Everything but Restraint: Aldo van Eyck and Constant Nieuwenhuys' Visions of Post-war Society in Light of Their Lived Experience.

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Abstract

This essay investigates how Aldo van Eyck and Constant Nieuwenhuys' respective visions of post-war society were influenced by their lived experiences. Rejecting the functionalism prevalent in society, both found a guiding principle for their post-war visions in the relation-based thinking found in Johan Huizinga's 1938 book Homo Ludens. Seeking to reintroduce play into daily life to counter the societal rigidity prevalent prior to the Second World War, they developed visions of societal structures that facilitated and reflected new societal relations. Their respective wartime experiences influenced these visions. Van Eyck, who spent the war years in neutral Switzerland, developed a humane structuralist architecture while Constant, who lived under German occupation in Amsterdam, zeroed in on an all-encompassing utopian vision which surpassed Van Eyck's in everything but restraint. Through a comparative analysis, this essay will illustrate how Constant's more extreme experiences pushed him to take a more radical stance than his spared counterpart.

Introduction

In his 1938 book *Homo Ludens* (Man the Player), cultural historian Johan Huizinga (1872-1954) investigates the necessity and primacy of play in the generation of culture and society. Claiming that as animals played before humans, play existed before western civilization. Although "civilization is, in its earliest phases, played", in our search for progress, we began seeing civilization as coming *from* play instead of arising *in* and *as* play, thereby demoting play to a leisurely activity rather than a fundamental aspect of human culture, one which helped shape our language, institutions, and social norms (Huizinga 173). Alarmed by the rise of National Socialism, Huizinga contrasted the playful *homo ludens*, 'man the player', with the intellect-based *homo faber,* 'man the maker', whose progress-focused rigidity represented the societal coolness that is at the base of 20th-century Fascism.

After the destruction of the Second World War, many sought to restructure society, of which several developed guiding principles that bordered on Huizinga's thinking. Two of these thinkers were Aldo van Eyck (1918-1999) and Constant Nieuwenhuys (1920-2005). Architect and artist respectively, both rejected the then-prevalent functionalism which, in its search for societal advancement, prescribed certain ways of living without space for personal freedom. From their readings of respectively Martin Buber and Karl Marx, Van Eyck and Constant developed akin understandings of the importance of physical infrastructure to human relations, similar to Huizinga's thesis in *Homo Ludens*. Although only Constant cites Huizinga directly, the vocabulary used to articulate their respective visions clearly indicates his influence in Van Eyck as well. Both Van Eyck and Constant make use of the term *homo ludens* – Constant even uses the term to name the inhabitants of his envisioned utopia– and Huizinga's play-based terminology, which he uses to describe society, is present in their texts as well (Nieuwenhuys, "Lecture at the ICA" 198-200; Van Eyck, qtd. in Strauven 287, 300).

Recognizing the precedency of play and the modernist negligence to its significance, both sought to reintroduce it into their visions of post-war society (Romagnoli 127). Although they kept in close contact over the years and exchanged many sources (Van der Horst, "Biography" 290), their individual visions developed differently with Van Eyck developing a structuralist vision of architecture and Constant an all-encompassing utopian vision that surpassed Van Eyck's in everything but restraint.

Investigating each of their visions, the question remains why they differ so greatly in radicality, while their thinking is informed by overlapping sources and has developed in continuous dialogue. What, if any, might the leading decisive factor be? Given that their biggest incentive to

investigate new ways of structuring society was their experience of a society ravaged by war, the explanation of their differing levels of intensity is most likely to be found in their lived wartime experiences. Through a concise comparative analysis, this essay will examine how their individual experiences influenced their respective visions of the post-war world.

Aldo van Eyck's Distant Perception

Aldo Ernest van Eyck was born in the Netherlands and grew up in the United Kingdom where his father, poet and reporter Pieter Nicolaas van Eyck (1887-1954), worked. At 20, he moved to Zurich where he enrolled at the Eidgenössische Technische Hochschule (Swiss Federal Institute of Technology, or 'ETH'), known for its societally engaged progressive architecture department. By the time of his 1942 graduation, the occupation of the Netherlands forced him to stay in Switzerland.

In Switzerland, Van Eyck was not exposed to the Second World War in the same intensity as he would have in the Netherlands or the UK.[1] He was, however, confronted with fascist ideology by his first teacher at the ETH, Professor Friedrich Heß (1887-1962). Heß imposed in his classroom a Swiss *Heimatstil* idiom which opposed industrialization and urbanization and instead favoured architectural structures and ornamental styles traditionally present in the Swiss townscapes. An avid supporter of the *Blut and Boden* (blood and soil) architecture which attempted to unite racially defined peoples with specific settlement areas through a nationalist design vernacular, Heß exposed his students to National Socialist rhetoric emphasising the need for a preservation of both the Swiss national identity and its kinship with their German neighbours (Strauven 63).

Put off by Heß' rigid teachings, Van Eyck turned to other, more inspiring lecturers such as Linus Birchler and Alphonse Laverrière, who each represented a more pluriform approach to architecture that denied the nationalist vision held by Heß its importance (Strauven 64-5).The biggest influence on Van Eyck's thinking, however, turned out to be an art historian whom he met outside of the ETH: Carola Giedion-Welcker (1893-1979). C.W., as she liked to be called, believed the art (and by extension architecture) of the time was merely an empty façade without any connection to nature of society (Strauven 78). Arguing for the destruction of the pedestal that has elevated the subject since the renaissance, C.W. wanted to bring object and subject on equal footing so both would be defined by the relations between them, rather than the regard we hold them in (Strauven 79). In this thinking, she was significantly inspired by Martin Buber's 1923 book *Ich und Du* (I and Thou), which Van Eyck would extensively study upon

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her recommendation. In the book, Buber defines dialogue as a separate, foundational entity called 'the real third'. This real third, as described by Van Eyck, is "not something that happens to one person or another person separately … but something that happens in a dimension only accessible to both. The in-between acquiring form" (Van Eyck, "*Writings*" 55). The thought of doing away with existing hierarchies in favour of relations and constellations resonated with Van Eyck, who believed modernist architecture lacked this in-between.

Van Eyck's scepticism of this architecture was mainly aimed at the program of CIAM, the Congrès Internationaux d'Architecture Moderne (International Congress of Modern Architecture) which from 1933 onwards mainly interested itself in an urban planning informed by functionalism, an architectural principle where the unornamental form of the structure follows its function (Withagen and Caljouw 2). Although initially enthusiastic – Van Eyck took part in several CIAM meetings – he started to heavily criticize the call, led by the congress' unofficial leader Le Corbusier, for a massive rebuilding of cities into spaces characterized by a segregation of labour, living, and leisure (Withagen and Caljouw 2). As functionalism started to transform into a practice where the form of the structure, determined by the architect based on their understanding of modern life, started dictating its use, Van Eyck began to see it as pseudo-scientific (Strauven 66). The self-referential simulacrum of the functionalist built form was dismissed by him as "miles upon miles of organized nowhere" (Van Eyck, "Writings" 66). Rather, he wanted to see an architecture that reflected the new social structures fitting for the 20th century, free from the expanded rule of the architect.

The first opportunity to work towards such an architecture came when Van Eyck was asked by Cornelis van Eesteren (1897-1988), the then-head of the department of urban development at the municipality of Amsterdam, to work on a series of playgrounds. Unbound by the efforts of post-war reconstruction, children were able to traverse the cityscape as they pleased. Navigating the corridors recently opened-up by wartime violence, the desired paths left by the children were a direct physical result of their social structures. Through their disorderly movements, these children were reintroducing play into the existing fabric of the city. Play, as Van Eyck realized, was the only way in which the established boundaries of the city could be overcome (Van Eyck, "Writings" 25). Faced with the task of now formalizing this play, Van Eyck opted to follow the children's desired lines and create a network of playgrounds that followed the routes set out. For the playground equipment, he opted to develop his own line of designs

Figure 1: *Children playing in the Molenwijk playground designed by Aldo van Eyck.* (Photography by Fotopersbureau Holland Flavia Foto Pers Collectie, Stadsarchief Amsterdam).

based on basic geometric shapes that do not suggest any specific type of use (see figure 1). In line with Huizinga's ideas on play and relation-based significance, the meaning of the equipment is only determined by children's interaction with them. Between 1947 and 1978, approximately 700 playgrounds were built on unused and overlooked plots throughout Amsterdam which, together, created a network of free movement and play, covering the city from one end to the other (see figure 2) (Álvarez Santana 31). Like the unprescriptive equipment, the network of playgrounds allows the children to move on their own accord; their play is the only determining factor for the informal infrastructure facilitated by Van Eyck.

Following his playgrounds, Van Eyck developed an open, human-scaled architecture fostering a freedom of creativity and play for its inhabitants. Coined structuralism, this architectural concept allowed a similar establishment of freer relations between the occupants. In his best-known work, the 1960 Amsterdam Burgerweeshuis (Municipal Orphanage) (see figure 3), this concept is translated in a building consisting of hundreds of units, nonhierarchically connected through a range of transitional spaces, reflecting Buber's in-between realm. Echoing his mantra that "a house must be like a small city if it's to be a real house, a city like a large house if it's to be a real city" (Van Eyck, qtd. in Strauven 300), the building reflects his sys-

Figure 2: *Map of Amsterdam marked to indicate the playgrounds designed by Aldo van Eyck as per 1961* (graphic made by the author).

tem of playgrounds in how children were encouraged to move through the building and interact without prescription. But whereas the playgrounds followed the structures naturally set out by the children's social dynamics, the orphanage essentially inverses this, dictating relations through its physical structure. By taking into account both the individual and the collective, and by balancing the private and shared spaces, Van Eyck attempted to avoid the hierarchy inherent to institutions such as orphanages (Van Eyck, "Writings" 220).

Constant Nieuwenhuys' Lived Experience

Born Constant Anton Nieuwenhuys, Constant (as he would sign most of his work) grew up in Amsterdam where he enrolled in art school. A year after the occupation of the Netherlands by German forces, Constant, upon his graduation, moved to the Dutch town of Bergen until its evacuation by the occupying forces two years later. He moved back to Amsterdam where, to avoid the *Arbeitseinsatz* (compulsory work service), he refused to register

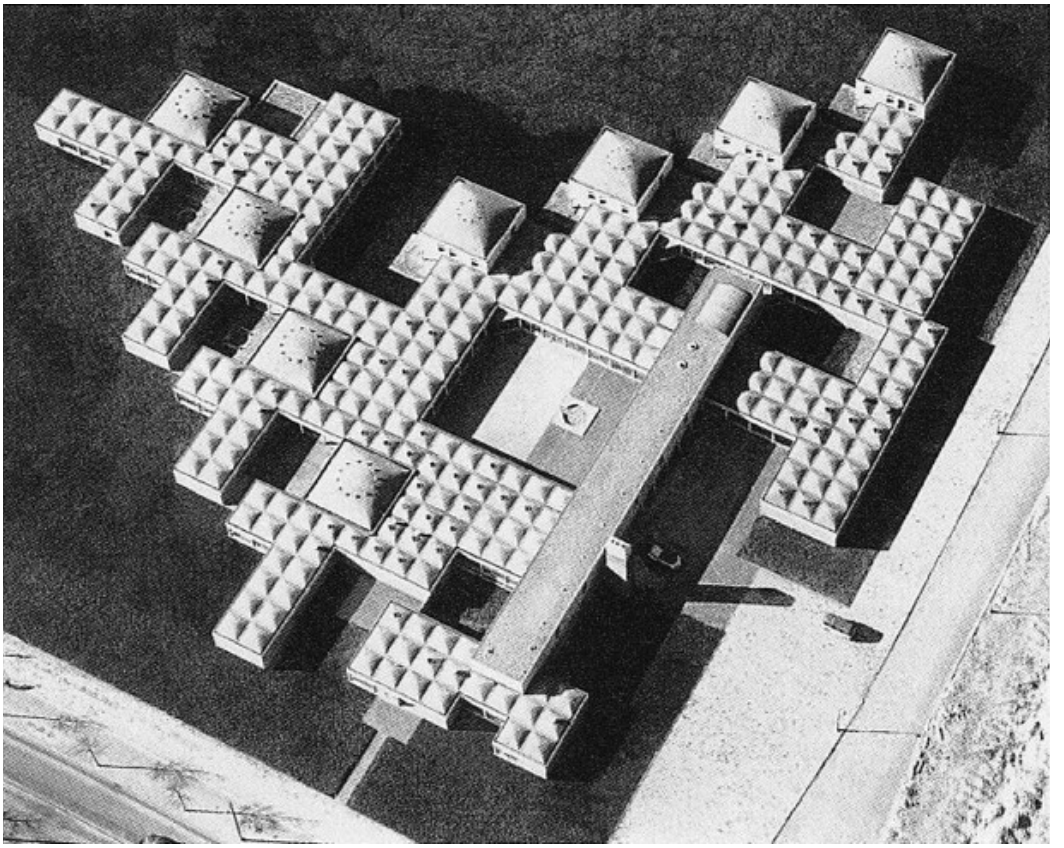

Figure 3*: Aldo van Eyck's Burgerweeshuis seen from the North.* Aerial photo by KLM Aerocarto Schiphol-Oost, 24 February 1960 (Aviodrome Lelystad, photograph by Luchtfoto Archief).

at the *Kultuurkamer* (Chamber of Culture) and went into hiding.[2] Shortly after, Constant was joined in hiding by his brother-in-law who introduced him to western philosophy and several of its key figures such as Descartes, Spinoza, and Marx.

After the liberation of the Netherlands, Constant moved away from the classical motives and ventured into a more experimental style of painting. In 1948, he co-founded the artist group *Experimentele Groep in Holland* (Experimental Group in Holland), which united painters, sculptors, and poets such as Karel Appel (1921-2006), Corneille (1922-2010), and Lucebert (1924-1994) in the quest to break with old conventions, explore new forms of artistic expression, and connect with likeminded artists abroad. Shortly, the Dutch group fused with the Belgian artists of *La Surréalisme Revolutionnaire* (The Revolutionary Surrealism), initiated by Christian Dotremont (1922-1979), and the Danish Høst (Harvest), headed by Asger Jorn (1914-1973), into the transnational artist group Cobra (stylized CoBrA and named after the home cities of its founders; Copenhagen, Brussels, and Amsterdam). Cobra aimed to develop a manner of spontaneous artistic expression, free from the restrains of academic art and societal expecta-

tions. Finding inspiration in places they considered close to the source of creativity and unspoiled by western civilization, such as children's drawings, the Cobra artists developed a recognizable, colourful visual language that danced between abstraction and figuration, and exudes a clear sense of spontaneity. After Cobra disbanded in 1951, most of the artists stuck to the visual idioms they had developed as part of the group. Constant, who had already limited his contribution to Cobra's final exhibition to paintings that just concerned the destruction of war, was, however, already heading in a different direction (Van Halem 9).

Constant's move to Paris in 1950 exposed him to the emaciation of post-liberation Paris and expanded his interest in a culture untainted by rational modernism from the arts to society. This development was accelerated after his move to Frankfurt in 1951. There, Constant's daily journey to his son's school took them through "large heaps of rubble, with here and there some places that had been flattened so you could walk over them like paths" (Constant, qtd. in Wark 135). On the experience he remarked that "[if] you walk through a town that lies in ruins, the first thing you naturally think of is building. And then, as you rebuild such a town, you wonder whether life there will be just the same, or what will be different" (Constant, qtd. in Wark 135).

These thoughts which may have attested to a first link between societal and physical structures in Constant's thinking, advanced after the artist was asked by Van Eyck to assist in organising the 1952 exhibition *Mens en Huis* (Human and House) (Van Halem 12). Constant and Van Eyck previously befriended each other during the preparations for the first Cobra show at the Amsterdam Stedelijk Museum in 1949. The close collaboration between Van Eyck, who had been asked to design the exhibition, and Constant, who created new works to fit the architect's displays, led to a long-lasting correspondence on architecture and art (Van der Horst, "Constant" 136). For *Mens en Huis*, the two repeated this process with Constant creating a mural to accompany Van Eyck's designs. The preparations for this new exhibition fortified Constant's interest in architecture, leading him to study Van Eyck's extensive architectural library and incorporate an increasing number of architectural elements in his oeuvre (Streuven 205-6; van der Horst, "Constant" 138).

After a series of interdisciplinary projects, including an interior-design project with architect Gerrit Rietveld (1888-1964), and a series of spatial experiments with former-Cobra-contemporary, the painter Stephen Gilbert (1910-2007), Constant was invited to a residency in Alba where he interacted with writer and activist Guy Debord (1931-1994) (Van der

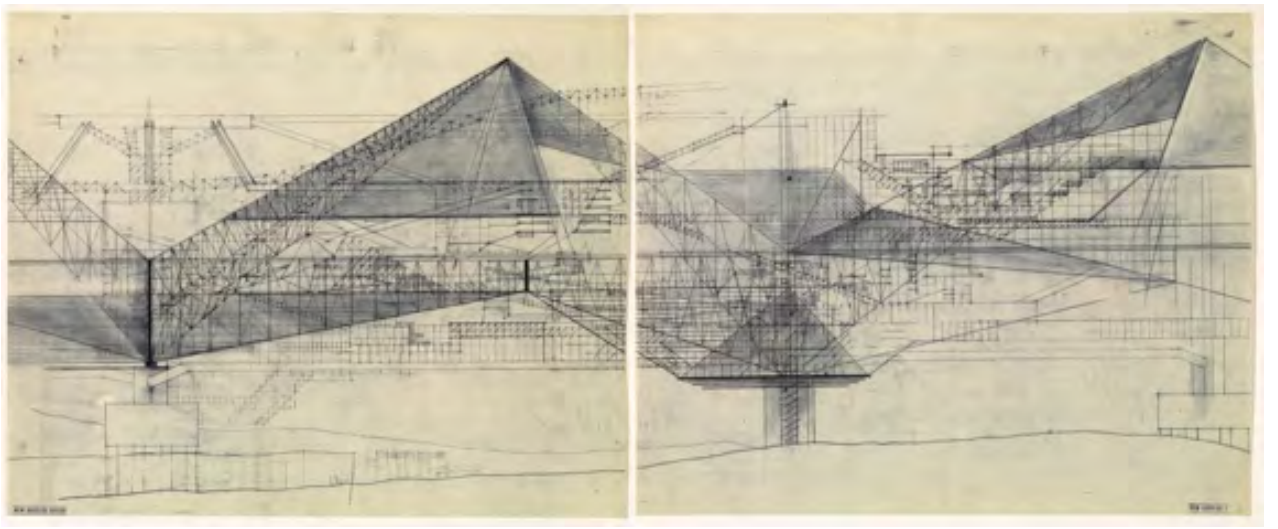

Figure 4: Constant Nieuwenhuys, *Cross Section of Big Yellow Sector, 1967*. Ink and pencil on paper (Kunstmuseum Den Haag, photograph by Tom Haartsen).[4]

Horst, "Constant" 139-142). Together with Jorn, they found the Situationist International (SI), an avant-garde movement of artists, theorists, and intellectuals, united by the aim of synthesising its members' disciplines into a cohesive critique of mid-20th century capitalist society.[3] By 1957, at the time of his encounter with Debord, Constant was working on the design for a camping ground for Piedmontese Sinti. The malleable camping ground was the first of Constant's urban designs which would adapt according to the use of its inhabitants and is referenced as the starting point of New Babylon, his all-encompassing utopian vision of a restructured world. Fuelled by the undertakings of the SI, Constant's interest in restructuring society overtook an increasingly large portion of his practice until he devoted himself completely to New Babylon the following year.

The New Babylon project encapsulated drawings, paintings, models, and maps in which Constant envisioned a society organized around play and creativity. Harking back to his wartime-readings of Marx, especially his writings on the automation of industry, Constant envisioned a society where labour is eliminated from daily life. The New Babylonians, as Constant referred to the inhabitants of his envisioned playground of participation, would use the time freed by the removal of labour for unprecedented creativity and collaboration. Almost giving literal shape to Marx' base and superstructure (Wark 138), New Babylon would be developed as a worldwide structure, elevated above an automated industrial base layer on the surface of the earth (see figure 4). The suspended structure would consist of several dynamic layers that would evolve with daily life, taking the physical form of the liberated societal relations facilitated by this new

Figure 5: Constant Nieuwenhuys, *Mobile Ladder Labyrinth,1967.* Brass, ink on plexiglass, and oil on wood (Kunstmusem Den Haag, photography by Tom Haartsen).[5]

infrastructure (see figure 5). Divided into sectors about the size of a small city, these constructions would be linked across the globe (Wark 140) (see figure 6). Although Constant had already determined how the sectors could be implemented, he also acknowledged the impossibility of designing for the future (Nieuwenhuys, "Ten Years On" 281).

For Constant, the New Babylonians would be the archetype of a new kind of human: the homo ludens. Following Johan Huizinga's description, homo ludens would be able to lead a life of creativity, rather than exist as a mere instrument of production. Through play, they would be able to escape the unsatisfying reality by entering an alternative dreamed 'reality'. Constant's homo ludens, however would be an ordinary individual (Nieuwenhuys, "Lecture at the ICA" 197*).* Rather than have homo ludens create an imagined personal reality which allows them the creativity, Constant proposes that reality itself will change, allowing every person to transform into homo ludens. Combining Huizinga's reinsertion of play with Marx' automation, the imagined becomes real. With labour no longer taking up precious productivity, homo ludens is now at liberty to use its productivity for the construction of this ideal reality.

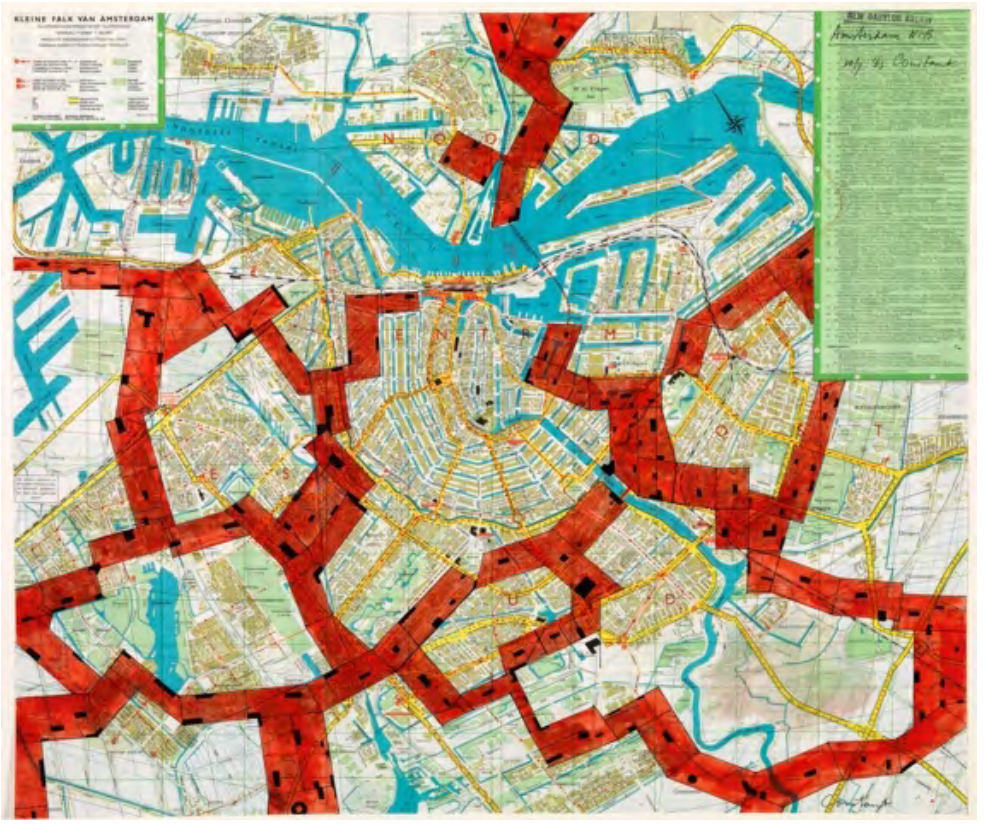

Figure 6: Constant Nieuwenhuys, *New Babylon – Amsterdam,* 1963. Ink on city map. (Kuntmuseum Den Haag, photograph by Tom Haartsen). [6]

Different Visions

Having lived under the false authority of the occupying German forces, Constant developed a Marxist understanding of power dynamics through the readings introduced to him. When his continuous search for an environment fitting for his ideas led him to the SI, his ideas started to become both more radical and more articulate. New Babylon started to be defined through what it would *not* be; lacking borders, states, property, law, policing, and corporations, all that remains in his vision are the structures facilitating play and unrestricted relations (Wigley 122; Nieuwenhuys, "Ten Years On" 277-279).

Similarly, Van Eyck's concept of non-hierarchical structuralist architecture can be traced back to a similar experience of power relations, albeit a less intense one. Exposed to hierarchical and affinity-based nationalist thinking through reactionaries such as Professor Heß, Van Eyck developed a distaste for functionalism and its imposing nature. Van Eyck believed that the architect should be the "ally of every man or no man" (Van Eyck, qtd. in Strauven 150), and the elevated position of the architect made the discipline lean towards the latter. Instead of the prescriptive authority held by the architect, new architecture would be ruled by what he believed would

sustain 20th century culture: relativity (Álvarez Santana, 25). Opting for a humane scale in his new world-building, Van Eyck allowed the inhabitants of his structures to take ownership of the space and thus their relations. "The right size will blossom as soon as the gentle wheels of reciprocity start turning" (Van Eyck, qtd. in Strauven 458).

This humane scale, however, was not at all present in Constant's New Babylon. Although he believed that the structures of his utopian city should facilitate human relations, the inhabitants themselves do not need to be related to them in scale. Instead, modern homo ludens connects to these structures through their construction; "it's always been clear that New Babylon was to be made by the New Babylonians themselves" (Nieuwenhuys, "Ten years on" 281). The time for this construction is facilitated by the automatization of industry and subsequent removal of labour from daily life.

In essence, the biggest difference between the two visions is radicality. Both sought to replace the vertical power structures of the world with unfettered relations, both saw the importance of physical configurations, and both hoped to form these after societal relations instead of the other way around. But where Van Eyck seemed to look for a manner in which to insert these changes into the existing world, Constant sought to change the system wholly.

Although one might attribute the discrepancy between Van Eyck's pragmatism and Constant's extremism to their different professions – after all, his position as an architect did not allow Van Eyck to take the same liberties as Constant who, as an artist, was not constrained by reality per se – this was not necessarily the case. In fact, Van Eyck clearly empathized with Constant's abstract envisioning of a society beyond the boundaries of modernity and would even go to similar lengths in his own work.[7] As an architect, however, he still believed that it was his task to deal with form consciousness in the world "for the sake of humanity and the reality of life" (Van Eyck, qtd in Strauven 150), and the only way to take on this task is through the systems in place.[8]

Similarly, Constant's ambitions had, since the foundation of the Situationist International, transcended that of the artist. Rather than representing the image of the world, he now realised it is more important to change the world itself and make it more liveable (Nieuwenhuys, "Lecture at the ICA" 197). In this pursuit, he also recognised that there were indeed real-world factors he had to consider. His proposal for the Alba Sinti camp, for example, was never realized due to a lack of funding from local government (Van der Horst, "Biography" 292), and even within the ranks of the by no

means moderate SI, he had to compromise on some of his more radical ideas (Wark 116-120). Constant, however, was not interested in compromises.

His experiences of occupation, ruin, and emaciation had forced him to realise what the extremities of the system could lead to, leaving him unable to imagine a future that still incorporates it. The utopian thinking that he developed as a response was after that only fuelled by the Marxist-informed situationist circles he found himself in. Van Eyck, on the other hand, had evaded occupation and only spent the post-war years in the Netherlands, developing a much more pragmatic outlook on the reconstruction of society. Hence, where Constant was willing to create a fertile breeding ground for homo ludens by completely overhauling society and implementing his relation-based society, Van Eyck was hesitant to accept these projections of a future without a past, and instead settled for a reimplementation of play on a smaller scale.

Even though their visions differed in radicality, Constant and Van Eyck shared key similarities in their thinking about a restructured society. Both held onto a clear rejection of the hierarchies and societal coldness that dominated the first half of the twentieth century, and both developed a similar understanding of the importance of social- and physical structures. It is not difficult to see the resemblance between the in-between spaces of Van Eyck's *Burgerweeshuis* and the dynamic levels of the sectors of New Babylon.

The clearest difference between the two comes to light, however, when the elaborations of Constant's vision start to reveal a menacing quality. Whereas New Babylon had, until then, been characterized by the bright characteristics that also typified Van Eyck's structuralism, from the early seventies on, signs of death and destruction enter its utopian edifices (Wigley 128). With the illusion of bodies in the background and bloodstains on its hitherto polished planes, New Babylon's structures appear to lean more towards ruin than construction (see figure 7).

Launched against violence in the wake of violence, the implication of a certain inevitability of barbarism in the project's return to brutality may seem quite sudden. On closer inspection, however, this suggestion has always been there, and not just in the calculated destruction of the dynamic structures to make room for newly established relations and their accompanying edifices. Constant, who witnessed what people were capable of during the occupation of the Netherlands and his later sojourns abroad, was very aware of humanity's violent nature. Constantly in flux, New Babylon had always been poised somewhere between construction and ruin (Wigley 127). With the scale now tipping over to the latter, Constant's stance reveals itself; the possibility of the ruin is always present in the new ¾ the new will

Figure 7: Constant Nieuwenhuys, *Entrée du Labyrinthe (Entrance of the Labyrinth)*, 1972. Oil on canvas (Kunstmuseum Den Haag, photograph by Tom Haartsen). [9]

always be at the source of the ruin. As Van Eyck remarked: New Babylon was "not retrospective, [but] prophetic" (Van Eyck, qtd, in Strauven 140).

Conclusion

Departing from a similar frustration with society's treatment of daily life, both Aldo van Eyck and Constant Nieuwenhuys rejected the functionalism prevalent in twentieth-century society. Faced with the destruction of the Second World War, they concluded that a societal overhaul was needed to prevent a repetition. In their respective readings of Martin Buber, Karl Marx, and Johan Huizinga, they found guiding principles to steer away from the hierarchical, progress-focused rigidity of modernity which had led to an all-destroying Fascism. They believed that true value laid in the space created by interactions between separate entities, whose significance was not intrinsic, but determined by their relations; relations that only reached their full potential when free from restraints. To liberate these relations, a reintroduction of play was necessary, akin to Johan Huizinga's thesis in *Homo Ludens.*

In the manifestations of their concepts for a post-war world, both Constant and Van Eyck recognized the importance of physical structures

to the formation and arrangement of these new relations and included an underlying dynamism to facilitate this interplay. The extent to which they maintained a balance between this newfound flexibility and the existing societal structures, however, differed greatly. Where van Eyck's time in Zurich allowed him to keep a pragmatic outlook on existing societal infrastructures, permitting him to focus on reconstruction and the implementation of play into modern life, Constant's exposure to humanity's capabilities, on the other hand, instilled in him a determination to restructure modern life and replace it with play entirely.

Not only did their visions differ in their envisioned end results, the process of executing these visions also clashed. Where van Eyck believed that the architect was tasked to examine a form consciousness in society to propel it forward, Constant's grand utopian vision transferred this role upon the people, now unrestricted by labour.

Shaped by their different wartime experiences, Constant and van Eyck developed alternative visions for the post-war world. Whereas van Eyck's distant observation of devastation led him to develop a free, human-scaled architecture that facilitates the establishment of new social relations, Constant's experience of living under occupation and with its consequences pushed him towards a more radical stance, taken only by those not just confronted with the ruin, but who existed within the process of destruction.

References

Álvarez Santana, Jaime. "The network of relationships: intimate space". *Aldo van Eyck. Orphanage Amsterdam. Building and Playgrounds.* Edited by Gaston Bekkers. Architectura & Natura, 2018, p. 24-31.

Eyck, Aldo van. "Steps towards a configurative discipline". *Forum*, August 1962

Eyck, Aldo van. *Writings*. SUN, 2008.

Halem, Ludo van. "Constant. Ruimte + Kleur. Van Cobra naar New Babylon". *Constant. Ruimte + Kleur. Van Cobra naar New Babylon.* Edited by Ludo van Halem and Trudy Nieuwenhuys-van der Hortst. Nai010 uitgevers, 2016, p. 8-16.

Horst, Trudy van der. "Constant. 1920-2005". *Constant. Ruimte + Kleur. Van Cobra naar New Babylon.* Edited by Ludo van Halem and Trudy Nieuwenhuys-van der Hortst. Nai010 uitgevers, 2016, p. 134-145.

Horst, Trudy van der. "Biography of Constant" *Constant. New Babylon.* Edited by Laura Stamps et al. Museo Nacional Centro de Arte Reina Sofía, 2015, p. 284-300.

Huizinga, Johan. *Homo ludens; a study of the play-element of culture*. Beacon Press, 1955.

Karsten, Lia. *Aldo van Eyck: de speelplaatsen en de stad*. Nai010 uitgevers, 2002.

Nieuwenhuys, Constant. "New Babylon – Ten Years On". *Constant. New Babylon.* Edited by Laura Stamps et al. Museo Nacional Centro de Arte Reina Sofía, 2015, p. 270-283.

Romagnoli, Emiliano. "Homo Faber Versus Homo Ludens". Firenze Architettura, vol. 22, no. 2, 2018, p. 122–127.

Strauven, Francis. *Aldo van Eyck. The Shape of Relativity.* Architectura & Natura, 1998.

Wark, McKenzie. The Beach Beneath the Street: The Everyday Life and Glorious Times of the Situationist International. Verso, 2011.

Wigley, Mark. "Extreme Hospitality". *Constant. New Babylon.* Edited by Laura Stamps et al. Museo Nacional Centro de Arte Reina Sofía, 2015, p. 120-135.

Withagen, Rob and Caljouw, Simone R. "Aldo van Eyck's Playgrounds: Aesthetics, Afforcanxes, and Creativity". *Frontiers in Psychology*, vol. 8, 2017.

Endnotes

[1] He kept in touch with his native country through some correspondence with his parents and friends, who managed to convey the oppressive atmosphere of the occupied Netherlands but did not inform him too much of the ruin of daily life (Strauven 73).

[2] The *Nederlandsche Kulturkammer,* or Dutch Chamber of Culture, was a Nazification institute introduced by the occupying German forces where all artists, architects, journalists, and writers had to register to be allowed to work. Those registered were eligible for *Arbeitseinsatz,* a forced labour deployment which filled the vacancies left behind by those called up for military service.

[3] Although the SI officially dissolved in 1972, Constant already left in 1960 after a disagreement with its central figure Guy Debord (1931-1994). For a full overview of the Situationist movement, see: Wark.

[4] Cross sections of New Babylon clearly show how the sector's suspended layers are separated according to their functions.

[5] Several models of New Babylon contain movable elements to demonstrate the dynamic nature of its structures.

[6] Following the decentralized nature of New Babylon, Constant designed the first sector-proposals around the locations he was familiar with such as the inner city of his hometown Amsterdam.

[7] This is evident in the writings and speeches by van Eyck on the work of Constant, several of which can be found reproduced in Strauven.

[8] Full quote: "what has been discovered in the world of form consciousness [...] was carried over from the realm of painting to that of architecture. So the painter is relieved of the one-sided duty to forgo his desire for direct expression in favour of pure formal experiment. This duty will continue to apply to the architect for a long time yet: for the sake of humanity and the reality of life he will have to continue his laborious struggle with form. That is his nature and his task" (Van Eyck, qtd in Strauven 150).

[9] Towards the end of the project, signs of death and destruction such as blood splatters and ruins seem to enter New Babylon.