The Prospect of Space Production and Space Design under the Trend of Digital Tourists

Chengqianchu Wang[1,a,*]

[1]MBDesign, Universitat Politècnica de Catalunya-BarcelonaTech, Barcelona, 08034, Spain
a. chengqianchu.wang@estudiantat.upc.edu
*corresponding author

Abstract: The widespread application of information technology and the rapid development of globalized transportation networks have enabled digital technology workers to break free from fixed workplaces, giving rise to the emergence of a new social group: digital nomads. This group has not only revolutionized traditional work and lifestyle practices but has also brought forward critical discussions on issues such as identity formation and spatial transformation. Grounded in Henri Lefebvre's triadic theory of space and integrating concepts of the mutual shaping of space and identity, this paper systematically reviews and analyzes existing literature. Building on these insights, it presents a vision for the architectural and spatial design of future digital nomadic communities, proposing spaces that integrate social, work, living, and recreational functions. This paper shows that the design emphasizes fluid spatial layouts that blur boundaries between these functions, aligning with the dynamic and flexible lifestyle of digital nomads.

Keywords: Digital nomads, Lefebvre, production of space, nomadic communities

1. Introduction

With the deep penetration of information technology across various fields and its growing influence, work styles are undergoing significant changes. A new workforce group, the "digital nomads," has emerged, characterized by detachment from physical spaces. Digital nomads primarily consist of individuals who leverage digital technologies to work remotely while frequently changing their places of residence or traveling across the globe [1]. They embody the mobility characteristic of "nomadism," which fundamentally differentiates them spatially from traditional workers with fixed locations. However, digital nomads do not exist "anywhere" [2]. While balancing travel and work, they have specific requirements for even short-term spaces, such as local interactivity, essential hardware infrastructure like networks, and the social capital generated through interactions among nomads.

Henri Lefebvre proposed the theory of the production of space, in which perceived space, conceived space, and lived space collectively constitute his triadic model. Beyond discussing the relationship between space and power or capitalism, Lefebvre also highlighted the social attributes of space—spaces are not neutral but are outcomes of social relations, making them experiential. Through their nomadic activities, digital nomads alter the perceived space during their work processes, constructing new lived spaces through interactions with local contexts and fellow nomads. Consequently, their conceived spaces also undergo transformations.

From this theoretical perspective, this study examines the characteristics of digital nomads and the features of spaces designed to serve this group during their nomadic journeys. Using methods such as autoethnography and literature review, this research analyzes the material and experiential spaces encountered by digital nomads and provides architectural design prospects for spaces tailored to their needs. This research is not only relevant to the commercial value of digital nomadic communities but also to the promotion and popularization of digital nomadic lifestyles.

2. Digital Nomad

2.1. Overview of the Digital Nomad Profile

Digital nomads are fundamentally defined by their "nomadic" characteristics, most evident in two key dimensions: material and experiential. In terms of material space, digital nomads exhibit high mobility and detachment from fixed locations, reflecting a lifestyle built on frequent movement and physical flexibility. On the experiential level, their social relationships and emotional connections tend to be rooted in weak networks rather than deeply entrenched bonds. This inherent instability often leads to ambiguous identity perceptions, posing unique challenges for their integration into communities and the formation of group identities.

Despite their fluid and mobile nature, digital nomads are not detached from the influence of space. On the contrary, space continues to play a profound role in shaping their identity. The lack of a fixed spatial base contributes to the absence of a stable sense of belonging, while, as Lefebvre's theory of the production of space suggests, space is not merely a neutral backdrop but a tool of social power and production relations. It reflects and reinforces societal power structures while also being an outcome of social relations [3]. Through their nomadic practices, digital nomads reshape the perceived spaces of their work processes, engage in interactions with local contexts and fellow nomads, and thereby construct new lived spaces. In this process, their conceived spaces are also transformed, aligning with the dynamic interplay of mobility, technology, and identity.

Reports such as the 2023 Digital Nomad Report by MBO Partners underscore the growing relevance of this phenomenon, with the number of digital nomads in the United States reaching 17.3 million in 2023, marking a 131% increase from 7.3 million in 2019 [4]. Independent digital nomads are also on the rise, further diversifying this group. Publications like The Economist have explored whether digital nomadism can transition from a niche lifestyle to a mainstream one [5]. As digital technology advances and the separation from fixed perceived spaces continues, the digital nomadic lifestyle is likely to become an increasingly viable option for more people. Therefore, studying the conceived spaces within this new paradigm is essential.

2.2. Concepts of space and place

Yi-Fu Tuan, in his discussion of "space" and "place," distinguished space as a physical existence and place as a concept imbued with human emotions and cultural significance [6]. Research on digital nomadic communities often falls into these two domains: studies focused on physical space and those exploring the emotional or cultural dimensions of "place." Lefebvre's concept of "spatial practice" refers to the tangible, physical space that emphasizes material production activities and experiential systems. This includes elements such as land use types, architectural forms, spatial configurations, and associated infrastructure. These aspects provide venues for activities, trigger perceptions, facilitate interactions, and simultaneously guide or constrain human behaviors [7]. In material terms, digital nomadic spaces must cater to the frequent mobility and flexible work habits of digital nomads. This necessitates fluid and seamless spatial layouts that allow for easy movement and transitions between different functional areas [8].

Nomadic spaces often center around coworking areas, designed to foster interaction among creative individuals and innovative enterprises sharing these environments [9]. Beyond individual workspaces, digital nomads also require communal areas that encourage community building, collaboration, and mutual support. This makes open layouts, multifunctional zoning, and flexible workstations critical features for such spaces [10]. Essential infrastructure, including high-quality internet and convenient living facilities, is equally indispensable for creating a functional and appealing environment [11].

While specific discussions on architectural and interior design methods for digital nomadic spaces remain relatively limited, existing studies allow for a conceptual vision of such spaces. An ideal digital nomadic community would include facilities that enable efficient digital work, provide a comfortable and livable environment, offer venues for interaction and socialization, and incorporate spatial layouts that align with the dynamic movement patterns of nomads. These designs should integrate flexibility, adaptability, and inclusivity, reflecting the fluid and diverse nature of the digital nomadic lifestyle.

Coliving communities are not only places for residing but also significant venues for self-discovery and collective identity formation among nomads. The diversity of community members often creates cultural differences and forms heterotopias, which resist traditional norms and hegemonic assimilation. The flattened and non-hierarchical structures of nomadic communities also reflect and extend the dynamics of online social interactions [12]. Lefebvre's notion of "representational space" captures the abstract ideologies, consciousness, and symbolic meanings that connect lived experiences and material realities, making space a fundamental element of personal and collective identities [1].

In practice, some digital nomadic communities actively promote integration and understanding between nomads and local residents through innovative approaches, such as creating "local guides" [13]. These guides not only facilitate interactions but also highlight regional features, fostering connections between digital nomads and the local environment. Nomadic spaces serve as arenas for reshaping self-identity and group identity. Some communities organize regular activities to help nomads establish new social ties, while others emphasize collaboration with local communities to bridge digital technologies with regional characteristics, enabling mutual benefits.

3.   Existing Designs of Digital Nomadic Spaces

3.1.   Two Approaches of the Designs

Observations of existing digital nomadic spaces reveal two primary approaches to their design.

3.1.1. Renovation of Existing Structures

This type involves the renovation of existing houses or themed facilities. For example, the nomad community "Beautiful villa near Vall-Llobrega, (Dir. Palamos) Bus Station" in the Barcelona area is based on the transformation of a former yoga school. Leveraging its original facilities, such as a swimming pool, garden, and restaurant, it provides a more residential atmosphere for nomads and welcomes those with gardening skills to stay, offering a platform for interaction between nomads and the local community. The original yoga classrooms, facilities, and courses have also become part of the nomad experience. Nomads have expressed their appreciation for the yoga sessions offered during the retreat, highlighting the careful attention to body positioning to prevent injuries and the provision of options for different practices, fostering a sense of inclusion, a positive atmosphere, and a feeling of safety [14].

These types of spaces often expand upon the conceptual spaces discussed earlier, using the existing livable environment and interactive areas as a foundation while adding convenient facilities that support digital nomads' work.

3.1.2. Specialized Nomadic Communities

This type is often located farther from city centers. For instance, "Stunning House w/ Coworking + Rooftop + Backyard" is a suburban site spanning 1,000 square meters and offers a variety of room options. This model operates with more professionalized, hotel-style services and management, making it an ideal choice for nomads waiting for visas or seeking temporary residence. However, interactions between nomads and the local community are relatively limited, and the living spaces tend to be more conventional, lacking thematic elements.

3.2. Local Interaction and Nomad Identity Construction

In these spaces, apart from hardware facilities such as internet access, kitchens, and bathrooms, hosts often highlight a variety of community activities as additional incentives to attract nomads. These activities, including meditation sessions, game nights, and movie screenings, foster interactions and socialization among nomads, offering ways for them to build a sense of group identity and connection with the local community. These activities serve as compelling supplementary features for nomads.

In Anji, Zhejiang Province, China, the DNA Digital Nomad Commune is a space transformed from an abandoned bamboo and wood processing factory into a combined office and living area. In this community, nomads establish initial connections through "activity chains," gradually becoming familiar with one another. The "digital nomad" lifestyle evolves from an individual way of living to a shared group consensus and identity. The digital nomad community provides a space for nomads to meet and bond. Additionally, nomads use their skills to support local development and leverage their influence to promote the region, creating a deeper connection with the locality. This interaction transforms their identity from "digital nomads" to "digital villagers," fostering a new regional sense of group identity through their integration with the local community.

4. Conclusion

In the context of spatial perception, the construction of nomadic communities should place greater emphasis on equipping network and office spaces with adequate hardware, providing comfortable living environments, and offering basic recreational facilities. Driven by the need for living spaces, there is also a demand for communal spaces suitable for group activities and social interactions, which serve as platforms to foster a new sense of collective identity among nomads. In summary, the ideal space for nomads consists of four functional modules: work, living, socializing, and entertainment. Furthermore, in terms of spatial layout, digital nomads blur the boundaries between work and living spaces, which is reflected in the fluid and flexible pathways within nomadic community designs that allow seamless transitions between scenarios.

From the perspective of spatial perception, the interactions between nomadic residents and locals, among the nomads themselves, and between residents and non-residents endow the nomadic community with richer meanings and unique values. This is where nomadic communities differ from traditional accommodations such as folk stays chosen by conventional travelers. Observing and envisioning how to create better spaces and services for digital nomads not only supports their sense of group identity but also provides opportunities for more people to engage in digital nomadism, embracing freedom in the process.

This paper primarily focuses on the analysis and discussion of spatial production and identity construction within the study of digital nomad communities. It examines the mutual influence and

interaction between local and nomadic identities. In terms of architectural and spatial design practices, future research can incorporate more specific case studies for a deeper and more detailed exploration.

References

[1]   Thompson, B. (2019). The Digital Nomad Lifestyle: (Remote) Work/Leisure Balance, Privilege, and Constructed Community. International Journal of the Sociology of Leisure, 2(1–2).

[2]   Nash, (Evyn) Caleece, Jarrahi, M. H., & Sutherland, W. (2021). Nomadic work and location independence: The role of space in shaping the work of digital nomads. Human Behavior and Emerging Technologies, 3(2), 271–282.

[3]   Lefebvre, H. (1991). The Production of Space (D. Nicholson-Smith, Trans.). Blackwell, Oxford, 285–290.

[4]   MBO Partners. (2023). Digital Nomads: Nomadism Enters the Mainstream. Retrieved from https://www.mbopartners.com

[5]   Levels, P. (2020). The Future of Remote Work. Retrieved from https://levels.io/the-greatest-migration.

[6]   Tuan, Y.-F. (1977). Space and Place: The Perspective of Experience. University of Minnesota Press, 6-8.

[7]   Zhong, Z. (2022). The construction, production, and interaction of urban subcultural spaces: Taking Live House as an example. Social Science Trends, (11), 24–33.

[8]   Bardram, J. E., & Bossen, C. (2005). Mobility Work: The Spatial Dimension of Collaboration at a Hospital. Computer Supported Cooperative Work (CSCW), 14(2), 131–160.

[9]   Capdevila, I. (2015). Co-working Spaces and the Localised Dynamics of Innovation in Barcelona. International Journal of Innovation Management, 19(3), 1540004..

[10] Gandini, A. (2015). The Rise of Coworking Spaces: A Literature Review. Ephemera: Theory & Politics in Organization, 15(1), 193–205.

[11] Wang, Z., Deng, Y., & Du, F. (2023). The heterotopic social space production practices of digital nomads: A case study of DNA Digital Nomad Commune in Anji, Zhejiang. Future Communication, 30(5), 42–51.

[12] DNCN. (2023). Digital Nomads in Anji: 2023 Survey Report. Retrieved from https://mp.weixin.qq.com/s/qivgLZbhKmEK-WaBCoeN_g

[13] Wang, Y. (2024). From "roaming" to "settling down": The rural integration and reconstruction of digital nomads—A case study of County A in Zhejiang Province. China Youth Studies, 06, 67–77.

[14] Coliving.com. (n.d.). Co-living spaces: Digital nomads and remote workers. Coliving. Retrieved from https://coliving.com/zh/spaces/50kvhjbd.