

# Homunculi of the Digital City

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# Homunculi of the digital city

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## COMPULSORY DECLARATION

This work has not been previously submitted in whole, or in part, for the award of any degree. It is my own work. Each significant contribution to, and quotation in, this dissertation from the work, or works, of other people has been attributed, and has been cited and referenced.

Signature: 

Signed by candidate
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 Date: 11 January 2020

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# H/H

A closet play about the creation of this body of work

## Prologue

### I

#### LABORATORY

Homunculus was born in a phial in a factory in Middelburg, Mpumalanga. Although this parochial town was surrounded by gigantic coal power stations, the environment dimmed Homunculus' light and stunted their growth. This light was Homunculus' desire to 'be'.

After a few years, Homunculus travelled by road to a new phial: the city of Cape Town. With its Grecian mountains and deep blue seas, this was an unfamiliar habitat. The new, overflowing city lights seemed the perfect place to restore Homunculus' own light and fulfil their desire.

# Homunculi of the digital city

## Introduction

In this body of work, I use an imaginary 'urban subject' to explore the complexity of contemporary urbanisation. The 'urban subject' is significant because, since 2008, for the first time in history more than half of Earth's population live in cities (United Nations, 2007). I explore urbanisation by focussing on two specific subjects – the first being the city-dweller and the second the city itself. The city-dweller, as I present it, is a complex amalgamation of various entities: it is partly autobiographical; it is the character Homunculus; it is other imagined entities; and it is people known and unknown to me. The city and the city-dweller are both cyborgian in nature, consisting of material and immaterial networks and manifesting through the hardware and software of the digital screen, the interface through which the contemporary city is navigated and which serves as a core component in this body of work. My project is materialised primarily in the video installation *Digital city performance* (2019–2020) and in a series of video works entitled *Homunculus I (Water)*, *Homunculus II (Air)*, *Homunculus III (Fire)* and *Homunculus IV (Earth)*. The *Homunculus* series (2019–2020) is shown in the main room of the exhibition, while the second room houses the larger *Digital city performance*. Smaller works are exhibited in the passageways that connect the two rooms, and together these works aim to give visual expression to the experience of living in a city. Although inextricably derived from my own perspective, the exploration is navigated through the perspective of the fictional character Homunculus. I have conceived of the character, a cyborg themselves, to represent both the city-dweller and the city.

In the first chapter, 'The cyborg', I outline my experimental utilisation of Homunculus, a character from Johann von Goethe's *Faust II*. Homunculus is contextualised in relation to Donna Haraway's definition of the cyborg and contains material and immaterial features, such as a glass enclosure that holds its 'light'. Crucially, this enclosure serves as metaphor for the screen, but it also represents social confinement in urban areas, where its desire to 'be' is related to the identity-building of youth in urban centres.

The second chapter, 'The cyborgian city', presents two definitions of the broader city that acknowledge the importance of immaterial networks in shaping our urban fabric. Ingrid Hoelzl and Rémi Marie's notion of the *corps de données* ('data body') posits the primary role of these immaterial networks in defining our cities, while Matthew Gandy's cyborg urbanisation warns against neglecting the material when adopting technocentric standpoints. I discuss these ideas in relation to the work of two artists, Gordan Savicic and Dineo Seshee Bopape. I also discuss the importance of light in the urban environment and describe one of my smaller works, *Light wall* (2019), in which light is a key component. Finally, I contextualise my larger installation in relation to the ideas discussed in this chapter. Throughout this chapter, the functioning and importance of the screen is considered in relation to the work of the aforementioned artists and in Boris Grois' notion that an image file is 'performed' by a screen.

Finally, 'The screen' coalesces notions of the cyborg, the material and immaterial and the broader cityscape into a manifestation of digital screens. I discuss the Homunculus video series as it relates to the functioning and importance of the digital screen in describing the urban environment and experience. I also briefly discuss the curation of my exhibition and elaborate on the smaller works that link the two large bodies of work.

## Act I

### I

#### CAPE TOWN

The city lights failed to fulfil Homunculus' desire to 'be'. Residing in many dejected suburbs of brown masonry churches, Homunculus associated Cape Town with loneliness, rejection and mental illness.

But the city also became associated with opportunity and anonymity; the city centre seemed a utopic amalgamation of rejected souls ready to welcome anyone and anything into a lively cacophony of movement. The dream to be in the centre after being in so many peripheries eventually materialised in Homunculus becoming a neophyte of the Cape Town CBD. Finally, their peripheral existence would be over, and they could fulfil their deepest desire to 'be'.

### II

Achieving this utopic ideal, however, turned out to be a complex challenge, and they realised that their desire to 'be' was destined to remain a quest without a resolution. Their search for agency became more difficult the more time they spent within, and reflecting on, the urban environment. Their feeling that they did not belong anywhere was fostered and amplified by this desolate environment.

## The cyborg

I have given form to the urban subject as a homunculus, a term 16th century Swiss alchemist Paracelsus 'gave to chemically generated miniature human beings' (Aurich, Jacobsen & Jatho, 2000: 122), and I specifically reference Johann Wolfgang von Goethe's character of the same name from *Faust II* (1950, originally published in 1832). Goethe's Homunculus is one of numerous artificial humans found throughout science fiction literature and cinema, such as Mary Shelley's monster in *Frankenstein* (1823) and High Rabbi Loew's Golem.<sup>1</sup> In *Faust II*, the genderless character appears as an alchemic creation of Faust's former assistant, Wagner, and is born within a glass phial in a laboratory as a sentient being (Gillies, 1957: 124).<sup>2</sup> The glass enclosure serves as an important metaphor in my work and is represented in video footage by building facades made of glass, animals in cages and aquaria, the windows of public transport and other moving vehicles and in the windows of urban public observation decks. Glass also alludes to the importance of the digital screen in the city – and subsequently a tension between the material and the immaterial – and is discussed in more detail in the following chapters. However, the primary aspect of the character is their desire to 'be' (Goethe, 1950: 124) and to attain a physical form to become a 'full' human (Aurich, Jacobsen & Jatho, 2000: 122).

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<sup>1</sup> See Aurich, Jacobsen and Jatho (2000) for a discussion of cyborgs, androids, robots and other artificial humans in literature and cinema.

<sup>2</sup> The character is referred to as 'he', but in *Faust II* the philosopher Thales proclaims the homunculus to be 'hermaphroditical' (Goethe, 1950: 124) and I thus prefer to use gender-neutral pronouns when referring to the character.

## THALES

He asks thy counsel, he desires to be.  
He is, as I myself have heard him say,  
(The thing's a marvel!) only born half-way.  
He has no lack of qualities ideal,  
But far too much of palpable and real.  
Till now the glass alone has given him weight,  
And would fain be soon incorporate.

(Goethe, 1950: 124)

Homunculus is not only representative of an artificial human but also characterises the sub-genre of the cyborg. In 'Cyborg manifesto: science, technology, and socialist-feminism in the late twentieth century', Donna Haraway (1991:1) suggests the following definition:

A cyborg is a hybrid creature, composed of organism and machine. But, cyborgs are compounded of special kinds of machines and special kinds of organisms appropriate to the late twentieth century. Cyborgs are post-Second World War hybrid entities made of, first, ourselves and other organic creatures in our unchosen 'high-technological' guise as information systems, texts, and ergonomically controlled labouring, desiring, and reproducing systems. The second essential ingredient in cyborgs is machines in their guise, also, as communications systems, texts, and self-acting, ergonomically designed apparatuses.

In light of the above, the definition of a cyborg should not be limited to superficial hybridisations of human and machine as popularised in science fiction but should include a broader philosophical questioning of what it means to 'be' in an environment as technologically dependent as a contemporary city. Homunculus, being made in a laboratory, is presented to the reader as a product of science (specifically alchemy) and can be considered an early example of artificial intelligence. Haraway also states that 'our best machines are made of sunshine', referring to the increasing miniaturisation of electronics to the point of their



Figure 1: Franz Xaver Simm. 1899. *Homunkulus in der Phiole. Famulus Wagner und Mephistopheles.*

becoming almost invisible (1991: 153). Similarly, Homunculus lacks a physical form and consists of what Goethe refers to as 'light' in a glass phial (1950: 75). Here, the 'light' is a dematerialised (albeit spatial) manifestation of the actual character, while the glass phial is its material prison.<sup>3</sup>

Homunculus' quest to 'be' can also be read in light of Haraway's proclamation that:

By the late twentieth century, our time, a mythic time, we are all chimeras, theorized and fabricated hybrids of machine and organism – in short, cyborgs. The cyborg is our *ontology*; it gives us our politics.

(1991: 150; my emphasis)

Haraway's quote suggests that the cyborg is rooted in our own existentialisms and, by extension, our social reality. She suggests that 'the boundary between science fiction and social reality is an illusion' (1991: 149). As Goethe's Homunculus is a precursor to science fiction tropes (Aurich, Jacobsen & Jatho, 2000:122), elements of it can thus be applied to social reality. One such element is the character's entrapment within the glass enclosure, which, in a contemporary setting, could be said to represent the social confinement that many young people feel within areas of Western cities. In their anthropological study *Lost youth in the global city*, Jo-Anne Dillabough and Jacqueline Kennelly (2010) argue that youths in certain areas (specifically on the urban margins of Vancouver and Toronto) exhibited a sense of ambivalence towards their neighbourhoods and frequently felt lost, paralysed and displaced, particularly if they were immigrants and/or refugees. Dillabough and Kennelly (2010) note that some marginalised youths on the outskirts of urban centres pursue a systematic identity-building in the face of displacement, similar to Homunculus' desire to 'be' to acquire a 'full' existence. The surveyed youths reported a loss of 'meaningful and coherent sense of place or [were] unable to position themselves within it', while negotiating 'between the centre, margins and the periphery in highly complex ways' (Dillabough & Kennelly, 2010: 145–146). This leads to youths who 'form horizons of identity which are constrained by their horizons of possibility in any given space' (Dillabough & Kennelly, 2010: 146).

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<sup>3</sup>I refer specifically to artificial light and, subsequently, to the digital screen and projector.

Identity-building is explored in artworks such as Felix Kawitzky's *Uroborous all over again* (2012), an immersive artwork resembling a restaurant scene, in which viewers can participate by following a script for two people that details their roles, memories and relation to each other (Gurney, 2015: 86). Participants re-enact an interaction between two oceanographers; unbeknownst to the participants, however, the dialogue is based on a monologue (Gurney, 2015: 86–87). A loose script allows for unique identity-building in which the 'actors' unknowingly partake, as each participant creates their own version of the character they portray (Gurney, 2015: 87). The themes at play in this particular piece are reminiscent of Homunculus' quest for self, as the work relates to 'the psychological state of being before a sense of self is developed and it is still difficult to distinguish between the self and other, a state of existential uncertainty' (Gurney, 2015: 86). Like Homunculus, the characters in Kawitzky's piece are artificially formed by their human creator. However, they are not fully formed and, because they exist only as performed identities, they still seek to 'be', to become 'real' physical human beings through the participants.

Haraway's discussion about the cyborg incorporates both material and immaterial characteristics, and Homunculus is an example of this kind of cyborg, personifying the urban experience through their identity-building. Their glass enclosure serves both as a metaphor for entrapment within the urban environment and for the digital screen. As a ubiquitous, coalesced manifestation of the material and immaterial, the screen is an important vehicle for a discussion of the nature of the city and the city-dweller. In this formulation, not only do individual cyborgs inhabit the city, but the city itself is like a cyborg due to its dependence on the networked augmentations that allow it to function. These notions are discussed in more depth in the following chapters, where I associate the material and the immaterial with the hardware and software of screens.

## Act II

### I

#### THE CITY

Homunculus embarked on two journeys. They first traversed the skies in 2015, when they travelled to Johannesburg and discovered a city vastly different from Cape Town. In 2018, they went on an even bigger journey and travelled to four cities in four different countries. These cities forever changed the way they looked at the urban environment.

Although they travelled over 10 000 km to reach the furthest city, many things were eerily similar: roads were paved with the same kind of tar; piles of building rubble looked very familiar; sidewalks seemed made from the same kind of concrete; and steel and glass skyscrapers punctured the cityscapes. Wi-Fi networks varied greatly in speed and power, but most mobile applications worked regardless of the distances travelled. One of these applications, Google Maps, was used extensively by Homunculus to follow two philosophers, Thales and Anaxagoras, down uncanny streets to discover a new light within themselves.

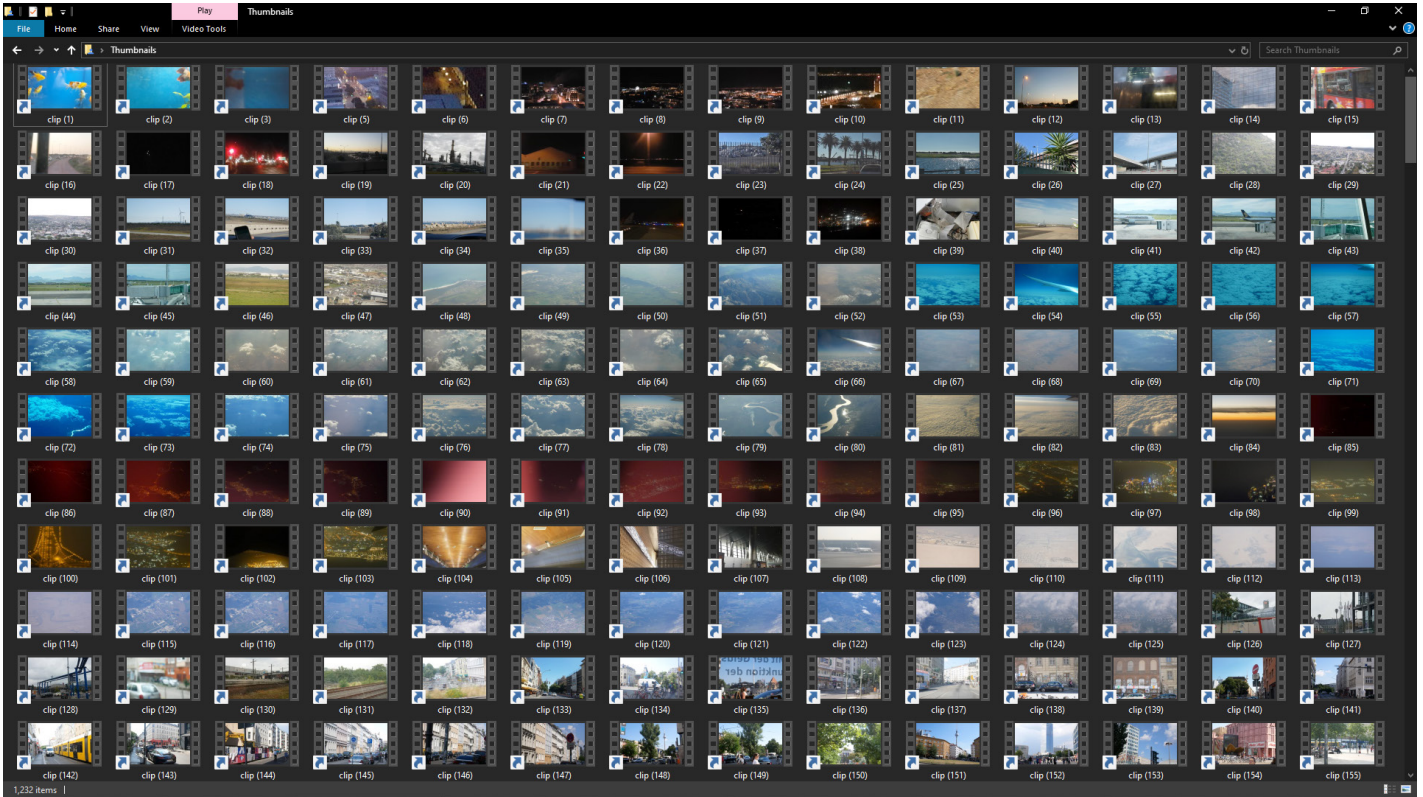
### II

Homunculus decided to document moments that represented their urban experience. As an artificial being, they had always felt a certain kinship to technology and its effects. Cell phones, necessary to navigate this mass-mediated world, become prosthetics, permanently attached to our bodies. Homunculus shot most of their footage with one of these prosthetics, and between 2018 and 2019 amassed an archive of more than 800GB data consisting of over 3 000 clips. The thumbnail views of this plethora of clips give a sense of the vast unknowability of the city, often capturing readily recognisable reflections of the urban environment such as skylines, tall buildings, busy roads, crowds and airports. Homunculus realised the importance of immaterial networks in the

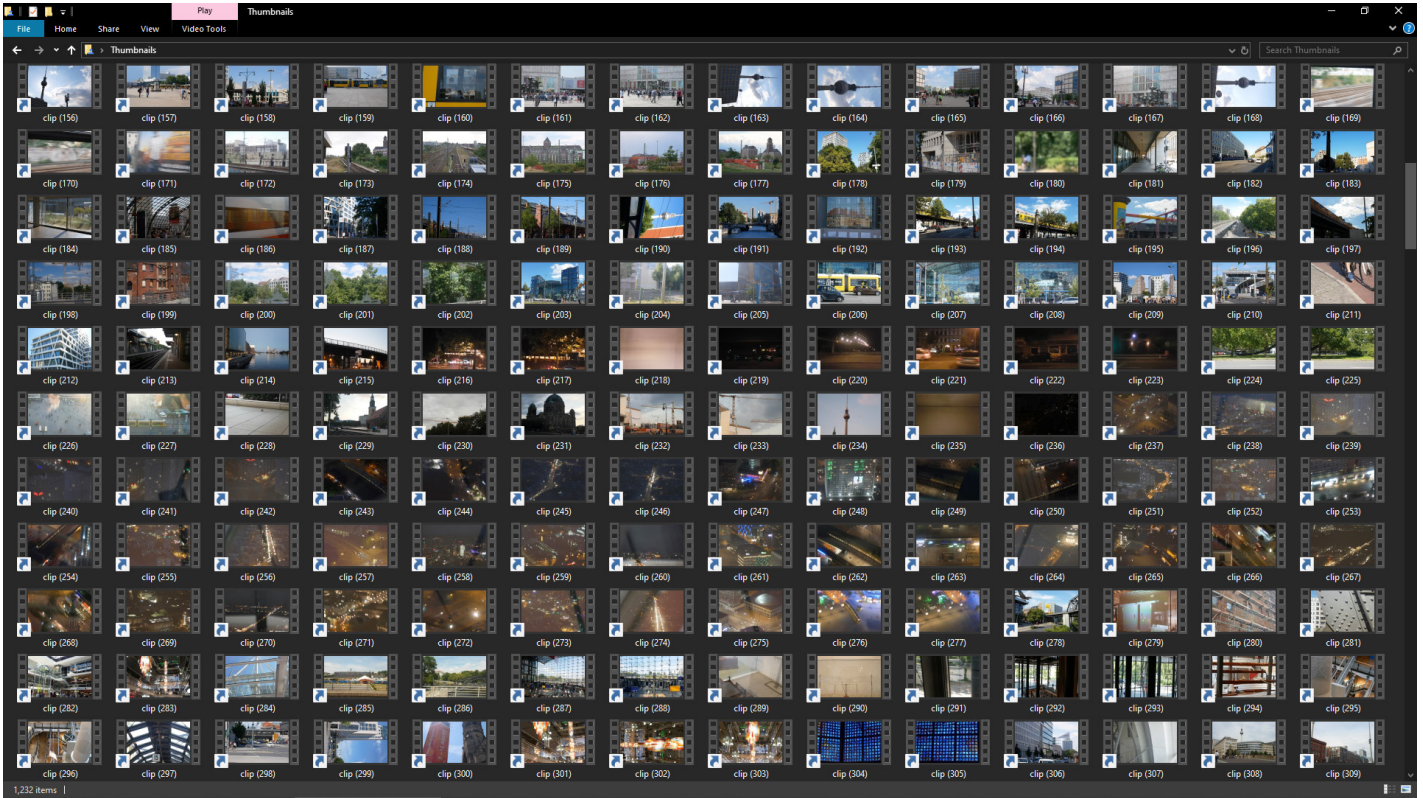
city, but also subsequently understood that the material quality of the city should not be overshadowed by technocentric ideas.

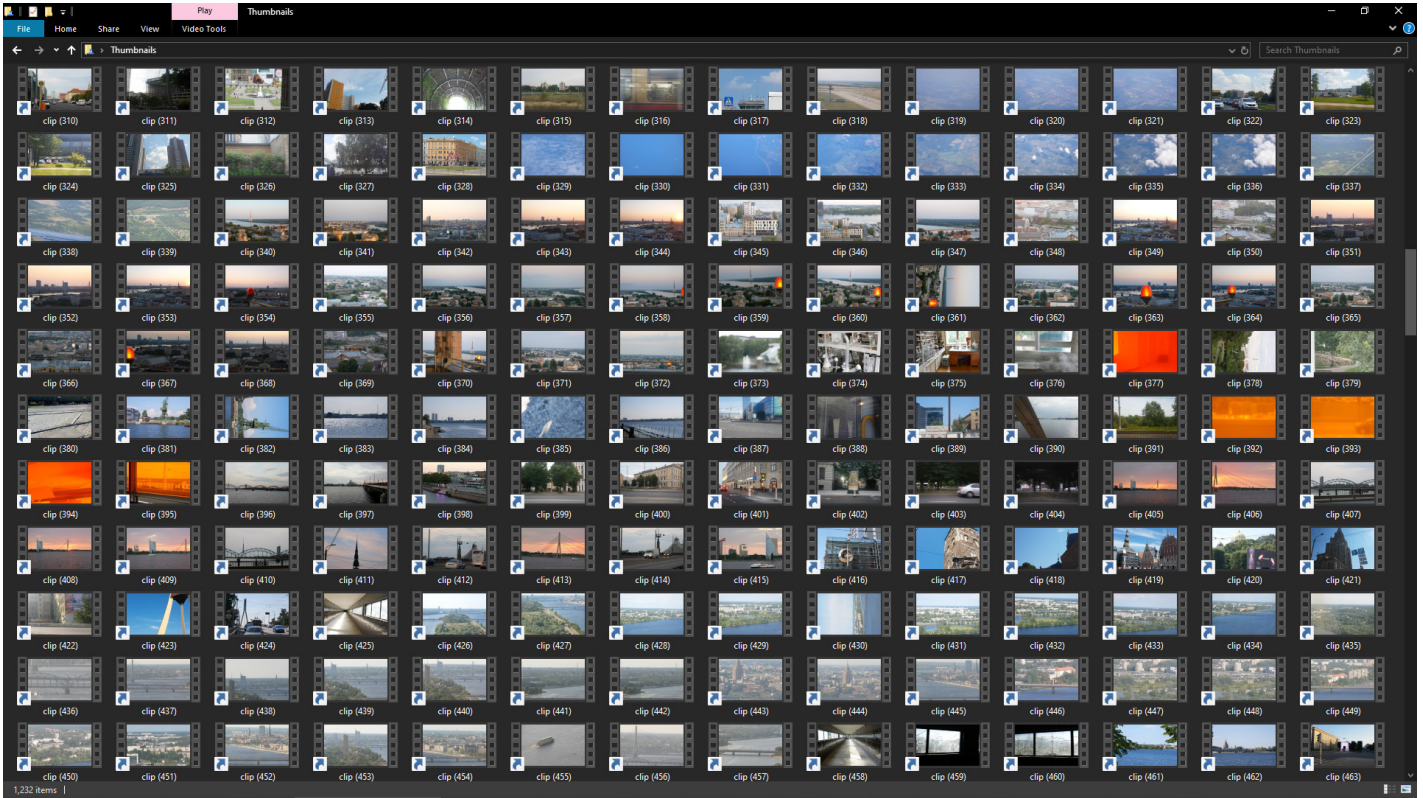
### III

During these travels, our protagonist became more aware of digital screens in the cities; they were omnipresent. Homunculus encountered screens in airports, trains, busses and cars; on the street; and in supermarkets, galleries and coffee shops. Many of these screens were gripped just centimetres away from their faces by city dwellers. Homunculus began to collect obsolete, outdated, discarded and well-worn electronics. To them, these qualities of obsolescence emphasised the material aspects of the devices – damaged, static or dead, no longer serving their intended functions. Homunculus also understood that these were representative of Homunculus' own ability to navigate the city and interact with its built environment, as many of these electronics had acted as prosthetics. These electronic prosthetics cemented Homunculus' cyborgian self-identification and reminded them of structures in the built environment: cables became roads, laptop chargers became railroads and stations, motherboards became neighbourhoods seen from above and desktop computer towers became skyscrapers.

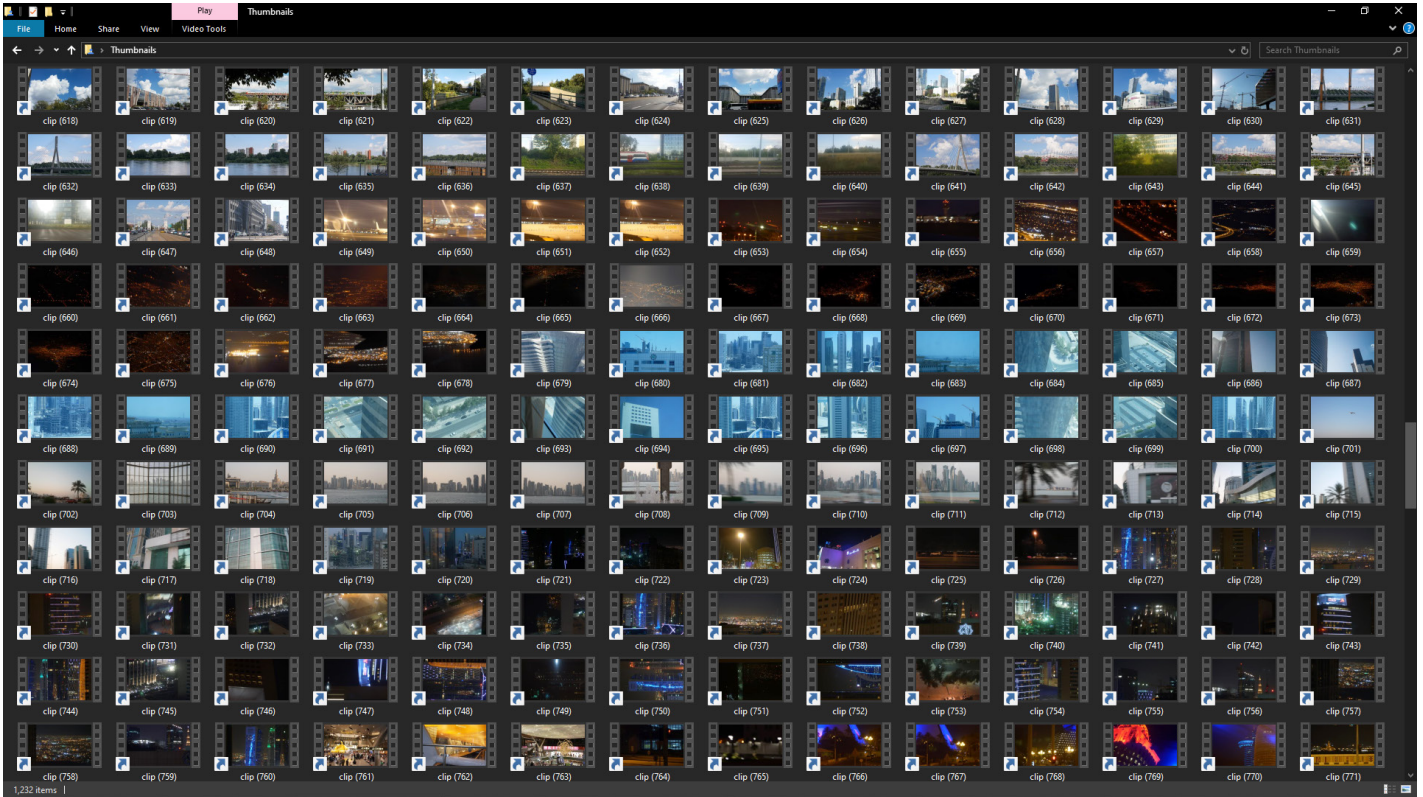


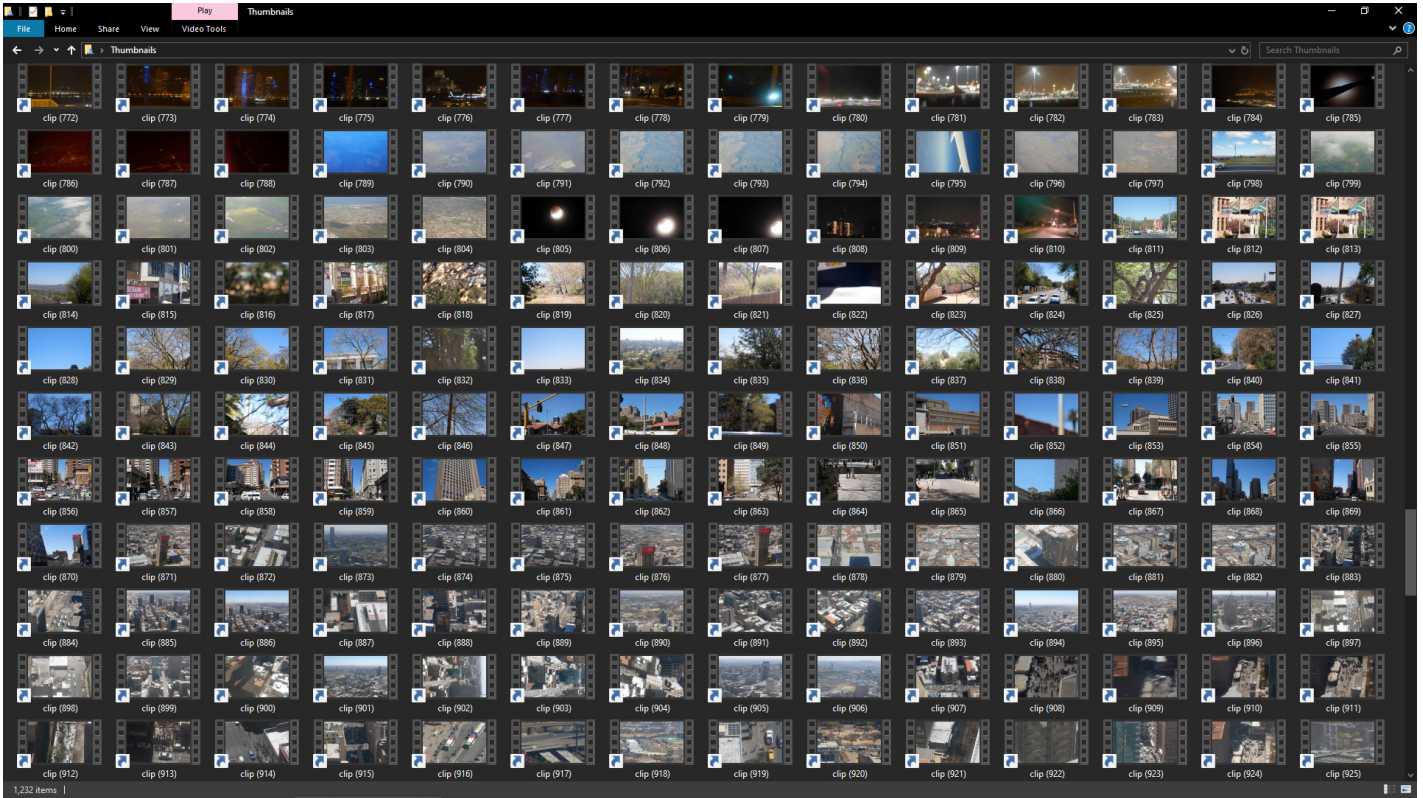
Pages 15–22. Screenshots of a selection of footage recorded for this exhibition.

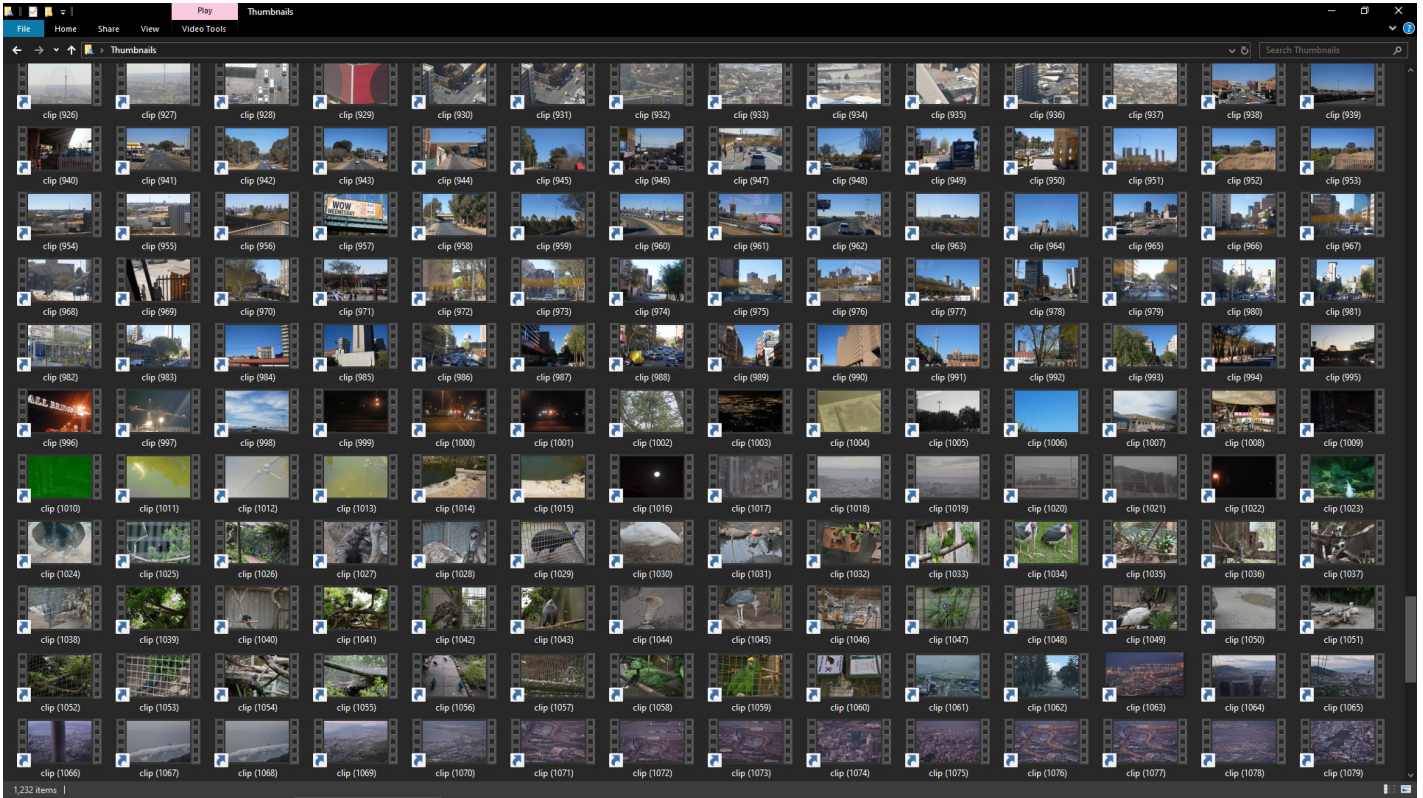


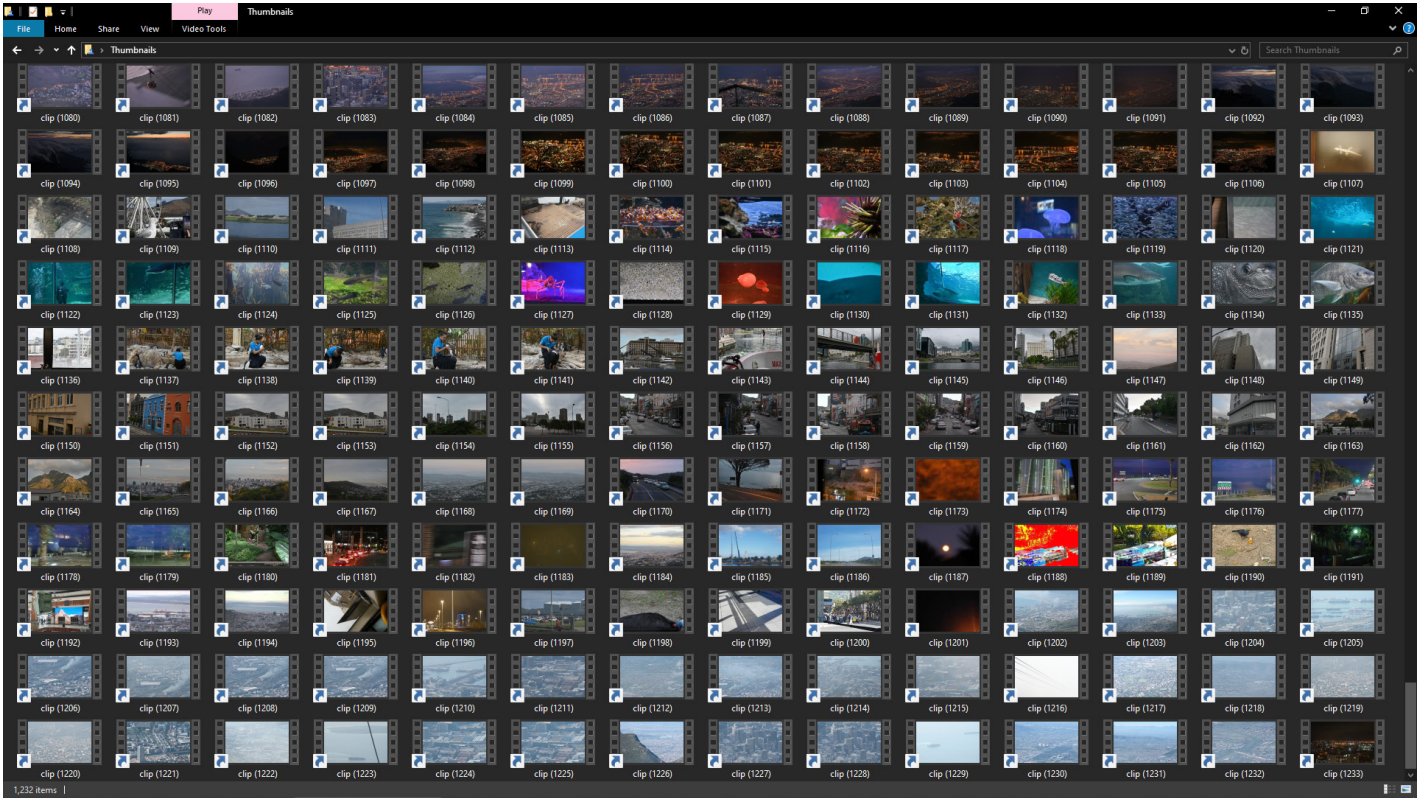












## The cyborgian city

Ingrid Hoelzl and Rémi Marie's essay 'Brave new city: the image in the urban data-space' (2016) addresses various implications of the (digital) screen's presence in the urban environment. The authors argue that the proliferation of cell phones and other portable screens, as well as various wireless signals, has transformed the urban body into 'an ambulant real-time database, a mobile *corps de données* [data body]' (Hoelzl & Marie, 2016: 371). Hoelzl and Marie discuss Lev Manovich's 'The poetics of augmented space' (2006), in which Manovich describes augmented space as simply a 'physical space overlaid with dynamically changing information', where 'this information is likely to be in multimedia form and is often localized for each user' (2006: 220). Manovich provides three key examples of this information: ubiquitous video surveillance; cellspace technologies; and video displays (2006: 221). With this conception of the augmented space in mind, *corps de données* is used to explain that the urban subject is defined not only by its physical presence within the city, but also by the digital data that is generated by its movements and actions within the urban space, particularly via mobile technologies made manifest on mobile screens. An example of this is the extensive location tracking of numerous mobile applications, such as Facebook, Google Photos and Google Maps. Hoelzl and Marie explore definitions of the urban environment that posit an integral relationship between the tangible built environment and a complex data network attached to mobile urban bodies.

Hoelzl and Marie discuss the proliferation of the mobile screen and its implications for defining the urban experience (and the urban environment) by first comparing it to the static urban screens of video billboards, media facades and related information displays. Works of science fiction have often described 'near-future scenarios of ubiquitous screen surfaces' and, while this is realised in parts of some cities, in general these scenarios are still far from a reality (Hoelzl & Marie, 2016: 373). While the authors state that 'both rich suburbs and poor neighbourhoods' in today's cities lack any kind of public screen (Hoelzl & Marie, 2016: 373), they make little reference to the Global South, where the vast majority of today's urbanisation is taking place (United Nations, 2018), and instead focus on Western urbanisation. However,



Figure 2: Gordan Savicic. 2008. *Constraint city/The pain of everyday life*. Performance.

some discussion about mobile screens as an integral part of the urban experience can be extrapolated to southern cities. Tegan Bristow (2014), for example, conducted limited research into the effects of mobile devices on cultural production and consumption in Nairobi. For many urban bodies, the mobile screen (specifically the cell phone) is not only the most important screen but is often the most accessible (Bristow, 2014), and the proliferation of the cell phone has resulted in what Hoelzl and Marie call 'the augmented city', where urban bodies 'inhabit the network as well as the physical city' (Hoelzl & Marie, 2016: 375). The definition of 'city' is thus 'not restricted to city space but is recast from a physical to a data density (which often overlap) and to the continuous possibility of wirelessly accessing this data' (Hoelzl & Marie, 2016: 375).

Ostensibly, this idea of the 'augmented city' recasts the definition of the city to include a seemingly intangible layer of dense networks with which the urban body actively and passively participates, with various degrees of access to its effects on these networks. Artists interested in contemporary experiences of urban space have responded to how data and screens modify our presence, as in Gordan Savicic's *Constraint city/The pain of everyday life* (Figure 2, started in 2008). In this work, the artist dons a 'chest strap (corset) with high torque servo motors and a WIFI-enabled game-console ... worn as a fetish object'. As the artist moves through the city, 'motors tighten the straps when an enclosed wireless network is detected', becoming tighter with stronger signals (Leopoldseder, Schöpf & Stocker, 2008: 170). The artist then retrieves the results from Google Maps using automated scripts (Hoelzl & Marie, 2016). This work exemplifies the idea of the *corps de données* by physically manifesting the effects of invisible networks on a human body. While location-tracking through mobile applications often occurs without the user's knowledge, Savicic's work makes us aware of the physical impact of these invisible networks and the effect they may have on our bodies. The artwork thus functions as an example of the intersection between the tangible and intangible nature of the contemporary cityscape. Arguably, the material aspect is the artist's body, their physical movement through the city streets and the motorised corset, while the invisible networks and the artist's sense of pain constitute the immaterial aspect. The artist's cell phone tracks



Figures 3–6: Dineo Seshee Bopape. 2013. *is i am sky*. Single-channel video. 17m 48s. Cape Town: Michael Stevenson Gallery.

both these aspects, ultimately functioning as a physical, material screen displaying immaterial data that represents the combined functioning of hardware and software.

Dineo Seshee Bopape explores the juncture between the material and the immaterial in a more nuanced manner. In the video work *is i am sky* (Figures 3–6, 2013), the artist manipulates digital videos of her own body and various environments to allow ‘the image of herself to be part of the membrane of the video itself, as if she were shifting into the media and becoming part of its non-materiality’ (Bristow, 2014: 340). The work consists of a seemingly simple narrative in which the background transforms from an Earthly landscape to various scenes in outer space, with the artist’s body present throughout. The work explores the notion of the ‘data body’ and is a key exemplar of what Hoelzl and Marie call the ‘image-screen’, as digital manipulation visually merges the artist’s body with the background, providing a merger between body, image and, ultimately, screen. Hoelzl and Marie state that in digital screening, ‘the image no longer reactualizes a photographic past, but a signaletic present: it is the on-screen reactualization of a digital video signal’ (Hoelzl & Marie, 2016: 372). Similarly, Boris Grois states that ‘the image begins to function analogously to a piece of music, whose score, as is generally known, is not identical to the musical piece – the score itself being silent’ (2008: 85). Moreover, Grois claims that an image must be ‘performed’ as an ‘event of visualization of invisible data’ (2008:85) – the immaterial image file is visualised by the performance of the material screen, and ‘the screen coincides with the image in the sense that all we see on the screen is the image and the image coincides with the screen in the sense that it only appears on screen’ (Hoelzl & Marie, 2016: 372). Thus, the image-screen is ‘a tentative “view” of a database ... constantly reconfigured by the hardware/software/user’ (Hoelzl & Marie, 2016: 372), extended in *is i am sky* in that the subject (the body) is also the image and the screen, forming the body-image-screen. In my own work, I utilise the body-image-screen by working extensively with video recordings of my passage through the city. In these videos, my body is never present within the frame, but my viewpoint remains the viewer’s primary access point. The view of the city is mediated by my physical movement through the various networks of the cities and includes public transportation, being a passenger in a car, riding elevators,

walking in streets and travelling in aeroplanes. Like Bopape, but especially reminiscent of Savicic, I act as a *corps de données* as I move through these networks and record the moments around me.

Matthew Gandy (2005) uses 'cyborg' to refer to a range of material manifestations associated with the human body, including physical infrastructure such as pipes, transport systems and the immaterial digital networks. Gandy discusses various theories about the urban environment and identifies two approaches relevant to conceptualising the city: organist and neo-organist. The former consists of largely modernist conceptions of 'the city as a self-contained body or machine' (Gandy, 2005: 29) and includes an understanding of the city as echoing the organic network of plant roots or aspects of the human body, such as organs and blood vessels. The organist approach culminates in conceptions in which there is a clear separation of body and mind, allowing 'the city to be conceptualized as a coherent entity to be acted upon, disciplined, regulated and shaped according to human will' (Gandy, 2005: 29). On the other hand, a neo-organist conception of the city consists of 'a neurological reading of space as a diffuse and interconnected realm of human interaction' (Gandy, 2005: 29). Here, the city may be more reminiscent of the brain or a computer, through its interconnected hardware and software.

For Gandy, the notion of the cyborg represents alternative ways of conceptualising the city, as it challenges 'disembodied, dualistic, masculinist and teleological bodies of knowledge' (Gandy 2005: 27), and Gandy specifically references Haraway's definition of the cyborg. Similarly, M. Christine Boyer discusses modern and postmodern conceptions of the urban environment, including modernist notions of the 'Machine City', in which the city 'was believed to be an inorganic and fabricated environment, the product of mathematics and the creation of an engineer' (Boyer, 1992: 116). Conversely, in postmodern conceptions the 'body is surrounded by and bombarded with incoherent fragments of time', to the point that there is a 'loss of spatial boundaries, of spatial distinctions', as is often the case in technocentric conceptions (Boyer, 1992: 118). However, Boyer pertinently asks whether the perceived dominance of computer networks in urban conceptions is warranted or is simply a product of our imagination. Thus, with reference to both Gandy's and Boyer's discussions, I have created a conceptualisation of the urban environment in this body of work

in which not only is the notion of the cyborg key, but so too is the notion of connected digital devices. In addition to navigating the city as a cyborgian Homunculus, I depended heavily on networked devices to explore and create my version of the city space.

Gandy asks, 'What happens when the human subject is increasingly merged with the fabric of the city itself?' (2005: 34) and suggests that with increasingly shared networks (of various kinds), the physical urban environment has merged with the human body to the extent that it intrudes 'upon the process of thought itself' (2005: 34). Gandy explains this as a consequence of the rise of artificial intelligence in our cities' networks, resulting in 'distributed cognition' between human and non-human agents that 'blur the boundaries between sentience and non-sentience, between bodies and machine' (Gandy, 2005: 34). However, Gandy's text responds to theories that conceptualise the city with an emphasis on technocentric notions, at the neglect of the material reality of urban environments. As it acknowledges the importance of the material qualities of the city, Gandy uses the cyborg metaphor as an antidote to the modernist obsession with technology and the postmodern negation of the material (Boyer, 1992).

In *Homunculi of the digital city*, the screen is a central concern both sculpturally and conceptually. Gandy suggests that a technocentric conception of the city, such as Hoelzl and Marie's 'brave new city', is flawed, and that it is important to consider theory about urbanism and screens that does not neglect the material aspects of cities. Zlatan Krajina's 'Exploring urban screens' (2009), while focused on Western cities, includes a discussion of an element overlooked by Gandy as well as by Hoelzl and Marie: the inherently spatial quality of light in the urban environment, particularly when emanating from public screens. Krajina introduces an urban anthropology of light to suggest new understanding around the architectural function of public screens and suggests that 'before they "inform" or "advertise" – urban screens "glow", shedding light on the surrounding built surfaces, by consequence of being electronically "fuelled"' (2009: 417).

With the advent of the widespread public illumination of the 19th century, light was used to define spaces within the city, with unlit areas now all but non-existent at night (Krajina, 2009: 419). This has reached an



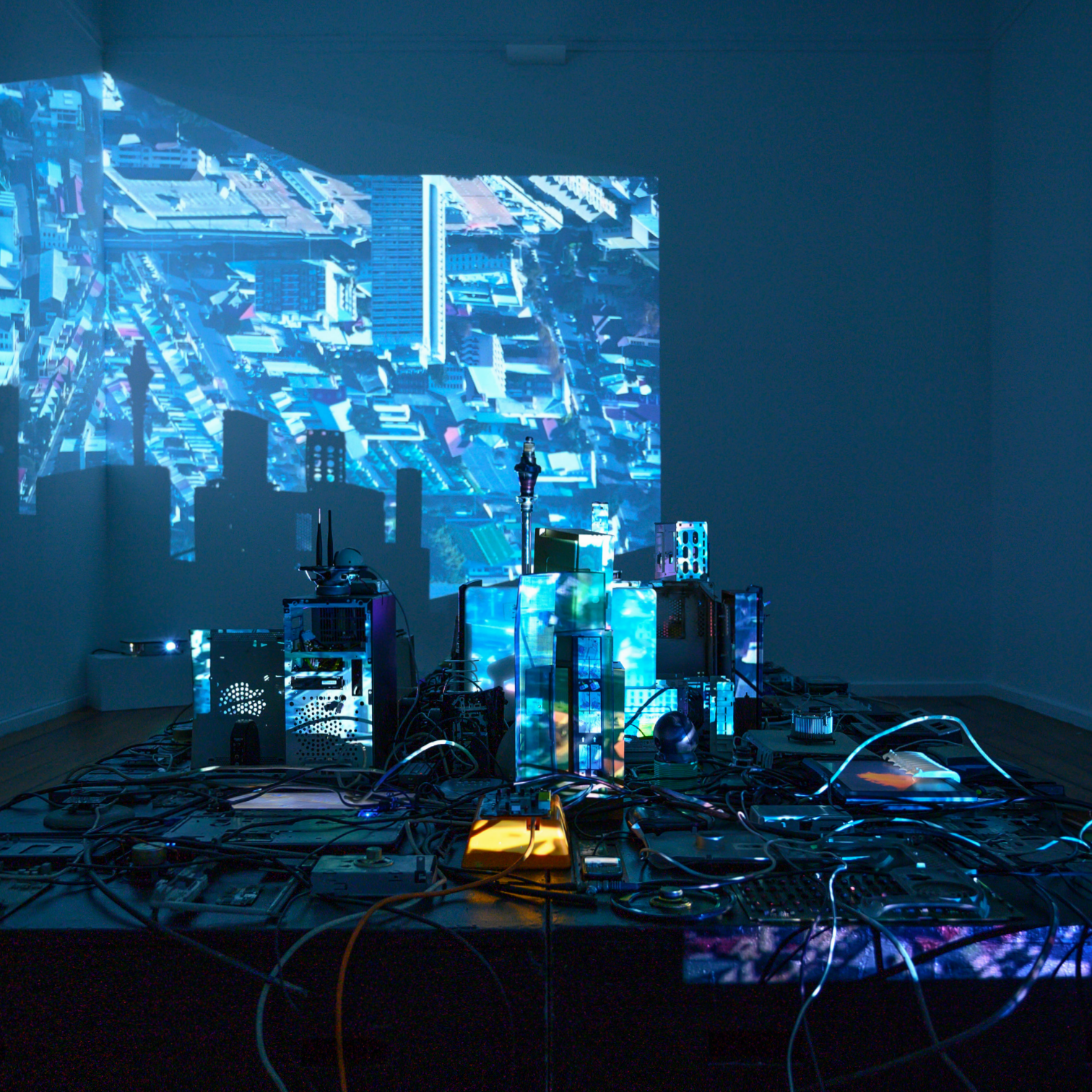
Figure 7: 'The Old Street screen in the contexts of rain, evening luminous spillage, and busy traffic on a sunny day' (Krajina, 2009: 411).

apogee in brightly lit spaces in urban centres, such as New York City's Times Square (Krajina, 2009: 419). An 18 m<sup>2</sup> digital advertising screen near the Old Street roundabout in London is another, more specific case study (Figure 7). Krajina writes that the screen's glow emanates well beyond its leased two-dimensional surface and creates another space, one that is often used as a meeting area for people at night (2009: 413). Krajina suggests that light is a 'sub-textual medium' that carries the projected text of the screen. The screen encroaches on its surrounding environment not only by way of its technological physicality, but also through the immaterial qualities of its direct and ambient light. Of course, such spaces become ever more complex when cell phones and other portable screens are also involved.

These ideas about screens and cities informed the development and production of my own body of work. In *Light wall* (2019), a computer monitor is suspended at an angle against a gallery wall, with the screen facing the wall. The imagery on the monitor is not easily visible to the viewer, and instead the video is primarily 'displayed' by its ambient light. In this work, fast moving imagery reminiscent of advertisements 'glows' onto the wall and creates a new space, one which further augments the screen's material and immaterial qualities.

My larger installation, *Digital city performance* (Figure 8), can be contextualised in relation to the ideas discussed in this chapter. The work consists of various cables and found electronics arranged on six stage rostra. The electronics include laptops, cell phones, LCD computer monitors, desktop computers, printers, gaming consoles, speakers and more. Their configuration mimics some of the formal characteristics of the built environment seen in my video documentation, particularly viewpoints from aeroplane windows and high vantage points (Figures 9 and 10). Such characteristics include the grouping of taller objects at the centre, omnipresent cabling representative of networks and infrastructure and an arrangement reminiscent of the loose, grid-like system of the shapes, roads and other divisions of many cities when seen from on high (Figure 10).

Figure 8: Heinrich Minnie. 2019–2020. *Digital city performance*. Mixed media installation.



Most screens in the installation play my video works, which are composed of video documentation of my travels in, through and over various cities around the world, while projectors display jaggedly cropped and split video over and around the arranged objects. The videos are displayed by various devices, resulting in images that link to Groi's notion that 'the image file is not an image – the image file is invisible' (2008: 84). The file as configured within the electronic components of the computer is invisible to the naked eye; only by augmenting our vision with a screen, an operating system and a user interface that allows us to navigate this stored data can we access the data on a drive. Once that data is found, Groi's argues that the screen 'performs' the image for the audience/viewer in the same manner that a musician performs a score or an actor performs a script.

The installation is presented on stage blocks traditionally used in theatre, signalling that the depicted experience is an imagined one and is performed not just by the screens themselves, but by me as Homunculus in the city. In other words, this imagined cityscape can also be seen as a performance of Homunculus by me, as it constitutes my viewpoint and experiences of the urban environment through the character's eyes. The video sequences reference a formal aspect of the device performing each file: two fast-moving sequences are performed on two screens arranged at right angles to each other, resulting in movement that either originates or terminates at the neighbouring edges of the screens; video clips with strong geometric lines and patterns are performed on a screen placed next to objects with similar characteristics; a screen lying on its back performs a sequence of aerial footage, as if to subvert the camera's viewpoint from a high altitude; and a cell phone performs shaky footage in which the artist's handling of the light device is clearly visible.



Figures 9 & 10: Heinrich Minnie. 2019–2020. *Digital city performance*. Mixed media installation: video stills.

Grois (2008: 90–91) writes that:

One can play with the technical quality of a digital image on all levels, including the material quality of the monitor or the projection surface, the external light, which as we know substantially changes the viewer's perception of a video image.

The only light in this installation emanates from projectors and screens, while the 'city' of found objects casts a shadow reminiscent of an urban skyline (Figure 8). The material aspect of the city is represented by the physical objects in the installation, referencing the built environment through physical hardware and exemplifying Krajina's Old Street study, where the glow of a public screen offers city-dwellers a new space with which to engage and interact.

The material presence of screens as physical electronic objects is emphasised in *Digital city performance* (Figure 11), while their function as virtual gateways is conveyed via the use of video throughout *Homunculi of the digital city*, resulting in a potential 'concoction of materiality and virtuality' (Krajina, 2009: 416). I define the urban environment, or more specifically, Homunculus' imagined conception of the city, via the presence and functioning of the screen. Through its hardware and software, the screen acts as a cyborgian synecdoche of the city, especially as the screen is an ergonomically designed apparatus linked to the human body, in line with Haraway's definition of the cyborg.



Figure 11: Heinrich Minnie. 2019–2020. *Digital city performance*. Mixed media installation.

## Act III

### I

#### LABORATORY

As Homunculus' archive grew, they started to document not only that which was present but to seek out moments that they felt metaphorically represented their experience. Examples of this were animals in the city and more abstract images in which the cityscape appeared as just a few flickering lights. Homunculus grew weary of the city, though, even as they sensed that it was the only place they might come close to a sense of belonging. Homunculus was drawn to animals trapped in cages, perhaps because they shared a sense of entrapment within their constructed urban habitats, and Homunculus documented a variety of these animals in their unreal worlds. Nevertheless, the urban habitat felt appropriate for Homunculus' needs.

As the screen is the opaque black mirror that consumes and reflects our identities, Homunculus made videos that evoked their own urban narrative. They allowed Homunculus to convey their imagined sense of the city through techniques that alter our perception of time, our understanding of space and our notions of urban subjecthood. Homunculus' voice performed these imaginary cityscapes in tandem with the cyborgian performance of the hardware and software of the screen.

## II

Homunculus viewed the creation of videos as an alchemical process, as they themselves were made as an alchemical creation by Faust's assistant, Wagner, in a laboratory. For Homunculus, the elements of the city became apparent as they questioned their own creation. Fire became artificial light. Air became the flight paths of aeroplanes and urban birds. Water became canals, levied rivers, harbours and artificial ponds. Earth became subways and construction. Merging imagery of caged animals with the facades of tall buildings provided a means for Homunculus to understand their place within the city's built environment. Sequential footage from disparate locations showed the vast distances travelled every day on Homunculus' daily commute to the Cape Town CBD. Upside-down aerial footage offered a sublime view of the city, one they encountered on their first flight, in 2015, which had turned their world around.

## The screen

Gandy's cyborgian interplay between 'virtual' and 'real' in the urban environment is especially relevant to Homunculi of the digital city. I associate the terms with material and immaterial features and, more specifically, with the hardware and software of screens – all inextricably interconnected. The screen is a dual object, both material and immaterial. Its material aspect is its physical hardware, the plastics and metals that constitute the tangible object, while its immaterial aspect is the software in intangible digital code. Together they form a whole capable of rendering the code into performed images on the physical surface of the screen, providing access to otherwise unseeable elements. The abundant presence of this unified cyborgian operation (when functioning as intended) represents a novel conception of the city as a high density of screens, while individually they represent the urban subject's constant negotiation between material and immaterial spaces. The urban subject also accesses these immaterial aspects through screens, resulting in an augmented material and immaterial space. Gandy's cyborg urbanisation redefines the urban environment as a spatial phenomenon of complex connections and overlapping human and non-human networks and characteristics, such as 'ourselves and other organic creatures' and 'machines in their guise' (1991: 1). As an ergonomically designed apparatus, the screen can serve as a prosthetic to the human body, especially in portable devices such as laptops and cell phones. As a metaphor for the urban cyborg that is contemporary humanity, Homunculus represents the way in which we make meaning of our cities.

The screen becomes increasingly important when conceptualising the contemporary urban environment. The ubiquity and physical presence of screens is an undeniable material element of the contemporary city, performing invisible files while simultaneously functioning as gateways and windows to virtual networks. In Dineo Seshee Bopape's installation *Untitled (Of occult instability) [Feelings]* (2016–2018), the artist creates an environment that is layered with physical and metaphysical meaning (Figure 12). Among other things, the installation consists of construction materials and fragments in various stages of ruin, calabashes constrained by steel rods, video screens of different sizes and placement, and buckets



Figure 12: Dineo Seshee Bopape in collaboration with Jabu Arnell, Lachell Workman and Robert Rhee. 2016–2018. *Untitled (Of occult instability) [Feelings]*. Mixed media installation. Berlin: KW Institute for Contemporary Art.

collecting water that drips slowly from the ceiling. These elements suggest the material reality of the urban environment, while orange lighting, digital video works and associated sounds represent the immaterial. The video works include a dual-screen setup that appears to depict urban park scenery, with each screen depicting different angles and viewpoints in colour or black and white. A recorded live performance of Nina Simone plays on a small screen – her voice and persona filling the room with an omnipresence like that of the bright orange light. With reference to Gandy's definition of the urban environment, Bopape's installation can be seen as a miniature city, given that it conveys a relationship between the material and the immaterial in the cyborgian city. More specifically, it represents the material and immaterial aspects of a city through hardware (objects) and software (the orange lighting, performed video files with their associated sounds), resulting in a unified experience in which both aspects function inseparably from each other. The viewer becomes Homunculus, inhabiting the installation space and seeking to 'be' within this microcosm by engaging with, and navigating, its many layers in relation to their own cyborgian body.

Multiple screens and viewpoints are key components of *Homunculi of the digital city*, representing the high density of screens within the urban environment. Anne Friedberg (2006) discusses how the moving image has evolved from its sequential presentation in film and television to the multiple screens utilised by artists such as Andy Warhol and culminates in the 'post-cinematic' multi-window stacking and processing of computer screens. Isaac Julien's *Ten thousand waves* (Figure 13, 2010) is a striking example of the multi-window viewpoint that includes many references to chroma keying (and by extension, digitally layered streams of data) and urban environments.<sup>4</sup> Scenes of Shanghai appear as multiple instances of the same event within a specific geographic area, but the position of each screen differs slightly across the event – the viewer thus experiences a slight dislocation in time as they traverse the exhibition space. In my body of work, multiple screens represent a high density of screens in the urban environment and serve to represent multiple viewpoints of the same city, creating a 'windowed' viewpoint like that found on

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<sup>4</sup> Used in green screening, chroma keying involves selecting a particular colour in a video and turning it into an alpha channel, making it transparent and allowing footage 'underneath' to be shown through certain areas. It is frequently used in weather forecasts and high-budget films, where imagery green-screened into the primary footage transforms our perception of the imagined reality in which the narrative unfolds.



Figure 13: Isaac Julien. 2010. *Ten thousand waves*. Multi-channel video installation. Cape Town: Zeitz Museum of Contemporary Art Africa.

a computer desktop, where multiple image files can be performed at the same time. They also create the possibility of concurrently performing seemingly similar urban moments and viewpoints from different cities. This is especially apparent in the installation *Digital city performance*, but the 'windowed' strategy is also metaphorically applied in the *Homunculus* video series by utilising different editing techniques.

The main compositions in these videos are created through the sequential editing of clips selected from my archive that would be time-consuming and laborious to view unedited in their entirety. Complex connections are made through the considered selection and sequencing of the clips, and it is particularly in this editing process that I grappled with my own conceptions of the city. The process allows me to collate visual data about the elements (water, air, fire and earth) that I have metaphorically linked back to alchemy that reference Homunculus' creation. This editing process also empathetically represents my own journey to understand the cities I have visited. Conversely, I also display a work that includes an unedited, 8-hour clip of the Cape Town CBD entitled *Southern Empire* (2019), referencing Andy Warhol's 1964 film, *Empire*. *Southern Empire* is performed on a screen extracted from a faulty, obsolete, early-2000s laptop, resulting in a frame on the gallery wall that is linked to a modern Android media player via additional circuitry. This work references time as a medium through its unedited and seemingly stagnant video and in the obsolescence of the laptop screen used to perform it.

In the *Homunculus* video series, created predominantly via sequential editing, I also utilise digital effects, if subtly. These effects include slowing down and speeding up certain clips, as well as applying some colour correction throughout the videos. In certain clips, I also digitally merged different videos into a single stream via chroma keying (Figure 14) to produce an effect similar to that in Dineo Seshee Bopape's *is i am sky* (2013), where parts of the artist's face merge with imagery reminiscent of common, factory-installed computer desktop backgrounds. With this process, multiple video files are performed simultaneously and merge into a new video file. In the *Homunculus* series, disparate viewpoints are combined that do not occur in real life, thus creating an imagined cityscape. I also created 3D scans of found objects and digital components, which I subsequently superimposed over clips from my archive (Figure 16). These



Thou art a genuine virgin's-son: • Finished, ere thou shouldst be begun! • THALES • (whispering). Viewed from ano

Figure 14: Heinrich Minnie. 2019–2020. *Homunculus I (Water)*. Single-channel video. 06m 41s.

scanned objects were chosen because they reminded me of formal qualities in the built environment, such as a building or cluster of buildings. These new video files create new spaces that remind the viewer of the inherently constructed nature of the urban environment, both in terms of its material *and* immaterial qualities (including our own imaginary conceptions of specific cities, in the case of the latter). Using the aforementioned editing techniques, I created a musical score to be performed by the screen, referring to Groi's (2008) analogy of an image file being akin to a piece of music. *Homunculus* serves as the writer/artist, conductor, viewer and, crucially, performing voice of the invisible score.

Pertinent sections of Goethe's closet play are used as an accompanying text to *Homunculus I (Water)*, *Homunculus II (Air)*, *Homunculus III (Fire)* and *Homunculus IV (Earth)*, (Figures 14 to 18) and include dialogue that features Homunculus inserted into the videos in a format reminiscent of live-news broadcast tickers. This dual narrative of image and text-based information complicates the viewing experience and challenges the viewer to regularly switch between the two streams of information. The text is shown in the lower part of the screen over my footage of urban environments and related and/or metaphorical imagery. The combination of a fictional narrative and footage of real urban environments creates awareness of how we rely on a variety of sources to mediate our experience of the city and navigate the urban sprawl. A synthetic voice derived from an open-source text-to-speech program reads Homunculus' dialogue in each video's text, playing on the artificiality of Homunculus.

As in *Digital city performance*, I wish to show that a city is defined by both material and immaterial elements, with Homunculus as the performer/viewer of the combined result. However, the *Homunculus* video series seeks to integrate the material via immaterial means, i.e. the material quality of the city is represented through the data that makes up the digital video content as well as through the physical screen. The *Homunculus* videos are presented on four large 43" LCD television screens in an otherwise dark and empty room. Their size and staged isolation foreground the importance of the screen to perform the invisible files of the videos, and their glow creates a space that augments the gallery's main room. These screens are ubiquitous in banks, airports, living rooms, hospitals, government offices, supermarkets, etc.; they have

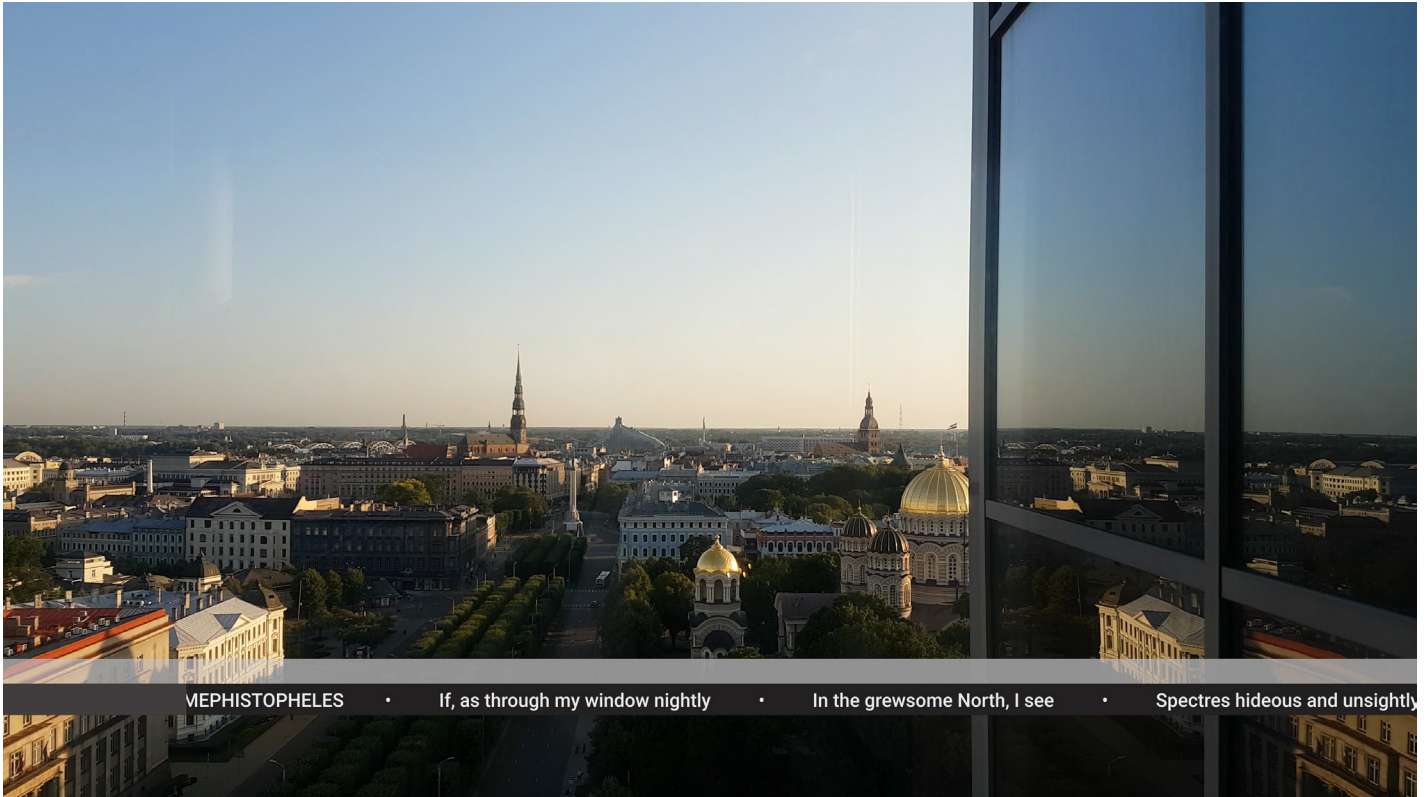


Figure 15: Heinrich Minnie. 2019–2020. *Homunculus II (Air)*. Single-channel video. 05m 36s.

a decidedly public *and* private function that enhances their potential for immersion, as they are familiar objects in many spheres of life. In a gallery environment, these screens act in part as frames, invisible to the viewers through their familiarity, but they are also material objects that function as a gateway to the immaterial. The video series aims to make the viewer aware of the material simply by altering their expectations of its representation. For example, a simple view of a city through an aeroplane window can be disrupted by the insertion of a 3D object that masquerades as a giant building. The material aspect is represented by imagery in the performed video files, as distinct from the physical objects that represent them in *Digital city performance*. The former's representation combines to create a fictional pseudo-news report that represents a 'reality' of sorts, but it also conveys an immateriality (via digital representation) that is as prominent as the material structures it is based upon.

Two smaller works link the videos and installation – *Skylines* (2019) and *Prosthetic in a phial* (2019). The former consists of a repurposed screen from an old laptop, but the colour of the screen is heavily distorted. The video is a sequence of skylines from the cities I have visited; the resulting distorted images are unusually picturesque and evoke the idea that the skyline is the single image that inaccurately encapsulates the entirety of a given city. The distortion is ostensibly due to a material defect in the screen or its circuitry that results in an 'incorrectly' performed video file, highlighting the inextricable link between the material and the immaterial (the hardware and software) of the screen and, by extension, of the city. *Prosthetic in a phial* (2019) is a video of an obsolete cell phone under a bell jar. The video sequence displays clips from my archive in which glass is apparent and includes scenes of aquaria, dirty or raindrop-covered windows and the glass facades of buildings. In this work, Homunculus' glass enclosure is strongly referenced via the bell jar, and the cell-phone-as-prosthetic-as-screen represents a part of Homunculus that could accompany them on their journeys through the unified material and immaterial space of the city.

The works are presented in three different spaces of the gallery. The *Homunculus* series is shown in the largest room and the installation in the smaller room, connected by the smaller works in the passageway



Figure 16: Heinrich Minnie. 2019–2020. *Homunculus III (Fire)*. Single-channel video. 08m 13s.

between the two. While the installation punctures one of the gallery's rooms, the video series sits unobtrusively on the other room's walls. In the *Homunculus* series, the viewer puts on headphones to become immersed in an environment similar to that of the installation: an environment that depicts an urban experience of complex material and immaterial networks and structures combining to form a cyborgian cityscape. Donning these aural prosthetics, the viewer becomes a cyborg, becomes Homunculus, following in my footsteps. The viewer's shadow joins the projected image in *Digital city performance*, while the viewer's body merges with the technology of the *Homunculus* series. Between these larger bodies of work, the small works are presented as carefully selected fragments of such a cyborgian cityscape, consisting of prosthetics once used extensively by us.



Figure 17: Heinrich Minnie. 2019–2020. *Homunculus IV (Earth)*. Single-channel video. 05m 13s.

## Epilogue

### I

#### CAPE TOWN

Homunculus moved into a large apartment block in the city centre. They stay on the 7th floor. Now, living and working in the city centre, they are testing their previous conceptions of the city. And even as their sense of identity is still being moulded, their conception of the city still changing, they are now fully grounded as a cyborg. Homunculus understands that the city is more than just tall buildings and dense populations. To them, it is also a complex imagined space of material and immaterial networks. They will continue to perform these imaginaries with their prosthetic screens, but their journey to understand the city continues. They still seek to 'be' within the city.

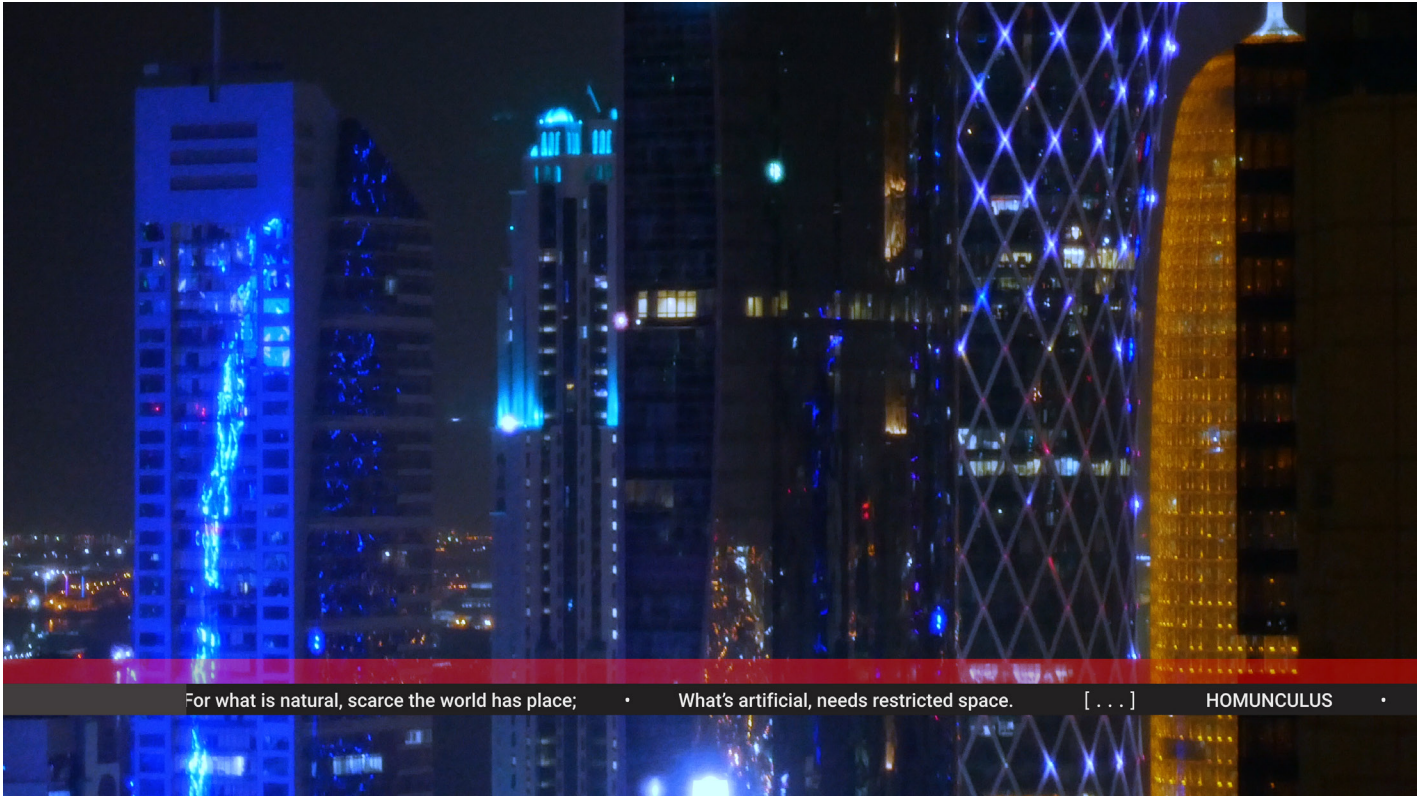


Figure 18: Heinrich Minnie. 2019–2020. *Homunculus III (Fire)*. Single-channel video. 08m 13s.

## Conclusion

Homunculus, theorised as a cyborg, is the unseen protagonist of my body of work, exploring vast urban centres. Haraway's layered definition of 'cyborg' as 'hybrid entities' consisting of 'ourselves and organic creatures' and 'machines in their guise', with complex overlap between them (1991: 1), results in a conception that suits the complexity of the city as a constructed and imagined space. Within the dual spaces presented in this text and body of work, urban identity-building and social confinement are linked to the notion of the cyborg and, especially, to Homunculus. Definitions of the city may consist of technocentric notions that prioritise immaterial networks, but they should not neglect the material realities of cities across the globe. Nevertheless, these definitions all ultimately lead to both the city and the city-dweller being conceived of as cyborgian in nature. The digital screen (as a key cyborgian prosthetic for both subjects) manifests material and immaterial aspects via a performance of data through its hardware and software – its glass enclosure and its light.

In conclusion, this body of work explores the fractured and multivalent dimensions of the contemporary city and how it affects, bodily and existentially, a being seeking to exist within it. A definition of the city is related to a given space's density of screens, where they perform invisible files that create imaginaries around this experience of existing. This experience of city is as rooted in navigating its streets as it is in connecting to its invisible networks. Our imaginaries are based on fact as much as on fiction, and the human element is as prominent as the non-human; we are cyborgs. Similarly, our cities are large and complex cyborgian entities, and while we interact with our city in many complex ways, our bodies are ultimately inextricably connected to it – especially via screens. The glass surfaces of such screens mediate the vastness and complexity of visible and invisible networks and render the latter sensible. While these screens perform these functions for us, it is we who 'light' them. Like Homunculus, we are the light that flows through the confining glass enclosures of our cities. We seek to 'be' within these glass spaces scattered with smaller glass surfaces, but perhaps our future is more fragmented. Our bodies are disintegrating and, though we cannot escape our material prisons, we are perhaps moving towards

a more immaterial world. In view of this increasingly dematerialised existence, it is significant that in *Faust II*, Homunculus breaks their glass and pours into the sea as a mixture of fire and water. They finally become part of the outside world, but, in doing so, their light is extinguished. Like us, Homunculus needs the glass to maintain their light.

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Figures 8 to 11: Minnie, H. 2019–2020. *Digital city performance* [mixed media installation].

Figure 12: Bopape, D. S. in collaboration with J. Arnell, L. Workman and R. Rhee. 2016–2018. *Untitled (Of occult instability) [Feelings]* [mixed media installation]. Berlin: KW Institute for Contemporary Art.

Figure 13: Julien, J. 2010. *Ten thousand waves* [multi-channel video installation]. Cape Town: Zeitz Museum of Contemporary Art Africa.

Figure 14: Minnie, H. 2019–2020. *Homunculus I (Water)* [single-channel video]. Still image at 04m 07s.

Figure 15: Minnie, H. 2019–2020. *Homunculus II (Air)* [single-channel video]. Still image at 03m 21s.

Figure 16: Minnie, H. 2019–2020. *Homunculus III (Fire)* [single-channel video]. Still image at 07m 24s.

Figure 17: Minnie, H. 2019–2020. *Homunculus IV (Earth)* [single-channel video]. Still image at 03m 45s.

Figure 18: Minnie, H. 2019–2020. *Homunculus III (Fire)* [single-channel video]. Still image at 05m 14s.