests and points of view. So the place where information is correlated also has to be a place where each group can try out plans for its own changing needs.*[43]

These ideas emerge alongside the new advances in computational technologies and corporation institutions such as IBM, which were rapidly translating the computer's military uses into new modes of inscription, storage, and information processing for civilian purposes. In 1956, and as part of the design programme launched by IBM, the Eameses participated in the production of a series of educational films displayed in fairs and travelling exhibitions. Such was the case with the films *Information Machine; Creative Man and the Data Processor* (1958), *An Introduction to Feedback* (1960), *A Computer Glossary*, and *Coming to Terms with the Data Processing Machine* (1968). The general purpose of these films was to make the functioning of the computer more understandable, less threatening, and more friendly. Throughout a narrative that was permanently proposing some parallels between subjective agency and machine operation, the computer was presented as the teleological outcome to the ways in which information has been processed throughout history.[44] What we see in the work of Charles and Ray Eames is not just a complex intersection between design, architecture, and information technologies (film, photography, and the computer), but also the problematic position of an observer amid such a technological environment.

Optical anxiety

The Eameses' media incursions can be seen as the enactment of an emergent new information economy in the US – a large economic shift in which the production and exchange of information began to supersede its product-based economy.[45] Elements of the new communication theories, the dissemination of media platforms (exhibitions, publications, films, television programmes, and advertisements) and their cultural context acted as a network that informed and stimulated the Eameses' process of design. Media practices are not only used by them, but also folds back their own work.

In *House: After Five Years of Living,* the constant acceleration of images on the screen produces the uncanny feeling of an interior that constantly seems to evade the eye and to resist being fixed by it. Through the camera, we seem to be part of an endless search for something never to be found: a kind of optical anxiety produced by the constant staccato of the camera – enhanced by Bernstein's musical composition. Moreover, how do we understand the apparent stillness of the images in relation to the rapid sequentiality of them on the screen? As an act of technological sublimation, it is as if the constant threat of the Cold War, and the fears of an accelerated technological development, expressed themselves in the film surreptitiously in the tensions between fascination and confusion, between visual pleasure and a disturbing acceleration, between stillness and speed.[46]

The film can be acknowledged by a kind of suspended catharsis that constantly threatens to prick the screen surface. The accelerated sequence of images' displacements and the nervous shaking thereof connote the signifiers of an interior that can no longer screen out the uncertainty of life. The stillness of things in the film, and the absence of any of human presence, might well be suggesting the aftermath of a nuclear attack, looking for a trace of life and analysing every single element: a zoom to a

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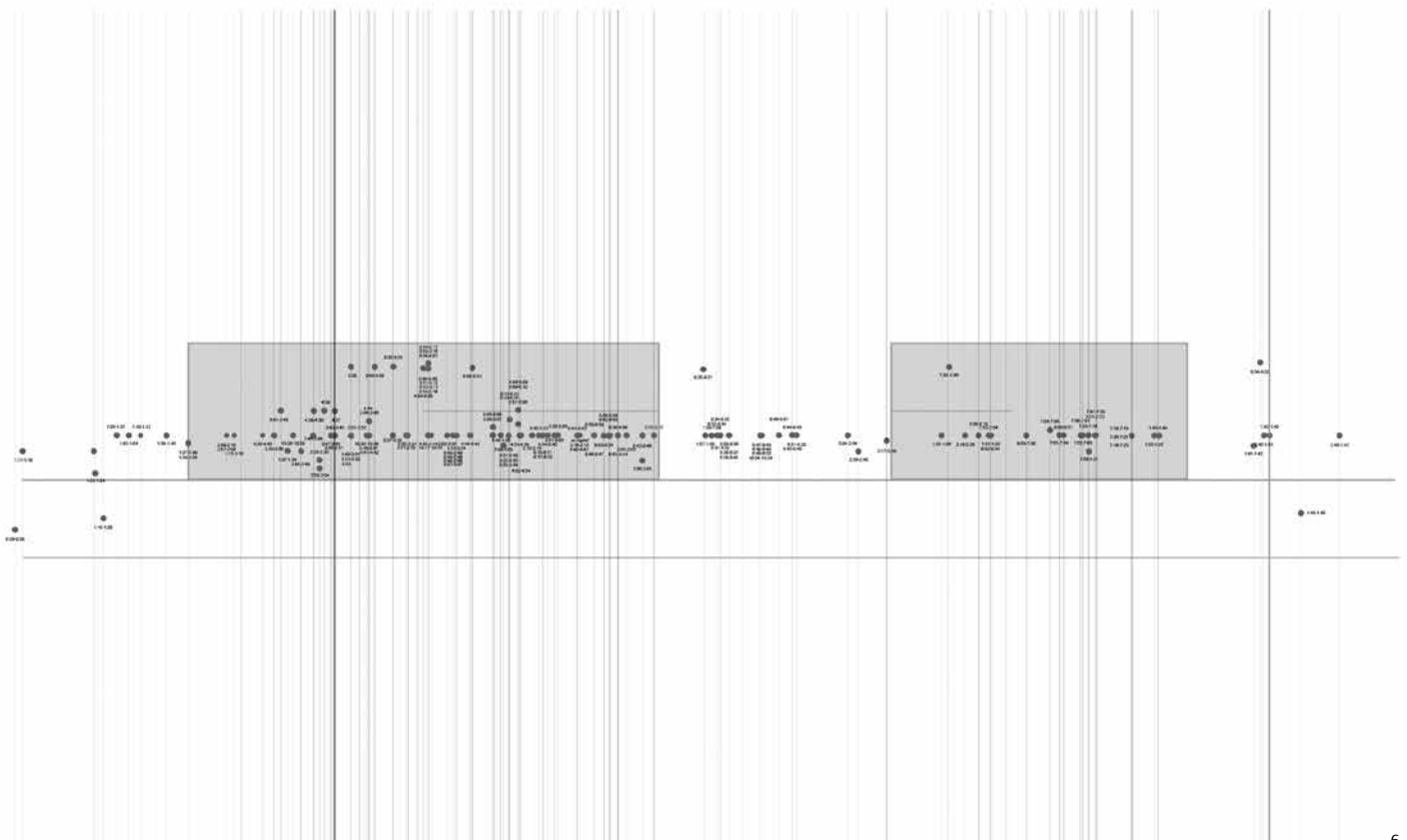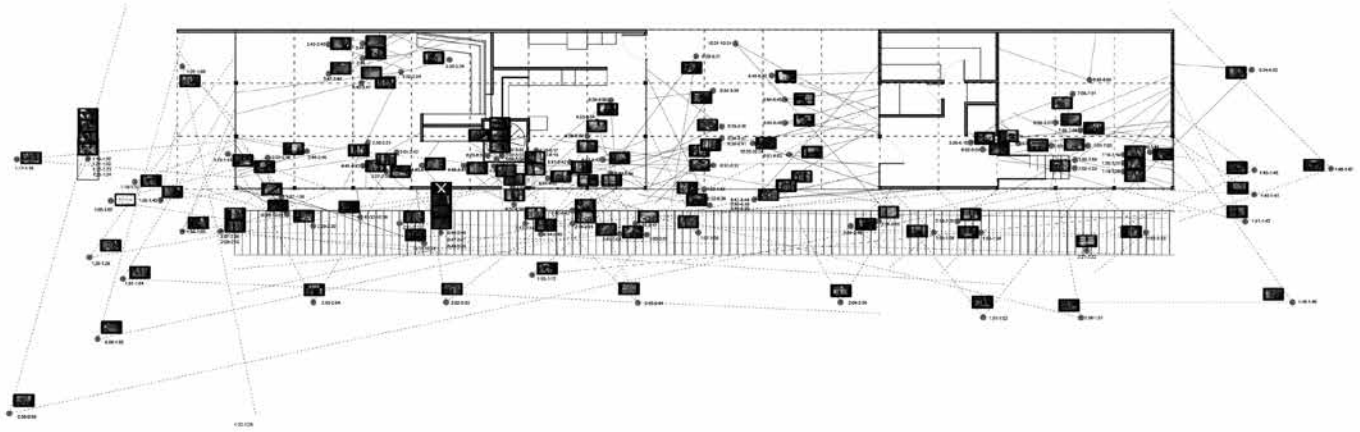
6 Mapping of the
photographs of
*House: After Five Years
of Living.*

leaf on the floor, a fly, flowers, the landscape framed by the house; all of them however completely inanimate – lifeless.

A suspended domesticity

In *House: After Five Years of Living,* the privacy of the house is transgressed. We are witnesses to the interior space and the personal objects of the owners. The camera shows an endless array of fragments of its interior and exterior. However, only some spaces of the house are shown: the main hall, the spiral staircase, some fragments of the corridor and the workshop. The openness of the house, the lack of walls and subdivisions are carefully concealed by the same mechanism that exposes them – the camera. The camera reveals, but also veils, the spaces of the house. This is perhaps more evident in the exterior sequence of the film in which the house is almost constantly displayed from its front as a screen, performing a front that builds its exterior image while the rear view is never revealed *[6]*.

The glimpses of the different spaces resemble the inspection of a film set before shooting begins. Like a script supervisor, who might use a Polaroid camera to register the exact position of the different objects and elements on a stage to ensure continuity in a sequence, the film seems to be checking that everything is in its place before the action is restored. Moreover, the fact that Charles Eames was already trained in the creation of film sets when working at the MGM in the early 1940s; suggests that the house could be a film set ready to be shot.[47] The film seems to exhibit the preparation of the house before the occupation of its inhabitants.

In *House: After Five Years of Living,* food has just been served on the table (outside and inside) and no one has touched it yet. We do not know how or where this food has been prepared. Is this real food or are the items just props to be photographed? The different decorative objects, crockery sets, pieces of their work in progress, furniture, and so on are part of their domestic environment; but by displaying them, they are also turned into elements of production – producing an image, an idea, and a lifestyle. Yet, in the film, the Eameses are hidden; they are not working in the workshop, eating, sitting, or washing the dishes. What we see are just objects, but not the ones displayed four years later inside the 'splitnik' (at the United States Pavilion at the Moscow Fair), rather the so-called 'functioning decoration' – craft and found objects that contrast with the mass-produced industrial structure of the house.[48] This is what the film persistently displays, a constant tension and shift between old and new, local and global, domestic and industrial. If Colomina says, 'In the Eames film there are no figures, only traces of ongoing life', perhaps it is better to say that more than ongoing, what we see are traces of a life in suspension of a sequence in which each acceleration ends up frustrating the expectations of a climax that is never resolved.[49] *House: After Five Years of Living* displays a domesticity in a constant act of expectation.

Notes

1. John Entenza, 'Announcement', *arts & architecture* (1945), 37–41.
2. Ibid., p. 39.
3. Charles Eames and Ray Eames, 'What Is a House?', *arts & architecture* (1944), 26–7.
4. Entenza, 'Announcement', p. 37.
5. Daniel Esguevillas, *La Casa Californiana: Experiencias Domesticas De Posguerra* (Nobuko: Buenos Aires, 2014).
6. Charles Eames and Eero Saarinen, 'Case Study House 8 and 9', *arts & architecture* (December 1945), 44, 43–51.
7. Ibid.
8. Pat Kirkham, 'Introducing Ray Eames', *Furniture History*, 26 (1990), 132–41.
9. Esther McCoy, *Case Study Houses, 1945–1962* (Los Angeles, CA: Hennessey & Ingalls, 1977), p. 54.
10. Eames and Saarinen, 'Case Study House 8 and 9'.
11. 'Life in a Chinese Kite', *Architectural Forum* (September 1950), 90–6.
12. Beatriz Colomina, *Privacy and Publicity: Modern Architecture as Mass Media* (Cambridge, MA and London: MIT Press, 1994).

13. The set-up can be seen briefly mounted in one of the slides in the same film. That is because the Eameses' workshop was used as a film set to produced *House: After Five Years of Living.*
14. The cinematographer, Alex Funke, who joined the Eames office years later and participated, among other films, in the production of *Powers of Ten*, explains: 'This device tightly held the slide, in slip-in pocket. This was attached to a geared rotation device (for levelling the image) and geared up-and-down and side-to-side movement so that the slide could be positioned exactly as desired in front of the camera for framing.' Alex Funke, 'House: After Five Years of Living Slides to Film'. Email to Sebastian Aedo, July 2019.
15. Elaine Tyler May, *Homeward Bound: American Families in the Cold War Era* (New York, NY: New York: Basic Books, 1988).
16. Ibid.
17. Greg Castillo, *Cold War on the Home Front: The Soft Power of Midcentury Design* (Minneapolis, MN: University of Minnesota Press, 2010).
18. Ibid.
19. Beatriz Colomina, *Domesticity at War* (Barcelona: Actar Editorial, 2006).
20. For Beatriz Colomina, domestic life becomes 'a form of art therapy for a traumatized nation, a reassuring image of the "good life" to be bough like any other product': ibid., p. 91.
21. L. S. Hearnshaw, *The Shaping of Modern Psychology* (London: Routledge & Kegan Paul, 1987), p. 206.
22. Hannah Arendt, *The Human Condition* (London: University of Chicago Press, 1958).
23. Paul Schrader, 'Poetry of Ideas: The Films of Charles Eames', *Film Quarterly,* 23 (1970), 2–19 (p. 7).
24. Kirkham, 'Introducing Ray Eames', p. 10.
25. Paul Virilio, *War and Cinema: The Logistics of Perception* (London and New York, NY: Verso, 1989).
26. Orit Halpern, 'Perceptual Machines: Communication, Archiving, and Vision in Post-War American Design', *Journal of Visual Culture*, 11 (2012), 328–51.

27. Virilio, *War and Cinema: The Logistics of Perception*.
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42. László Moholy-Nagy, *Painting, Photography, Film* (Cambridge, MA: MIT Press, 1969), p. 28; Kepes, *Language of Vision*, p. 29.
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44. The film *Introduction* for example, presents the concept of feedback – 'the cycle of measuring, evaluating and correcting' – as a condition shared by both humans and machines. In one section of the film, the term 'feedback' is described not only as the conditions involved in decision-making but, in the case of humans, is extended to the biological systems that regulate the human body (the feedback system loop known as homeostasis); Charles Eames and Ray Eames, 'Information Machine; Creative Man and the Data Processor' (1957).
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46. I refer here to 'confusion' as both: the one caused by the constant acceleration of the images, the peculiarities of framing, and the extreme close-ups (making it difficult to acknowledge which part of the house is being shown); and the confusion caused by the shaking of the images, blurring the distinction between photography and moving images.
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Illustration credits

Competing interests

Author's biography
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