# Surrealist Aesthetics in Second-Order Cybernetic Architecture

## A theoretical consideration on Surrealism and autonomous Architecture under Walter Benjamin's notion of "Distracted Perception"

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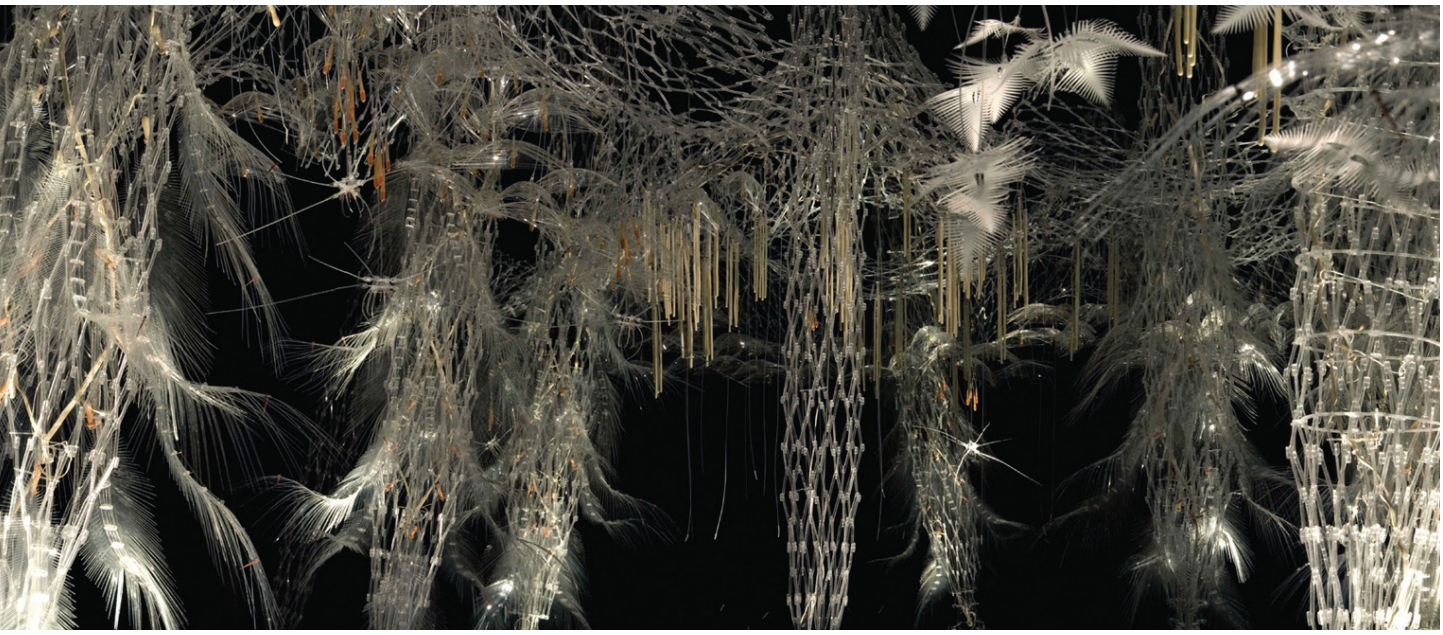

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## ABSTRACT

In experimental architecture and during the last decade, second-order cybernetic systems (SOCA) have been broadly explored. Under this umbrella, the implementation of robotics and machine learning in recent experimental projects has impacted academia through new fabrication strategies, new design methods, and new adaptive devices.

This paper presents a theoretical approach to the aesthetic side of this impact. In particular, it argues that SOCA rearticulates Benjamin's concept of "distracted perception" through three structural principles of Surrealism: the emphasis of presentation over representation; the centrality of the notion of automatism; and the simultaneous management of closeness and distance. Each alignment is doubly articulated. First it establishes a comparison between Surrealist artwork from the first half of the 20th century and three SOCA projects in which the notion of autonomy and ubiquity are crucial. Second, it evaluates the impact on Benjamin's notion of "distracted perception."

The paper concludes that the Surrealist aesthetic structures analysed in SOCA differ from traditional Surrealism in the replacement of an inner and unconscious other by an outer and algorithmic other. Its presence simultaneously expands and contracts Benjamin's architectural understanding of "distracted perception," a double movement whose perception paradoxically occurs under the single framework of Benjamin's haptic vision.

1 Hylozoig Ground, Philip Beesley, 2010

## INTRODUCTION

In spite of some scattered references in Surrealist work—the empty streets in de Chirico's paintings (Figures 2, 3) or the mysterious châteaux in Breton's poetry—architecture does not immediately come to mind when Surrealism is evoked (Tashjian 2005). The Surrealists associated buildings with the heaviness, monumentality, and order that they wanted to subvert. The relation seems even more tenuous when technology is also conjured up: Surrealism was not interested in the positivism associated with scientific methods, technical systems, or new materials because its hyperrationality seemed to shade the multivalent meaning that lies beneath it. In the last decade, however, the generalisation of machine learning and robotisation has promoted a new computational intelligence that exceeds the 19th-century positivism despised by Surrealism, emphasising the centrality of "autonomy" and "ubiquity." Eric Sadin defines this computational intelligence according to five points: autonomy, reasoning, learning, ubiquity, and cooperation (Sadin 2017). Some recent experimental architectural projects have integrated these advancements, receiving the name of second-order cybernetic architecture (SOCA) due to their capacity to act within the system they operate.

Although SOCA's fabrication strategies and design methods have been largely discussed, this paper approach another side of this phenomenon which has received less attention: its aesthetic dimension—in particular, SOCA's possible relation to Surrealism in keeping with Walter Benjamin's notion of "distracted perception." Approaching aesthetics as a mode of appropriation, Benjamin stated that "buildings are appropriated in a twofold manner: by use and by perception—or rather, by touch and sight" (Benjamin 1935). This architectural appropriation is generally not understood through the attentive regard and far-off image of tourist's optic vision (sight), but through the "distracted perception" and close-image of the user's haptic vision (touch). Rather than as a visual intermittent event, architecture's perception is usually constituted as a haptic continuous habit that implies its aesthetic absorption by the user. According to Benjamin, "distracted perception" relates to the generalisation of mechanical reproduction techniques characteristic of the early 20th century. Cinema and photography represent not just the shift from the "auratic" to the "reproducible," but also the consolidation of a mode of perception in a state of "distraction" rather than in a state of "concentration."

This paper hypothesises that SOCA rearticulates Benjamin's "distracted perception" through an aesthetic experience that is structurally Surrealist. Despite Surrealism's

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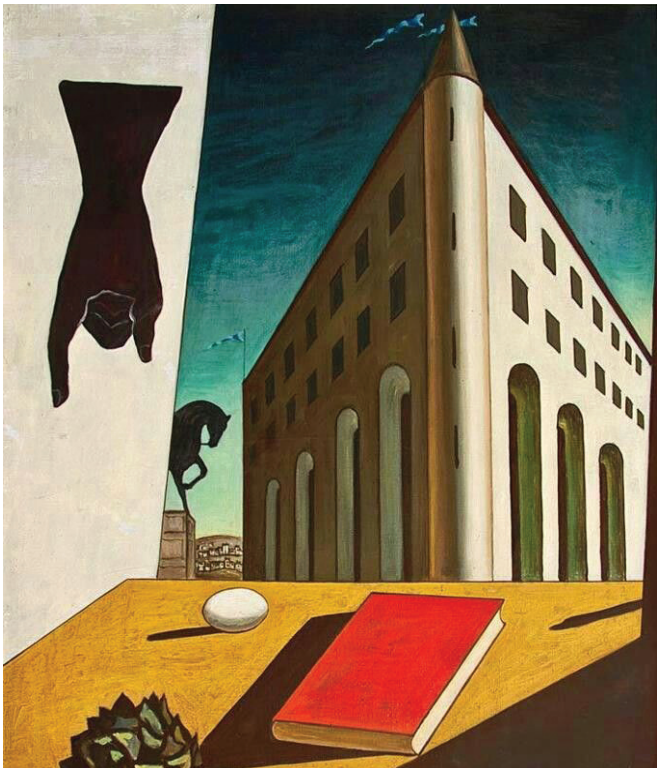

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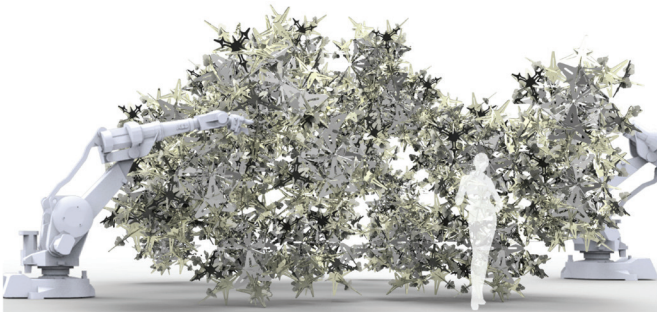
2 *Piazza d'Italia con uomo politico*, Giorgio de Chirico, 1970

3 *Torino a Primavera*, Giorgio de Chirico, 1914



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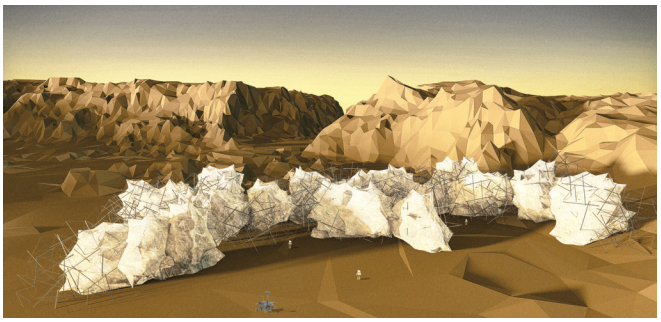

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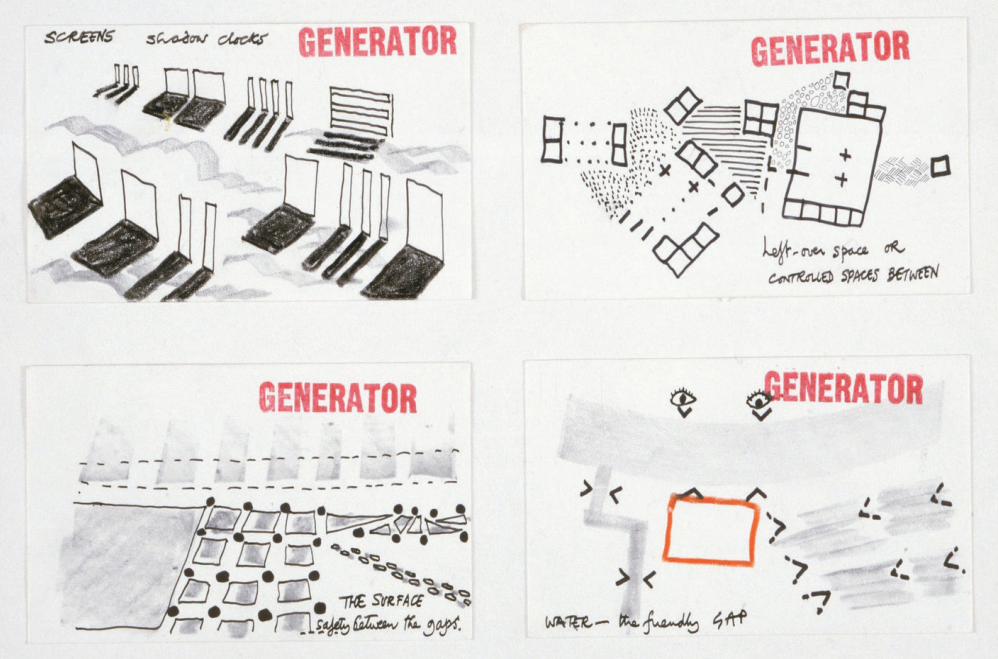
coldness towards architecture and technology, this paper associates them through an argument that is threefold. First, it argues that the Surrealist primacy of presentation (index) over representation (icon) in relation to the unconscious is particularly manifested in SOCA through the notion of "performance." Second, it argues that this presence is achieved, in both cases, through an automated technique that mediates reality in a non-human manner: by amplifying the human being, its displacement occurs. Third, it argues that the paradoxical conjunction of opposites achieved by Surrealism through its simultaneous articulation of closeness and distance is also present in SOCA, particularly through a concurrent production of empathy and alterity.

Each argument is doubly articulated: first it compares Surrealist artwork from the first half of the 20th century and three SOCA projects; second, it evaluates its impact on Benjamin's "distracted perception." Projects are chosen by virtue of their close relationship with Sadin's aforementioned five points. First, Özel's ***Livef0rms*** (2014), a robotically assembled modular system controlled by an adaptive algorithm that produces a pavilion and performance stage set for electronic music (Figure 4). Second, Bartlett RC3's(1) Living Architecture ***TARSS*** (2018), a fully automated series of tensegrity structures that are self-assembled through machine learning protocols in order to produce Martian dwellings (Figure 5). Third, Beesley's ***Hylozoig Ground*** (2010), an artificial and responsive forest made of an intricate lattice of small transparent acrylic meshwork links, fitted with microprocessors and proximity sensors that react to human presence (Figures 1, 6).

The evaluation of this exercise concludes that SOCA's Surrealism replaces the inner and unconscious other characteristic of traditional Surrealism by an outer and algorithmic other that demands a significantly different theoretical background. In this sense, SOCA's Surrealism paradoxically expands and contracts at the same time as Benjamin's "distracted perception." On the one hand, SOCA expands Benjamin's notion through a performative, automatic and empathic accommodation to users' needs, which highlights architecture's perception as a continuous habit based on a close-up view. However, on the other hand, SOCA's algorithmic autonomy contracts "distracted perception" by precluding any full aesthetic absorption from its user. In spite of SOCA's hyper-accommodation to its inhabitants, there is always a remainder of otherness, absent in Benjamin's architecture, which cannot be completely exhausted and which remains always unresolved. Paradoxically, both effects are perceived through the single framework of haptic vision.

## BACKGROUND

Over the last decade, a new ontological, social, and technological approach has fueled the emergence of the "allonomous condition" (Vivaldi 2019), a notion built on Kant's heteronomy—nomos from outside—and autonomy —nomos from inside. "Allonomy" refers to the capacity of the "alien," that is, the other, to be its own source of "nomos"

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4 *LiveFOrms*, Güvenç Özel, 2014

5 *TARSS*, RC3 Unit (Bartlett BPRO), 2018

6 *Hylozoig Ground*, Philip Beesley, 2010

7 *The Generator*, Cedric Price, 1976

independently of its human, ecological, biological, or artificial structure (Braidotti 2013). Technologically speaking, the current "other" par excellence is the algorithmic other. Faced with a dual ontology that no longer refers to Heideggerian human nakedness but to a planet inhabited by algorithmic beings who live with and against us, Éric Sadin describes our era through the notion of "Antrobology," defined as the "increasingly dense entanglement between organic bodies and 'immaterial elves' (digital codes)" (Sadin 2017). The propagation of artificial intelligence and the multi-scalar robotisation of organic elements promote, in addition to a change of medium, a change of condition: their algorithmic power not only emerges as an automatic pilot for everyday life, it also fosters a radical transformation of our human nature through its profound hybridisation with an algorithmic otherness.

In recent years, experimental architecture has articulated this technological condition through different cybernetic proposals. According to Güvenç Özel, we can approach it through two categories: "a first-order (or observed) system, wherein the observer exists outside the system she is observing, and a second-order (or observing) system, wherein the observer is part of the system she is observing" (Özel 2015). In the first case, we are confronted with deterministic artifacts located outside the system that governs them: they execute patterns that have been established previously by other entities. The vast majority of architectural projects involving robots fall into this category, as the work of Achim Menges or Gramazio-Kohler. In the second case, we are dealing with intelligent artifacts that create and execute patterns by handling stochastic events. Already anticipated by Price's ***The Generator*** (Figure 7), some experimental architectural projects such as the ones analysed in this paper are included in this second group (SOCA) through "context-aware robots that use advanced machine vision and iterative operational codes to readjust their actions based on unpredictable actors with non-repetitive behaviours" (Özel 2015).

SOCA's ubiquity and autonomy problematizes Benjamin's notion of "distracted perception," which was built on the opposition between "haptic vision" (a close and dynamic image) and "optic vision" (a far-away and static image), particularly present in the German visual culture of the early 20th century through authors such as Zimmerman, Hildebrand, or Riegl. In the 1930s and inspired by Giedion's work, Benjamin moved this scheme into architecture, associating it with the new techniques of mechanical reproduction and the notion of "distracted perception," which recently has been used by authors such us Vidler (Vidler 2002) or Déotte (Déotte 2012). According to Benjamin, "distraction and concentration form polar opposites: a man who concentrates in front of a work of art is absorbed by it. He enters into this work in the way legend tells of the Chinese painter that disappeared when contemplating his finished painting. By contrast, the distracted masses absorb the work of art into themselves. This is most obvious with regard to buildings" (Benjamin 1935).

This paper arguments that SOCA rearticulates Benjamin's "distracted perception" by simultaneously expanding and

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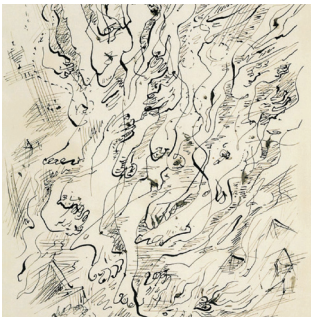

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8 ***Automatic Drawing***, André Masson, 1924

9 ***Automatic Drawing***, André Masson, 1924

10 ***Automatic Drawing***, André Masson, 1924

contracting its "absorption" effect through a Surrealist aesthetic framework. Although the Surrealists paid little attention to architecture, its relation is a long-overlooked topic that has mostly been articulated through notions such as "unconscious," "desire," "dream," or "impulse." Roth's analyses (Roth 2016) of rococo architecture, such as Cuvilliés's Pavilion (Figure 8) in Amalienburgare (1739) or Bouffrand's Salon in Paris (1745), are precursors in the use of these terms, and Surrealist approaches to Modern architecture (Tashjian 2005) like Corbusier's Villa Savoye (1929) or Costa's Brasilia (1960) have also been based on them. Even some studies on Surrealism and architecture in the context of the recent technological paradigm shift have appealed to these terms (Spiller 2016). However, rather than relying on the imagery treated by Surrealism, this research follows Rosalind Krauss's structural strategy, whose author states, regarding Surrealism and photography, that "beyond a specific imagery, it is possible to arrive to a structural common logic [...] in relation to the topics and form approached" (Krauss 1986). Under this umbrella and through three structural aesthetic principles characteristic of Surrealism, possible alignments between SOCA and Surrealism are analysed in relation to Benjamin's "distracted perception."

## SURREALISM AND SOCA: ALIGNMENTS

In his lecture "What Is Surrealism?" given in Brussels in 1934, Breton reminds us of his definition of Surrealism from 1924: "Surrealism, masculine noun. Psychic automatism in its pure state, by which one proposes to express [...] the actual functioning of thought [...] in the absence of any control exercised by reason, exempt from any aesthetic or moral concern" (Breton 1965). Later, Breton redefines it by stating that automatic thought is not only removed from rational control but also from any conscious aesthetic or moral concern. Based on this definition, Krauss emphasises the centrality of photography in Surrealism by highlighting three of its aesthetic structural principles: the priority of presence over representation; the centrality of the notion of automatism; and the conjunction of opposites.

### Performances: From Representation to Presence

Contradictions between presence and representation are typical in Surrealism. On the one hand, Breton welcomes representation when he affirms that "it is irrelevant if there are differences in between evoked beings and real beings" (Breton 1965), thereby rejecting these distinctions. On the other hand, Breton appreciates "automatism" because it promotes the emergence of the unconscious not as a representation, but as a presentation. When Breton prefers automatic writing over images, he seems to invert the Platonic aversion for representation, while stating that the suspicions are on the pictoric image, and the truth is in the cursive trace. However, according to Krauss, "this apparent inversion doesn't confront the Platonic aversion towards representation. It confronts the visual images of traditional paintings because they are representations of a dream rather than the dream itself" (Krauss 1986). In this sense the automatic drawings by Masson are not the repre-sen-tation of the author's unconscious through a symbol but the presence of this unconscious through a register—a similar phenomena to the lines traced on paper by a seismograph or a cardiograph. Rather than a representation of the artist's unconscious, Surrealism demands its radical presence.

11 ***Amalienburg***, François de Cuvilliés, 1734

SOCA shares this aesthetics of presence through the notion of "performance." Indeed, to perform means to have a tangible impact on the set of conditions in which an artefact acts. Therefore, its effect cannot be ignored or postponed, which contrasts with the distance generated by symbols and metaphors. Özel's ***Livef0rms*** (Figure 3) articulates this performance through the physical impact that "the accumulation and dispersion of matter without a final form" has on the user (Özel 2015). Its spatial consequences cannot be postponed, but require a user's immediate reaction. This phenomenon produces a particular mode of perception, which, like Surrealism's relation to the unconscious "other," does not treat the algorithmic "other" as a subaltern but as an autonomous subject.

As a consequence, contrary to Benjamin's example of the Japanese painter, its perception cannot be completely absorbed by the user: SOCA's autonomy precludes it by always producing an inexhaustible remainder of alterity that cannot be fully integrated in the user. Something similar occurs in RC3's ***TARSS***, whose constant spatial reconfiguration implies the radical presence of the other at play, and not its mere symbolic reference. Its indetermination, power, and autonomy evoke the alterity produced by figures like the Golem or Frankenstein, but without the attributes of a menacing monstrosity. Beesley's ***Hylozoic Ground*** relation to nature shares this performativity: its chemical exchanges between living and synthetic materials and its movement and sound affects people not just on an emotional or poetic level, but also on a hydrothermal and occupational level. This multi-sensorial perception emphasizes Benjamin's "distracted perception" by resisting its perceptive's reduction to the distant view of the tourist's all-encompassing optic vision. Instead, the performative impact of all three projects implicit in its constant hydrothermal regulations and occupational variations demands the "tactile," agile, and dynamic view of the haptic vision.

As occurs with Surrealist works, what is at the center of these actuations is never a symbolic representation of the "other" but its radical presence. SOCA opposes Modernism's symbolic use of technology by wielding the operative presence of an algorithmic other.

### Automatism as a Device of Displacement

The centrality that "automatism" holds in both Surrealism and SOCA is far from being accidental. "Automatism" means "movement by itself," thus distancing from human's rationality as it doesn't require its continuous presence. This distance is fundamental for Breton, for whom automatic protocols are a crucial creative tool: the alienation implied by its detachment avoids the aesthetic and moral filters of our consciousness. Automatic writing is a great example of it, but the photographic camera adds a second detachment whose aesthetical effect is even closer to SOCA. As stated by Krauss, the use of the camera is central to Surrealism. Contrary to pictorial representations (icon), photography operates as a register (index): it extends on a continuous surface the footprint of all what is perceived by our gaze, inextricably unifying impression and reality through a

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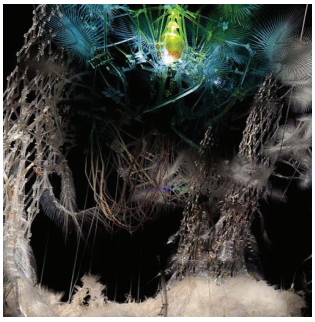

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12 ***Self-Portrait***, Otto Umbehr, 1930

13 ***Hylozoig Ground***, Philip Beesley, 2010

14 ***Hylozoig Ground***, Philip Beesley, 2010

photomechanical transfer. The vision of the camera implies an extraordinary ampliation of our normal vision: it views faster, from stranger angles, from different distances, with several tonalities... it configures reality according to its own terms: the camera "supplants the spectator himself, it is an assistant that becomes an usurper" (Krauss 1986). This is best represented in Umbo's ***Self-Portrait*** (Figure 12), where the shadow of the camera on author's eyes unveils a crucial fact that applies as well to SOCA: any ampliation is, at the same time, a displacement.

Indeed, similar to what the camera did for Surrealism, robotised machine learning positions, "in front of the human, another being that is able to do everything the human was doing but faster, with more precision, etc." (Sadin 2017). This is the case of Özel's ***Life0rms,*** it amplifies the architect's capacities not just through automatic processes of "data collection from multiple sensors that measure structural stability, human proximity, and sonic composition" (Özel 2015), but also through real time construction strategies and autonomous decision-making. The robots automatically reassemble the pavilion according to an automatic feedback loop produced by an autonomous and ubiquitous algorithmic "other." However, as Surrealism's use of the camera, the ampliation offered by the automatism inevitably implies a displacement. By expanding the capacities of the architect, the algorithmic and robotic agents configure the pavilion according to its own form of mediating reality. In RC3's ***TARSS***, the pavilion is articulated through a series of patterns that evoke Surrealist aesthetics due to the alienation effect that its logics produce in relation to human intelligence. This displacement produced by an automatic technique that initially seems to merely amplify the architect's capacities produces a distance that emphasises the user's impossibility of completely absorbing the project through their perception. There is always an otherness that remains at a certain "distance" from the user, precluding its complete integration and therefore demanding a certain attention. Paradoxically, at the same time, SOCA's automatic development, independent from human attentive monitoring, permits it to act in the background, facilitating its integration into a user's daily life as part of a habit performed in Benjamin's state of distraction.

This phenomenon is evident in Beesley's ***Hylozoic Ground*** (Figures 13, 14). The effect is produced through a complex sensorisation and feedback system that offer an experience that Beesley himself has qualified as surreal (Beesley 2010) because of the immersive feeling produced by its automatisms. However, the architect is absolutely displaced by an oniric and alienating experience provided by thousands of algorithmic and robotic agents. It shares with Surrealism the discovery that, without a particular preconceived intention, automatic production "exudes an infinitely precious substance" (Beesley 2010). As Surrealism, automatism in SOCA engages processes born from, yet indifferent to, human agency: it produces a paradoxical perception that simultaneously articulates closeness and distance.

## The Conjunction of Opposites: Closeness and Distance

Soupault's ***Les Champs Magnétiques*** (1920) exemplifies the simultaneous feeling of closeness and distance typical of Surrealism. On the one hand, its production emerges, as Breton mentions, from an "interior transcendence" (Breton 1965): automatic techniques permit the flowering of a hidden unconscious that is close to us because it is actually

"inside" us. On the other hand, Soupault's text celebrates the fascination that the oniric "other"—irrational and fanciful—produces in the observer. Our unconscious, although part of us, is also radically alien to us: we cannot appropiate it, and that is why the apparently senseless composition of Soupault's sentences intrigue us. We cannot deny that they are our productions, but at the same time their presence enthrals us, because we cannot completely identify them with ourselves.

SOCA produces a similar aesthetic feeling. As Mario Carpo suggests, "the emergence of artificial intelligence in technology and in the arts already warrants a more than robust amount of natural discomfort and the feeling of 'alienation'"(Carpo 2017), which is the result of the ongoing post-industrial separation of the minds of the thinkers from the tools of computation. In this sense, and from an aesthetic point of view, machine learning can be interpreted as the "strangement device" defined by Viktor Shklovsky in relation to poetic language (Shkovsky 1917): it acts as a distancing apparatus that prolongs the process of perception. It is precisely this strangement process that precludes Benjamin's complete absorption. The "natural discomfort" and "alienation feeling" that Carpo relates to the use of artificial intelligence in the arts produces, in SOCA, a remainder of alterity that contracts "distracted perception" by demanding a certain caution.

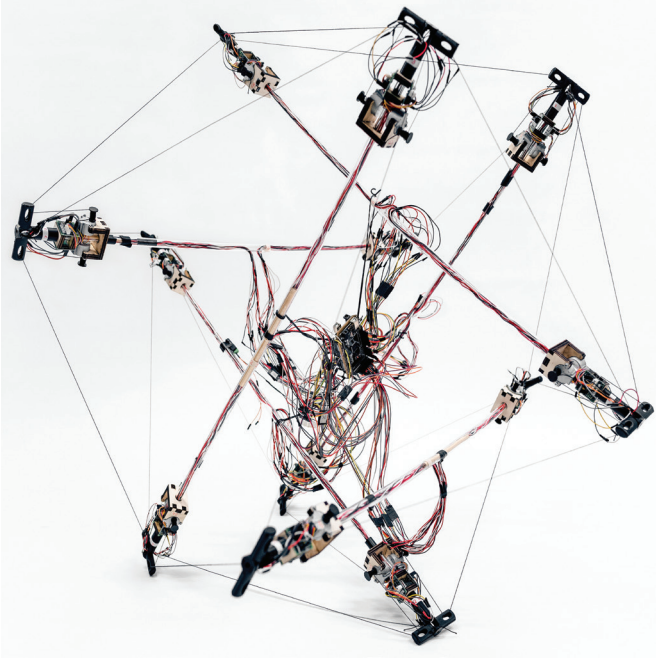
Özel's ***Livef0rms*** and RC3's ***TARSS*** (Figures 15, 16, 17, 18) are good examples of this: robot's coordinated movement follows a logic that is closer to that of a machine than to our own. The alterity and apparent capriciousness of the multiple trajectories are a reminder of a "technical logic that we may master and unleash, but that we can neither replicate, emulate, nor even simply comprehend with our mind" (Carpo 2017). Beesley's ***Hylozoic Ground*** articulates this effect through the strange sound and unexpected foldings produced by its acrylic surfaces. At some point, viewers are essentially detached from what they are seeing, uncommitted to an experience that cannot be integrated into habit through a distracted mode of perception. Beesley's search for "another life" explains and develops the Surrealist's "deep nostalgia for archaic forms of existence," as well as their view of the creator as a "demiurge (alchemist and magician), who has the power to revolt against a hyper-conscious reality, and who is able to create a world which has its own logic" (Williamson 2001).

Paradoxically, these three projects also produce a feeling of radical closeness. This effect does not derive from the fact that humans are its coders and builders, but from the empathy produced by its hyper-specific behaviour. Artificial intelligence and sensorisation systems permit RC3's ***TARSS*** and Özel's ***Livef0rms*** to respond to the needs of their users with high precision. This hyper-accomodation to users' requirements facilitates their perception under a state of distraction—that is, through a vision that is more haptic than optical and, like everything that is mechanically developed, can easily be converted into a habit. In the case of Beesley's ***Hylozoic Ground***, the project is deeply intertwined with our human bodies through the chemical reactions produced by its forms. As its author suggests, the complicity evoked by this robotic forest forces us to ask "if it could know we are here, could care about us, could live with us" (Beesley 2010). This robotic empathy, celebrated by the aesthetics of movies like ***Her*** (2014) or ***Ex-Machina*** (2014), fuels a dual regime in which SOCA participates in a number of sequences that are increasingly present in our daily lives. As a consequence, the analysed projects are no longer perceived as the untouchable totems of modernity; rather their mode of perception is double: on the one side it relates to Antrobology's carnal familiarity characteristic of touch screens, facial recognition, voice orders, etc., while on the other side it relates to the unreachable distance posed by other's alterity. Paradoxically, both phenomena are approached under one single type of view: the haptic vision.

## EVALUATION: THE DOUBLE SIDE OF BENJAMIN'S HAPTIC VISION

The rearticulation of Benjamin's "distracted perception" follows a double direction. On the one hand, the three analysed projects expand "distracted perception" through a performative, automatic, and empathic response to users' needs that highlights architecture's perception as a continuous integrated habit that occurs in the background, rather than as a discrete separated event that occurs in the foreground. These three surrealist characteristics emphasise SOCA's operative and ubiquitous hyper-accomodation to the user, whose "ability to master certain tasks in a state of distraction proves that their solution has become a habit" (Benjamin 1935).

On the other hand, however, SOCA's otherness, rooted in its algorithmic autonomy, contracts "distracted perception" by precluding any full aesthetic appropriation on the user's part. Benjamin's "absorption of the work of art by the distracted mass" (Benjamin 1935) cannot be completely exhausted, because there is always a disturbing remainder of alterity, absent in Benjamin's architecture, that remains at distance and demands attention. This is particularly noticeable in SOCA's singular behavioural patterns, which are closer to the logics of a machine than to our own.



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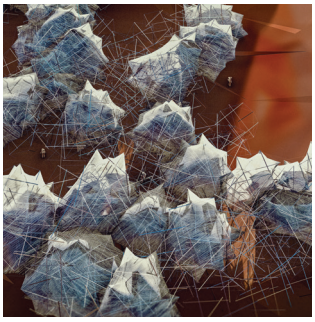

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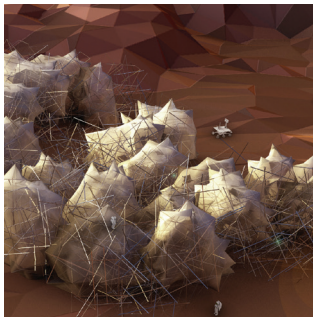

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15 *TARSS*, RC3 Unit (Bartlett BPRO), 2018

16 *TARSS*, RC3 Unit (Bartlett BPRO), 2018

17 *TARSS*, RC3 Unit (Bartlett BPRO), 2018

Paradoxically, both cases operate through Benjamin's haptic vision. Its tactile and dynamic mode of view "occurs much less through rapt attention than by noticing the object in incidental fashion," and therefore, it smoothly aligns with the expansion of "distracted perception" operated by SOCA's hyper-accommodation. However, the contraction caused by its "unabsorbable otherness" is also approached through the haptic vision traditionally associated only with distraction.

As argued by Worringer (Worringer 1908), the haptic vision is a safer perception mode than the optic vision because its close image and dynamic view permits to ascertain with more precision spatio-temporal uncertainties rather than the far-off image related to big open spaces. Haptic vision manages better our primary need of ensuring the real existence of things: it operates through a "manual" mode whose depth and intimacy lets us feel safer when dealing with SOCA's radical otherness, particulary in relation to Carpo's reference to "natural discomfort" and "feeling of alienation."

## CONCLUSION

Although the radical presence of otherness is shared both by 20th-century Surrealism and SOCA's Surrealism, there is an inversion in terms of content: the other presented by SOCA is no longer constituted through the inner presence of an unconscious agent but rather through the outer presence of an algorithmic agent.

This point is relevant because while, traditionally, Surrealist approaches have been underpinned by theories of the unconscious developed by authors such as Freud or Lacan, SOCA's surrealism demands another theoretical background. Notions such as "psyche," "desire," "dream," or "impulse" are obsolete in order to approach SOCA's Surrealism, which requires a terminology less focused on the human being and more on its outer others. The impact of this new form of Surrealism in architecture has been evaluated here in relation to Benjamin's "distracted perception," but its impact on other architectural dimensions such as its expression or its symbolism remain open for further research. In any case, and according to the relevance that Surrealism seems to have in SOCA, it is reasonable to predict that the aesthetic path developed by Surrealism in the first half of the 20th century will maintain, through a significant content renovation, a strong presence in the first half of the 21st century.


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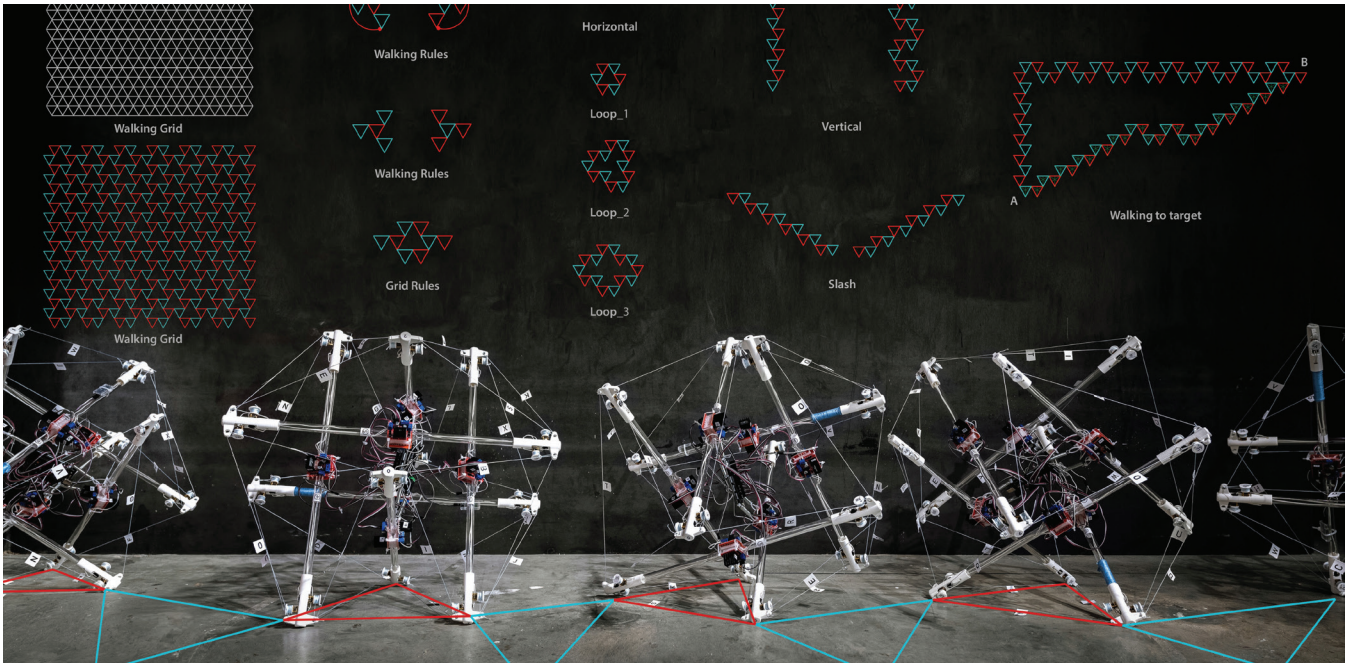
## NOTES

1. The RC3 unit is lead by Tyson Hosmer, Octavian Gheorghiu, David Reeves, and Panagiotis Tigas.

## REFERENCES


Benjamin, Walter. 2008. The Work of Art in the Age of Mechanical Reproduction. London: Penguin Publishers.

Breton, André. 2013. ¿Qué es el surrealismo? Madrid: Casimiro Libros.




18 *TARSS*, RC3 Unit (Bartlett BPRO), 2018

Carpo, Mario. 2017. The Second Digital Turn. Cambridge: The MIT Press.

Gorlin, Alexander. 2005. "The Ghost in the Machine." In Surrealism and Architecture, edited by T. Mical, 103-118. London: Routledge.

Krauss, Rosalind. 2015. La Originalidad de la Vanguardia y Otros Mitos Modernos. Madrid: Alianza Editorial.

Özel, Güvenç. 2015. "Toward a Post-Architecture." Log 36.

Pandolfini, Eugenio. 2016. Sobre Arquitectura Moderna y Contemporánea. Madrid: Ed. Diseño.

Roth, Leland. 2016. Entender la Arquitectura. Madrid: Gustavo Gili.

Sadin, Eric. 2017. La Humanidad Aumentada. Buenos Aires: LCN.

Shklovsky, Viktor. 2016. Art and Device. London: Bloomsbury.

Spiller, Neil. 2016. Architecture and Surrealism. London: Thames and Hudson.

Tashjian, Dickran. 2005. "Home Poor Heart." In Surrealism and Architecture, edited by T. Mical, 41-52. London: Routledge.

Williams, Robert. 2005. "Surreal City." In Surrealism and Architecture, edited by T. Mical, 234-248. London: Routledge.

Williamson, James. 2001. "Acropolis, Now!". In Surrealism and Architecture, edited by T. Mical. London: Routledge. 318-329.

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