TRACING ZEITGEIST:
THE *CYBERFLÂNEUR* AND THEIR SMARTPHONE

Pieter Greyvensteyn
Tshwane University of Technology
Department of Architecture
greyvensteynpa@tut.ac.za

ESSAY 128/08

ARCHITECTURAL REPRESENTATION
CYBERFLÂNEUR
DIGITAL COLLAGE
SMARTPHONE
ZEITGEIST

This essay investigates the way in which architecture is communicated in the post-digital era. Digital collages, created from photographs taken by so-called *cyber-flâneurs* with their smartphones and re-interpreted through current smartphone applications, were the architectural representations under the spotlight. Generation Z architecture students were assigned the role of the *cyberflâneur*; a *flâneur* being defined as someone experiencing urban space on their own terms, 'cyber' referring to the *flâneur*'s instrument, the smartphone. Drawing and design are explored through the triad of hand, mind and smartphone. The visual artefacts being communicated are buildings in central Pretoria and Johannesburg, South Africa and in Maputo, Mozambique, from a list based on a compact urban typology built either 50- or 100-year-ago. The imagery on the screen of the smartphone becomes the lens through which we experience reality. The quality and complexity of the digital collages are telling of our zeitgeist; patterns and algorithms can be traced. Technology provide us with the tools to connect us to a synchrony that is the pulse of global culture. The graphic analysis of the visual material produced by the *cyberflâneurs* propagates zeitgeist as a major contributor to architectural expression by tracing a universal synchronicity.

INTRODUCTION

Time is experienced as an abstract concept. Real time, the actual time it takes for an event to occur, consists of quantifiable units –seconds and hours, days and millennia. Our own perception is subjective –stretching or concentrating hours or days, or even years, making it a qualitative experience. Physically we can only experience the now –the present. It is a particularly challenging task to talk about time in the context of today, the post-digital era. Cueto & Hendrikz describe the post-digital era as one "which no longer distinguishes between on- and offline, and which embeds and normalizes digital technology in almost every personal relation, labour condition or aesthetic practise" (2017, p. 10).

Dalcinkaya quotes MIT Media Lab founder Nicholas Negroponte saying that "cyberspace has no seasons and no night and day. Internet time is absolute time for everybody. Internet time is not geopolitical. It is global. In the future, for many people, real time will be Internet Time" (2022, p. 86).

Today we are relating to the past in a different way. Dalcinkaya continues that "with all of history available to us online, the vast archive of the internet has flattened the past. Information is simultaneously ephemeral and eternal, appearing one moment and disappearing the next. Social media feeds refresh by the second" (2022, p. 86).

Höner and Schankweiler highlight how crucial the image became in our relationship with social media and information "In the era of Facebook, Instagram, Twitter and Co., the way people deal with images have undergone fundamental changes. Images, circulating in digital networks, have become an essential personal means of expression for a broad public" (2017, p. 14).

Images are omnipresent. Theis notes that "images can be repeated and reproduced, while in the world of space and time it is impossible to reproduce the same action at the same time again" (2012, p. 3).

Our relation to these images changed; from traditionally passively viewed, to an interaction now via the use of an elec-

tronic device. Images are now the primary vehicle of communication, on the social web, in near real time. Because of the speed with which these images are produced and circulated, Höner and Schankweiler believe that "the frequency of this dialogue tends to accelerate rapidly. In view of their great affective potential, images ingeniously impact the entire gamut of emotions and thus trigger spontaneous responses in their recipients" (2017, p. 14).

Similarly, architectural representation has a history of evolving as new technologies emerge. The relationship between architecture and photography has been researched by Vassallo who refers to the work of the team of Venturi and Scott Brown, 50-years-ago in our timeline, "[…] they open the text (in *Learning from Las Vegas*) by declaring their interest in 'image', that is, the image of the buildings, as the primary means by which architecture is received and understood." (2019, p.137)
Vassallo talks about them starting to work with film and photography "[…] traditional architectural representation had become an obstacle in understanding and explaining the new urban phenomena at play in Las Vegas, and new representation techniques were required in order to 'handle' this new reality" (2019, p. 143).

Today architecture has a double presence. We inhabit the physical world –the city and space contracting and expanding as the recent pandemic demonstrated. And when our physical space becomes contracted, virtual space expands. The digital representation of architecture becomes also the backdrop for our avatars. Our current encounter with virtual space is either a smartphone screen or a computer monitor –the size dictated by your profession, or economic status. For most of the participating *cyberflâneurs*, known as Gen Z, an online presence is obligatory (the participant with the highest count, listed 14 hours online a day), still others live their lives online, and make a living out of it. There is a popular hashtag called #sleepstream where someone is asleep on camera, mostly livestreaming themselves, as others watch and comment in the

chat box (McNeil, 2021, p. 132). In *Wired* magazine D'Anastasio (2020) wrote that the obvious reason would be they're genuinely tired; they spend all day gaming and entertaining people online, and it is better to always be 'live' than 'offline'.

THE PHOTOGRAPH AND ITS 24-HOUR SHELF LIFE

Nat Sloan, cultural theorist and meme admin behind the Instagram account @vitruviangrimace, is quoted by Dalcinkaya "We reinterpret the past through the lens of the present. The culture is the same, but different when rehashed because of a new awareness that comes from our forward progress in time" (2022, p. 87).

Professional photographer Nicholas Muellner talks about our fast-forward progress in time:

> this last paragraph is already as out of date as an iPhone. These days, the present refreshes as fast as we can type. The present of the text that I just received has been replaced by the present in which I am typing my response. And the photograph seems to serve this god of the endless, tedious, anxious present more readily than the old gods of nostalgia and procrastination. We now willingly assign our images a 24-hour shelf life. (2019, p. 11)

Today the photograph is the artefact of our existence. Muellner discusses the photograph's maturity from physical artefact to digital data: "At most it was a thin piece of paper, now a density of dots on a screen for a moment that is instantly replaced by another" (2019, p. 18).

How we relate to the world seem like it is not through first-hand experience, but through the image that only comes into being the moment we have already experienced and thus also the archive of our past; how we remember. For Muellner (2019, pp. 4, 5) our relationship with photography is similar to Dostoevsky's *The Double* (1846). This image we create becomes the preferred persona where our own lives are like the hapless clerk in the story who creates this character

to cope with his live and becomes the more successful at this than the clerk; with the result that "the submitting double supplants the actual stubborn self".

The photograph is not any more about remembering the past by documenting the present. According to Muellner this is how our temporal association with photography has shifted, we all are exclaiming:

> I am here; I am taking pictures; I am analysing, editing, and enjoying them!" He is sure that we are expressed as a future commodity of the self, registering and recalibrating at electronic speed. It is exhilarating and hypnotic, but it is not the same as being there. (2019, p. 118)

Vassallo writes "that the conversation between architecture and photography through the years was in fact reflective of the larger process according to which a culture consistently reassigns value to the material reality in which it exists" (2019, p. 19).

For us it is now continuously disposable and renewable. Vassallo sees the temporary condition as one with "the absence of a clear dominant cultural paradigm" (2019, p. 317) .He argues that "the internet, in its massive capacity to archive without discrimination, has generated a horizontal tsunami of inclusion that has blurred if not collapsed previous cultural categories and hierarchies" (2019, p. 317).

TRIAD

The traditional analogue way of documenting and conceptualizing architecture through drawing has today been taken over by digital formats and altered the triad between hand, mind and replacing the drawing instrument with an electronic device –a smartphone– which acts as a camera and video camera; plus a variety of editing possibilities, that can produce realistic; or augmented representations of architecture.

Mind

The students cast as *cyberflâneurs* represent a very specific demographic. Schneider (2022) produces the statistics of this new generation in the United States; by 2025 a total of 27 percent of their workforce will by Generation Z. She also confirms the oldest of Gen Z was born in 1997, making them 26 years of age in 2023. Many of them graduated during the pandemic and are only now going to a physical workplace. Their preferences include the right balance of in-person and digital experiences. The *cyberflâneurs* don't only navigate the city on foot, they also have their hands on their device, accessing the digital –more than just a city– now called the *Metaverse*. The *cyberflâneur* lives in *metareality*, defined by Ots:

> It is a reality that is inclusive, embracing the cyber universe, the inner life, as well as the physical existence we have been conditioned to regard as our only trustworthy reality. *Metareality* is the reality of our combined consciousness as a networked planet. For the generation that has come of age in the Internet age, *metareality* is more real than overt 'see and touch' reality. (2011, p. 148)

Never before has any generation been bombarded with so much information –some edited and fact-checked, and others not. McNeil (2021) states that compared to there being over seven and a halve billion people on earth; there are over one and a halve billion websites. Internet users are about 40% of the world's population, with the third billion reached in 2014[1]. All cultural history is suddenly available all at once. Dalcinkaya quotes internet researcher and trend forecaster Sean Monahan "As a young person, you weren't only looking at what was being marketed to you. You could literally download any music that had ever been created for free" (2022, p. 90). Dalcinkaya continues that "this not only made objects harder to date, it blurred the lines between eras and, by extension, our perception of time as a whole" (2022, p. 90). Cultural moments get distorted, and specific trends become harder to date. The lines get blurred between an experience and its digital retelling.

Hand

Rose highlights how interactive digital images are: "Digital images very often invite not contemplation, but action—navigation into the larger mass of images of which they are a part" (2016, p. 13). Verhoeff explains that it is in order to "keeping an eye out for where to move or what to do next" (2012, p. 13). Rose relays how physically searching on a printed map was completely different "[…] in a Google map we move from map to satellite view, zoom in and scale back, look at a photo of a street and return […]" (2016, p. 13). Similarly, she continues "in an online archive we scroll, zoom, crop, download, follow links, share" (2016, p. 13).

Bucknell (2022, p. 66) sees gaming as one of the key influences of our current reality. Gaming has matured during Gen Z's upbringing. Games, years before, referred to as video-, or computer-games, and how they evolved to the immersive and social practice they are today, is a natural evolution from novel to cinema to television, and now to gamespace. The remote control issued with televisions started the hand's involvement. Galloway talks about this progression "What used to be primarily the domain of eyes and looking is now more likely that of muscles and doing, thumbs, to be sure, and what used to be the act of reading is now the act of doing, or just 'the act'" (2006, p. 3). Gaming is about taking action. Bucknell comments on the design possibilities inherent in gaming: "the increasing accessibility of game engines like Unity and Unreal, as well as their ever-advancing rendering quality, facilitate the production of total environments, or unreal architectures, to prototype and critique many possible futures as they unfold in real time" (2022, p. 66).

Smartphone

The act of holding a smartphone when taking a picture is different from using a traditional camera, the viewfinder originally needed to be close to the eye to gaze through. Today the smartphone displays the image on a screen, plus it can alter it in real time with a series of filters, adjusting the

original. The body adapts to a different pose, Muellner (2019, p. 105) calls it "the awkward gesture of holding a camera up to the space in front of one's face." He continues that the 10 to 38 centimetres between the *cyberflâneur*'s eyes and the screen of a digital camera "constitute a new interval in the word."

Renowned photographer Wolfgang Tillmans ventured into music and produced amongst others the techno track, *Device Control* (2016). The lyrics were later used by Frank Ocean on his album Endless. It is an anthem to our current situation. An extract from the lyrics reads:

> Streaming life in this device is possible
> It's in your palm, streams of pleasure in your hand
> The device in your hand, streaming life in streams of pleasure
> Blurred, still and motion, audio
> To one interactive stream of life.
> (Marcoci & Taylor, 2021, p. 241)

Yet Yalcinkaya warns that we have to be aware that:

> Building a new society within the metaverse needs tech, the same tech that's being built by corporations to assert growing control over its users. […] Utopian or not, our existence within the metaverse depends on the power of this nascent technology to create deeper and more sophisticated virtual experiences, which will only divide society into those who have access and those who don't. (2022, p. 93)

DIGITAL COLLAGES: REAL VERSUS VIRTUAL

Methodology & Data

The participants were exit-level architecture students, four groups between 2019 and 2022, each just over thirty students from very different cultures, represented by the eleven official languages of South Africa, and including students from central Africa. They share being Gen Z with an urban upbringing in the presence of the internet. Here described as *cyberflâneurs*, they were tasked to produce representations of

a curated list of built artefacts with a similar urban typology dated 50- and 100-years-old using only their smartphones. The images were then abstracted, the degree of choice given to the user dictated by the device. The contexts were Pretoria and Johannesburg CBD, in Gauteng (population 13.4 million[2]) in South Africa and Maputo (population 1.14 million[3]) in Mozambique. The sites of investigation were central business districts. The building elevations were documented within the urban street scene. The data equalled over one thousand manipulated images.[4] Each *cyberflâneur* produced nine collages of one of the thirty-four curated buildings. Their viewpoint, and by extension their hand in capturing and adjusting the world on their device, becomes the measure through which time and architecture's relationship is revealed.

Results

The data gathered in the archive was analysed and studied by the author and the final (2022) group of *cyberflâneurs*. Two different iterations will be discussed below. The first are the manipulated photographs; called digital collages, which are 3D in almost all cases. The results reveal how the *cyberflâneur*'s experience is defined by two concepts: algorithms and typologies. The second are 2D line drawings; which are superimposed elevations of two or more buildings from the curated list, in order to trace repeating patterns and subsequently design corresponding wallpapers. These drawings illustrate how the latest computer software facilitates discovering patterns in existing architectures and becoming tools to design.

Both iterations want to highlight how the tools, or applications, provided by the smartphone, equalize the creativity of the participants. The primary objective of the study, based on the analysis of the archived visual material, is the extrapolation of information about synonymous concepts such as: concurrent, contemporariness, nowness, parallel, sameness, similarity, 'spirit of the time', synchronicity, synergy, universal and zeitgeist.

Fig. 1 Trent Haantjes, *State Library (1918-1919)*, digital collages, Pretoria, South Africa, TUT Department of Architecture and Industrial Design, 2021.

3D IMAGERY: HOW WE EXPERIENCE ARCHITECTURE

The digital collages started as photographs –densities of dots. Theis (2012) sums up the abstraction of images as philosopher Flusser (2000, 2008) presented five stages in a cultural historical context. The third stage is drawing, painting and sculpture –"based on the abstraction of an object and this being projected back into space and time." The fourth stage is represented by the invention of writing. The fifth stage is where we are at –the 'technical image', which is about calculation and computation, produced with the help of a machine; a computer. Flusser does not see the human imagination being engaged, but purely the "automatism of an apparatus". For him the evolution of society includes a process of abstraction of the image towards the zero-dimension, which he describes as the universe of the technical image. For him the characteristics of this universe include widely spread knowledge, and access for everyone

Fig. 2 Katlego Ramokoka, *Municipal Council Building (1941-1947)*, digital collages, Maputo, Mozambique, TUT Department of Architecture and Industrial Design, 2022.

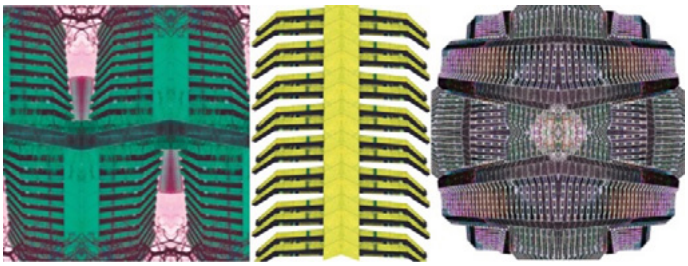

Fig. 3 Jason Bowes, *Kruger Park apartments (1970s)*, digital collages, Pretoria, South Africa, TUT Department of Architecture and Industrial Design, 2022.

to manipulate, as well as no copyright which means open access to information everywhere.

Representative of the *cyberflâneurs*' so-called technical images created with current smartphone technologies includes the work produced by Trent Haantjes (Figure 1), documenting the 100-years-old State Library in Pretoria, and Katlego Ramokoka (Figure 2), documenting the Municipal Council building in Maputo. They used a variety of applications, or filters, to adjust the original photographs. Similarly, Jason Bowes (Figure 3) documented the 50-years-old, 33-storey brutalist tower *Kruger Park Apartments*, in Pretoria CBD, empty for at least the last 10 years, becoming a kaleidoscopic study through his eyes. The distortion is so radical that the individual buildings become hardly recognizable. Patterns, mostly found in the proportions and shapes, have a sense of familiarity. The transformation of the built artefacts range from cutting a silhouette by removing the background; to radial mirroring; to distortion or warping; to –and the most often employed– recolouring the footage to create an almost unnatural environment. Both the brutalist and the classical buildings are reinterpreted as something unreal, yet playful, reminiscent of gamespace. The imagery col-

lected in the archive provide minimal information of the local contexts; the locations are very different, especially the political histories of South Africa and Mozambique if you consider the last 50 to 100 years, not to mention the topography and climate. Van Alphen (2017, p. 84) argues that images circulating on social media lack contexts that would provide background and meaning to what these images display. He is certain that in our 'post-truth' (proclaimed the word of the year in 2016 by the Oxford dictionary) era, the meaning of a social media image is more about personal beliefs and emotions than about objective facts.

Gamespace and algorithms

Wark's *Gamer Theory* (2007) shone light on how gamespace challenges and involves the user more than just with a storyline like in a traditional novel or the mise-en-scene or cinematic montage. An algorithm is now included. Wark explains that "an algorithm –for present purposes– is a finite set of instructions for accomplishing some task, which transforms an initial starting condition into a recognizable end condition" (2007, p. 22). The task of the game is to discover this recognizable logic that will further their game. Galloway states that playing is not just historical simulation and lists the facilities that the gamer acquires:

> The gamer is instead learning, internalizing, and becoming intimate with a massive, multipart, global algorithm. To play the game means to play the code of the game. To win means to know the system. And thus to interpret a game means to interpret its algorithm. (2006, p. 90-91)

The similarity of the effects produced in the digital collages points to this recognizable end condition. The algorithm becomes the factor that brings the technology to an audience larger than the Gen Z gamer. Schnetkamp and Röttger-Rössler relay how the term, social media, first featured in print in the German dictionary, Duden, in 2013, and that "together with Web 2.0, it stands for the further development of the Internet, which simplified and accelerated

the communication between users" (2017, p. 6). They state that "the digital revolution forced the development of new, computer-based algorithms, which have since enabled user production of content and its uploading to the net without specific expert knowledge" (2017, p. 6) .

Typology

The end condition can be traced in this instance to the typology of filters. The architectural representations –the digital collages– can be ordered according to the type of filter that was used. The types that were recorded include: 'remove background', 'mirror', 'radial mirror', 'recolour', 'distort', 'highlighter pen', 'ghost image', 'fade', 'collage', 'animate', 'repetition', 'spherical panorama', 'texturize', 'stickers'. All of these are very relatable ideas to Gen Z. The algorithm gets recognized. So although it is abstracted until it appears unreal it is set in a certain logic, similar to the logic of architectural typology.

The typology found in the subject matter, the building type, is not only a formal and geometric expression, but also a product of zeitgeist, the reason why the same typology looks different 50 years apart. Here the typologies are found in architectural representations; for example, all the (radially) mirrored photographs are of the same type (see Fig. 1 - 3). Vassallo (2019, pp. 208-209) writes that by the mid-1960s the term typology was not new, but became popular as a way "to make sense of the repetition of anonymous architecture in the city" and "like documentary photography, typology offered a promise of scientific knowledge about an opaque reality, and ultimately, the possibility of a way forward according to that knowledge."

2D PATTERN: HOW WE ANALYSE AND DESIGN ARCHITECTURE

The abstracted patterns created by superimposing two or more elevations are telling in a number of ways. Van Staden

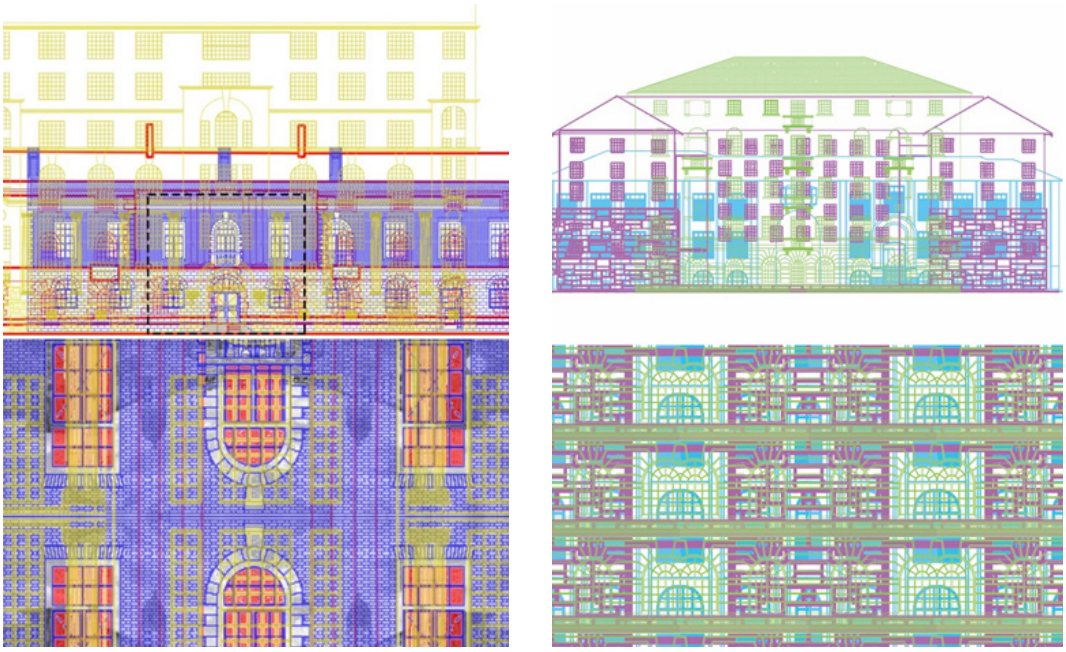

Fig. 4 Roard van Staden, *Elephant Trading Company (1919-1923), Somerset House (1927) and TUT Administration (1928) elevations superimposed*, Gauteng , South Africa, TUT Department of Architecture and Industrial Design, 2022.

Fig. 5 Katlego Ramokoka, *Gainsborough Mansions (1933), Park Station (1928-1932) and Hanya House (1915) elevations superimposed*, Gauteng , South Africa, TUT Department of Architecture and Industrial Design, 2022.

and Ramokoka both re-drew three different 100-year-old building elevations (Figures 4, 5) and superimposed them as per the brief. Even though the zoomed-in abstracted patterns are on different scales, the mere presence of arched openings immediately places them in a classical idiom. Similarly the studies by Van der Bank and Kleynhans of 50-year-old building elevations (Figures 6, 7) share trademarks. The presence of circular elements, in this case not an arch but a full circle, do not have classical, but modernist qualities.

Abstraction

If you zoom-out you can easily consider all four wallpaper studies as iterations by the same author or a series of similar patterns. More even than spotting the difference between classical and modernist, or two periods fifty-years-apart, the way these patterns are digitally created and represented as architectural elements are imbued with a contemporaryness –a technical image. Yet the universality of the geometries is not even generational if you compare it to *The Gram-*

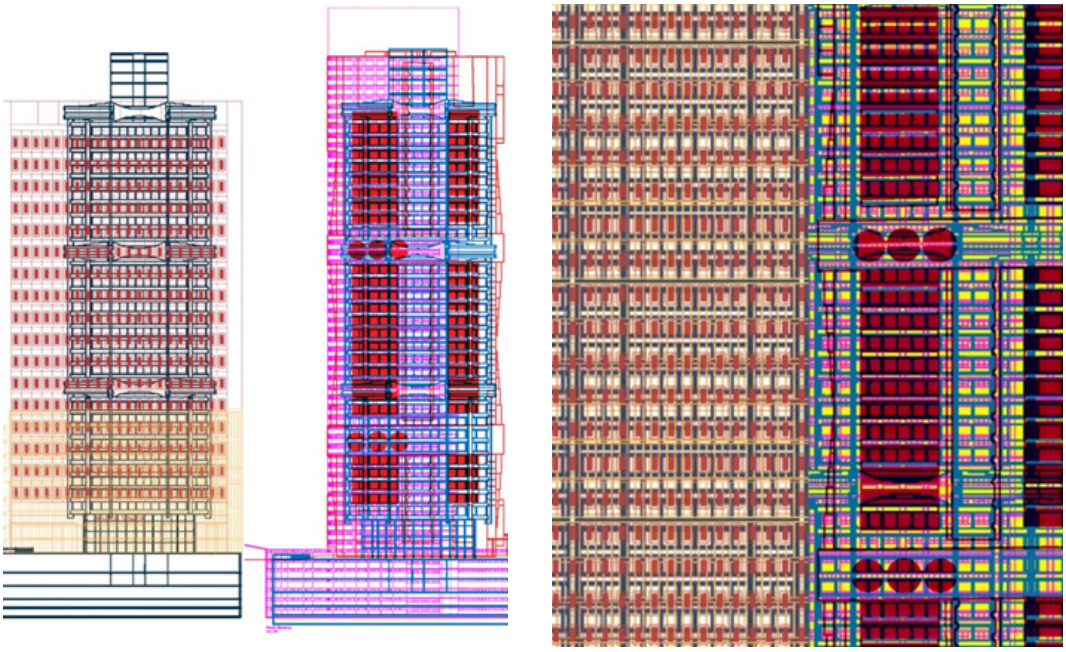

Fig. 6 Marco van der Bank, Standard Bank (1970), Unisa Building (1968) and Penmor Tower (1974) elevations superimposed, Gauteng , South Africa, TUT Department of Architecture and Industrial Design, 2022.

Fig. 7 Bradley Kleynhans, *Ponte City Apartments (1972), Standard Bank (1970) and ABSA Building (1976) elevations superimposed*, Gauteng , South Africa, TUT Department of Architecture and Industrial Design, 2022.

mar of Ornament by Owen Jones (1856), where 2D coloured patterns, completed by hand, are organized by culture, for example Chinese or Egyptian. We propose organizing pattern by date, that is for example 1920s or 1970s. Weil's hypothesis is that there is an archeological constant from the beginning of time, from the earliest ornamented artefacts found in Southern Africa dating from 70, 000 BCE, all patterns globally share the same proto-ornaments: "My New *Grammar of Ornament* builds upon this knowledge starting from these four original ornament types. Ornaments are based on the arrangement or correlation of shapes that are identical or similar" (2021, pp. 4-5).

The idea of abstraction in architecture is concerned not only in geometries or shapes arranged in particular patterns, or becoming the technical image to borrow from Flesser (2000, 2008). Industrialization first allowed construction based on replicability of products and artefacts and a reduced materiality. Vassallo (2019, p. 23), in his search for the shared characteristics of architecture and photogra-

phy, identifies two ways to look at abstraction: 'intransitive or pictorial abstraction', dealing in geometries, as seen in the superimposed elevations, revealing the synergy between architecture and abstract painting and 'transitive or materialist abstraction', dealing with the parts and modular construction. The available construction technology was in play in the construction of the 50- and 100-year-old buildings, and the reason for their visual similarities.

Superficiality

Superficiality relates to what Vassallo (2019, pp. 251-254) calls the 'intersecting interpretations of the concept of surface'; he calls it 'opaque', or 'facadedness'. He traces 'facadedness' to the artist Edward Ruscha's work in the 1960s; "particularly his depiction of Californian superficiality in Every Building on the Sunset Strip", in his book presented as a continuous street elevation.

Another instance, in the 1990s, was photographer Thomas Ruff collaborating with Herzog and de Meuron. The architects asked Ruff to portray one of their buildings for an upcoming Biennale. The 2D elevational photograph produced by Ruff, Haus Nr. 4 II, Ricola Laufen (1991) appeared unnatural, more like a computer render than a photograph – two shots of the main façade was stitched together on a computer to allow a full-frontal shot. Ruff is quoted about the flatness of his architectural photography "Reality can be as deep as it wants. I make pictures on the surface" (Vassallo, 2019, p. 253). According to Vassallo, Herzog and de Meuron believe that in our current civilization "there is a tendency to reduce the dimensions of space to the image of space, that is, two-dimensions, as a consequence of the development of the technical image [...]" (2019, p. 254)
They borrow here from philosopher Vilem Flusser (2000, 2008) suggesting that our current images are abstracted to a zero-dimension facilitated by the computer that generate these images. The architects realize "that the world is now understood through a new visual paradigm based on floating virtual images which contain only limited amounts

of meaning" (Vassallo, 2019, p. 254), and that the profession needs to learn to work within this new framework.

CONCLUSION

Regardless of the background of the *cyberflâneurs*, the price of their smartphone, or if their subject matter was 50- or 100-years-old, local or foreign, the representation of the architecture becomes a recognizable pattern. The recognizable pattern is complex, the new technologies use pixels and algorithms, but on the surface it contracts to become another iteration of the same pattern, or application or smartphone technology. Sloan is quoted by Dalcinkaya "Culture is not moving forward but technology is" (2022, p. 87). Dalcinkaya adds: "[…] we consume culture, but do not produce it" (2022, p. 87).

A hero and spokesperson for the Gen Z crowd is the late Virgil Abloh, who reimagined heritage luxury brand *Louis Vuitton* menswear for the new generation, fusing street culture, music and his own architectural background into it. Alemoru relays how Bone Soda, described as a collective-cum-creative agency and label (who bonded with Virgil Abloh over their shared love of music) learned from their time together:

> The big lesson […] relates back to Abloh's cheat code, the 3%. 'Whereby,' asserted Abloh, a creative only has to add a 3% tweak to a pre-existing concept in order to generate a cultural contribution deemed innovative –for instance, a DJ only needs to make small edits to innovate a song. Likewise, a designer would only need to add holes to an iconic handbag to leave his mark. […] Some things are iconic already, you just wanna upgrade it to give it a little bit of oomph. (2022, p. 140)

Zeitgeist enables a synchrony that produces sameness which is driven by technology rather than culture. Iconic architectural concepts and imagery need only be tweaked by the image creator using available technology to become culturally relevant.

NOTES

1 https://www.internetlivestats.com/
2 Gauteng was listed by De la Porte & Zamboni (2017) as the second largest metropolitan area in Africa with a population of 13.4 million people, just below Lagos with 14 million. Note that Gauteng is historically made up of Johannesburg, Pretoria and surrounding townships as originally planned by the apartheid government.
3 https://worldpopulationreview.com/world-cities/maputo-population
4 https://flaneurxruin.com/

REFERENCES

Alemoru, K. (2022). Virgil's Cheat Codes. *Dazed and Confused*, 275 (V), 138-143.

Bucknell, A. (2022). Unreal Architectures. *PIN–UP. Magazine for Architectural Entertainment*, 32, 66-68.

Cueto, B., & Hendrikz, B. (Eds.) (2017). *Authenticity? Observations and Artistic Strategies in the Post-Digital Age*. Amsterdam, NL: Valiz.

Dalcinkaya, G. (2022). *Logging on. Dazed & Confused, 275 (V)*, 86-90.

D'Anastasio, C. (2020). Twitch Streamers Make Thousands Literally by Just Sleeping. *Wired*. Retrieved April 7, 2023 from https://www.wired.com/story/twitch-streamers-make-thousands-sleeping/

De la Porte, J.P., & Zamboni, A. (2017), Future African Cities, *Domus, 1015*, 34-57.

Flusser, V. (2000). *Towards a Philosophy of Photography*. London, UK: Reaktion Books.

Flusser, V. (2008). *O Universo das imagens técnicas*. São Paulo, BR: Annablume editora.

Galloway, A.R. (2006). Gaming: Essays on Algorithmic Culture. In: *Electronic Mediations*, 18. Minneapolis, London: University of Minnesota Press.

Höner, J., & Schankweiler, K. (2017). *Affect Me. Social media Images in Art*. Leipzig, DE: Spector Books.

Marcoci, R., & Taylor, P. (2021). *Wolfgang Tillmans. A Reader*. New York, NY: The Museum of Modern Art.

McNeil, J. (2021). Goodnight, Login. In G. Borasi (Ed.). *A Section of Now: Social Norms and Rituals as Sites for Architectural Intervention*. Leibzig, DE: Spector Books & Montréal. Canadian Centre for Architecture.

Muellner, N. (2019). *Lacuna Park: Essays and Other Adventures in Photography*. London, UK: SPBH Editions.

Ots, E. (2011). *Decoding Theoryspeak. An Illustrated Guide to Architectural Theory*. New York, NY: Routledge.

Rose, G. (2016). *Visual Methodologies. An Introduction to Researching with Visual Material. 4th Edition*. London, UK: SAGE Publications.

Schneider, A. (2022). Insight. Gen Z Goes to Work. What is the next generation looking for in the workplace? *Metropolis. North American Design today. Return, Reuse, Renew*, 76-77.

Schnetkamp, M., & Röttger-Rössler, B. (2017). Foreword. In J. Höner, & K. Schankweiler, (Eds). *Affect Me. Social media Images in Art*. Leipzig, DE: Spector Books.

Theis, W. (2012). *Vilem Flusser and the 21st century*. Retrieved December 22, 2022 from https://www.researchgate.net/publication/259936317_Vilem_Flusser_and_the_21st_century

Van Alphen, E. (2017). "Poor Images" and the Affect of Exhibitionism. In: Höner, J. & Schankweiler, K. (Curators). *Affect Me. Social media Images in Art*. Leipzig: Spector Books.

Vassallo, J. (2019). *Epics in the Everyday. Photography, Architecture and the Problem of Realism*. Zurich, CH: Park Books.

Verhoeff, N. (2021). *Mobile screens: The Visual Regime of Navigation*. Amsterdam, NL: Amsterdam University Press.

Wark, M. (2007). *Gamer Theory*. Cambridge: Harvard University Press. Retrieved December 20, 2022 from https://www.academia.edu/182788/Gamer_Theory

Weil, T. (2021). *New Grammar of Ornament*. Zurich, CH: Lars Müller Publishers.

Yalcinkaya, G. (2022). *Rehearse for the Metaverse. Dazed & Confused, 277 (V),*. 90-93

ADDITIONAL READINGS

Christ, E., & Gantenbein, C. (2015). Review No111. T*ypology – Paris, Delhi, São Paolo, Athens*. Zurich, CH: ETH Zurich and Park Books.

Mills, J. (2019). How to Map the Future. The Future of AR: ShadowMemory. *Dazed & Confused, IV*, 58-63

Schauer, P. (2015). *Maputo. Architectural and Tourist Guide*. Maputo, MZ: Embaixade de Republica Federal de Alamanha.

Article available at

DOI: 10.6092/issn.2724-2463/16111

How to cite

as article

Greyvensteyn, P. (2023). Tracing zeitgeist: the cyberflâneur and their smartphone. *img journal*, *8*, 106-125.

as contribution in book

Greyvensteyn, P. (2023). Tracing zeitgeist: the cyberflâneur and their smartphone. In Luigini, A. (Ed.), *img journal 08/2022 Imaging and Imagery in Architecture* (pp. 106-125). Alghero, IT: Publica. ISBN 978-88-99586-36-2