Urban Sustainability in the Age of Digital Nomads - Diverse Group Impacts

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Abstract: Digital nomads are a whole new group of people empowered by digital information technology, and although they have a subtle impact on urban change, little attention has been paid to the impact on different urban groups with the influx of digital nomads. The aim of this paper is to examine how the increase in the number of digital nomads in recent years has affected different urban groups in the context of the broader goal of sustainable urban development. The case study comes from the Digital Nomad Commune in Anji, China, and through the literature research method, the urban groups are divided into: digital nomads, profit-driven locals and negatively affected locals, analyzing the various phenomena presented by different groups of people, such as the promotion of local economic development, cultural exchange and cultural diversity by the emergence of digital nomads, the pressure on the price of goods in the neighbouring towns and the irreversible negative impacts on the ecological environment, as well as proposing the strategies for the future construction of the city. It suggests how to build digital nomad-friendly cities from the economic, ecological and social perspectives.

Keywords: Digital nomad, Sustainable urban development, Remote work, stakeholder

1. Introduction

In terms of the global situation, there are an estimated 35 million digital nomads around the world, these digital nomads contribute $787 billion to the global economy annually, and the number of digital nomads in the US has continued to grow since 2019, according to a study by MBO Partners. The State of Independence in America survey suggests that in the US alone 16.9 million American workers describe themselves as digital nomads with a 131% increase from 2019, the pre-pandemic year. A recent EU27 survey shows that over 60% of employees would like to work remotely at least several times a month [1]. The numerical growth is all closely linked to the epidemic, with COVID-19 offering people the opportunity to enjoy working online, leading many independent workers to become interested in the digital nomad lifestyle, and more senior digital nomads transforming their work and lifestyles through the epidemic. But in 2023 protests broke out in Lisbon, Portugal, against digital nomads, with protesters saying that the arrival of digital nomads had led the Portuguese economy into an inflationary crisis, and some Portuguese politicians saying that they needed to be careful to consider the negative impacts of digital nomads when it comes to the introduction of talent.

In terms of the Chinese situation, there are now potentially thousands of digital nomads across the country, clustered in popular destinations such as Dali in Yunnan province, Anji in Zhejiang province and the tropical island of Hainan. According to a report by Chinese think tank Future of Work Institute, more than 34% of the world's workforce is now permanently telecommuting. According to the "2021 China Residential Holiday White Paper" released by China's "Hornet's Nest", more than 60% of young people aspire to become "digital nomads" with irregular office locations [2]. In 2015, the concept of "Internet+" was first raised in the Chinese government's work report, and in recent years, China's digital nomads have been the first to enjoy the wave of dividends by taking advantage of Internet technology. Unlike the West, although China's digital nomad industry is still in the early stages of development, it shows a "top-down" form of the phenomenon. The "DNA Digital Nomad Commune" in Anji County, Zhejiang Province is built by the government of Anji Xilong Township and Shanghai Aijia Corporation in Xilong Village, and as of the end of 2022, the government of Zhejiang Province has invested in 17 projects in the economic agglomeration area, with an investment amount of 360 million yuan [3]. Chinese digital nomads on the overall have a high level of literacy however, they are still in a complicated circumstance.

This article aims to study the case of a digital nomad village in Anji, China,based on the global goal of sustainable urban development, and divides the article's research objects into: digital nomads, profit-driven locals and negatively affected locals. Through the literature research method, this paper studies the relationship between local residents and digital nomads as well in the benefits and drawbacks of digital nomads in urban growth, such as the promotion of local economic development, cultural exchange and cultural diversity by the emergence of digital nomads, the pressure on the price of goods in the neighbouring towns and the irreversible negative impacts on the ecological environment, and explore how to establish digital nomad-friendly cities to better adapt to the future urban development needs. So far, academic literature has mainly studied digital nomads from a single group, this paper analyses the interactions between diverse groups and bridges the academic gap.

2. Case analysis

The term Digital Nomads was first proposed by former Hitachi CEO Yu Makimoto in his 1997 book Digital Nomad. According to Makimoto, the so-called Digital Nomads refer to people who "earn a first-world income through the Internet, but choose to live in places where prices are at the level of developing countries". With the refinement of the academic literature in recent years, digital nomads are portrayed as young professionals working solely in an online environment while leading a location-independent and often travel-reliant lifestyle where the boundaries between work, leisure and travel appear blurred [4]. They are seeking a life that is characterized by complete liberty, in which the work environment is perceived as satisfying and rewarding, and travel is considered to be a separate type of job. The case selected for this paper is the DNA Digital Nomad Commune located in Anji County, Zhejiang Province, which is the first comprehensive digital nomad commune in China integrating group living, co-working space and public services. Currently, the commune can accommodate 80 people at the same time, and the occupancy rate has been maintained at more than 98% since the trial operation in early 2022 [5]. As the number of people join the community, the digital nomad community has assumed new dimensions, and its impact on the daily lives of the local population is apparent. This paper attempts to explore the pros and cons of digital nomads on urban development through different perspectives.

2.1. Digital Nomads

The data suggests that by 2022, a total of 473 Digital Nomads have stayed in DNA, with an average of 47 days, an average age of 31, 37% of which have a master's degree or higher, and an average of 6.8 hours of work per day [6]. In city life, these people are exactly the hardest hit by the erosion of nine-to-five jobs, city life breaks people apart, everyone is just an island scattered all over the city, and there's a severe lack of time for socializing. In the digital nomad commune, people erase their inherent roles in the city and re-establish new connections. Dominated by the "mobile sense of place", the young digital nomads' escape from the modern urban space is not only a rejection of the stability and institutionalization of the traditional mode of life, but also an embrace of mobility and uncertainty of nomadic life [7]. Physical "mobility" and spatial "sharing" allow digital nomads to establish new relationships with others, particularly under the influence of Internet super-individuals. Every digital nomad has a distinct personal identity, and they desire understanding among themselves and an intimate spiritual connection between people,thus the establishment of DNA provides them with a safe and extensive social platform. However, the DNA is not very "friendly" to newcomers, and there are some obstacles to their integration. The residents who live longer have been in contact with each other over more time and also have the opportunity to have their own interests and friendships, new residents need to socialize and break the ice to integrate into the community, and many of the group chats and social circles are difficult for new residents to integrate into [8].

The broader impact of China's current "rural revitalisation" and "digital village" development plans on digital nomads deserves attention. The influx of digital nomads into Anji Village has also led to the development of the local economy. Digital nomads are generally talented people with higher education backgrounds, who gather in an isolated village and deeply participate in town revitalisation projects with the help of the exposure effect of the Internet. In addition, they have more diversified aesthetics and life needs, the original commercial forms in the village are far behind their needs.Therefore, it is necessary to actively improve the commercial supporting services to meet the needs of digital nomads, it will be able to attract more digital nomads. Some nomads bring their studios to this community, and they use DNA as the "Nomadic Circle Centre", such as the Pinewood Bus set up by Hebaodan and Harry, they moved their RV remodelling workshop to DNA and the Makoto Zi Pottery Workshop's "Making Pottery from Scratch in Unfamiliar Places" programme, etc [9]. Since the creation of the Digital Nomad Commune, it has gathered and attracted more than 400 highly skilled, highly educated, high-income digital nomads to Anji innovation and entrepreneurship, giving rise to a new rural industry. In addition, Xilong Township holiday daily visitors amounted to more than 5,000 people. This drove the collective annual earnings of 200,000 yuan. The village employs around 200 villagers with a monthly salary of 5,000 yuan [10]. From this level, the existence of DNA creates more commercial value for the village resources.

Benjamin describes the Bohemians as "(they are) outsiders to modernity to see what is fascinating about it". Digital nomads also possess similarities to bohemian life. On a social level, their main reason for being nomadic is an escape from modern life and the established scenarios of life, and the freedom they seek though is not really freedom in the true sense of the word. Digital nomadism is not always experienced as autonomous and free but is a way of living that requires high levels of discipline and self-discipline [11]. In the DNA Digital Nomad Commune, Chinese digital nomads continue to break the boundaries between leisure, freedom and work through their continuous exploration of co-working space and work forms. By challenging traditional business models, digital work that does not emphasize physical workplaces has also fostered the phenomenon of "reverse mobility" whereby urban populations are moving to the countryside [12].

The concept of the city is a process of mobility rather than a product, and the boundaries between urban and rural spaces are becoming increasingly blurred, in spatial juxtaposition and interaction.

2.2. Profit-driven Local

Anji is the origin of white tea, and in 2018, the county received 25.045 million domestic and foreign tourists, with a total tourism revenue of 32.47 billion yuan, and the added value of tourism accounted for 13.5% of GDP [13]. Most locals maintain a curious and tolerant attitude towards digital nomads. The emergence of the Digital Nomad Commune as a shared space is a novel experience for locals, as this form of habitation is clearly against the theory of urbanization in traditional Chinese thinking. But there are still many locals who are willing to try to reach out to them, and as locals interact with digital nomads, locals gradually learn new skills and business mindsets, thus enhancing cultural diversity. In traditional forms of rural commerce, many villagers did not know how to expand the reach of their shop signs, so the digital nomads were taught through digital technology to bring new forms of commerce, such as online live streaming with goods. The arrival of the digital nomads has led to a cultural fusion, and the interaction between the aboriginal community and the digital nomads has created a more open and creative community atmosphere. The nomad Zhi Feng restored the street from the local old man's memory by drawing, then recording the interesting events that happened between him and the neighbouring villagers during the seven months he has been living in the community [14]. A sense of isolation and loneliness is rarely seen in Chinese digital nomads, as they engage in activities that interest them, thus building closer ties with local residents.

2.3. Negatively Affected Local

With an eye on the world, the negative impact of digital nomads on the local area is also significant on a global scale, with Nomad List estimating that 15,800 digital nomads had made their home in Lisbon as of December. Some claim that Airbnb, a short-term rental site popular with digital nomads, is forcing residents to be displaced. "We have neighborhoods now that are mainly Airbnb", said Ana, the Portuguese teacher, at a protest on Web Summit's opening night. "We don't have our homes anymore." Nearby, activists from housing advocacy group Habita held placards reading, "1 digital nomad = many forced nomads" [15]. The migration of digital nomads into rural areas can also lead to urban gentrification, with the concentration of digital nomads typically driving up prices in neighbouring towns, which can constitute an economic strain for most aboriginal people. Higher property prices and costs of living may be unaffordable for some local residents, leading to socio-economic imbalances and increased social injustice. In addition, the expansion of the digital nomad community may cause irreversible harm to the ecosystem. As digital nomads take up residence in different areas, they lack a sense of belonging to the local area and therefore a sense of responsibility for environmental protection, and the large-scale expansion of communes may lead to the over-consumption of natural resources. Furthermore, because of increasing activity like cryptocurrency, lawful provisions are not updated in a timely manner, which may make local cybersecurity more risky.

3. Conclusion

In the context of a mobile society, Chinese digital nomads have positively changed their attitudes, bravely breaking the traditional social contract and re-exploring a new way of life. With the support of their high-tech background, they have continuously boosted the local economy, so that most locals have also benefited from them, and the locals have maintained a lenient policy towards the digital nomads and tried to learn new technological knowledge. However, at the same time, the

negative impacts should not be ignored. While bringing in talents, the government needs to consider and manage them carefully.

On the economic level, the government should optimize the corresponding policies and business support services, and the use of digital technology for commune management is also imperative. In addition, the use of big data technology can enrich the business sector from the side, which is not only beneficial to digital nomads, but also promotes the digital transformation of the local community.

On the ecological level, although the basic lifestyle of digital nomads will effectively reduce the carbon footprint, the process of expanding the nomadic commune will cause irreversible harm to the environment. Therefore, it is also necessary to build basic green facilities, for example, more local sustainable building materials can be used and more natural HVAC facilities can be adopted. Furthermore, the establishment of public eco-farms can also realize the cycle of sustainable food systems.

On the social level, digital nomads have their own unique attributes and their identity will change with the environment, so it is important to advocate for more acceptance and tolerance of digital nomads by local residents and to build a harmonious and friendly community.

Finally, the transformation of social structure is a general trend, the key to which lies in the equal distribution of social resources. In the process of urban development, the concept of the city should not be grounded, and the emergence of new communities can be another way to explore urban life. This process stimulates the creativity and inspiration of new communities and maximizes the creation of real value. In this sense, the existence of digital nomads is a revelation for the sustainable development of cities in the future.

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