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RESEARCH ON THE DESIGN OF EVERYDAY OBJECTS BASED ON REGIONAL DIFFERENCES – THE TRANSFORMATION OF CHINESE TRADITIONAL AGRICULTURAL TOOLS

Focusing on the homogenization of modern everyday objects in the context of globalization and standardized production. At present, the “non-regional characteristics” of everyday objects not only weaken their adaptability to regional lifestyles, but also weaken the function of material carriers of regional cultures. On the contrary, traditional Chinese agricultural tools, due to the natural environment, production methods and cultural traditions of the regional differences, formed a “one region, one tool” of the rich form of its design wisdom for cracking the homogenization of everyday objects provides an important mirror. However, most of the existing studies regard traditional agricultural tools as cultural heritage combing or focus on a single geographical transformation, and lack a systematic exploration of the universal revelation of everyday objects design from the perspective of geographical differences. This study adopts the method of comparative analysis combined with case studies, by comparing the design differences of agricultural tools in different regions, refining the core logic of “environmental constraints – demand response – design adaptation”, and combining it with the contemporary cases of everyday objects design to construct the framework of “regional differences – characteristics of agricultural tools – transformation of everyday objects», systematic explanation of the regional adaptive design of traditional agricultural tools for daily necessities. The purpose of the study is developed at three levels: theoretical, practical and cultural. The results of the study show that the geographically differentiated design of traditional agricultural tools follows the synergistic logic of the natural environment, production methods, and cultural traditions. Based on this, three major principles are proposed for the geographically differentiated design of everyday objects: functional priority, emphasizing precise response to regional needs; local material, advocating sustainable use of local resources; and cultural moderation, focusing on the contemporary translation of regional symbols. These principles together constitute the design model of “Modern Translation of Regional Elements”, which provides a regional differentiation path for everyday objects design with functionality and culture, not only cracking the homogenization dilemma, but also realizing the living inheritance of regional culture.

Key words: *everyday objects design, traditional chinese agricultural tools, regional differentiation, transformation design.*

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ДОСЛІДЖЕННЯ ДИЗАЙНУ ПРЕДМЕТІВ ПОВСЯКДЕННОГО ВЖИТКУ НА ОСНОВІ РЕГІОНАЛЬНИХ ВІДМІННОСТЕЙ – ТРАНСФОРМАЦІЯ КИТАЙСЬКИХ ТРАДИЦІЙНИХ СІЛЬСЬКОГОСПОДАРСЬКИХ ЗНАРЯДЬ

Зосередження уваги на гомогенізації сучасних предметів повсякденності в умовах глобалізації та стандартизованого виробництва. Наразі «нерегіональні характеристики» предметів повсякденного вжитку не лише послаблюють їхню пристосованість до регіонального способу життя, але й послаблюють функцію матеріальних носіїв регіональних культур. Навпаки, традиційні китайські сільськогосподарські знаряддя праці, завдяки природним умовам, способам виробництва і культурним традиціям регіональних відмінностей, сформували «один регіон – один інструмент», багата форма якого своєю конструктивною мудрістю слугує важливим дзеркалом для зламу гомогенізації предметів повсякденного вжитку. Однак більшість існуючих досліджень розглядають традиційні сільськогосподарські знаряддя як культурну спадщину або зосереджуються на одній географічній трансформації, їм бракує систематичного дослідження універсального розкриття дизайну предметів повсякденного вжитку з точки зору географічних відмінностей. У цьому дослідженні застосовано метод порівняльного аналізу в поєднанні з тематичними дослідженнями, шляхом порівняння відмінностей у дизайні сільськогосподарських знарядь у різних регіонах, уточнення основної логіки «екологічні обмеження – реакція на попит – адаптація дизайну» та поєднання її з сучасними прикладами дизайну предметів повсякденного вжитку для побудови структури «регіональні відмінності – характеристики сільськогосподарських знарядь – трансформація предметів повсякденного вжитку», системного пояснення регіонального адаптивного дизайну традиційних сільськогосподарських знарядь для повсякденного вжитку. Мета дослідження розроблена на трьох рівнях: теоретичному, практичному і культурологічному. Результати дослідження показують, що географічно диференційований дизайн традиційних сільськогосподарських знарядь слідує синергетичній логіці природного середовища, методів виробництва та культурних традицій. На основі цього запропоновано три основні принципи географічно диференційованого дизайну предметів повсякденного вжитку: функціональний пріоритет, що підкреслює точну відповідь на регіональні потреби; місцевий матеріал, що пропонує сталі використання місцевих ресурсів; та культурна поміркованість, що фокусується на сучасному перекладі регіональної символіки. Ці принципи разом складають модель дизайну «Сучасна трансляція регіональних елементів», яка забезпечує регіональну диференціацію дизайну предметів повсякденного вжитку з функціональністю та культурою, не лише вирішуючи дилему гомогенізації, але й усвідомлюючи живий спадок регіональної культури.

Ключові слова: *дизайн предметів повсякденного вжитку, традиційні китайські сільськогосподарські інструменти, регіональна диференціація, трансформаційний дизайн.*

Problem Statement. Driven by standardized production and globalized trade, modern everyday objects are gradually showing the convergence of “no regional characteristics”. This homogenization not only dissolves the adaptability of everyday objects to regional lifestyles, but also weakens the material carrier function of regional culture. On the contrary, in thousands of years of farming civilization, due to the natural difference between the dry land in the north and the paddy field in the south, the difference in production between rice farming and dry farming, and the cultural difference between the ethnic minorities and the Han Chinese people, a rich pattern of “one

region, one implement” has been formed, such as, the plowshare in North China focuses on deep plowing, the rice-planting horse in South China emphasizes lightness, and the scythe in South China pursues dexterity. These design wisdom born out of regional differences precisely provide a vivid model for the geographically differentiated design of modern everyday objects.

Existing researches have mostly sorted out traditional agricultural tools as cultural heritage, or focused on the design transformation of a single region, but lacked the systematic exploration of their universal revelation on everyday objects design from

the perspective of regional differences. By comparing the design differences of agricultural tools in different regions, this paper extracts the core logic of their regional adaptability, and combines it with the contemporary cases of everyday objects design to construct the correlation framework of “regional differences – characteristics of agricultural tools – transformation of everyday objects”, aiming at providing a functional and cultural path for everyday objects design. The aim is to provide a path of regional differentiation for the design of everyday objects with both functionality and culture.

Analysis of research. Researchers such as Zhang, M. (Zhang, M., 2024: 167–171) have devoted themselves to extracting representative elements from traditional Chinese culture and applying them to the design of modern everyday objects in order to enhance the cultural connotation and artistic value of everyday objects design. Liu, LL, & Chang, K. (Liu, LL, Chang, K., 2013: 397–400, 878–881) use d of traditional patterns such as dragons, phoenixes, auspicious clouds, and retrospective patterns are often used in the design of textiles, ceramics, and furniture in order to express auspicious and beautiful symbols. Sun, X. et al. (Sun, X. et al., 2024: 104903) used an interdisciplinary approach, such as combining translation theory in linguistics and the three-layer structure theory of cultural attributes, to translate the material, spiritual and behavioral elements of regional cultures into the language of everyday objects. Li, M. (Li, M., 2021: 14–18) believes that in the process of product design, it is necessary to consider the user's cultural characteristics, regional habits and lifestyles, so as to give emotional value to the product and meet the emotional needs of consumers.

Several studies have verified the application value of regional culture in the design of everyday objects through case studies and theory construction. For example, research on Pu'er tea packaging design shows that regional cultural elements are increasingly favored in modern local brand packaging, which can effectively enhance product recognition and cultural value (Zhang X., 2024: 75–80). In the field of tourism commodity design, the study emphasized that regional cultural characteristics and applicable cultural symbols are the main factors in designing regional tourism commodities, and explored innovations in product construction, connotation, and utility through the case of designing tourism commodities with cultural characteristics in Hunan (Chen, LL, Chen, JX, & Wang, SX, 2013: 651, 635–640).

A comprehensive analysis of existing academic research at home and abroad shows that the focus of everyday objects design research is mainly concen-

trated on cultural heritage and integration, especially in the field of cultural and creative products design is particularly prominent. However, most of the research content stays in the superficial application of visual elements, and the research on the regional differences of everyday objects is mainly a case study, which lacks a systematic exploration of its universal revelation on the design of everyday objects from the perspective of regional differences.

Purpose of the article. Taking the regional differentiation design of traditional agricultural tools as a mirror to study the regional differentiation of everyday objects design, the core purpose is to decode the design wisdom of traditional agricultural tools “born in response to the land and made in response to the needs”, to provide both theoretical depth and practical value of the contemporary regional differentiation design of everyday objects, and ultimately to crack the dilemma of homogenization of everyday objects in the context of globalization, while realizing the modern inheritance of regional culture. The final solution is to solve the dilemma of homogenization of everyday objects in the context of globalization, and at the same time to realize the modern inheritance of regional culture. The purpose of this research can be specified in three dimensions: theoretical construction, practical guidance and cultural transmission.

Theoretical level: building a systematic framework for the design of regional differentiation of everyday objects.

Existing research on the design of everyday objects mostly focuses on the extraction of single regional cultural symbols, or stays in the description of the phenomenon of “regional differences”, and lacks the systematic interpretation of the causes of differences, design logic and transformation paths. The geographically differentiated design of traditional agricultural tools is a “living specimen” formed by the long-term interaction of the natural environment, production methods, cultural traditions and other elements, such as from the choice of materials for northern plowshares to the structure of southern rice-planting horses, and from the functional differentiation of southwestern horses to the power design of northwestern waterwheels. From the material choice of plowshare in the north to the structure and form of rice-planting horse in the south, from the functional differentiation of hoeing tool in the southwest to the power design of waterwheel in the northwest, the differences are not randomly generated, but follow the complete logic chain of “geographical constraints – demand response – design adaptation”.

Taking traditional agricultural tools as a mirror, it is precisely to refine the universal law of this logic

chain: by analyzing how agricultural tools transform “climatic differences” into “functional design”, “resource distribution” into “material selection”, and “cultural practices” into “symbolic expression”, and finally construct “identification of regional elements”. By analyzing how agricultural tools transform “climatic differences” into “functional design”, “resource distribution” into “material selection”, and “cultural practices” into “symbolic expression” and finally build up “identification of regional elements”. -Finally, the theoretical framework of “identification of regional elements, dismantling of design dimensions, and modern translation method” is constructed. To provide theoretical support from “phenomenon description” to “law refinement” for the design of regional differentiation of everyday objects.

Practical level: an actionable path of geographical adaptation for everyday objects design.

The homogenization of the design of contemporary everyday objects is essentially the neglect of “standardized production” to “geographical specificity”. The same umbrella has to cope with the dry winds of the north, but also to withstand the typhoons and rainstorms of the south; the same closet has to adapt to the dry climate of the northeast, but also to be compatible with the humid environment of the south. This kind of “one-size-fits-all” design leads to a mismatch between the product and the needs of regional life, and the value of traditional agricultural tools is that they provide a practical model of “precise adaptation”.

The practical significance of mirroring traditional agricultural tools lies in the translation of their “problem-oriented” design wisdom into concrete design methods for everyday objects:

At the functional level, the “climate-adaptive” design of agricultural tools can be used as a guide to optimize the performance of everyday objects for the regional climate.

At the material level, the principle of “locally sourced materials” for agricultural tools can be continued to promote the use of regional specialties for everyday objects, which not only reduces costs but also enhances regional adaptability.

At the structural level, the “scene adaptation” logic of agricultural tools can be referred to optimize the spatial adaptation of everyday objects.

At the cultural level: reconstructing the value of everyday objects as a carrier of regional culture.

Everyday objects are not only functional tools, but also “micro-carriers” of regional cultures, and users complete their daily confirmation of local cultures by using products with regional characteristics. However, the popularity of standardized production has gradually made everyday objects lose this function,

leading to the weakening of the material expression channel of regional culture.

Traditional agricultural tools, as the “living fossil” of regional culture, and the cultural memories embedded in their design, provide inspiration for everyday objects to rebuild the function of cultural carriers. The purpose of this kind of design is not retro nostalgia, but to make everyday objects a “contemporary narrator” of regional culture, so that when users use the products, they can not only perceive the convenience of the function, but also arouse emotional resonance with local culture through materials, forms and symbols, thus guarding the diversity of regional culture in the face of globalization.

Research analysis. The geographical differences in the natural environment, production methods and cultural traditions have directly shaped the design of traditional agricultural tools. This difference is not random, but the result of long-term interaction between agricultural tools and regional elements, and its core logic can be summarized as “environmental constraints – demand response – design adaptation”.

Geographical differentiation of natural environments and farm tool design response. The geographical differences in climate and terrain determine the basic characteristics of agricultural tools in terms of material and structure, which is essentially a passive adaptation and active utilization of geographical natural conditions. The temperate semi-arid zone in northern China (with the Yellow River basin at its core) is characterized by cold winters, hard soils and precipitation concentrated in the summer. In order to adapt to this environment, agricultural tools show a tendency to be “heavy and durable, cold-resistant and damage-resistant”: the “iron plowshare” in Shanxi is made of high-carbon steel, with a blade thickness of 8–10 mm, much thicker than the southern plowshare’s 3–5 mm, which can cope with the hard topsoil of the Loess Plateau. The thickness of the blade is 8–10 mm. South China’s subtropical humid zone (Yangtze River Basin and south) is characterized by high temperature and rain, sticky soil, agricultural equipment design focuses more on “lightweight and breathable, corrosion prevention”: Hunan’s “rice-planting horse” with bamboo as the frame, covered with tung oil cloth, the overall weight of only 2.3 kg! In Hunan province, the “rice-planting horse” is made of bamboo frame and covered with tung oil cloth, with an overall weight of only 2.3 kg, which can reduce the contact with mud and water when farmers plant rice seedlings on it, and the natural breathability of bamboo can also avoid the stuffy heat of long sitting. The rugged terrain and small plots of land in the karst mountains of Southwest China (Yunnan, Guizhou, Guangxi) make the

design of agricultural tools outstandingly “small, flexible and easy to maneuver”: the “small curved hoe” of the Buyi in Guizhou is only 12 cm wide, with a handle length of 65 cm, 30% shorter than similar hoes in North China, and can be steered flexibly between narrow ridges in terraced fields. It is 30% shorter than similar hoes in North China, and can steer flexibly between the narrow ridges of terraced fields. Take “sickle” as an example, the sickle in the northern wheat area is designed with “long handle, wide blade and small curvature” due to the thick wheat stalks and flat land, which is convenient for standing and efficient harvesting; the sickle in the southern rice area is designed with “short handle, narrow blade and large curvature” due to the soft rice stalks and many ridges, which is suitable for stooping and shuttling through the rice field. “Short handle, narrow blade, large curvature”, suitable for bending down to harvest and weaving through the paddy field (Fig. 1).



Fig. 1. Comparison of scythes between North and South China. Left: the Northern Scythe, Right: the Southern Scythe

Source: <http://www.baidu.com>

Geographical differences in production methods and functional differentiation of agricultural tools. The different geographically dominant types of agricultural production (rice farming, dry farming, mixed fishing and farming) give the function of agricultural tools a distinct geographic directionality, which is essentially a precise adaptation to a specific production process. The production in rice-crop areas revolves around “water”, and the function of agricultural tools focuses on “water-related work”. For example, the “rice-planting rope” in Guangdong, China, is made of ramie weaving, with red ropes marking every 15 cm, to ensure even spacing of rice-planting rows. This ensures even spacing of rice-planting rows, and its moisture-resistant property maintains its toughness in paddy fields. In dryland areas, where wheat and mixed grains are mainly grown, the function of agricultural tools focuses on “drought-resistance and threshing”. For example, in Shaanxi Province, China, the “continuous yoke” consists of a bamboo

handle and a yoke plate, with four ventilation holes on the yoke plate to reduce air resistance, and is used for threshing in dry climates by striking the ears of wheat with a quick swing. It is twice as efficient as the southern rice bucket. Agricultural tools in mixed fishery and agriculture zones embody the function of “dual-use agriculture and fishery”, such as the “keel waterwheel” in Fujian, China, which, in addition to the traditional irrigation function, is equipped with a removable strainer, so that small fishes and shrimps can be caught at the same time when irrigating, realizing the function of “dual-use water”, which is suitable for the production mode of “agriculture and fishery coexistence” in coastal areas. The “keel waterwheel” in Fujian, China, for example, has a removable filter net in addition to the traditional irrigation function, so that small fish and shrimp can be caught while irrigating, thus realizing “two uses for one water”, which is suitable for the “agriculture and fishery symbiosis” production model in coastal areas.

Regional characteristics of cultural practices and symbolic expression of agricultural tools. The living habits and values in the regional culture make the agricultural tools go beyond the purely functional attributes and become the material carriers carrying the regional symbols, and this symbolism provides the direct material for the cultural differentiation of everyday objects. The farming culture of northern China emphasizes “collective collaboration”. And the design of agricultural tools often incorporates symbols that reflect community relations, such as the “two-man plow” in Shandong, which has a symmetrical wheat pattern carved in the middle of the plow shaft, and the two people need to synchronize their efforts when plowing, and the symmetry of the pattern is a metaphor for collaboration and equality. The symmetry of the decoration is a metaphor for collaboration and equality. Southern China's water village culture pays more attention to the “unity of man and nature”, agricultural tools are often decorated with natural imagery, such as Suzhou's “boat-shaped rice planting pots” in the pots painted along the water ripples, not only echoing the water village environment, but also through the sparseness of the ripples suggests that the density of the seedling sowing. Minority cultures integrate totem worship into the design of agricultural tools, such as the Sichuan Qiang “wooden Lei” in the Lei head engraved with sheep horns, the Qiang people regard the sheep as a good-luck charm, this pattern makes the agricultural tools both farming function and the role of praying for blessings.

Presentation of the main material. Due to the influence of multiple factors such as natural environment, lifestyle, cultural traditions and technology

and economy in different regions, everyday objects have regionalized differences. The essence of this difference is the «adaptive choice» of human beings to adapt to the specificity of the region in the material creation, and the logic of its formation is the same as that of the regional differentiation of the traditional agricultural tools, but more widely penetrated in the various dimensions of daily life. Specifically, the regional differences in everyday objects involve four aspects: the fundamental constraints of the natural environment, the adaptive choices of lifestyles, the symbolic construction of cultural traditions, and the path dependence of techno-economics.

– Basic constraints of the natural environment. The natural environment is the “first driving force” that shapes the geographical differences in everyday objects, the core of which directly constrains the functional needs and material choices of everyday objects through the geographical differences in climate, topography and resource distribution.

Climate differences impose hard constraints on the functional design of everyday products. In the average annual temperature below 0°C in the north-east and Inner Mongolia, everyday objects need to strengthen the «cold insulation» characteristics. On the other hand, the average annual precipitation of more than 1500mm Lingnan region, everyday objects are “moisture-proof breathable” as the core. These everyday objects are not subjective preferences, but rather passive adaptations to the harsh climate.

Topographical differences, on the other hand, shape the morphological characteristics of everyday objects through usage scenarios. Because of the rugged terrain in the Karst Mountains of Southwest China, everyday objects are generally characterized by “miniaturization and portability”, backpacks replace suitcases as the main storage tool, and furniture is mostly detachable. On the other hand, in the plains of North China, due to the flat terrain, everyday objects are more “large-capacity and stationary”, closets are generally up to 2.2 meters in height, and suitcases are preferred to be on wheels.

Geographical differences in the distribution of resources determine the material base of everyday objects. In China's bamboo-rich areas such as Zhejiang and Fujian, bamboo is used in a large number of everyday objects, bamboo cutting boards and bamboo fiber towels have become regional specialties. Northeast China is rich in pine and birch, with 65% of furniture made of solid wood (much higher than the Chinese average of 38%), and retaining the original wood grain. China's Xinjiang, Inner Mongolia and other developed areas of animal husbandry, fur products have become an important category of everyday objects.

– Adaptive choice of lifestyle. Lifestyle is a product of the interaction between the natural environment and human activities, and its regional differences directly promote the development of “customization” of everyday objects in function and form, and the essence of such customization is the precise adaptation of regional daily scenes.

Geographical differences in production patterns shape the differences in the “tool attributes” of everyday objects. On the southeast coast of China, where fishing is the main industry, everyday objects need to be adapted to the scenario of “sea work+dock life”. On the other hand, in the cultivation-based North China Plain, everyday objects revolve around “field work+courtyard life”.

Regional differences in food culture have given rise to the differentiation of kitchen utensils. In Northwest China, where pasta is the main food, kitchen tools emphasize the function of “dough handling”. In the south of China, where rice is the main food, kitchen tools focus on the “fine processing of ingredients” (Fig. 2). This difference is not a “redundancy of function”, but an adaptive response to the whole process of “preparation and consumption” of regional food.

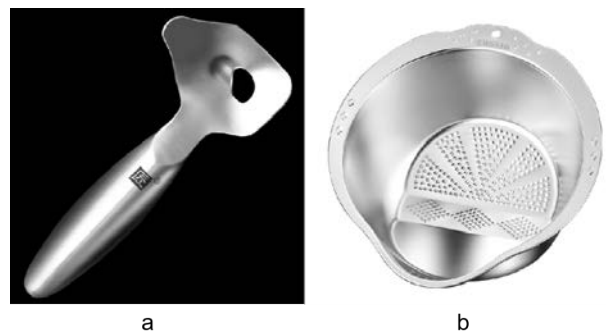


Fig. 2. Divisions of kitchen everyday objectsa Knife for cutting noodles in the North, b Rice pans in the South

The regional characteristics of the living pattern further strengthen the adaptability of everyday objects to the scene. In the kiln caves in northern Shaanxi Province, China (Fig. 3) (3–4 m in height, closed space), everyday objects need to take into account “saving space+enhancing light”, folding furniture accounts for 70% (much higher than the national average of 35%), and storage boxes are often made of light-colored materials; while in Daijia Bamboo Buildings in Yunnan Province, China (5–6 m in height, well-ventilated), everyday objects pay more attention to “ventilation and moisture-proofing+mosquito-proofing”. In Yunnan Daijia buildings (5–6 m in height, well ventilated), everyday objects are more “ventilated and moisture-proof+anti-mos-

quito”, beds are designed with elevated frames (1.2 m from the ground to avoid moisture on the ground), and storage baskets are made of hollowed-out bamboo (to prevent items from mold and mildew). The geographical specificity of the living environment has set an impenetrable “physical boundary” for everyday objects, and its form must maximize its function within this boundary.



Fig. 3. Differences in Traditional Residence Patterns of the Dai Ethnic Group in Northern and Southwestern Shaanxi, China a Kiln Cave in northern Shaanxi Province, b Daijia Bamboo House in Yunnan Province

The symbolic construction of cultural traditions. Through aesthetic preferences, folk beliefs and regional identity, cultural traditions inject “non-functional” regional differences into everyday objects, which do not directly affect their use but constitute the “cultural identification code” of regional groups.

The geographical division of aesthetic preferences is reflected in the form and decoration of everyday objects. Northern Chinese culture advocates “heavy and majestic”, everyday objects mostly use symmetrical structure and dark color, Beijing's courtyard furniture prefers square silhouette, the color of dark red, black ink is dominant. Southern Chinese culture pursues “dynamic and light”, everyday objects focus on curved forms and bright colors. Southern Chinese culture pursues “spirit and lightness”, and everyday objects focus more on curved forms and bright colors, while Suzhou's garden furniture mostly uses round shapes (such as round tables and chairs), and is decorated with light yellow and emerald green. This difference in aesthetics even extends to everyday objects – enamel cups in the north are often printed with atmospheric patterns such as “peonies” and “the Great Wall”, while in the south, “lotus” and “flowers” are preferred. Lotus, “bridge” and other elegant patterns.

The regional characteristics of folk beliefs give everyday objects a “spiritual function”. In Guangdong, Fujian and other regions of China, everyday objects often carry the function of “praying for good fortune”, and the red and gold color scheme (symbolizing festivity) of the Lishui Seals used for the Spring Festival, with the pattern of “Five Sons Achieve success” and “Blossoms of Fortune”. In Sichuan, Chong-

qing of China, everyday objects focus more on “driving away evil spirits and good fortune”, Dragon Boat Festival scented sachets embroidered with “five poisons” pattern, children's bibs are often sewn on the mahogany pendant. Although these designs do not change the practical functions of the products, they are internalized into the cultural consensus of the regional groups through long-term use – when users choose everyday objects with specific symbols, it is essentially an active identification with regional folklore.

– Techno-economic path dependence. Regional differences in technological level and economic conditions indirectly shape the regional characteristics of everyday objects through production processes and market choices, and such differences reflect the geographical coupling of “supply capacity” and “demand level”.

The geographical inheritance of traditional crafts affects the way everyday objects are made. In Dongyang, Zhejiang Province, China, where “wood carving skills” have been passed down for thousands of years, local everyday objects such as wooden combs and tea sets have retained the “relief carving” technique, which dominates the local market even though the cost is 30% higher than that of machine carving. These products have developed a unique regional identity due to their dependence on traditional craftsmanship. In contrast, in Shunde, Guangdong Province, China, where the furniture manufacturing industry is highly industrialized, everyday objects are mostly made using the “panel furniture” process, which is 10 times more efficient than the traditional process, and the product forms are simpler, reflecting the shaping of regional design by industrialized technology (Fig. 4).



Fig. 4. A case of the influence of traditional skills in daily necessities in different regions a Dongyang wood carving screen, b panel furniture

Geographical differences in the level of economic development affect the functionality of everyday objects. In the Yangtze River Delta region of China, where the per capita disposable income is higher,

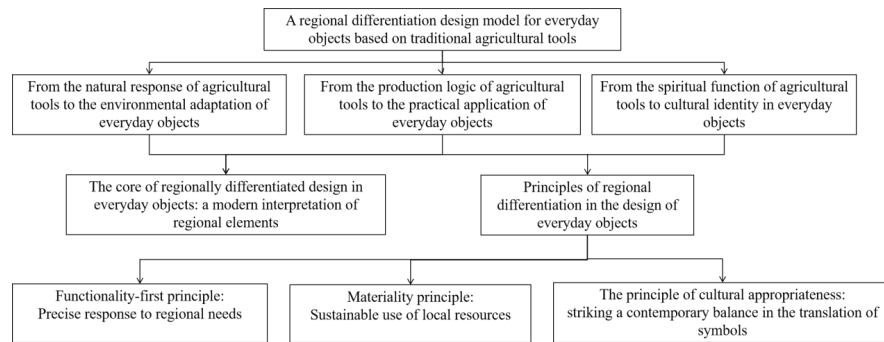


Fig. 5. Design model of geographical differentiation of daily necessities based on traditional agricultural tools
Functionality Priority:
Precise Response to Regional Needs

everyday objects pay more attention to “intelligence” and “experience”: the penetration rate of intelligent toilet seat reaches 62% (national average 28%), and insulation cups need to have additional functions such as “temperature control” “water quality monitoring” and other additional functions; while in the less economically developed rural areas of central and western China, everyday objects are still mainly “basic functions”. This difference is not a result of design concepts, but rather a difference in “demand prioritization” determined by economic level – when basic needs are not met, additional functions naturally give way to practical attributes.

Geographical differences in market size further solidify the characteristics of everyday objects. In Northwest China, where population density is low, everyday objects need to adapt to the scenario of “long-cycle use+less frequent purchases”; while in the densely populated Pearl River Delta, everyday objects are more focused on “small capacity + fast renewal”. The geographical differences in market size and consumption frequency have led to a stable divide in the specifications and packaging of everyday objects, which is further strengthened by large-scale production.

It can be seen that the design of everyday objects based on regional differences can crack the contradiction between functional homogenization and regional demand mismatch, reconstruct the material carrier of regional cultural identity, promote the sustainable use of resources and low-carbon design and cultivate differentiated market competitiveness.

Conclusions. The design wisdom of traditional agricultural tools due to regional differences is not a simple historical legacy, but can be directly transformed into the methodology of regional differentiation design for modern everyday objects. This transformation is not a simple transplantation of symbols, but a deep decoding and reconstruction of regional needs, resources and culture.

Climate-adaptive design: from the natural response of agricultural tools to the environmental adaptation of everyday objects. The adaptation strategy of traditional agricultural tools to the regional climate can directly guide the regional differentiation of everyday objects in the choice of materials and structural design.

Regional adaptation of life scenes: from the production logic of agricultural tools to the life response of everyday objects. The precise adaptation of agricultural tools to regional production scenarios provides a design paradigm for everyday objects to match regional living habits, and the core of this paradigm is the direct correlation of “scenario pain points – functional response”.

Symbolic translation of regional culture: from the spiritual function of agricultural tools to the cultural identity of everyday objects. The regional cultural symbols embedded in agricultural tools provide rich materials for injecting cultural recognition into everyday objects, and such translation should avoid the superficiality of the symbols and explore the philosophy of life behind them.

The design inspirations extracted from the regional differences of traditional agricultural tools need to be transformed into operable practical principles in order to truly guide the design of daily necessities out of the plight of homogenization. The core of these principles is the “modern translation of regional elements” rather than simple retro and imitation (Fig. 5).

The essence of regional differences in traditional agricultural tools is “function follows demand”, and the design of everyday objects needs to first identify the core pain points of regional life, rather than blindly piling up regional symbols. The regional adaptability of function is the basic premise of the differentiated design of everyday objects.

Local materials: sustainable use of regional resources.

The wisdom of “local materials” for agricultural tools can be extended to the innovative use of

regional materials for everyday objects, which not only reduces the production cost, but also gives the products a unique regional texture. The localization of materials is the material basis for the regional differentiation of everyday objects.

Cultural Moderation: Contemporary Balance of Symbol Translation

When transforming the regional cultural symbols in agricultural tools into the design elements of everyday objects, it is necessary to simplify and reconstruct them in a modern way, avoiding the rigid implantation of cultural symbols. Moderate translation of culture is the spiritual core of regional differentiation of everyday objects.

The essence of the regional differentiation design of everyday objects is to realize the pre-

cise matching of product functions, culture and user needs through the deep decoding of regional nature, culture and resource elements. From the regional wisdom of traditional agricultural tools, we can see that excellent design is never created out of the context of the region, but is a creative response to the “one side of the soil and water”. In today's globalization and localization coexist, the design based on regional differences is not only a technical means to solve the functional adaptation, but also an important path to guard cultural diversity and promote sustainable development – It transforms everyday objects from cold industrial products to warm artifacts that carry regional memories and connect people with nature.

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