A Localized Theoretical Exploration of Rural Life-Circle Construction from a Family Perspective

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Abstract: To develop a localized theory for constructing rural life circles in China, this study combines literature review with field investigation and comparative analysis. The historical evolution of rural production and everyday practices shows that the family constitutes the fundamental logic of China's rural life circles and gives them distinctive local characteristics. Once the family is treated as a core analytical unit, the conventional "behavior–space-time–optimization" framework requires adaptation in three respects: an intergenerational perspective on family behavior, an integrated urban–rural definition of space and time, and coordinated urban–rural public services. A localized theory should therefore extend the analysis from individual villagers to the family as a whole, construct a spatial model specific to rural China, and configure service elements accordingly. The paper proposes a "family behavior–spatial pattern" framework as the theoretical basis for rural life-circle construction. It comprises three methodological components: identifying space-time paths of social proximity, establishing a proximity-based rural life-circle system, and transforming intra-village mutual assistance into urban–rural mutual-aid networks.

Keywords: urban and rural planning; rural life circle; family; localized theory; urban–rural integration

The report to the 20th National Congress of the Communist Party of China called for giving priority to agricultural and rural development, advancing integrated urban–rural development, and facilitating the flow of factors between urban and rural areas. The Seventh National Population Census showed that, by 2020, China's rural floating population had reached 272 million, including 82 million interprovincial migrants and 190 million migrants within their home provinces. Villagers' production and everyday activities are no longer confined to the countryside [1]. Building life circles that accommodate urban–rural mobility has consequently become a basic requirement of rural revitalization in the new era.

The concept of the rural life circle originated in Japan's 1969 *Rural Living Environment Improvement Plan*, which proposed examining "the geographical distribution of people's production, living, and other activities" and constructing a hierarchy of rural life circles extending from hamlets and larger village units to former villages, cities, municipalities, and regional metropolitan areas [2]. CHEN Qinghui et al. introduced the concept to China in 1987 [3]. Since 2021, national and local technical standards—including the Ministry of Natural Resources' *Technical Guidelines for Community Life-Circle Planning* and the *Shanghai Guidelines for Rural Community Life-Circle Planning (Trial)*—have accelerated planning practice in this field [4].

A localized theory suited to China's conditions must advance in parallel if rural life circles are to improve villagers' production and living conditions and support sustainable rural development. Localized theory is formed by engaging contemporary research, understanding Chinese social realities, and inheriting the strengths of traditional Chinese thought and culture. In urban and rural planning, ZOU Deci argued that theory must address the actual conditions of China's urbanization [5]. China's indigenous academic system of urban and rural planning remains under development [6]. Guided by the science of human settlements, research has moved beyond physical space toward economic, social, and ecological explanations of the internal laws governing Chinese urban and rural space [7], producing localized concepts such as "spatial genes" and the "flowing countryside" [8–10].

Existing research suggests that life-circle construction in China and abroad generally follows a common "behavior–space-time–optimization" logic [11]. Within this framework, rural life circles are planned by linking individual behavioral regularities to the physical environment and using the geographical distribution of personal activities to determine the spatial arrangement and planning principles of production and living facilities. Yet the evolution of rural Chinese society shows that the family has consistently shaped individual behavior; indeed, villagers' personal actions can often be understood as outward manifestations of family behavioral patterns. Unlike individual behavior in many foreign or urban contexts, the behavior of Chinese villagers is difficult to interpret as sociologically or economically independent from the family. This creates three adaptation problems when the general framework is applied to rural China: the need for an intergenerational family-behavior perspective, the need to define space and time through integrated urban–rural relations, and the need to coordinate urban and rural public services.

This paper therefore foregrounds the family and proposes a localized theory of rural life-circle construction. Its localization lies in extending research from individual villagers to the behavior of the family as a whole, thereby constructing a spatial pattern specific to rural China and configuring service elements accordingly. The resulting "family behavior–spatial pattern" framework establishes a development pathway consistent with actual Chinese rural conditions and provides a reference for theoretical and practical innovation.

1 The General Logic of Rural Life-Circle Construction

Current research indicates that rural life circles in China and abroad share a “behavior–space-time–optimization” logic, although each component has a distinct emphasis (Table 1). The behavioral logic draws on sociology, economics, and related disciplines to identify typologies of individual rural behavior under social change. The space-time logic is grounded in planning and geography and stresses the correspondence between everyday activity and service elements in geographical space and time. The optimization logic, led by planning, geography, and public administration, develops strategies for configuring service elements.

Table 1. Behavioral, space-time, and optimization logics of rural life-circle construction

Logic	Central theme	Main research content	Related disciplines	Purpose
Behavioral logic	Behavioral regularities	(1) Subsistence-rationality paradigm: behavior constrained by individual survival; (2) economic-rationality paradigm: behavior shaped by costs, profits, and risks; (3) institution–behavior paradigm: the effects of state policy and social institutions; (4) relation–behavior paradigm: behavior interpreted through social systems and relations	Sociology, economics, political science, ethics, law, cultural studies	Understand rural behavior and provide a basis for spatial layout
Space-time logic	Spatial expression	(1) Accessibility-based distributions; (2) behavior-based space-time distributions; (3) conceptualized space-time distributions	Urban and rural planning, geography	Define the spatial pattern that rural life circles should assume
Optimization logic	Optimization strategies	(1) Supply perspective: social equity in service provision; (2) demand perspective: differentiated needs for service elements	Urban and rural planning, geography, public administration	Improve the configuration of service elements

The behavioral logic seeks to explain villagers' actions and behavioral patterns. Four analytical paradigms predate the life-circle concept [12]. The subsistence-rationality paradigm originates in SCOTT's moral-economy interpretation of the peasant [13] and, in China, is associated with traditional smallholders shaped by kinship and lineage [14–15]. The economic-rationality paradigm situates behavior within the “economic rationality” of SCHULTZ and POPKIN [16–17]. Chinese scholarship has developed localized variants, including monetary rationality characterized by preferences for stable income and long-term economic investment. The institution–behavior paradigm, originating in ENGELS's *The Peasant Question in France and Germany*, traces changes in peasant behavior under capitalist institutions; the “socialized smallholder” is a major contemporary Chinese research focus [18–20]. The relation–behavior paradigm begins with SIMMEL's formal sociology [21] and was subsequently developed through BROWN's social-network approach [22] and LATOUR's actor-network theory [23]. In China, it also draws on LIANG Shuming's relationship orientation [24], FEI Xiaotong's differential mode of association [25], and HSU Francis's situational model [26], examining social interaction dominated by territorial ties [27] and family production and living behavior shaped by kinship [28–29].

The space-time logic maps behavioral findings onto geographical space, examining how activities use space and emphasizing the relationship between behavior and the material environment [30]. This has produced studies of origin–destination patterns and space-time trajectories. The former identify spaces that maximize the economic benefits of accessibility [29] and remain the principal method used in China to understand villagers' activity spaces. The latter account for socioeconomic constraints and emphasize spatial cognition and preference selection [31–33], an approach developed especially in Japan. These methods have yielded three interpretations of rural life-circle space: accessibility-based, behavior-based, and conceptualized distributions (Figure 1).

Accessibility studies in China have produced integrated urban–rural public-service systems, now a central research topic [34–37]. Some Western scholars similarly apply the idea of the “X-minute city” to rural areas [38–39]. Behavior-based studies, developed largely in Japan through activity diaries, examine rural–urban commuting and jobs–housing integration in suburban areas [40] and the broadening of rural life circles as generations change and private-car ownership expands [41–45]. Chinese research in this area is still emergent [46]. Conceptualized distributions seek spatial types that address villagers' entire life course. Japan and other East Asian countries have developed rural life-circle models based on regional behavioral differences [47], school-age education [48], commuter-transport orientation [49], and the needs of different age groups [50–51].

Chinese research, responding to urbanization and territorial spatial planning, has proposed nested structures ranging from basic to higher-order rural life circles [52–53].

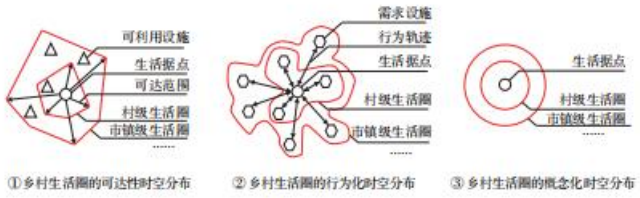

Figure 1. Three interpretations of the space-time logic through which rural life circles are formed.

The optimization logic guides the improvement of spaces generated by production and everyday behavior from both supply and demand perspectives. Supply-side research focuses on social equity. In developed Western countries, it stresses efficient urban–rural transport systems and, where necessary, enlarging the geographical range of production and living activities [54–56]. Chinese research focuses on allocating public-service facilities within accessibility rings according to per-thousand-population standards and service radii [57–59]. Demand-side research examines subjective preferences, with Japanese studies emphasizing shared facilities for older rural residents and intermunicipal public-service cooperation [60–62]. Other work addresses the urban–rural mobility of younger residents in the suburban areas of Tokyo, Osaka, and Nagoya, proposing suburban life circles based on efficient commuting transfers, convenient production and living conditions, and the redistribution of metropolitan population [63].

2 The Family as a Localizing Element

Research in China and elsewhere generally begins with individual behavior and constructs a geographical distribution capable of meeting space-time needs and improving rural social stability. In China, however, the family has a foundational role. Individual actions have always been entangled with household production and life, and a framework centered on personal behavior cannot adequately explain contemporary rural realities.

2.1 The Foundational Role of the Family in the Evolution of China's Rural Life Circles

In traditional agrarian society, villagers operated within a limited range and were deeply embedded in rural settlements. Low agricultural productivity internalized a “subsistence ethic” within behavioral patterns. At the individual level, the small self-sufficient household organized around “men ploughing and women weaving” expanded into an extended family sharing residence, property, and meals under cultural obligations of filial piety; this in turn extended to mutual support among households within the village. At the institutional level, nested rural-administration systems—from groups of five households upward—transmitted the protection of the national “greater family” to villagers' “small families.” The resulting life circle was therefore family-based, grounded in agricultural subsistence, and oriented toward maintaining intergenerational settlement while avoiding disruptive migration—the social-spatial condition FEI Xiaotong characterized as “rural China.”

Modern rural life circles have gradually differentiated. The former household subsistence ethic has been overlaid by the intergenerational reproduction of nuclear families, but the starting point and ultimate concern remain family behavior. The *2022 Monitoring Survey Report on Migrant Workers* shows that 60.08% of China's rural population works in cities [64]. Rural households have gradually separated from land-based means of production, disrupting self-sufficient farming and requiring individuals and families to purchase goods and services with cash. A monetary ethic has therefore been superimposed on the subsistence ethic. Extended-family behavior has contracted into intergenerational reproduction centered on nuclear households and is expressed in three main patterns (Table 2) [65].

Table 2. Intergenerational behavioral patterns of Chinese rural families

Type	Intergenerational behavior
“Part-time work and part-time farming” household	The younger generation accumulates capital through multiple urban and rural activities. The older generation mainly manages farmland, cares for grandchildren in the village, and may undertake temporary work to provide financial and material support.
“Stretched” intergenerational household	The younger generation is rooted in town while the parents remain in the village. Improved transport enables parents to visit and care for grandchildren and enables the younger generation to return during leisure time.
“One family, three systems” household	Because household capital is limited but the family seeks better urban education for the next generation, members work and farm in multiple places. One younger adult provides childcare and undertakes flexible local employment; another works elsewhere to increase income. One parent may help care for grandchildren while

Type	Intergenerational behavior
	the other remains in the village.

From the standpoint of subsistence, families aspire to support direct descendants through successive moves into the city and achieve upward social mobility. From the standpoint of monetary rationality, however, relocating an entire extended family is often economically infeasible. Rising rates of urban homeownership among migrants and settlement intentions conditioned by children's educational opportunities exemplify the interaction between these logics. Rural families become geographically dispersed but remain connected through intergenerational interaction—"separated without disintegration." Their life circles therefore expand geographically and acquire more complex behavioral-spatial forms.

2.2 Adaptation of the General Framework

From traditional gendered farming households to contemporary intergenerational reproduction, the family remains central. Applying an individual-centered "behavior–space-time–optimization" logic without modification creates three adaptation problems (Table 3).

Table 3. Adaptation problems in constructing localized rural life circles

Logic	Conventional research focus	Contemporary reality	Adaptation problem
Behavioral	Individual everyday behavior	Intergenerational reproduction within the family	Need for a family-intergenerational perspective
Space-time	A hierarchy extending outward from the rural settlement	Urban–rural space-time interaction as families adapt to both urban and rural rhythms	Need for an integrated urban–rural space-time definition
Optimization	Service needs from basic to higher-order living	Urban–rural differences in public-service supply and demand	Need for integrated urban–rural public services

2.2.1 Behavioral Adaptation through an Intergenerational Family Perspective

A family perspective restores the action logic of farm households and clarifies which resources and environments are meaningful to them. Ignoring intergenerational reproduction and relying only on individual behavior may cause rural life-circle planning to produce outcomes contrary to its intentions.

The consolidation of villages and residential resettlement in Province S illustrates this risk. The policy sought to address deagrarianization, construct rural life circles, and improve household production and living conditions through demolition and consolidation. In some places, however, villagers remained in temporary resettlement areas, refused to move into apartment buildings, and repeatedly petitioned authorities (Figure 2). A survey in District D of City R found that more than half of residents opposed village consolidation. Among supporters, 22.65% still refused apartment living, and 66.10% were willing to return compensation already received in exchange for an urban commercial dwelling. The monetary logic raised the economic cost of production and daily life, while the subsistence logic yielded little beyond improved housing conditions—especially failing to address the core aspiration for upward mobility among family members.

By contrast, some municipalities and counties in Province Y recognized the distinctive nature of intergenerational reproduction and used diverse approaches, including on-site resettlement, monetary compensation, and relocation. They completed consolidation while creating channels for household income growth [66]. The comparison shows that intergenerational reproduction requires both urban and rural functional spaces. Rural life-circle planning can no longer treat the countryside in isolation [67].

Figure 2. Spatial manifestation of imbalanced intergenerational family behavior: community resettlement in a village in Town N, District D, City R.

2.2.2 Space-Time Adaptation through Integrated Urban–Rural Definition

As rural families divide across urban and rural space yet remain integrated through intergenerational behavior, the rural life circle is no longer simply an area extending from a village settlement. It exhibits both an integrated urban–rural spatial layout and a new requirement for urban–rural interaction through time.

The *2022 Monitoring Survey Report on Migrant Workers* [64] found that migrant workers living outside their home regions had an average urban dwelling area of 22.6 m², 0.9 m² more than the previous year. National monitoring data show that housing ownership among migrants increased from 5.94% in 2010 to 20.21% in 2017. Local surveys report similar trends: at least 200 of 385 households in one Ningxia village—about 52%—had purchased urban housing [68], while nearly half of surveyed farm households in Jiangsu had purchased commercial housing in county towns [69].

The authors' survey of Village B in District D, City R, Province S, found that 49.43% of families rented or owned urban housing; younger-generation households accounted for 90.12% of this group. Only 27.27% of younger-generation households remained permanently in the village, and the average age of resident households was 56 (Figures 3 and 4). SU Hongjian further found that, in 30 of China's 34 provincial-level administrative regions excluding Hong Kong, Macao, and Taiwan, more than half of rural migrants living in cities rented or bought housing within their home county, city, or district [70]. Through intergenerational behavior, rural families are stitching together an interconnected and spatially interactive urban–rural network.

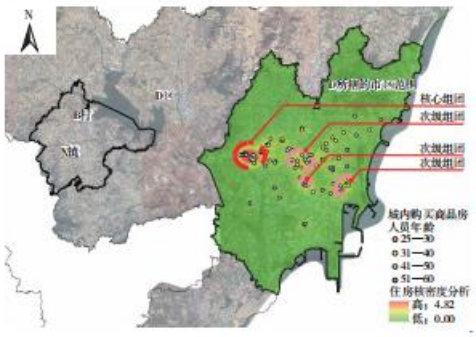

Figure 3. Commercial housing purchased by residents of Village B in the urban area under the same jurisdiction.

Figure 4. Basic profile of households residing in Village B.

Source: Authors' questionnaire survey and the District D Branch of the City R Bureau of Natural Resources and Planning.

Research in eastern Shandong [71] and in Henan, Jiangxi, and Gansu [72] similarly shows that geographically dispersed generations maintain close cooperation in livelihood, childcare, and eldercare. Based on the household types in Table 2, the authors classified intergenerational behavior in Village B (Figure 5). Fifteen older-generation households followed the part-time work/farming pattern. The “stretched” pattern was divided according to whether younger members rented or owned urban housing: 52 older households interacted with younger renters, while 72 interacted with younger homeowners. Thirteen older households followed the “one family, three systems” pattern, including distinctive anticipatory and delayed behaviors.

Because urban–rural transport is convenient and distances are short, 53.64% of younger renters and homeowners interacted with their parents either daily or weekly, creating a dual-habitation pattern of “parents in the village, children in the city, frequent interaction.” Such interaction breaks through the traditional spatial coincidence of kinship, territorial, and occupational ties and reconstructs rural social relations across urban and rural space-time.

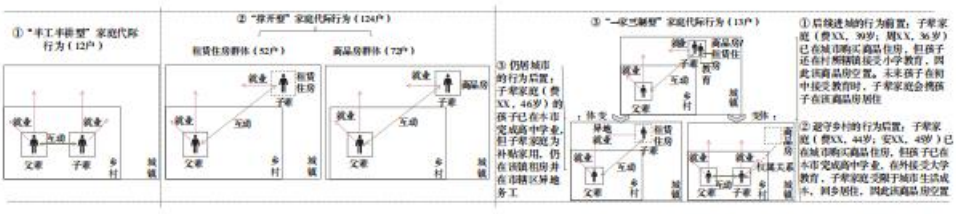

Figure 5. Classification of intergenerational family behavior in Village B.

Source: Authors' questionnaire survey.

2.2.3 Optimization Adaptation through Integrated Urban–Rural Public Services

Traditional agrarian life circles formed stable organic systems composed of people, land, industry, and village. Intergenerational family behavior has destabilized this system, suggesting that public-service facilities should be configured through an integrated urban–rural system responsive to the needs of different generations.

First, rural basic education is contracting. In District D, City R, more than 90% of school-age children attended school in the urban area. In seven of the eight surveyed villages, most kindergartens and primary schools had closed; only Village A still enrolled primary-school pupils (Figure 6). Second, rural aging is acute. Residents aged 60 or above accounted for 50.56% of Village B. Four other near-suburban villages had shares of 30–40%, while three remote villages exceeded 70%. Medical and eldercare facilities have therefore become the most urgent rural public-service need.

Third, aging contributes to idle land and industrial hollowing. Farmland and homestead houses are increasingly abandoned (Figures 7 and 8). Village B contained 30 vacant or derelict houses, 14.49% of its total. Older villagers often remain to protect homesteads and obtain retirement income from contracted land, but farming provides food rather than meaningful income. For wheat, state subsidies are approximately CNY 130 per mu, while ordinary fertilizer costs CNY 180–200 per bag and higher-quality fertilizer may exceed CNY 300. Only 20.44% of Village B residents depended exclusively on farming, with an average age of 64, compared with 54 among those combining farming and wage work or relying fully on wage employment. Interviewees stated that they would continue to work if enterprises were willing to employ them.

Figure 6. Closed kindergartens and primary schools.
Figure 7. Abandoned farmland.

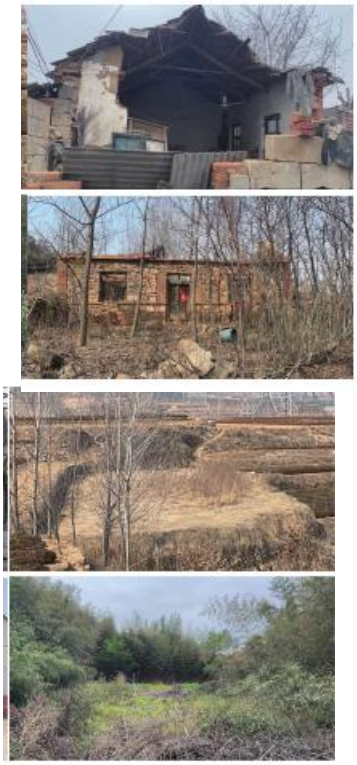

Figure 8. Abandoned homestead houses.

These changes make rural medical and eldercare provision urgent while requiring urban educational facilities to account for rural demand. The influence of cities on rural areas is becoming increasingly evident [73]. Rural life-circle construction must therefore coordinate from an integrated urban–rural perspective, address interrelated problems of people, land, and industry, and promote sustainable rural development.

3 The "Family Behavior–Spatial Pattern" Framework

The localized theory proposed here transforms rural life-circle construction from an approach based solely on individual behavioral regularities into one that retains the individual as a foundation while examining the family as a whole. It then constructs a spatial model specific to rural China and configures services accordingly. Because villagers' economic and social behavior is embedded in family contexts, the geographical distribution of life circles should reflect that embeddedness.

Localization is achieved by adding a family-based interpretation to the general "behavior–space-time–optimization" framework. The method has three components: establishing social-proximity space-time paths, constructing a spatial system oriented toward nearby and local activity, and transforming intra-village assistance into urban–rural mutual aid. The first identifies the mechanisms of Chinese rural family behavior and provides a spatial representation. The second examines the relationship between the geography of family behavior and the life circle, providing an appropriate spatial carrier. The third develops context-sensitive optimization and channels for configuring service elements.

3.1 Establishing Social-Proximity Space-Time Paths

The concept of a social-proximity space-time path can be traced to SIMMEL's early twentieth-century theory [21]. Its core meaning is the close correspondence between space-time trajectories and social relations [74]. In rural China, kinship, territorial, and occupational ties interact with intergenerational family behavior to produce distinctive paths. These map onto three basic behavioral spaces (Table 4).

Table 4. Three behavioral spaces reflected by social-proximity space-time paths

Type	Spatial definition	Spatial characteristic	Social-spatial basis	Contemporary condition
Rural social-proximity space	Administrative village or natural village	Territorial interaction among rural households forms a dense village social space	Territorial relations embodied in rural residence	Generational differentiation in employment, life, and culture; village interaction increasingly led by older households
Rural–urban socially inactive space	Town, county, district, or city	Employment extends from countryside to city and	Employment relations weaken rural territorial ties	Older members combine farming with informal

Type	Spatial definition	Spatial characteristic	Social-spatial basis	Contemporary condition
		adds urban employment relations to traditional mutual assistance; village residents commute outward, while urban family members work within or between cities and often rent housing		urban work; younger members enter non-agricultural employment and educate children in towns, with periodic intergenerational interaction
Rural–urban intergenerational proximity space	Town, county, district, or city	Geographical separation accompanies family nuclearization, but kinship sustains interaction; purchasing urban housing fixes location more strongly than renting and increases the possibility of urban–rural social exchange	Kinship embodied in rural and urban housing	Urban home purchases support marriage and children's education, generating grandparental childcare, visits, and other intergenerational practices

Optimization should respond to the differing paths of behavioral clusters (Figure 9). Intergenerational reproduction is structured around employment, education, and residence, producing a commuting layer and a settlement layer. If a cluster remains within rural social-proximity space in both layers, its behavior is stable within the village. Planning should support family livelihoods through local industry-related services, land cooperatives, transfer and trusteeship arrangements for abandoned farmland, and new eldercare facilities such as senior canteens and mutual-aid care institutions.

If a cluster oscillates between rural–urban socially inactive space and intergenerational proximity space, members work in cities and may have purchased urban housing. Intervention should improve jobs–housing coordination within the family and reduce situations in which one parent works far away while the family buys locally solely for children's schooling, thereby limiting emotional separation within the nuclear household.

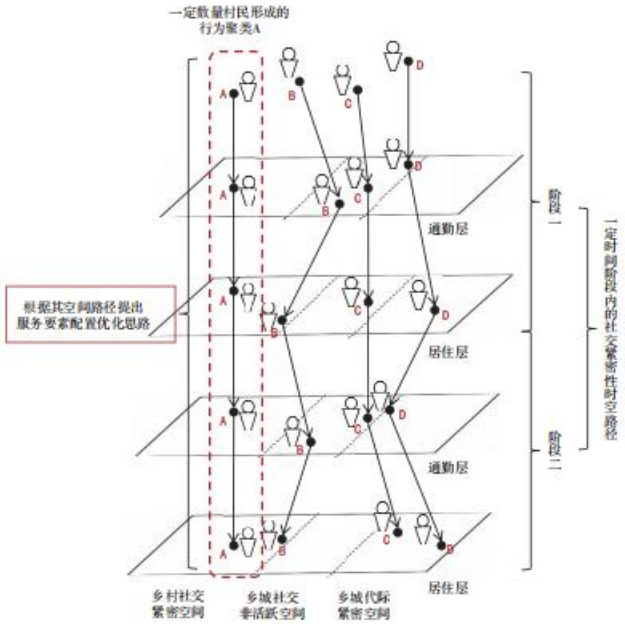

Figure 9. Optimizing service-element configuration according to social-proximity space-time paths.

3.2 A Spatial System Oriented toward Nearby and Local Activity

This component seeks to match behavioral spaces with life circles by responding to the tendency of villagers to work and live nearby. When a resident household gains reasonable returns from local employment, other households often imitate it and seek similar work in the same place. Urban-based families constrained by limited capital also tend to choose nearby towns, preventing excessive space-time distance from undermining emotional exchange and material support between generations [71].

Ideally, the three behavioral spaces mapped by social-proximity paths should be fully nested within the rural life-circle system: all intergenerational interaction and urban–rural commuting associated with a village would occur in several nearby urban or town centers within the same county-level jurisdiction (Figure 10). This has three benefits. First, parents in the village and children in town form a cooperative functional unit capable of long-term family planning. Second, information about employment and suitable places to live can circulate through fellow villagers. Third, local employment and settlement integrate population distribution, industrial layout, and public services across the full chain, improving the quality of nearby urbanization.

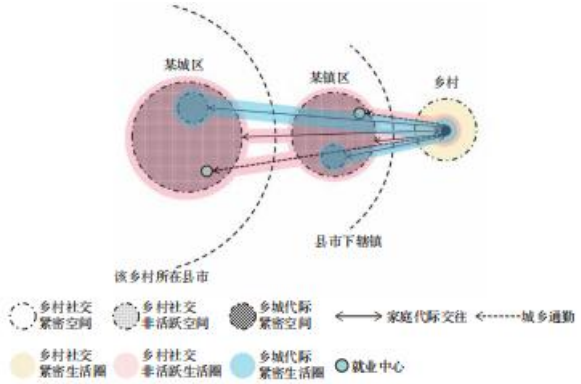

Figure 10. Ideal spatial system of a rural life circle.

In reality, some families travel to more distant centers within the county or settle and work in other cities because of differences in skills and limited local opportunities. Their behavior produces a life-circle system that deviates from the ideal (Figure 11). With few fellow villagers in these locations, opportunities for social interaction and mutual support decline, while interaction with parents remaining in the village may weaken sharply or even break down. Optimization should therefore promote nearby spatial integration of intergenerational relations, enhance employment and supporting resources in nearby centers favored by rural households, encourage return migration, leverage the advantages of occupational and place-based networks, and expand affordable public-rental housing to prevent population loss caused by unaffordable housing.

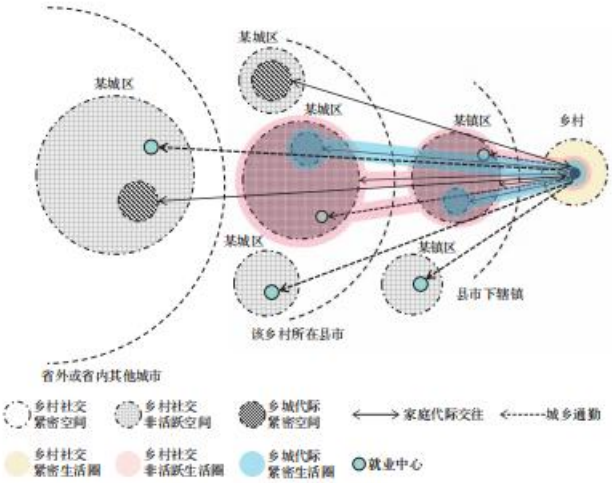

Figure 11. Actual spatial system of a rural life circle.

3.3 From Intra-Village Assistance to Urban–Rural Mutual Aid

As the behavior of village-based and urban-based family members diverges, rural life circles require spatial interventions that support urban–rural mutual aid. In traditional agrarian society, households relied on territorial ties and mutual help to sustain village production and life. In spatial terms, ritual buildings and dwellings formed a public-service hierarchy that integrated villagers into a community of reciprocal assistance. Under contemporary urban–rural differentiation, this arrangement should be transformed into urban–rural mutual aid (Figure 12).

The first requirement is an efficient transport system that increases the frequency of intergenerational contact. Second, the public-service cooperation and industrial diffusion functions of socially inactive and intergenerational-proximity life circles should be used to establish integrated urban–rural industries and services. Third, families that own fixed urban housing can form hometown associations and other organizations within intergenerational-proximity life circles, reconstruct territorial ties, and support their villages. Successful migrants may introduce urban industries through social networks, while village agricultural and processed products can

use these organizations for promotion and market access. Migrant workers can also obtain labor-market information and expand employment channels.

Optimization should integrate public services and industry on the basis of improved transport. For public services, urban homeowners have relatively fixed service locations; accessibility-based service circles can therefore identify and strengthen weak facilities while also supporting visits and childcare by older village-based family members. Integrated systems must also enable resident rural families to use services within socially inactive and intergenerational-proximity circles. In health care, for example, rural clinics and urban medical institutions frequently used by villagers could form medical-service consortia according to the volume and frequency of demand.

For industry, activities in socially inactive and intergenerational-proximity spaces can be transferred gradually from city to town and village during upgrading and relocation. Industries employing village residents in cities may be relocated to town centers and connected to rural social-proximity life circles through complete industrial chains, strengthening the development capacity of towns and villages.

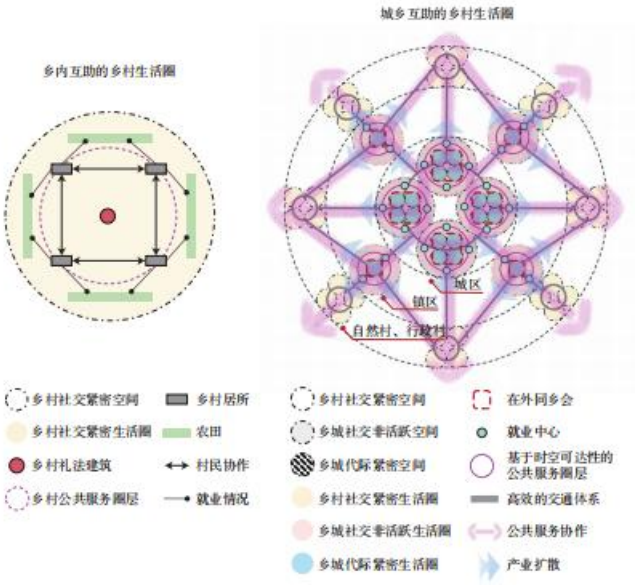

Figure 12. Rural life circles in the transition from intra-village mutual assistance to urban–rural mutual-aid networks.

4 Conclusions and Discussion

The behavior of Chinese villagers has historically been inseparable from the family, a distinctive pattern when compared with many foreign contexts. Individual behavior remains important, but from a family perspective it should be understood as part of an intergenerational behavioral network involving the accumulation of household capital and the fortunes of successive generations. All family behavior requires spatial support; examining how family behavior shapes space and how space in turn affects families is therefore fundamental to rural life-circle construction in China.

The proposed methodology has three purposes. Social-proximity space-time paths recognize that rural families retain capital in household registration, agricultural land, and homesteads while operating through the pattern of “parents in the village, children in the city, frequent interaction.” By improving the production and living services required by the family across a broad urban–rural area, planners can co-construct urban and rural space and avoid treating rural life circles as exclusively rural.

The proximity-based spatial system responds both to the self-organizing preference of families for nearby activity and to the externally organized demands of new urbanization. It guides a rational nearby distribution of family behavior and improves rural households' production and quality of life. The shift from intra-village assistance to urban–rural mutual aid addresses the mismatch between the supply and demand of rural services, which villages often cannot resolve alone. By enabling cities to support the countryside, industry to support agriculture, and factors to circulate, it advances integrated urban–rural development.

As the localized theoretical framework develops, future research should broaden the analysis of urban–rural relations from the family perspective, conduct timely empirical studies, and continue refining the theory of rural life circles.

Notes

① See the 2017 National Health and Family Planning Commission monitoring data on the floating population.

② See “Transformations in Spatial Order and the Rooting and Uprooting of the ‘Home’: A Sociological Study of Mobile Vendors Entering the City,” *Sociological Studies*, No. 5, 2023.
③ On 21 March 2023, the authors distributed questionnaires on willingness to participate in village consolidation to 175 resident households in Village B, District D, City R, Province S.
④ Older-, younger-, and grandchild-generation households were classified primarily by intergenerational structure and social attributes. The older generation was identified with reference to national statistical criteria and whether the younger generation had established a separate household. Younger-generation households were matched relationally to older households but had established independent livelihoods. The grandchild generation primarily comprised members still in school, with a small number newly employed. The average ages of the three groups in Village B were 61, 37, and 15, respectively.
⑤ Information obtained in conversation with villagers in Village M, District D, City R, Province S, on 8 March 2023.
⑥ Interviews indicated that urban enterprises in City R rarely employed men over 60 or women over 55, while rural employers rarely hired men over 65 or women over 60.

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