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A Review and Frontier of Creative Class Research

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Abstract: Since Richard Florida published "The Rise of the Creative Class" in 2002, the concept of the creative class has gained immense popularity within the social sciences and has inspired a vast body of research. Over the past two decades, research on the creative class has developed rapidly. In the era of the knowledge economy, the creative class has become the leading cohort of this age, sparking research and exploration from various sectors of society. This paper reviews the basic concepts of the creative class, relevant theoretical foundations, and the current academic research on the creative class. It also proposes considerations for future research directions on the creative class, thereby enriching the literature on creative class studies and providing references for another scholars research.

Keywords: Creative Class; Review; Gentlemanly.

1. Introduction

The industrial age gave birth to the blue-collar class, the information age created the white-collar class, and the era of the knowledge economy has seen the emergence of the creative class. The creative class does not possess scarce material assets; they rely on the intangible assets in their minds, namely creativity and innovative capacity, and they are the main driving force as people enter the post-industrial society. Since the 1950s, more noteworthy than the rapid technological advancements has been a profound societal transformation—a revolutionary shift in social norms, peoples values, and working methods. The arrival of the creative age is the fifth turning point in human history. The entire history of economic development can be interpreted as a continuous process of adopting better ways to utilize creativity. The development and innovation of productive forces and production relations ultimately stem from human innovative capacity.

The emergence of the creative class is fundamentally economic. The arrival of the creative age has given rise to a strategic means of production: human intelligence and creativity. At this point, creativity is indispensable to the modern economy. Creativity in our time is not the creation of a few geniuses but is embedded as a ubiquitous economic resource within a broad workforce. According to Floridas understanding, creativity is the ability to propose solutions to complex problems. He does not believe that the creative class has exclusive control over the means of production. In the creative economy era, everyone can exclusively own the means of production—their own minds. This group shares a constructed common identity, reflected in their new values and shared choices regarding work and lifestyle. The creative class consists of "those who add economic value through their creativity." These individuals are characterized by possessing creative capital, defined as "peoples inherent capacity to generate new ideas, new technologies, new business models, new cultural forms, and whole new industries"[1]

2. Conceptual Review of the Creative Class

2.1. Defining the Creative Class

Defining the creative class and its conceptual description remain subject to ongoing debate regarding consistency. A fixed standard for delineating the creative class from the non-creative class has not yet been established. Florida proposed the concept of the creative class to describe this group, suggesting that those who consciously make a living through creative work belong to the creative class. This group tends to plan their own careers, pursue creativity, and highlight individuality. Based on occupation, Florida divides the creative class into three categories: First, the core creative group (Super-Creative Core), primarily composed of professionals in science and engineering, architecture and design, education, arts, music, and entertainment; they are the creators of new ideas and new technologies. Second, the creative professionals, who hold higher education degrees, engage in work involving complex problem-solving requiring substantial independent judgment, primarily employed in business, finance, law, healthcare, and related fields. Third, the Bohemians, primarily engaged in cultural and artistic work; as members of the creative class, they reflect a tolerant urban culture and play a key role in attracting the other two types of creative class. This classification has received broad support in empirical studies.

Florida[1]argues that creative class occupations act as a magnet attracting human capital flows, high-tech industries, and high-growth firms. As a proxy measure for skill, the creative class is not strictly based on educational attainment but on the actual work people do. Thus, it is not a substitute indicator for employment but a direct measure of employment.

The proposition of the creative class has also faced a series of criticisms and critiques in academia. Peck [2]argues that the exclusivity and elitism associated with the creative class lead cities to design policies based on them, negatively impacting those not included. Peck[2] suggests the creative class exacerbates regional inequality and promotes the idea of precarious work as "neo-liberal," themes like the precarity of much creative work that are overlooked in Floridas theory.

The creative economy is a popular theory explaining 21st-

century economic growth pathways, leading cities into a creativity race. Peck[2] criticized Floridas city rankings and business models built around more creative cities and technological support. Peck concluded that the creative class idea is popular not because it is revolutionary, but because it is moderate and aligns with already emerging neoliberal activities.

Makusen [3]criticized Floridas theory, using artists, an element of the creative class, as an example. Their geographical distribution is influenced by personal preferences, job opportunities, and localization effects in creative places. Markusen suggests that infrastructure and places built for artists (e.g., art centers, studio buildings, small venues) are more effective in attracting and settling these creative talents than Floridas [4] 3Ts (Tolerance, Technology, Talent).

Regarding the rise of the creative class, some scholars argue it neglects those who are "not part of the group" and the consequences of such a groups migration . This group tends to avoid suburbs and spaces without identity, preferring city centers over suburbs, where they absorb and displace the organic culture of "interesting" places. The creative class makes these places their own, acting as a starting point for gentrification phenomena.

Scott [5] points out that creative personnel alone are insufficient to sustain urban creative development. Creativity needs to be mobilized and channeled to materialize into practical forms of learning and innovation. He calls this the creative-field effect. The creative field refers to a set of interrelationships that stimulate and provide channels for individual creative expression. This implies that the development of a creative city requires establishing local production systems (training or attracting relevant labor) and planning suitable urban spaces. Cities need corresponding employment systems capable of providing appropriate and stable jobs for creative personnel to encourage them to choose long-term residence in the city.

2.2. How to Attract the Creative Class

Florida [6] argues that in the knowledge economy era, regions and cities should shape environments more conducive to attracting and nurturing the creative class, thereby attracting creative enterprises to optimize regional development patterns and enhance regional development levels, rather than directly attracting such enterprises. But tracing back further, what factors contribute to the formation of an "intelligence pool," and what kind of environment does the creative class prefer? The 3T hypothesis provides one answer: regions or cities characterized by Technology, Talent, and Tolerance.

Beyond technology itself causing talent agglomeration and regional prosperity, its attractiveness to the creative class is also reflected in two aspects: first, consumption preferences, manifested in the creative classs enthusiasm for high -end, personalized, and diverse cultural products, the provision of which requires a high level of technological support; second, work preferences, as the creative class is evidently more concentrated in knowledge-intensive industries.

Talent is the second key factor for regions attracting the creative class. Talent here mainly refers to the regions stock of talent. According to the principle of preferential attachment, nodes with more connections to other nodes have a stronger ability to attract new links. The nodes in social networks are people, and network links manifest as various social connections. All else being equal, the larger a citys population, the more social connections it has with the outside world, and the more people it can further attract to the city. Existing talent within the region are precisely the most active nodes connecting with the outside world, thus able to attract more of the creative class.

Tolerance reflects the entry barriers of a region or city. Florida used indicators such as the Gay Index, Bohemian Index, and proportion of foreign-born people to measure tolerance, with the Gay Index showing the strongest correlation with regional economic growth. Intuitively, the homosexual group does not directly promote regional economic growth, but this indicator indirectly reflects the regions entry barriers. The higher a regions tolerance, the lower its entry barriers, the higher the integrability of new members, and the stronger the regions for the creative class, and vice versa.

Glaeser [7] argued that the "creative capital" in Floridas hypothesis is, in essence, traditional human capital theory. He also questioned the validity of the Bohemian effect. After conducting a series of regression tests on Floridas relevant data, he found no correlation between the Bohemian Index and economic growth. Further data processing revealed the significant role of the university variable. Consequently, Glaeser[8] proposed that skills, sun, and sprawl are the most important factors driving urban development—the "3S" hypothesis. The core of the theory is skills, and the foundation is sun, suggesting that skilled talent tends to prefer sunny places, i.e., areas with a superior living environment.

Compared to the 3T hypothesiss emphasis on a tolerant urban atmosphere, the 3S hypothesis emphasizes concrete and superior living environments, including community safety, clean streets, and welfare benefits. Metropolitan development is increasingly shifting from production-oriented to consumption-oriented. Consumption orientation has become the form of the new-type city in the post-industrial era. Whether this new urban form can attract the creative class depends on whether the city can provide satisfactory amenities. Economic growth has a strong correlation with amenities, particularly evident in the new economy sectors. The new economy, especially urban high-tech industries, is highly dependent on personnel, and high-tech industry workers place great importance on quality of life, especially the impact of amenities on life. The quantity and quality of urban amenities directly affect the inflow of high-tech and creative talent. The more high-tech companies rely on human capital and creative ideas as their main business, the more they focus on the role of amenities in attracting talent.

Scott[9] proposed the creative field to analyze the dynamics of urban creative economy development. It consists of creative agents—individual workers, companies, industry sectors and specialized organizations, infrastructure, communication channels—that generate knowledge accumulation and flow through mutual interaction, thus forming a special innovation network. The creative field can be used to explain the locational choices of the creative class, with a higher creative field being key to attracting them.

Florida [10], by refining the indicators of quality of place proposed by Trip, reintroduced the "quality of place" hypothesis. Quality of place refers to the qualities and endowments a place possesses to attract the creative class—the unique characteristics that distinguish one place from another. Additionally, there is the cultural scene theory based on urban sociology, primarily explaining the locational

orientation of the creative class.

3. Research Progress on the Creative Class

3.1. International Research Progres

International research on the creative class can generally be summarized into three aspects: Macros.

3.1.1. Research on the Importance of the Creative Class and Its Impact on Regional Growth

Andersen et al.[11], using Nordic countries as an example, found that regions with higher densities of creative class indeed exhibited faster economic development. Sands and Reese[12], sampling 40 medium-sized metropolitan areas in Canada, pointed out that the creative class has a significant positive impact on regional sustainable growth, especially in culturally diverse areas where this growth effect is more pronounced. Stam et al. [13], from the perspective of employment growth effects, indicated that regions in the Netherlands with a high concentration of creative class showed higher employment opportunities compared to other areas.

Stolarick and Currid-Halkett [14]further confirmed that urban regions with a higher proportion of creative class have lower unemployment rates, especially after the 2008 financial crisis, where the creative class had a significant positive impact on reducing unemployment and increasing employment rates.

Freire-Gib and Nielsen [15] found that besides employment growth effects, the creative class also exhibits significant entrepreneurial spillover effects. However, this entrepreneurial spillover effect was only evident for the creative class living and working in urban environments; due to the lack of a favorable and business environment, the study found the entrepreneurial spillover effect for the creative class in rural areas was insignificant. From a regional innovation perspective, evidence suggests that creative class agglomeration has significant urbanization effects, labor pool effects, and regional innovation effects, which can drive regional labor productivity growth.

Batabyal and Nijkamp [16] constructed a game theory model of creative capital, creative class preferences, and urban economic growth. Their research concluded that the ability to create a working environment conducive to creative expression and a living environment conducive to leisure and entertainment is key to realizing the growth effects of the creative class.

Houston et al.[17] pointed out that Scotland did not experience the "brain-drain" phenomenon seen in other parts of Europe; instead, it saw substantial "brain-gain." The main reason was the regions ability to provide good job opportunities and more convenient, quality living guarantees for the creative class.

3.1.2. Analysis of the Spatial Distribution of the Creative Class and Factors Influencing Their Location Preferences

Clifton noted that the spatial distribution of the creative class in the UK was highly uneven, but generally, the creative class was strongly correlated with regional tolerance and diversity, with no significant correlation with regional population size.

Olfert and Partridge [13] found that the agglomeration effect of the creative class was more pronounced in regions with higher tolerance, diversity, and amenities.

McGranahan and Wojan [12] pointed out that even in remote rural areas, increasing regional amenities and openness remains beneficial for attracting the creative class. Evidence suggests that regions with higher openness and tolerance are more likely to attract creative class agglomeration, which in turn helps attract a large number of high-tech industries. Regions with a high concentration of high-tech industries are considered important indicators of regional innovation and economic vitality.

Lee and Kaga [12] found that creative clusters are likely located near parks, riversides, and places with high integration value and connectivity. Their conclusion from local axial analysis was that streets near parks or riverside inner-city blocks, where creative design firms concentrate, exhibit high local integration value and connectivity.

Brennan-Horley et al. [14], based on empirical research in rural Australia, indicated that the creative class prefers places with good facilities and high socioeconomic status.

Landry [16]argued that vibrant public spaces, multiculturalism, restaurants and cafes, historic buildings, cultural and leisure facilities, and arts investment are spatial elements attracting the "creative class" and developing innovative creative industries. The creation of spatial atmosphere needs to be accomplished through objects, meanings embedded in material culture, and bodily actions and sensory stimuli to influence the emotions of people within that space.

Makoto Ikegaya and Keith Debbage [17] analyzed the creative class in Japan, aiming to analyze the spatial distribution of the super-creative class in the Greater Tokyo Area (GTA) to better understand the key predictors driving their spatial distribution. They found that the spatial distribution of the super-creative class in the GTA is highly uneven, concentrated mainly in Kawasaki, Tokyo, and Tsukuba. The distribution of the super-creative class by residential location could be better explained by more traditional human capital predictors. Geographical factors seemed to be a major factor explaining their distribution in the GTA.

Valentina Cattivelli and Agnieszka Elzbieta Stawinoga [18] analyzed the localization of the creative class and its determinants in peri-urban areas of Northern Italy, extending the analysis to the underexplored area of peri-urban zones. Using spatial regression models specifically tested on peri-urban municipalities in Northern Italy, they found that the distribution of the creative class is uneven, with more creative class members in municipalities closest to the urban core and fewer in those farthest away. The presence of the creative class is closely related to socioeconomic determinants (public expenditure, presence of creative and non-creative enterprises, voluntary work) and less related to cultural facilities and technology.

3.1.3. Research on the Relationship Between the Creative Class and Social Issues such as Gentrification and Sustainable Development

Asiya Natekal [16] explored the degree of association between the presence of the creative class and the promotion of sustainable development, particularly as reflected in development regulations adopted by cities in Southern California. The study found significant variation among cities in promoting sustainable development. Generally, cities with a higher proportion of creative class promoted community-level sustainable development to a greater extent.

Rylan Graham [17], using Calgary, Canada as a case study, employed detailed document collection and textual analysis to explore whether Calgary adopted the creative class model as a strategy for economic recovery and diversification. Secondary data was used to assess the models success in attracting and retaining creative class population. By arguing the states efforts to provide a rich urban environment t o meet the needs of the creative class, the study sought to determine whether this represented "state-led gentrification" and drove "incipient gentrification" in downtown Calgary. The findings indicate Calgary attracted the creative class by fostering an urban atmosphere with 4 Ts: Talent, Tolerance, Technology, along with rich territorial assets or place-based amenities. However, adopting this model does not guarantee immediate success in attracting and retaining young talent. The research suggests that reshaping downtown neighborhoods to suit the creative classs needs produces consequences associated with gentrification.

Alina Maria Pavelea [16], focusing on Romania, proposed a new framework on the importance of the creative class for local economic resilience, the Creativity and Resilience Analysis (CREA) approach. This study assessed resilience by including indices covering multiple dimensions of creativity-based economic development. The research indicated that the link between creative workers and resilience depends on the phase of economic resilience, the CC subgroup, and the spatial unit considered. Following the crisis, urban areas with a high concentration of creative workers in arts and culture experienced higher declines, but areas with a higher proportion of financial sector workers saw higher recovery levels and medium-term performance. On the other hand, proximate communities with a higher proportion of arts and culture creative workers experienced smaller economic development declines but also lower recovery rates.

Lily, Kiminami et al. [17], using rural Japan as a case study, applied Latent Class Analysis (LCA), Structural Equation Modeling (SEM), and cognitive map analysis to questionnaire results to elucidate the role of the creative class in sustainable agricultural development through Creating Shared Value (CSV). The article found that a certain number of Japanese farmers belong to the creative class. This creative class exhibits high entrepreneurship, appreciates the attractiveness of agriculture, prefers sustainable development policies, and seeks to create shared value. The study found that the evaluation of agricultural multifunctionality influences various elements of creative class entrepreneurship, as well as their preferences for agricultural policies and CSV creation. The creative class contributes to sustainable agriculture and rural development through CSV. This research offers new possibilities for existing creative class studies by analyzing farmers perceptions and behaviors from the perspective of agriculture and rural development using LCA, SEM, and cognitive map analysis.

3.2. Domestic Research Progress

In China, the concept of the creative class is often referred to as creative groups or creative talent. Research on the spatial mobility and agglomeration mechanisms of creative talent has long been a hotspot in foreign urban and economic geography, but related domestic literature remains relatively scarce. One reason is that domestic scholars have primarily focused on industrial clusters, enterprise and organizational relationships, and industrial policies, with very few focusing on the creative agents—"people"—themselves[18]. Another reason is that most existing domestic literature is influenced by traditional migration models, still employing classical economic theories like push-pull theory and cost-benefit analysis when studying the mobility and spatial agglomeration mechanisms of innovative talent. These theories have strong explanatory power for general population migration and spatial mobility of labor in traditional occupations. However, for emerging creative talent, traditional regional factors often cannot provide adequate explanations. The following reviews domestic scholars research on creative talent.

3.2.1. Research on the Locational Orientation, Mobility, and Agglomeration Mechanisms of the Creative Class

Deng Yufan et al.[19] from a geographical spatial perspective, explored the spatial distribution characteristics of creative industry employees within Guangzhous urban space at the micro-level. Through comparative analysis across three spatial levels—the overall urban space, urban regional structure space, and the distribution space of different creative industries—they traced the regional distribution patterns of creative industry employees in Guangzhou. However, their paper did not use the term creative talent (class); instead, they classified creative industries based on Shanghais standards and studied their employees.

Hong Jin, Yu Wentao, and Yang Fengli [20] compared the differences and connections between human capital and the creative class, then analyzed the regional spatial distribution characteristics of Chinas creative class. Their analysi s showed significant spatial distribution differences in Chinas creative class, exhibiting characteristics inconsistent with economic development levels. Using ridge regression analysis on Chinese provincial panel data from 2003-2007, they found that urban cultural opportunities, public service capacity, higher education capacity, ecological facility levels, creative output levels, and high-tech indicators significantly influence the distribution of Chinas creative class.

Zhang Keyun and Zhao Wenjing[21], focusing on Chinas creative class, analyzed related concepts, agglomeration mechanisms, and the relationship with regional economic growth. Their research indicated that the creative class is more suitable for measuring and comparing regional development levels than human capital. There is a significant positive correlation between the size of the creative class and provincial economic development levels, with a stronger correlation in developed regions compared to less developed ones. Regarding change characteristics, Chinas creative class showed a distribution pattern of being higher in the east and lower in the west. During the study period, inter-provincial differences widened, with the creative class agglomerating in the eastern region. Talent levels, cultural product supply, and agglomeration degree (represented by population density) showed significant positive effects on the size of the creative class.

Fang Yuanping and Zeng Qing [22] using 21 prefecture-level cities in Guangdong Province as examples, employed ESDA methods and data from 2000-2012 to preliminarily explore the spatial agglomeration characteristics, evolutionary trends, and influencing factors of the creative class in Guangdong. The study pointed out that technology was a consistently significant factor affecting the spatial agglomeration of Guangdongs creative class, followed by socio-cultural factors and urban wage levels.

Yang Fengli, Hong Jin, and Zhao Dingtao[23] used ridge regression to empirically analyze factors influencing the

regional distribution of Chinas creative class from economic, technological, and ecological aspects. Urban cultural opportunities, public service capacity, higher education capacity, ecological facility levels, creative output levels, and high-tech indicators significantly impacted the size of the creative class. Therefore, efforts should be made to enhance regional living, educational, ecological, and innovation environments to attract and grow the creative class.

Yu Wentao and Wu Shiwei [24], drawing on the role difference of "employee-employer" among workers, distinguished the creative class into skilled (employed) and entrepreneurial (self-employed) types. Constructing theoretical and econometric models using Chinese provincial panel data from 2003-2013, they explored determinants of the regional distribution of heterogeneous creative classes from five aspects: economic factors, innovation environment environment, institutional environment, and ecological environment. The study found that the entrepreneurial creative class, positioned at the of the innovation chain, showed significant dependence on the regional economic environment, political correction environment, and environment, but was less sensitive to factors like innovation environment, intellectual property systems, and ecological environment. Conversely, the skilled creative class, at the of the innovation chain, showed significant dependence on regional innovation environment, ecological environment, and intellectual property systems. However, possibly due to resource misallocation and labor local effects, economic development levels and open environments did not significantly incentivize them, suggesting the role of urban soft environments might be overstated.

Wang Rongxin [25], adopting a class analysis approach, applied Floridas creative class theory to China. Using aggregated data from the Sixth National Population Census, he estimated the total size of Chinas creative class and their inter-provincial and intra-provincial mobility. Using data from the 2010 China Family Panel Studies (CFPS), he distinguished between creative and non-creative classes based on respondents occupations according to the international standard ISCO88. Integrating John Urrys theory of mobility capital, he provided a preliminary theoretical explanation for the mobility of the creative class within Pierre Bourdieus social space. The creative class surpassed the non - creative class in acquiring cultural, mobility, and economic capital. The creative class is better able to accumulate these various forms of capital, thereby changing their position in social space. The research suggests that in China, institutional factors are important determinants of creative class membership. The likelihood of joining the creative class is greater for those within the institutional system.

Zhang Yaning and Zhang Xu[26] selected chef creative groups as their. By collecting trajectory data on the mobility of chefs featured in the "National Famous Chefs" over the years, and using spatial analysis and network analysis methods, they explored the spatial distribution and mobility network characteristics of chef creative groups. Using ridge regression, they identified main factors influencing the mobility of famous chefs across different Chinese cities. The study found significant spatial imbalance in the chefs mobility network, with some variation across different stages. Talent loss was prominent in less developed regions, while core chef groups exhibited higher local "embeddedness." Social relationship networks built on the "apprenticeship system" were the most core factor influencing famous chefs spatial mobility, followed by the overall development level of the citys catering industry, service industry, and economy. Factors like infrastructure and cultural entertainment facilities had less obvious influence, reflecting the chefs specific social network structure, work nature, and cultural level.

Wang Liyan, Ji Yi, and Wang Yijin[27]combining the "2018 Tianjin Transportation and Housing Survey Questionnaire" with urban economic geographic big data, used Hedonic models to explore urban creative talents residential location preferences and group heterogeneity. The study found that overall, creative talent, when choosing residences, prefer locations close to the city center and workplace, with convenient transportation, good basic education facilities, quality medical facilities cultural facilities, and ecological environment conditions. The number of higher education institutions, number of community clinics, and distance to shopping centers had no significant impact. Younger creative talent showed stronger preferences for proximity to city center and employment, convenient public transport, and good cultural atmosphere. Creative talent without urban household registration showed weaker preferences for urban service facilities and ecological environment when choosing residences.

Zhang Xu, Sun Chuanxiang et al.[28] collecting data on video creators from the "Xinpianchang" online platform, used the Gini coefficient, spatial autocorrelation analysis, location quotient, and ridge regression to explore the spatial distribution characteristics and influencing factors of Chinas online video creative groups. Results showed a regional imbalance and coastal-inland difference in their spatial distribution. Relative concentration was higher in some small and medium-sized coastal cities, but the agglomeration advantage in absolute numbers remained strong in national central cities like Beijing, Shanghai, Guangzhou, Shenzhen, and Chengdu. The development base of the cultural industry, network infrastructure level, and government support were the main factors influencing their geographical distribution, while public cultural facilities, environmental quality, and demographic/economic scale had weaker influence. The formation mechanism of online creative groups geographical agglomeration reflects the unique locational demands of emerging digital cultural industries.

He Jinliao, Peng Jue, and Hu Hao [29], starting from urban amenity theory, constructed an urban amenity indicator system driving the spatial agglomeration of Chinas design creative talent. Using big data methods to obtain attribute data of design creative talent from the domestic designer social platform Zcool, they employed geographic concentration index, location quotient, and negative binomial regression to deeply analyze the spatial agglomeration characteristics and mechanisms of Chinas design creative talent. The study found significant spatial agglomeration of Chinas design creative talent and their work, most concentrated in first-tier cities like Beijing, but emerging cities like Hangzhou, Changsha, Wuhan, and Zhengzhou also performed well, even surpassing some first-tier cities. Urban amenity theory had strong explanatory power for the spatial agglomeration of Chinas design creative talent, confirming conclusions of Western creative class theory. Cultural infrastructure, cultural heritage, cultural tourism human capital, warm climate, and good air quality were identified as important factors enhancing a citys attractiveness to creative talent. Interestingly, scientific research investment showed a crowding-out effect on design creative talent agglomeration,

and the living environment amenity factors strongly emphasized by Western scholars had limited impact on Chinese design creative talent.

3.2.2. Interaction Between the Creative Class and Urban Space

Wang Meng, Xuan Ye, and Chen Qifei [30] addressing whether urban creative class agglomeration benefits innovation, constructed a residential choice model for creators, revealing the theoretical mechanism through which creative class agglomeration drives urban innovation via knowledge externalities.

Jiang Yang, Zhang Jingxiang, and Zhang Jiaying [31], introducing field theory, constructed a logic of interaction between creative people and space. Using online literature writers and the China Network Writers Village as empirical subjects, they analyzed the behavior of creative people in online and offline spaces and the interweaving logic of these spaces, further the nature of urban innovation spaces. The research suggests a complementary and mutually reinforcing relationship between virtual and real spaces in innovation activities, also reflecting that urban innovation spaces possess the dual attributes of space and economic clusters. The construction process of innovation spaces essentially involves the return of space to the habits of creative people.

Mai Yongxin, Yang Chunhua, You Kexin et al.[32] noted in their research that the entry of creative groups creates new spatial subjects and social relations, leading to the renewal and reuse of historic building spaces and the creation of emerging cultural and creative spaces.

Zhao Meiting, Wang Yongjie, Shen Junlin et al.[33] taking non-representational theory as a starting point and Guangzhous innovation and entrepreneu rship spaces as cases, explored the role of elements like emotional space and bodies in promoting urban regeneration. Their research indicated that the daily life practices of the creative class reshape the community environment, promoting the reproduction of micro-spaces, achieving capital accumulation to complete the first round of spatio-temporal fix. As their social influence expands, this becomes a new urban culture, facilitating the second round of spatio-temporal fix.

Ma Renfeng [34] argues that the creative class local production relations and social relations to form creative capital, which in turn catalyzes the transformation of local culture and material foundations towards creative scenes, and socio-cultural atmosphere towards creative consumption dominance and local identity. This lays the foundation for creative class agglomeration in urban economy, culture, and places. Through their creative production and consumption activities, the creative class produces knowledge, leads consumption, and generates creative brand spillovers for enterprises, thereby promoting urban efficiency change and innovation. Their participation in circulation and consumption further influences creative production activities. Creativity continuously accumulates through production, circulation, and consumption, ultimately reshaping the of urban economic organization efficiency and production relations, while profoundly influencing urban social and cultural spaces.

Duan Jie and Zhu Liping[35]pointed out that the creative class or creative economic activities are inseparable from culture. Culture is the inspiration source for creativity, and creativity gradually becomes a cultural symbol in commodity production and an important means of cultural consumption. On one hand, the creative class is attracted by local cultural atmospheres—the inclusive cultures of metropolises like New York, London, Shanghai, and Beijing attract numerous creative practitioners. On the other hand, the creative process of the creative class and the protection of intellectual property rights for their creative goods directly influence local institutions and legal norms. Their daily consumption habits indirectly affect residents daily customs, collectively constructing new types of urban cultural spaces.

4. Review of Creative Class Research

In summary, Chinese academic research on the creative class follows Western scholarship. Research on the location of the creative class is highly homogeneous with Western academia, only adapting indicator selection to better fit Chinese realities. Investigations into the agglomeration of the creative class and its economic, social, and cultural effects largely adhere to Western research approaches, merely expanding on some research methods.

First, there are few in-depth case studies exploring the causes, evolutionary mechanisms, and effects of creative class agglomeration. Exploration of creative class location remains largely at the simple provincial level, merely proposing potentially relevant factors and verifying correlations. Research on how to create an urban atmosphere to attract creative talent is significantly lacking.

Second, research still fails to elucidate the regional and urban growth effects and impact mechanisms of the creative class, nor how creative class agglomeration, creative community evolution, and creative industry prosperity interact to drive the formation of creative cities. Although some scholars suggest researching the interaction between the creative class and urban space, this remains merely a research. Third, whether theoretical hypotheses like social capital, human capital, or the creative class, their essence is to explore the driving forces for sustainable urban development. Post-industrial urban development theories, represented by the creative class hypothesis, aim to find pathways for urban sustainable development where natural capital cannot be substituted. Their essence is a symbiotic, flexible, and dynamic development of economy, culture, and natural environment. Chinese research on urban sustainable development mostly focuses on the industrial level. Research systematically elucidating the dynamic mechanisms of urban sustainable development led by the creative class, within the context of urban development, is very scarce.

Conflicts of interest

The authors declare that they have no conflict of interest.

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References

[1] Alsayel A, de Jong M, Fransen J. Can creative cities be inclusive too? How do Dubai, Amsterdam and Toronto navigate the tensions between creativity and inclusiveness in their adoption of city brands and policy initiatives?[J]. Cities, 2022, 128: 103786.

[2] Cattivelli V, Stawinoga A E. Localisation and determinants of the creative class in the peri-urban areas. The case of Northern Italy[J]. City, Culture and Society, 2023, 33: 100517.

[3] FLORIDA R, MELLANDER C, STOLARICK K, et al. Cities, skills and wages[J]. Journal of Economic Geography, 2012, 12(2): 355-377.

[4] FLORIDA R. The rise of the creative class[M]. New York: Basic Books, 2002: 29-31

[5] FRITSCH M, STUETZER M. The geography of creative people in Germany[J]. International journal of foresight and innovation policy, 2009(3): 7-23.

[6] GLAESER E L, RESSEGER M G. The complementarity between cities and skills[J]. Journal of regional science, 2010(1): 221-244.

[7] GLAESER E L, TOBIO K. The Rise of the Sunbelt[J]. Southern Economic Journal, 2008, 74(3): 609-643.

[8] Graham R. Calgary and the'creative class': The interface between public policy and gentrification[J]. City, Culture and Society, 2023, 32: 100489.

[9] Ikegaya M, Debbage K. The geography of the Super Creative Class in the greater Tokyo area: Place of work and place of residence[J]. City, Culture and Society, 2023, 33: 100516.

[10] Kiminami L, Furuzawa S, Kiminami A. Role of creative classes in sustainable agricultural development: focusing on creating shared value in rural Japan[J]. Asia-Pacific Journal of Regional Science, 2023: 1-32.

[11] Maria Pavelea A, Pavel A, Neamţu B, et al. Is the creative class a shock absorber against an economic recession? Spatial labour market resilience in Romania[J]. Regional Studies, 2023, 57(12): 2457-2472.

[12] Natekal A. Sustainable Urban Form and the Creative Class: Insights from Southern California[J]. Journal of Planning Education and Research, 2023: 0739456X231160426.

[13] SANDS G, REESE L A. Cultivating the creative class: and what about Nanaimo? [J]. Economic Development Quarterly, 2008, 22 (1): 8-23.

[14] SCOTT A J. Cultural economy and the creative field of the city[J]. Geografiska annaler series B, 2010(2): 115-130.

[15] Thomas C. Creative workers' perception of place in Edmonton Canada[J]. Cities, 2023, 132: 104111.

[16] TRIP J. Assessing quality of place: a comparative analysis of Amsterdam and Rotterdam[J]. Journal of urban affairs, 2007(5): 501-517.

[17] Zhang Yaning and Zhang Xu. 2022. Patterns and Influencing Factors of the Mobile Network of Traditional Creative Talents: Focus on Chinese Celebrity Chefs. Tropical Geography, 42 (11): 1890-1903.

[18] An Shuwei, Li Peng. New Progress in Research on the Urban Creative Class [C] // Peking University, Beijing Municipal Education Commission, Korea Foundation for Advanced Studies. Beijing Forum (2012) Harmony and Common Prosperity of Civilizations -- New Pattern, New Challenge, New Thinking, New Opportunity: Proceedings and Abstracts of the Urban Forum on "World City Spiritual Heritage - Experience and Innovation". Center for Studies of China Western Economic Development, Northwest University;, 2012: 9.

[19] An Shuwei, Ni Jun. A Comparative Study of "3T" Theory and "3S" Theory [J]. Regional Economic Review, 2016 (2): 127-132.

[20] Cui Renyuan, Huo Mingyuan. Creative Class and Urban Sustainable Development [J]. Human Geography, 2007, (01): 7-11.

[21] Deng Yufan, Chen Zhongnuan, Xiao Yanfei. A Study on the Spatial Distribution Characteristics of Creative Industry Practitioners in Guangzhou [J]. Human Geography, 2009 (2): 34-39.

[22] Duan Jie, Zhu Liping. Analysis on the Spatial Evolution and Agglomeration Characteristics of Urban Creative Industry Parks and Their Influencing Factors: A Case Study of Shenzhen [J]. Modern Urban Research, 2015 (10): 76-82.

[23] Fang Yuanping, Zeng Qing, Tang Yao, et al. Analysis on the Spatio-temporal Evolution and Influencing Factors of Creative Class Agglomeration in Guangdong Province [J]. Human Geography, 2016 (6): 58-65.

[24] He Jinliao, Peng Jue, Hu Hao. Spatial Agglomeration of Design Creative Talents and Its Influencing Mechanism: Based on the Perspective of Urban Amenity [J]. Scientia Geographica Sinica, 2021 (9): 1525-1535.

[25] Hong Jin, Yu Wentao, Yang Fengli. Research on Human Capital, Creative Class and Their Regional Spatial Distribution [J]. Economist, 2011, (09): 28-35. DOI:10.16158/j.cnki.51-1312/f.2011.09.004.

[26] Jiang Yang, Zhang Jingxiang, Zhang Jiaying. The Field of Interaction between Creative People and Space: An Interpretation of the Essence of Urban Innovation Space [J]. Urban Development Studies, 2022, 29 (09): 100-107+117.

[27] Li Haidong, Tang Yanyuan, Xiong Hengqing. A Visual Analysis of the Knowledge Graph of Creative Class Research [J]. Journal of Jiangxi Science and Technology Normal University, 2020, (01): 65-79.

[28] Lyu Kewen, Yuan Feng, Gao Lu, et al. Multi-field and Cluster Innovation: A Case Study of the Shenhou Jun Porcelain Cultural and Creative Industry in Henan Province [J]. Human Geography, 2019 (3): 128-136.

[29] Ma Renfeng. The Theoretical Origin, Logical Relationship and Development Path of the Mutual Shaping between Creative Class Agglomeration and Urban Space [J]. Academic Forum, 2022, 45 (04): 16-30. DOI:10.16524/j.45-1002.20220716.001

[30] Sun Kang, Si Yuefang. Spatial Structure and Influencing Factors of Innovative Talents Mobility: Based on Curriculum Vitae Analysis of Highly Cited Chinese Scientists [J]. Acta Geographica Sinica, 2022, 77 (08): 2113-2130.

[31] Tian Fangmeng. Where is the Creative Class? [J]. Beijing Cultural Review, 2010, (04): 117-119.

[32] Wang Meng, Xuan Ye, Chen Qifei. Creative Class Agglomeration, Knowledge Externalities and Urban Innovation: Evidence from 20 Major Cities [J]. Economic Theory and Business Management, 2016 (1): 59-70.

[33] Wu Chuanlong, Pan Yuanyuan, Luo Qiuju. The Growth and Cultivation of the Creative Class in Jingdezhen [J]. Scientia Geographica Sinica, 2023, 43 (08): 1463-1470. DOI:10.13249/j.cnki.sgs.2023.08.015.

[34] Wu Jun. Attracting the Flow and Aggregation of the Creative Class: Humanistic Environment and Scenes: A Review of Western Creative Class Theory [J]. China Ancient City, 2019, (05): 30-35.

[35] Yang Xin'ao. Research on Creative Class Employment Preferences and Scene Construction in Cultural and Creative Industrial Parks Based on Scene Theory [D]. Lanzhou University, 2021. DOI:10.27204/d.cnki.glzhu.2021.000438.