



# “We are continuing an industrial revolution here”: Assembling, experiencing and leveraging the affective atmospheres of post-industrial workspaces

Yosha Wijngaarden<sup>a,\*</sup>, Brian J. Hrcacs<sup>b</sup>

<sup>a</sup> Erasmus School of History, Culture and Communication, Erasmus University Rotterdam, the Netherlands

<sup>b</sup> School of Geography and Environmental Science, University of Southampton, United Kingdom

## ARTICLE INFO

### Keywords:

Post-Industrial Workspaces  
Creative Labor  
Affective Atmospheres  
Heritage  
Branding

## ABSTRACT

From Chicago to Cape Town, post-industrial creative workspaces have become ubiquitous in cities around the world. Although they are often promoted as unique and authentic, many appear to share similar architectural aesthetics including steel beams and monumental chimneys. Existing research shows that creatives are attracted by embedded networks, opportunities for knowledge exchange and the post-industrial aesthetic of these spaces. Yet, we know less about the appeal of industrial heritage and how the ‘thick’ affective atmospheres of these post-industrial workspaces are assembled, experienced and leveraged by workers and managers. This paper draws on a qualitative case study of 8 post-industrial workspaces in the Netherlands, involving 73 interviews with site managers and creative workers, participant observation and an analysis of the websites and Instagram feeds of the workspaces. It explores the interconnected nature of the spaces and stories associated with the sites to identify and better understand the range of material and immaterial elements that combine to produce affective atmospheres. The paper demonstrates how developers fuse industrial aesthetics (layouts) with industrial heritage (historical narratives) to produce unique and attractive workspaces. It then considers how creatives experience and commodify their chosen workspaces. While specific industrial aesthetics are shown to offer a valuable alternative to ‘regular’ office space, connections to the past provide workers with motivation, inspiration and opportunities for identity construction. The paper also highlights how creatives leverage the symbolic value associated with their unique post-industrial workspaces to generate distinction through self and place-branding strategies.

## 1. Introduction

From Chicago to Cape Town, Berlin to Bilbao, cities display aesthetic uniformity. Global fashion brands and fast-food chains dot the main streets. Yet, even supposedly more ‘authentic’ or ‘hipster’ neighborhoods abound with similar looking record shops, vintage fashion boutiques, coffee joints, co-working spaces and former factories which have been transformed into creative clusters of production and consumption (Brydges et al., 2020; Lloyd, 2010; Merkel, 2019; Sonnichsen, 2016). In European cities the ubiquity of post-industrial creative workspaces such as Kaapeli in Helsinki, La Friche la Belle de Mai in Marseille and Flacon in Moscow is striking (Andres and Golubchikov, 2016; Wijngaarden et al., 2019). Despite similar design features, such as monumental chimneys, rough concrete and steel structures, these workspaces are

often promoted as ‘unique’ based on their authentic architecture and industrial histories (Heebels and Van Aalst, 2010; Hutton, 2006; Kohn, 2010).

The growing popularity and diffusion of these development projects raises many important questions about such post-industrial workspaces. To start, many ‘creatives’ - from freelance web designers to film makers - have the freedom to live and work from almost anywhere (Brydges and Hrcacs, 2019; Florida, 2002). Moreover, almost all cities in Europe boast at least one post-industrial workspace (Wijngaarden et al., 2019). But how are these workspaces imagined, curated and staged to attract, engage and satisfy these primarily nomadic creatives? Existing research in geography has focused mainly on the aesthetics and local networks within such places (Drake, 2003; Heebels and Van Aalst, 2010) to understand the value for creative workers. Yet, while these studies touch

\* Corresponding author.

E-mail addresses: [wijngaarden@eshcc.eur.nl](mailto:wijngaarden@eshcc.eur.nl) (Y. Wijngaarden), [b.j.hrcacs@soton.ac.uk](mailto:b.j.hrcacs@soton.ac.uk) (B.J. Hrcacs).

<https://doi.org/10.1016/j.geoforum.2024.103944>

Received 4 June 2023; Received in revised form 17 December 2023; Accepted 4 January 2024

Available online 18 January 2024

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on the importance of symbolic value within workspaces for inspiration, they do not dig deeper into the ways in which the symbolic values of post-industrial workspaces are developed, experienced and leveraged for commercial gain.

By connecting research on post-industrial workplaces to the scholarship on affect and atmospheres, this paper advances our understanding of how the symbolic values of post-industrial heritage are manufactured and harnessed. Affect, in the context of human geography, refers to “a transpersonal *capacity* which a body has to be affected (through an affection) and to affect (as the result of modifications)” (Anderson, 2006, p. 735). Building upon this scholarship of affect (see also Pile, 2010), affective atmospheres are described as assemblages<sup>1</sup> of shared feelings developed from the interactions of people and their cultural and material surroundings (Anderson, 2009; Durose et al., 2022; Lindberg and Lundgren, 2022). Therefore, affective atmospheres consist of bodies and objects, affecting each other and leading to a form of ‘envelopment’ (i.e., being surrounded or completely enclosed by it) (Anderson, 2009). Importantly, Thrift (2004) argues that affect is increasingly ‘actively engineered’ in urban contexts. Building on this starting point we consider how material elements commonly associated with industrial aesthetics, such as bricks, concrete and steel, are combined with immaterial elements linked to industrial heritage, including stories about firms, innovations and workers, to produce affective atmospheres (Anderson, 2009; Bille and Hauge, 2022; Kohn, 2010).

The paper also connects the practice of ‘assembling’ atmospheres to scholarship which examines how creative workers ‘experience’ and ‘leverage’ their workspaces (Bhansing et al., 2018; Drake, 2003). Part of their experience involves internalized feelings and self-perceived benefits such as motivation or inspiration (Bhansing et al., 2018; Clare, 2013). Yet, there is a need to move beyond general connections between creativity and space to examine the link between heritage and creative work more explicitly. Another part of this experience involves external benefits such as using workspaces as sources of distinction and value (Bourdieu, 1984), but the practice of leveraging workplace affiliations remains poorly understood. Indeed, with respect to branding, most studies in geography and related fields have focused on firms, individuals, products or places and there is a lack of understanding about how creative workers incorporate the spaces ‘where they work’ into their branding practices and competitive strategies (Gandini, 2016; Hrats et al., 2013; Pike, 2015; Scolere, 2019).

To address these gaps, we bring together research in economic geography on clusters of post-industrial workspaces, research in cultural geography on affective atmospheres, and wider studies in human geography which explore the dynamics of creative labor including inspiration and differentiation. Specifically, this paper draws on a qualitative case study of 8 post-industrial workspaces in the Netherlands involving 73 interviews with site managers (12) and creative workers (61), participant observation and an analysis of virtual spaces including the websites and Instagram feeds of the workspaces. It explores the interconnected nature of the spaces and stories associated with the sites to identify and better understand the range of material and immaterial elements that combine to produce the unique, attractive and valuable affective atmosphere of each workspace.

The paper starts by outlining the development of the sites paying particular attention to the ways in which industrial aesthetics, such as layouts, materials and objects, are fused with industrial heritage in the form of narratives about the histories of the buildings and emotions associated with romanticized notions of the industrial era. In so doing, it looks at how affective atmospheres are assembled and curated by workspace managers, and how the unique and attractive qualities of the workspaces are communicated through a variety of physical and virtual channels. The second empirical section explores how creatives

experience their chosen workspaces. It highlights the ways in which the material and immaterial dimensions of these post-industrial workspaces combine to attract, satisfy and benefit creatives who choose to work in them. The third empirical section shifts the focus from internal to external benefits. As creatives face intensifying competition to attract consumers and sell products, the paper examines how creative workers harness the spaces and stories associated with their unique post-industrial workspaces to generate distinction and value.

The paper contributes to existing bodies of literature in several ways. Most studies by geographers and urban scholars, which examine urban regeneration strategies involving post-industrial buildings, focus on consumption and tourism (e.g. waterfront redevelopments) or residential developments (e.g. condos) (Evans, 2009; Kohn, 2010; Peck, 2012; Sonn et al., 2017; Timan, 2021; Zukin, 1982; Zukin, 2010). We nuance this work by focusing on the dynamics of private post-industrial workspaces and the experiences of creative workers instead of tourists, consumers or residents. Similarly, studies on the nature of affective atmospheres and how they are assembled and experienced tend to focus on spaces of consumption such as shopping malls and food markets or private and everyday spaces including people’s homes (Anderson, 2009; Bille and Hauge, 2022; Casey, 2001; Concha, 2019). Our study of creative workers and private workspaces extends this work empirically, but also conceptually by exploring the role that historical narratives play in the development and experience of affective atmospheres in conjunction with other more commonly studied elements (Waters-Lynch and Duff, 2021a).

Moreover, by looking at both the developers and users, the paper considers the co-production as well as reception and experience of affective atmospheres. This approach contributes to earlier work by geographers on the engineering of affect (Thrift, 2004) and ‘staging’ of atmospheres (Bille et al., 2015; Duff, 2010) by showing how managers but also users negotiate the presence of material and immaterial elements to develop a sense of ‘envelopment’. On the level of individual workers, the paper nuances our understanding of the spatial dynamics, practices and competitive strategies associated with working in the creative industries (Comunian and England, 2019; Wijngaarden et al., 2020), demonstrating how affective atmospheres are mobilized to achieve distinction from various ‘others’, including ‘ordinary’ offices and other creatives working nearby. Finally, the paper contributes to ongoing work in geography and related fields on the processes and spatial dynamics of value creation, curation and branding by highlighting how material and immaterial elements are leveraged for branding purposes (Gandini, 2016; Hrats et al., 2013; Pike, 2015).

## 2. Literature review

### 2.1. Culturally driven regeneration

In the contemporary economy, value is increasingly determined by aestheticization and branding rather than material and labor inputs. Symbolic properties, including heritage, provenance and geographical associations, are woven into historical narratives and combined with other qualities to differentiate and sell goods, services and experiences (Brydges and Hrats, 2019; Hrats et al., 2013; Pike, 2015). This practice has also found spatial expression in the ‘reconstruction’ of urban landscapes. Hitherto neglected industrial areas are increasingly considered an urban amenity valuable for promoting tourism, consumption and cultural regeneration (Timan, 2021).

In the early 2000s, transforming such areas into ‘creative clusters’ became a ‘toolkit’ for urban planners and cultural consultants seeking to attract firms, workers, residents and consumers by investing in (often visible) cultural infrastructures (Landry, 2012; Florida, 2002; Pratt, 2008). Emerging in the United Kingdom and rapidly spreading to continental Europe, Asia and North America (Currier, 2008; Gong and Hassink, 2017; Sonn et al., 2017), creative cluster policies were developed with the aim of reaching five goals: urban regeneration, supporting

<sup>1</sup> See for Anderson and McFarlane (2011) for an in-depth discussion of assemblage and geography.

the cultural sectors, enhancing artistic and cultural heritage, supporting creativity and innovation and strengthening the local identity (Cinti, 2008). To develop these creative clusters, urban policy makers tapped into a variety of discursive fields such as place marketing, the revitalization and commercialization of the cultural field, finding a use for old, often industrial buildings, promoting cultural diversity and democracy and stimulating innovation (Andres and Golubchikov, 2016; Grodach et al., 2014).

Converting post-industrial areas into centers for culture and creativity was and remains a key regeneration strategy. As a result, speculative real estate developments and gentrification processes have led to the formation of cultural and creative hubs in cities around the world (Gill et al., 2019). In these redevelopments, the symbolic and historical significance feeds the formation of a cultural identity, increasing the area's ability to compete for a variety of actors (see, for example, Gdaniec's (2000) description of the Barcelona neighbourhood of Poblenou marketing itself as "Barcelona SoHo"). Many of the existing studies have focused on the role of urban governance and policies in urban redevelopments (Andres and Golubchikov, 2016; Evans, 2009; Peck, 2012; Sonn et al., 2017).

Simultaneously, geographers started to explore the preferred workspaces of creative workers (Drake, 2003; Heebels and Van Aalst, 2010), focusing primarily on the aesthetic quality of place and the embedded social networks. Attention has also been paid to the relationship between place and reputation (Hraacs et al., 2013; Wijngaarden et al., 2019), and how heritage contributes to the attraction of tourists (Hospers, 2002; Kohn, 2010). However, the explicit link between heritage and creative work remains understudied and there is a need to explore how individuals experience working in historical sites.

## 2.2. Affective atmospheres

Beyond exploring how users of regenerated post-industrial workspaces experience the objective physical qualities or the embedded social networks, this paper focuses on the affective qualities of spaces and their atmospheres. Affect is a term with a broad history in fields such as philosophy and psychology (Thien, 2005), but it has also become more prominent in geography in recent years (Pile, 2010). In this context, affect denotes "embodied doings or responses and a quality of life that is non-cognitive, non-reflexive, transpersonal, transhuman, virtual, inexpressible and non-representational" (Liu, 2022, p. 173). The affectual turn in geography has moved beyond semiotic analysis of the built environment to include a more materialist ontology. This gives non-human agents the capacity to shape relations between social and non-human elements, and importantly foregrounds an analysis of urban life in relation to passions, moods and feelings (Anderson, 2012; Lee, 2015). In this sense, affect differs from similar concepts like emotions, as it operates independently from meaning and intention (Lee, 2015), moves beyond cognition and individuality (Pile, 2010), and as such is transpersonal (i.e. both within and between bodies) (Anderson, 2006, 2009).

Recent work in geography has accentuated material elements within the context of affect, connecting the concept of affect to atmospheres. This leads to an approximation of atmospheres as collective affects, emerging from practices, bodies and material elements (Bille and Simonsen, 2021). Such affective atmospheres, then, connect people, places and things and are often thought of as the 'feel' of spaces, or the 'sense of place' they convey (Bille et al., 2015). Atmospheres belong to "collective situations [but] can be felt as intensely personal" (Anderson, 2009, p. 80). Users, visitors and passers-by perceive and experience physical qualities such as size, materials and objects but spaces also 'envelop' individuals with affective effects. Spaces can feel cozy, grand, filled with tension, homely, or 'buzzing' (Anderson, 2009).

Every city is made up of places emitting such atmospheres, yet some support enriching affective experiences, whereas others leave no trace at all. Think about the intensely lived public parks and staircases in

contrast to more anonymous and 'flat' shopping malls (Duff, 2010). Casey (2001) introduces the concept of 'thick' and 'thin' places. Thick places are thick in affect, habit, and meaning. They are endowed with unique qualities and invite individuals to be 'concernfully absorbed'. Affective experiences are deep or deepened in thick places, enhancing one's "sense of meaning and belonging, forging a series of affective and experiential connections in place" (Duff, 2010, p. 882). Thin places, conversely, are ubiquitous across space and lack memorable features to engage users or distinguish them from similar spaces. In the West, examples include airports, global fast-food restaurants or malls (Casey, 2001). While global chains produce familiarity and accessibility by replicating layouts, signage and products (from food to fashion) staging an atmosphere that is perceived as unique and authentic takes more effort and imagination.

Bille et al. (2015) demonstrate how architects and designers shape spaces' atmospheres to affect and guide peoples' experiences for aesthetic, artistic, utilitarian or commercial reasons. In food markets, for example, places are produced by juxtaposing architecture, colors, light, texture with the narratives about such places (Bille and Hauge, 2022; Concha, 2019). Yet, whereas attention has been paid to public spaces of consumption and private and everyday spaces, including people's homes (Bille and Hauge, 2022), there is an ongoing need to consider how affective atmospheres are assembled and experienced within spaces of work (Pile, 2010).

## 2.3. Staging workspace atmospheres

Growing attention has been paid to the contexts in which work takes place, including formal (offices, factories) and informal (homes, third spaces and co-working spaces) workspaces in fields such as geography, organization studies and entrepreneurship research (Brown, 2017; Ferreira et al., 2021; Merkel, 2019; Reuschke et al., 2021). Stemming from ethnographic research on workspace interactions, for example, a broad range of studies have looked at how workers interact with each other (Wijngaarden, 2023) or workspace objects (Hindmarsh and Heath, 2000). Another perspective - prominent especially within the creative industries - is concerned with how workspaces affect workers and their practices, particularly in relation to creativity and entrepreneurial success. For example, recent research in geography positioned creative workspaces primarily as sites of essential networks or potential exchange of skills (Comunian and England, 2019; Wijngaarden et al., 2020). Yet, workspaces may also offer inspiration to their workers, which may take the shape of 'contagious' passion (Bhansing et al., 2018), a sense of 'space for creativity' (Drake, 2003), or even innovation (Wijngaarden et al., 2021).

(Creative) workspaces, therefore, offer meaning and belonging that connect affective and experiential aspects to spaces (Duff, 2010). Yet, such effects are not unidirectional. A growing branch of research at the intersection of organization studies and geography is exploring creative spaces with respect to not only what they offer to creative workers, but also in how creative workers curate (Brown, 2017) the affective atmospheres of places. Building on Hardt (1999), Waters-Lynch and Duff (2021b) see this as affective labor contributing to a so-called 'affective commons': the 'co-working' workspace atmospheres that are the product of a pooled affective labor of affiliated workers. Prospective workers, visitors or customers may be attracted to places that cultivate the 'right atmosphere' and make them 'feel something' (Gregg, 2018, p. 89).

The cultivation of workspaces happens with symbols and materials. Cnossen and Bencherki (2019), for example, describe how images and symbols helped to generate a sense of 'togetherness' amongst loosely organized individuals. Such symbols became a kind of logo that was etched on walls, t-shirts and even found its way into company names. Waters-Lynch and Duff (2021a) call such efforts to 'thicken' the atmospheres of hitherto dull and incoherent office spaces 'stigmergic curation': the synergistic practices of workspace users to share and learn by editing a space's physical environment. Atmospheres in workspaces,

therefore, can be perceived but also produced (Böhme, 2013). Through bottom-up adaptation, atmospheres are attuned to the needs of workers to develop collaborative practices (Waters-Lynch and Duff, 2021a; Waters-Lynch and Duff, 2021b). Bille and Hauge (2022) see this process as ‘choreography’: the “different actions and relations involved in an atmospheric process in every-day life shaped both by the designers and planners, and by everyday life practitioners” (p. 2079).

Thus, atmospheres are not only ‘being’ (‘cool’, ‘fun’, ‘authentic’), but also ‘becoming’ (designed, staged): they can be controlled and used by agents seeking to achieve a diverse range of aims (Bille and Hauge, 2022). While the identification and conceptualization of these processes is important, more empirical case studies across a range of contexts are also needed to better understand how related practices are conducted and experienced - especially in relation to heritage at sites of work. Put simply, how is a specific workspace imagined, shaped, staged, curated or choreographed to produce or ‘become’ the desired atmosphere, and how does this intertwine with historical features? Concomitantly, we must consider the impact of specific workspaces on the internal identities, inspiration, practices and satisfaction of individual workers.

#### 2.4. Place branding

The stigmergic activities described above are usually approached from the perspective of creative workers vis-a-vis their *internal* work practices, that is, how they shape and are shaped by the environment in which they work. Yet, for many creative workers, their workspace is not just a site of affective immersion, but a source of value, distinction and competitiveness. Atmospheres not only inspire creativity but also branding and promotional narratives (Brydges and Hrats, 2018). Indeed, geographers have demonstrated that, in global and saturated markets, branding has become essential for large firms, self-employed freelancers and independent entrepreneurs to attract customers and to sell products (Hrats et al., 2013; Pike, 2015). Moreover, in the creative industries, workers explicitly depend on acquiring reputational capital throughout a broader professional network (Gandini, 2016), and often do so through self-branding: “developing a distinctive public image for commercial gain and/or cultural capital” (Khamis et al., 2017, p. 191; see also Bourdieu, 1984).

While not all brands engage with spatial elements, economic geographers have demonstrated that place branding can offer powerful associations laced with meaning, memories and values (Pike, 2011; Pike, 2015). Moreover, specific ‘spatial entanglements’ (Pike, 2011), such as where products are invented, designed, made or sold, can play a key role in the ‘production of difference’ (Power, 2010) and the processes through which branded objects are evaluated and understood.

The advent of virtual channels and platforms has dramatically affected branding and how locations as brands are constructed and disseminated. At the urban scale Zukin and Braslow (2011) showed how online promotion through blogs put the New York neighborhood of Bushwick on the map as a cultural district. Today cities are promoted on social media platforms by municipalities to residents and tourists alike. Erecting *Instagrammable* features in cities (e.g. the ‘I Amsterdam’ sign in Amsterdam) is a clear example of such branding efforts. Similarly, firms of all sizes use social media platforms like Instagram and TikTok to promote brands, products and campaigns while connecting with influencers and consumers (Brydges and Hrats, 2018; Goodman and Jaworska, 2020). Yet, individual workers, especially creatives whose work is uncertain, flexible and fragmented, are also increasingly reliant on creating a digital presence and global network through platforms like LinkedIn (Gandini, 2016). Online platforms enable the curation of a professional image and the promotion of self-brands which are essential for portfolio-based labor markets. Such a portfolio is defined by a dual presentation of both the personal aspects of the creative worker’s identity, as well as their professional practices: presentations of ideas, content, and delivered products, and requires ample labor across social media platforms (Scolere, 2019).

Existing studies on branding often focus on the activities described above at specific scales for specific purposes, for example a city trying to build awareness and attract tourists (branding), a firm leveraging spatial entanglements to add value (place-branding) or a worker demonstrating skills and experience to secure their next job or contract (self-branding). However, there is a need to combine these strands by asking how workers are incorporating aspects of their workspaces, including the location, historical narratives and affective atmospheres, into their branding activities to generate distinction and value. Moreover, how is this place-branding practiced in physical spaces, for example when interacting with clients in person on-site, and on virtual channels such as websites and social media platforms?

### 3. Methods

The empirical material presented in this paper comes from a qualitative case study of creative workspaces in the Netherlands involving interviews (Valentine, 2005), participant observation (Cook, 2005) and analysis of Instagram feeds and websites (Rose, 2012). The sample of 8 creative workspaces has been drawn from a range of cities located throughout the Netherlands (see Table 1). They resemble what are referred to in the literature as cultural or creative clusters (Cooke and Lazzarretti, 2008), brownfields (Andres and Golubchikov, 2016), creative hubs (Gill et al., 2019), makerspaces (Niaros et al., 2017), open creative spaces (Schmidt, 2019), or ‘breeding places’ (Peck, 2012). Importantly, unlike many new build developments, these sites are repurposed historical buildings of an industrial nature.<sup>2</sup> They all house creative workers, who are often freelancers, and are located on the urban fringe just outside of the city center, often in relatively neglected areas. As such, many of these sites have received subsidies from public funding bodies, either at the European, regional or municipal level, or through publicly funded housing associations or investment funds. Finally, all of these creative workspaces organize events for their users and are active in developing their identity and reputation, though the practices differ in effort, scale and frequency.

To understand the nature and development of these sites, each manager or founder was interviewed at least once, with a total of 12 interviews. They were asked about the former usage of the space, how the current creative workspace came into being, whether and how it was renovated, how they try to attract and cater to creative workers and how they brand and promote the site.

To understand the identities, practices and experiences of the workers within these spaces we first did a round of short 15-minute pilot interviews (approximately 20), after which we interviewed 41 creative workers for on average one hour. The respondents were selected through a combination of convenience and snowball sampling (Valentine, 2005). The creative workers were asked to describe the building in which they work, what they know about the building’s history and how they experience working in such a space. Most of our respondents worked as freelancers in (web) design, music, visual and performing arts, antiques and arts. Of the 41 workers, 17 identified as female, 24 as male. All but one grew up in The Netherlands and the vast majority had obtained higher education. Importantly, despite being self-employed, all respondents were able to generate sufficient earnings to afford the rent for a desk or office in these buildings. Although rents were typically low compared to ‘ordinary’ shared office buildings, this level of income and professionalization suggests that the employment conditions and experiences for the workers in our sample is less precarious than for many described in the literature on creative labor. As such they may have the luxury of certain preferences and practices, such as choosing to work in a former industrial building, that many creative workers do not.

The pilot interviews with creative workers have not been recorded, but extensive notes were taken. All full interviews with workers were

<sup>2</sup> Except for Klein Haarlem, which used to be a school.

**Table 1**  
Sample of creative workspaces.

Name	Location	Workers (in 2015)	Full interviews workers	Interviews managers	Site visits	Analysis virtual spaces
<i>BINK36</i>	Den Haag	>250	11	2	8	<a href="https://www.bink36.nl">https://www.bink36.nl</a> <a href="https://www.instagram.com/bink36nl/">https://www.instagram.com/bink36nl/</a>
<i>Creative Factory</i>	Rotterdam	<50	3	2	4	<a href="https://www.creativefactory.nl">https://www.creativefactory.nl</a> <a href="https://www.instagram.com/creativefactoryrotterdam/">https://www.instagram.com/creativefactoryrotterdam/</a>
<i>De Gruyter Fabriek</i>	's Hertogenbosch	50–100	6	1	5	<a href="https://www.degruyterfabriek.nl">https://www.degruyterfabriek.nl</a> <a href="https://www.instagram.com/degruyterfabriek_community/">https://www.instagram.com/degruyterfabriek_community/</a>
<i>Hazemeijer Hengelo</i>	Hengelo	<50	0	1	1	<a href="https://www.hazemeijerhengelo.nl">https://www.hazemeijerhengelo.nl</a> Instagram n/a
<i>Honig fabriek</i>	Koog a/d Zaan	<50	0	1	1	<a href="https://www.honigfabriek.nl">https://www.honigfabriek.nl</a> Instagram n/a
<i>Klein Haarlem</i>	Haarlem	50–100	4	1	13	<a href="https://www.kleinhaarlem.nl">https://www.kleinhaarlem.nl</a> <a href="https://www.instagram.com/kleinhaarlem/">https://www.instagram.com/kleinhaarlem/</a>
<i>Strijp-S (Apparatenfabriek and Klokgebouw)</i>	Eindhoven	100–200	9	2	6	<a href="https://strijp-s.nl">https://strijp-s.nl</a> <a href="https://www.instagram.com/strijps/">https://www.instagram.com/strijps/</a>
<i>De Vasim</i>	Nijmegen	<50	8	2	6	Website no longer available <a href="https://www.instagram.com/cultuurspinnerij_de_vasim/">https://www.instagram.com/cultuurspinnerij_de_vasim/</a>

recorded and transcribed verbatim. For half of the interviews with the managers this was the case as well, with the other half being conducted ‘on the go’ and therefore were limited to fieldnotes. The transcripts and fieldnotes were analyzed using a constructivist grounded theory inspired approach (see Charmaz, 2001; Strauss and Corbin, 1990), meaning that we employed an inductive procedure of data collection and analysis, while acknowledging the situatedness of the data gathered. Following the grounded theory principles, we started with extensive open coding, followed by axial coding along the emerging relationships between concepts and categories, and finally, selective coding to integrate the main themes. As is common with qualitative interviews, our goal was not to establish statistical significance or representativeness but rather analytical plausibility and cogency of reasoning (James, 2006). Quotations were utilized in-text to best demonstrate how participants expressed themselves and their experiences.

Although the interviews generated detailed data and allowed respondents to express experiences and opinions in their own words, such buildings and workspaces contain affective atmospheres and complex physical and social milieus, including layouts, aesthetics, interactions and behavior, which cannot be fully understood through mere description. Therefore, we supplemented and triangulated our interview data with observations. The first author conducted 44 visits to the sites, making field notes for each visit, both about the layout and aesthetics of the buildings, as well as how people made use of them.

To understand how the creative workspaces in our sample develop and communicate their brands and more specifically, how they highlight their unique industrial aesthetics and historical narratives, we also conducted a visual analysis (Rose, 2012) by looking at the websites and Instagram feeds for the six sites with an Instagram page (Brydges and Hrats, 2018). From the websites, we analyzed the pages describing the spaces’ histories (visuals and text), and from the Instagram feeds, we reviewed all posts, and copied and analyzed (visuals and text) any content related to the description of the history or atmospheres of the space (links can be found in Table 1). This content included historical pictures, historical narratives, and pictures of the post-industrial aesthetics. In total, the Instagram feeds consisted of 1763 posts, of which approximately half showed the industrial aesthetic, consciously or as a backdrop, and 82 explicitly referred to the sites’ history and heritage.

The entire data collection and analysis resulted in the emergence of three dominant themes which will be unpacked in the subsequent sections (1) assembling, (2) experiencing and (3) leveraging affective atmospheres.

## 4. Results

### 4.1. ‘Throwback to the [industrial] era’: Assembling affective atmospheres

Recently, the geographer Andy Pratt (2021) described how from the 1990s, vacant old factories were converted into creative workspaces, a process that was heavily reliant on the financial backing of public authorities. The cases in this study follow a similar line of development, with local governments (sometimes with the support of arms-length organizations of ‘public’ investment bodies) investing in the redevelopment of post-industrial urban space. A red thread in this redevelopment was the volatile housing market. At the time of redevelopment of most sites, the financial crisis of the early 2000s caused land prices to plunge, making redevelopment both challenging due to unpredictable markets, but also potentially a boon to drive up land prices (Evans, 2009). This could be accomplished by what Kohn (2010, p. 360) critically calls ‘imagineering’: arousing feelings of nostalgia and pleasure. The historical markers are a benefit for creating a distinctive place in contrast to the shallow, ‘interchangeable’ areas. The ‘imagineering’ of ‘affective atmospheres’ involved material (industrial aesthetics), and immaterial (industrial heritage) elements.

The material elements are defined by the functional aesthetics of industrial era building conventions. The sites of this research mirror these conventions. The exteriors are characterized by often brightly lit, large halls, big windows with steel frames and sawtooth roofs to accommodate daylight (Fig. 1), and (steel) beam supported, high ceilings and chimneys (Fig. 2). Fig. 3 shows that the interiors also include original objects and components.

Pipes and rails afforded the movement of trolleys or carriages with raw material, and now function both as industrial décor as well as convenient elements to further shape the workspace’s practical usage (Bille et al., 2015). The fieldnotes demonstrate that these material industrial aesthetics were also present in many of the respondents’ offices: “Her studio is a large, approximately 50 square meter room, with concrete pillars scattered over the place. [...] The big windows are partly covered by her pictures. The floor and tubes in the ceiling give the space a very loft-like appearance.”

However, our research demonstrates that the material elements are only part of the equation. Indeed, the workspaces and affective atmospheres found within our cases involve another key component, that of heritage and historical stories about the businesses, workers, activities and products associated with these buildings. The histories of former firms, including the lightbulb and electronics maker Philips, are polished and brandished by site managers. Their activities (what was made, how and by whom) and achievements (inventions) are celebrated to



Fig. 1. Sawtooth roofs and steel framed windows (source: author).



Fig. 2. Big windows and concrete beams (source: author).

differentiate these spaces, as unique from other industrial and new builds, provide inspiration and infuse real and authentic immaterial heritage into the atmosphere of the workspace.

In many of the interviews, the importance of this symbolically powerful immaterial heritage came up. One of the managers, for example, claimed that they preserved the space as much as possible to retain the “Philips atmosphere”, which was, according to him, ingrained in the city’s DNA. Additionally, he claimed that the ‘brains’ from the Philips era were being perpetuated by today’s ‘clever’ creative entrepreneurs. The manager of De Gruyterfabriek made a similar point, noting how deeply ingrained the factory was in the community and how almost everyone knew someone who had worked there previously. De Vasim used a ‘subtitle’ in their name, calling themselves a culture spinning mill, as the plant used to ‘spin’ synthetic silk (nylon).

The naming conventions in general showed efforts to deeply root the contemporary sites in their histories. Of eight cases, five referred to the name of the building in the prior (industrial) era, or the company owning the factory. Two referred in more abstract terms to creativity and industrial heritage, calling themselves the Creative Factory (one in Dutch, and one in English). The Dutch version – Creatieve Fabriek – was later renamed to Hazemeijer Hengelo. Paul, the manager and director of

Hazemeijer Hengelo explains this by underlining the importance of the (former) company for the local community. The managers sought to ‘envelop’ (Anderson, 2009) workers not only with the objects and materials signaling industrial aesthetics as described in the preceding section, but also by markers of the workspaces’ immaterial heritage. This includes, for example, photographic wallpaper in corridors or elevators, showing not only the building, but also the people and activities that occupied the sites decades ago. Fig. 4, taken from the workspace’s Instagram page, shows such forms of visual storytelling.

The websites of the workspaces replicated and extended these stories. In line with the findings of urban theorist Margaret Kohn (2010), these websites are used to develop and communicate this historical atmosphere turned successful urban development project. The websites for each workspace follow a similar pattern. The immaterial heritage was accentuated throughout all content. All workspaces have ‘history’ sections on their websites, in which they - often with great detail and illustrated by plenty of quotes and pictures - narrate the developments, ‘lived experiences’ and the transformation of the buildings. The historical narratives were usually rooted in the businesses that historically used the buildings, and as such were the starting point of the history sections. These old companies were frequently displayed with great

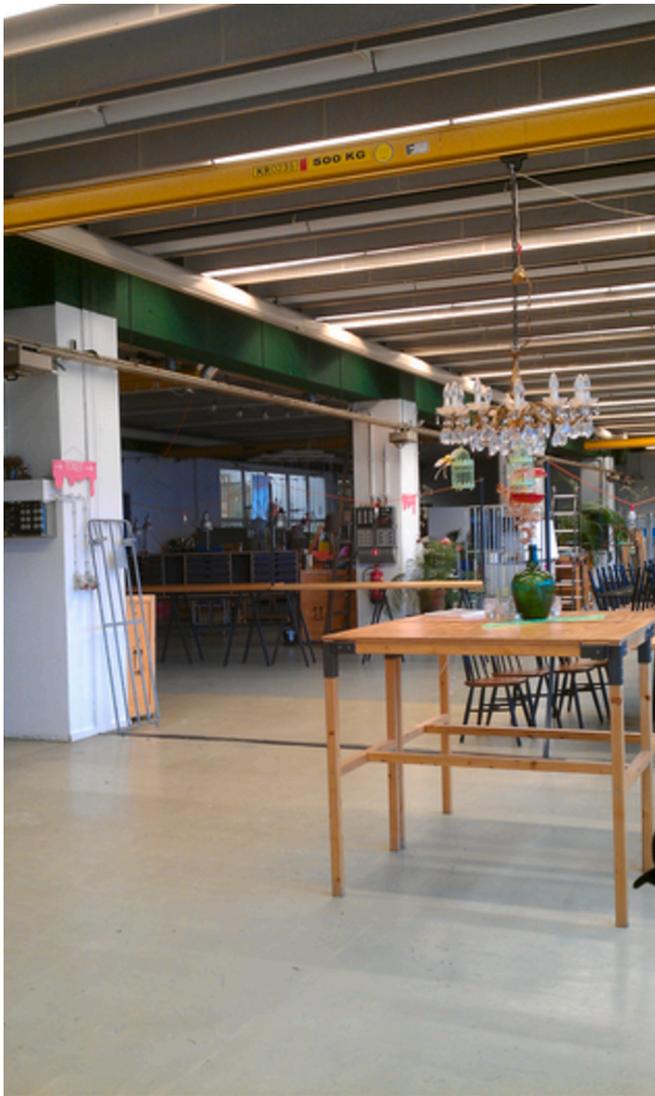


Fig. 3. Steel beams used as suspension system (source: author).

pride and catered to widely shared sentiments of nostalgia and recognition. As one website describes: “Do you still remember the old slogan? ‘And better goods, and 10 % discount. Only at De Gruyter’ [En betere waar én 10 %. Alleen De Gruyer!]”.

The second part of the website narrative often introduced or even exhibited the manufactured goods. The most poignant example is given by Strijp-S, mentioning the vast array of inventions created in the buildings: “Radiotechnologies, television, razors, but also the CD and DVD come from Philips’ kitchen”. They go on to emphasize the scope and significance of these inventions: “Queen Wilhelmina spoke from the laboratory with a wireless radio connection to the population of the Dutch East Indies. Einstein paid a visit. And also the first electronic music came from the NatLab: researcher Dick Raaijmakers took the first steps in developing synthesizers and also made music with them.” The scope and significance also extended to descriptions of the buildings, underlining the vastness; e.g. having the biggest canteen in The Hague in 1950, or the largest grain silo in Europe. The concluding paragraph of the history section was often succinct and highlighted how the structures were converted to creative workspaces, showcasing the (names of) organizations and investors involved in the reconstruction operations.

Beyond the history sections on their websites, most sites boasted about their historical roots on their social media channels. Here, again both the material elements (historical objects, materials used) and the immaterial elements (stories, symbols, representations of former



Fig. 4. Screenshot from Instagram account showing picture wallpaper with former factory workers. Translated Instagram caption: “Cup of coffee?” Source: De Gruyer Fabriek Instagram.

workers) were reflected in the posts. ‘Stigmergic curation’ (Waters-Lynch and Duff, 2021a) visibly appeared on Instagram posts focusing on material artefacts. Many posts showed not only the well-known, vast industrial aesthetic, but also the minute particulars that explicitly showcased the idiosyncratic details that had a specific function in the factory’s purpose. Some historical details, such as the Philips clock depicted in Fig. 5, became eye-catchers that were repeatedly shown on Instagram.

Immaterial heritage, most notably captured in displaying factory



Fig. 5. Screenshot from Instagram account showing the Philips clock. Translated Instagram caption: “The clock is complete again”. Source: Strijp-S Instagram, Gaspar Panken.

workers from a bygone era, also featured prominently across the Instagram accounts. These posts often incorporated the word ‘throwback’, to connect to the ‘throwback Thursday’ Internet trend (Fig. 6). As described above, in some workspaces (Fig. 4), these pictures of the previous workers were even photo printed on the walls, in elevators or canteens, so that current workers were continuously exposed to their presence. This may affect and guide their experiences (feeling more artistic, part of a longer history, or connected to the place, see Bille et al., 2015).

Together, these findings demonstrate - not only *that* managers consciously and strategically assemble the affective atmospheres of their workspaces (cf. Pile, 2010), but also *how* they do this by retaining and displaying material objects and evoking immaterial heritage and historical stories. Importantly, our focus on large private workspaces nuances existing studies on residential developments and public or semi-public spaces of consumption and tourism (Concha, 2019; Kohn, 2010; Sonn et al., 2017; Zukin, 1982; Zukin, 2010) by showing how material elements and the bodies of previous workers are incorporated to evoke certain atmospheres.

#### 4.2. ‘I find this industrial building inspiring’: Experiencing affective atmospheres

For the creative workers in our study, the attractiveness of the workspaces also stems from material (aesthetics and layout) and immaterial (people, ideas, histories) elements associated with the industrial legacies of the individual buildings. Indeed, beyond a place to work, these buildings produce affective atmospheres which provide workers with motivation, inspiration, satisfaction and sources of distinction, value and identity formation.

Most respondents explained that the post-industrial aesthetic was fundamental to their decision to rent their office. While many creatives can work anywhere with a laptop and an internet connection, our respondents explicitly sought to rent a space in a post-industrial building rather than working from home, in third spaces or ‘regular’ and ‘uninspiring’ office spaces. There was a strong desire to reject or escape the features of ‘regular’ offices, even though many contemporary office

spaces offer benefits like increased interactions fostering innovation (Bouncken et al., 2020; Peteri et al., 2021). The respondents - generally relatively successful micro-entrepreneurs - are seeking to locate in places that are ‘authentic’ and ‘edgy’ (Wijngaarden et al., 2019; Zukin, 2010). As one put it: “I don’t want to work in an ordinary office, because then I won’t be able to get anything done” [pilot interview]. Or as another explained: “I really don’t even want to think about working somewhere with a grid ceiling. [Where I work] gives so much more inspiration than a more boring office environment” [Louis, Design].

All respondents explicitly referred to surprisingly similar material attributes which contributed to the atmosphere of their workspace, such as concrete, pulleys, steel beams and silos. Heidi [Arts and antiques], for example, proudly showed guests around, pointing towards such features: “I’ll show you, it is fun. Look what they did in the past, because the machines here were very heavy and probably even drove around, they just powered the floor full with concrete and pushed these iron tiles in. And they can never be removed.” Many also mentioned the sheer size of the buildings and office layouts. Affective qualities such as ‘openness’ or ‘spaciousness’ came up repeatedly (Anderson, 2009).

Compared to claustrophobic cubicles and small sterile offices in regular office buildings (Saval, 2015), large factory floors were said to provide atmospheres and “spaces where you can get new ideas, grasping some fresh air” [Charlie, Film, video and photography]. Others talked about how the atmosphere made them “a bit calmer” [Mark, Software and electronic publishing] while providing “a different perspective on working than staying in a cubicle with isolated windows” [Thomas, Digital and entertainment media]. At the same time, the workers in our study were able to rent (somewhat) closed off spaces or private offices for themselves within the larger atmospheres. And this ability, combined with their contractual status as freelancers or entrepreneurs, enabled them to avoid pervasive issues associated with modern open-plan offices such as struggles over hot-desking territory, distraction from other workers, and productivity-enhancing monitoring and regulations imposed by firms or managers (Peteri et al., 2021; Saval, 2015; Wijngaarden, 2023).

Yet, affective atmospheres not only emerged from natural light, concrete, or objects. Immaterial heritage was continuously brought up



Fig. 6. Screenshot from Instagram account showing factory workers. Translated text: “Throwback to the PTT [Royal Post, Telegraph and Telephone] era”. Source: Bink36 Instagram.

by respondents. They often voiced historical continuity emphasizing the ‘thickness’ of their workspace (Casey, 2001), with a large number of respondents bringing up one or more of the stories associated with their building. Timothy [Advertising] summarizes the meaning of such a history by saying that *“the building has already been lived, and you are allowed to be a temporary resident”*. Others connected their positive experiences to their physical closeness to earlier users of these buildings, forming a bond of solidarity or being inspired or fascinated by their lives. For example, Heidi [Arts and antiques], wondered how *“these people must have felt when women were getting married and were fired... these kind of things. I would really like to know that.”* Others, such as Linda [Advertising] vividly contemplated that:

*“the place where we are sitting now, thousands of people have been working extremely hard here. Blood, sweat and tears to make Philite, for example, and the conveyor belts were here, and people had to cry and toil, you know. They had to work hours, hours, hours on Saturdays even. Yes, then I think, wow that is crazy. Who else has been looking through these windows?”*

Despite acknowledging the suffering associated with the industrial era, some respondents, like Dennis [Advertising], also considered – in line with the ‘re-enchantment’ and romantic notion of the past described by Zukin (1982) – that:

*“We are continuing an industrial revolution here. This story has a very nostalgic nature, or very romantic, but it’s there. The idea that in this space where you and I are sitting now, in the past 30, 40 people were working, in the same space, with all the cacophony and the noise. And that you as an entrepreneur want to contribute to the success of a city and that you do this in a space where people in the past did this too.”*

The ‘thickness’ of the spaces was therefore not only the result of the stigmatic activities of previous users but tied to the history of ‘ideas’. As Bjorn [Advertising] told us: *“very important things have been designed and made here for the people and society, and you’re going to the same restrooms as these people. You can feel it”*. By using the specific word ‘feeling’, he again highlights how such atmospheres endow a sense of meaning and belonging through their affective and experiential qualities (Duff, 2010), and how these feelings ‘envelop’ the current workers (Anderson, 2009). Others, including Eric [Software and electronic publishing] also learned valuable lessons through the history of the business which previously occupied the factory:

*“I find this industrial building inspiring, in the sense that you taste the past... a nice comparison to the past can be made here: this building was used by De Gruyter [a former Dutch supermarket and food manufacturer] that went bankrupt in the 80s because they didn’t innovate. And that is of course what I’m trying to live here. You know, you have to keep up with the times, because otherwise, at some point, your business will be ending.”*

With affect and stories petrified in concrete, workers are continuously reminded of the lessons of the past, which helped them to, individually, make sense of their creative and entrepreneurial endeavors. The workspaces thus help to inspire and motivate individual workers while contributing to their satisfaction, identities and self-brands. Interestingly, this preservation and value of authentic spaces and stories contrasts with other empirical accounts, notably from China, where historical associations may be either sanitized to dilute the original meaning of a place, such as a military base, or erased entirely to align the march towards modernity (Currier, 2008).

#### 4.3. ‘It is a great business card’: Leveraging affective atmospheres

New technologies, declining entry barriers and oversupply have saturated the global marketplace for cultural products. While generating distinction and value from one’s identity is not new (cf. Bourdieu, 1984), it has become pervasive in the digital age, spurred on by social media channels, and a mandatory practice for securing work (Gandini, 2016).

For many creative workers the challenge has shifted from production to promotion and standing out in the crowd by developing strategies to generate attention, distinction, value and loyalty (Hrats et al., 2013). This section considers how creative workers convert the symbolic value associated with these unique post-industrial spaces and stories into economic value and competitiveness. To develop a distinctive public image for commercial gain, the respondents incorporated the industrial aesthetics and connotations of their chosen workspace into their own identities and self-branding narratives (Khamis et al., 2017). Our research revealed several strategies and practices associated with such forms of branding (Pike, 2015).

First, workers reflected upon the value of the material elements of the affective atmosphere for branding their business. As one respondent explained: *“we are a business from Rotterdam [a post-industrial harbour city], we are straightforward and a bit more raw than others, and this building fits well. Industrial and no frills [no marble], but cracked concrete”* [Louis, Design]. Others talked about how the industrial aesthetics helped to attract international clients who *“feel the energy [of the building] too”* [pilot interview]. As one respondent asserted: *“It is a great ‘business card’, especially considering that in many cities there aren’t many of these enormous factory buildings like this one”* [Lucas, Music and visual and performing arts]. Michelle, as mentioned above, extols the uniqueness of her tube system: *“That pneumatic tube is nice [...]. So that sticks pretty easily with people. So I think that pretty easily contributes to brand awareness. Not so much that I suddenly get phone calls, but yes, you never know”*. For consumers of creative services who can choose from providers located around the world, the spatial context in which they operate clearly matters.

Second, many respondents leveraged post-industrial aesthetics to distinguish themselves from ‘regular’ offices, which they perceived as ‘thin’ spaces. Here, the immaterial aspects (histories, stories, symbols) became increasingly important. As one respondent highlights: *“[The industrial aesthetic] makes the building look different from a normal office building. This also works for clients as they see the histories when they visit. This is valuable”* [pilot interview]. Indeed, respondents told us that instead of transacting business remotely, clients were more inclined to visit the workspace in person, as they were curious about the interior and the story of the building (Sonn et al., 2017). We were also told that many clients became fascinated by the history of the sites and this influenced their desire to hire the creative workers. Bjorn [Design] for example, noticed that it’s easier to win projects: *“People are more inclined to choose you. People find you more easily. When you talk about [this location], people say, oh yes, that’s a creative place, you know.”*

This quest for distinction also extended to comparisons between different restored industrial workspaces. Though ‘ordinary’ offices were profoundly perceived as ‘thin’, so were spaces that failed to retain their historical integrity. Commenting on ‘other’ spaces nearby, respondents would critique various aspects including a betrayal of their industrial past in a material sense by saying, for example, that the building had become too modern and had lost its authentic raw industrial design (Loures, 2008). Here Lucas [Music and visual and performing arts] vividly describes a nearby creative post-industrial conversion:

*“they demolished it up to the carcass. Only the concrete elevator was still standing, and it just turned into a newly built building. And then I think, this is just not what you would want with the building. I think it should stay like it was and that it shouldn’t become a hyper modern building. You should be able to see the oldness, and though you can make new hyper modern parts [...], it has to remain industrial. I find that very important.”*

Many respondents used the term ‘kapotgerenoveerd,’ which means ‘destroyed by renovation,’ when making similar observations. This connects to the challenge described by Bille et al. (2015) of maintaining the balance between ‘real’ and ‘artificial’ spaces and shows that ‘thickness’ is not easily constructed or retained.

Our findings support and nuance the notion of ‘place in product’ (Molotch, 2002). While geographers have established that where a

cultural good is made, for example, leather shoes handmade by artisans in Italy, can add distinction and value (Power, 2010; Pike, 2011), we suggest that where the provider of a creative service is located matters too. While some clients may hire based on cost, experience or reputation others clearly want to work with providers who bring other qualities to the table including the context in which they perform the work and interact with the clients. Although we did not interview clients about their preferences and experiences, other studies suggest that the stories behind products add value and some strands of consumers will pay a premium for them (Arthur and Hrats, 2015). Part of the reason for this is that consumers sought to acquire stories to share in their own identity construction and self-branding activities (Brydges and Hrats, 2018). Therefore, visiting the buildings in our study provides clients with valuable experiences and working with the creatives in our study provides opportunities for association with them and the buildings they work in.

## 5. Conclusion

Creative workspaces are ubiquitous worldwide, with many located in restored post-industrial sites. Existing research has endeavored to map the appeal of such spaces in terms of place reputation, social networks, potential for knowledge exchange and inspiration (Bhansing et al., 2018; Comunian and England, 2019; Wijngaarden et al., 2020). More recent work has explored how contemporary office spaces have tried to leverage their innovative potential by curating more open or creative atmospheres (Peteri et al., 2021). Beyond the social aspects of such workspaces, other studies have probed the material and immaterial elements including the appeal of concrete and ‘cool’ vibes (Drake, 2003; Heebels and Van Aalst, 2010; Wijngaarden et al., 2019). This paper nuanced this work by investigating the production and perception of the *heritage* and *history* of these former industrial spaces. It examined how these post-industrial workspaces are imagined, curated and staged by managers to attract creatives and how these workers experience and leverage the affective atmospheres of these spaces.

Drawing on 73 interviews with workers (61) and with managers (12) located in eight different post-industrial workspaces in the Netherlands, this paper demonstrated that a site’s unique history plays a crucial role in developing ‘thick’ affective atmospheres of spaces (Anderson, 2009; Casey, 2001). Such atmospheres were consciously assembled (Bille et al., 2015; Pile, 2010) by site managers, who staged both the material and immaterial features of the space. Industrial aesthetics were showcased by retaining the open layouts, steel beams and pneumatic tube systems, while industrial heritage was celebrated through storytelling in the physical sites (photo wallpaper) and on websites and social media accounts. Crucially, many workers stated that the ‘thickness’ created by combining these elements were fundamental to their decision to rent an office in these workspaces. Nearly all rejected ‘grid ceilings’ and ‘ordinary’ offices (Saval, 2015), and many revealed how they felt inspired by the idea that the building had already ‘been lived’. Moreover, respondents argued that the material and immaterial history of their chosen workspace became unique selling points for their own businesses. They explained how the atmosphere provided distinction for their personal identities and products, and aligned well with their branding narratives (Khamis et al., 2017; Pike, 2015).

These results add to the emerging strand of research on affectual geographies (Pile, 2010) and atmospheres by not only supporting the assertion that atmospheres are staged but showing how and why this process plays out (Bille et al., 2015; Bille and Hauge, 2022; Waters-Lynch and Duff, 2021b). We reiterated the importance of material elements to assembling atmospheres while also documenting the value and nature of immaterial elements such as industrial heritage. By not only looking at the assembling and assemblers of such atmospheres, but the users who are ‘enveloped’, we also unpacked how affective atmospheres are subjectively absorbed, translated and emitted by workers (Bille et al., 2015; Bille and Hauge, 2022).

The findings also nuanced the sometimes overly optimistic view – most often found in studies on urban regeneration and creative clusters – that assembling ‘authentic’ workspaces is easy or inevitable. In our cases, the aesthetics have been restored from original sources (old buildings), but in other development projects these materials and aesthetics are sometimes simply fabricated from scratch (new builds designed to look old). Yet, as our respondents argue, architecture alone is not enough to produce ‘thick’ and attractive workspaces. Indeed, the renovation of old buildings can be too rigorous, removing elements that might have no direct use, such as former train tracks or rusty pipes, but which add to the spaces’ thickness (Casey, 2001), forge affective and experiential connections to the space (Duff, 2010; Waters-Lynch and Duff, 2021a) and build a sense of ‘togetherness’ (Cnossen and Bencherki, 2019). Thus, developing authentic, attractive and valuable workspaces is a multi-layered process that requires more than just sprinkling in some bricks, steel or concrete.

These findings raise further questions about authenticity and the construction of affective atmospheres. Despite the importance of authenticity and uniqueness (Zukin, 2010) all eight cases – and many of the post-industrial workspaces around the world – contain similar aesthetic features. They are characterized by ‘lofty’ high ceilings (cf. Zukin, 1982) or the industrial built form vividly described by Hutton (2006). This is explained by the “space-shaping power of industrialization” (Soja, 2000, p. 166), but – as our research demonstrates – also results from a conscious decision to maintain and highlight such industrial features (Kohn, 2010). Earlier research (Wijngaarden et al., 2019) showed how second-tier cities’ post-industrial workspaces explicitly sought to identify or even mimic the renowned lofts of New York, or the warehouses of Berlin. Across the 8 cases there are not only similarities in the ways the sites incorporated ‘typical’ post-industrial material elements but also in the ways immaterial heritage was deployed to assemble and communicate the desired affective atmospheres. As demonstrated, the sites adopted similar practices, involving photos and stories to promote themselves through virtual channels.

Thus, there are significant areas of overlap, and while the sites in our sample contain and display abundant ‘real’ or ‘authentic’ historical artefacts, we know that new spaces also mimic similar industrial aesthetics. A key question for future exploration becomes the extent to which ‘imagined’ (Hrats et al., 2013) or ‘engineered’ (Kohn, 2010) spaces – new builds made to look and feel old – can generate affective atmospheres which are equally attractive and valuable to workers. For example, do all creative workers identify, appreciate, value and demand truly ‘authentic’ historical spaces and stories, or is there a spectrum of awareness, knowledge, symbolic values and preferences? Moreover, are the replicated industrial aesthetics of a newly built workspace always considered to be inferior to an old and restored workspace, yet more appealing than ‘regular – grid ceiling’ office space? Future research comparing different types of workspaces, including old/restored industrial, new industrial, non-industrial, generic etc., may be able to further refine our insights into the development of affective atmospheres in relation to authenticity. In a similar vein, future research could consider how different types of floor plans and arrangements, including private offices, cubicles and flexible open plan spaces for hot-desking require and evoke different types of atmospheres.

Moreover, beyond looking at European cases in regions that underwent industrial revolutions in the 19th century – evolutionary pathways that defined the types of industrial workspaces available for regeneration (see Hutton, 2006) – future research may conduct similar studies in areas that witnessed different patterns of industrialization and have different industrial connotations, aesthetics and heritage. For example, there are studies of large-scale urban regeneration projects in China, including the 798 arts district in Beijing (Currier, 2008) and the OTC Loft in Shenzhen (Sonn et al., 2017). There is also evidence of the use of concrete, steel and bricks in creative workspaces in African cities (Hrats et al., 2022). Yet, more rigorous analysis and international comparisons are needed to determine levels of diffusion, replication and uniformity

across space. By extension, future research could explore the role of different mechanisms, including physical travel and interactions through virtual channels and social media, in connecting workspaces around the world and shaping their practices and aesthetics.

### CRedit authorship contribution statement

**Yosha Wijngaarden:** Conceptualization, Investigation, Analysis, Writing - Original Draft, Writing - Review & Editing. **Brian J. Hrats:** Conceptualization, Writing – original draft, Writing – review & editing.

### Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

### Data availability

The data that has been used is confidential.

### Acknowledgement

The authors would like to thank all interviewees who participated in this research project, and Erik Hitters, Pawan Bhansing and Pauwke Berkers for providing valuable feedback on earlier versions of this paper. This research was supported by the Dutch Research Council (Nederlandse Organisatie voor Wetenschappelijk Onderzoek) [grant number 314-99-110].

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