# How to Turn Different Gardening Techniques into Workouts as a Healthy Activity

**Haijian Pang[1], Huanhuan Tian[2]***

**Abstract**

The objective of this study is to explore how classical gardening techniques can be adapted into effective physical workouts, particularly in constrained spaces, promoting health and wellness through active participation in gardening. By using the example of "Jiangjun pear" packaging design from Dawu County—an old revolutionary base area—this research extends to how landscape gardening not only serves aesthetic and cultural purposes but can also be transformed into a series of physical activities that benefit health. This involves examining key elements of landscape geometry to design gardening activities that serve dual purposes: enhancing cultural heritage and providing a moderate to vigorous physical workout. This study introduces a methodology that encompasses penetration, transformation, integration, innovation, and evaluation to embed these gardening techniques into a workout regimen. The focus is on converting the motions and efforts involved in traditional gardening, such as digging, planting, and pruning, into structured physical exercises that improve fitness levels and can be performed in small or restricted areas. The conversion of these gardening actions into systematic workouts aims to offer a beneficial reference for both the agricultural and health industries, enhancing the user experience by promoting both cultural appreciation and physical health. Furthermore, this research demonstrates the practical applicability of these adapted gardening techniques through a lively, culturally rich three-dimensional model of garden-based workouts. The design logic and theoretical framework developed here aim to foster a deeper understanding of how everyday activities like gardening can be innovatively rethought as comprehensive, health-promoting exercises. This approach not only broadens the innovative path of integrating cultural and physical activities but also supports the revitalization of rural areas by promoting both the physical health of individuals and the cultural heritage associated with agricultural practices. The final outcome seeks to enhance the market brand competitiveness of agricultural products while significantly contributing to the field of health and wellness.

**Keywords:** Gardening Workouts; Geometry Remodeling; Graphics Culture; Dawu "Jiangjun Pear"; Packaging Design; Small Space Exercises.

## Introduction

The fusion of physical activity and daily routines presents an innovative approach to promoting health and wellness, particularly in settings where traditional workouts may not be feasible. Gardening, an activity deeply rooted in cultural and practical significance, offers a unique platform for this integration. The purpose of this study is to explore how classical gardening techniques can be adapted into effective physical workouts, especially in small spaces, thereby leveraging an everyday activity to enhance physical fitness and overall well-being (Kim & Petitjean, 2021).

Gardening involves various physical activities that are inherently akin to exercises performed in more structured fitness regimes.

These activities range from digging, which can be compared to squatting, to pruning, akin to stretching or bending exercises. This natural overlap between gardening and physical exercises provides a fertile ground for developing fitness-oriented gardening routines, particularly suited for small spaces such as urban environments or limited outdoor areas (Choi, Jung, & Park, 2021).

### The Relevance of Jiangjun Pear in Dawu County

Using the cultural and historical backdrop of Dawu County, known for its revolutionary heritage and the famed Jiangjun pear, this study takes a deeper look into how local traditions and agricultural practices can be transformed into health-promoting physical activities. The Jiangjun pear, a regional symbol, provides a specific case study through which the principles of landscape gardening are analyzed and reimagined as a series of physical exercises.

### Objectives

The primary objective is to create a comprehensive framework that promotes the dual benefits of gardening as both a cultural practice and a health activity and enhances the visibility and marketability of local agricultural products through innovative packaging. This involves:

[1] College of Technology, Hubei Engineering University, Xiaogan 432000, Hubei Province, China
[2] College of Art, Dali University, Dali 671003, Yunnan Province, China
*Correspondence: tianhuanhuan@dali.edu.cn

Extracting Key Elements: Identifying and utilizing key elements of landscape geometry that are inherent in traditional gardening practices. Workout Design: Designing a sequence of physical activities based on these elements that are effective in promoting health and can be performed in restricted spaces. Cultural and Commercial Integration: This integrated approach reinforces cultural heritage and improves the competitive edge of local agricultural products in the market.

**Methodological Approach**

This study adopts a multi-disciplinary approach, blending techniques from landscape gardening, exercise science, and packaging design. The study innovates on how these can be systematically adapted into workouts by evaluating traditional gardening motions through a fitness lens. The methodology encompasses penetration (deep diving into cultural and physical aspects of gardening), transformation (turning traditional gardening activities into structured exercises), integration (combining cultural appreciation with health promotion), innovation (creating new workout routines), and evaluation (assessing the effectiveness and appeal of these routines).

**Significance**

By transforming gardening from a purely agricultural or leisure activity into a substantive exercise regimen, this research aims to contribute significantly to the fields of health and wellness, cultural studies, and agricultural marketing. It addresses the growing need for accessible, engaging, and beneficial physical activities, especially in environments where traditional exercises might not be easily implemented. This approach has the potential to not only improve individual health outcomes but also foster a deeper connection with cultural practices, thereby enhancing community health and cultural continuity.

This introduction lays the groundwork for a detailed exploration of how gardening, a seemingly mundane activity, can be reimagined as a potent tool for health improvement and cultural engagement, providing a fresh perspective on the intersection of physical activity and daily life.

## Elements of Gardening Techniques in Packaging Design

In packaging design, we borrowed from classical Chinese gardening techniques, which can be summarized in the following four points to enhance the narrative and experiential value of packaging: "overall management, focused layout, metaphorical narrative, and homeopathic construction"(Cobb & Sudheendra, 2022; Lin & Zhang, 2024).

In general, classical Chinese gardens are rich in oriental philosophy in terms of design layout, space creation, courtyard combination and other gardening techniques. Classical gardens are a kind of overall beauty, especially focusing on the pursuit of "meaning" and "realm", which is similar to the generation of experience value of packaging design. Specifically, this condenses the cultural connotation of the Chinese nation and shows the unique charm of Chinese national wisdom, and "realm" is the bearer of the ideal mood, the core of the pursuit of traditional Chinese art (Jackson, 2004; Soga, Gaston, & Yamaura, 2017). The ancient Chinese philosophical thought represented by "heaven and earth" has also influenced the construction of classical gardens, such as the construction of a circular pond in a traditional square courtyard or the connection between courtyards through circular gates, all of which are embodiments of the idea of heaven and earth. The variety of design techniques in the garden creates a garden fragment of "moving scenery", fully reflecting the details of spatial penetration and integration accomplished by traditional national wisdom in the garden construction (Consolvo et al., 2008).

**Overall Management**

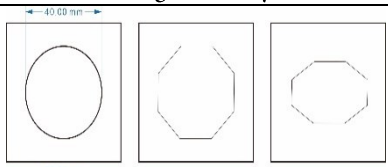
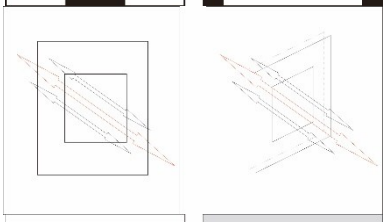
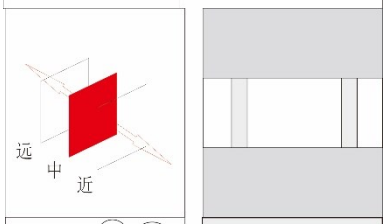
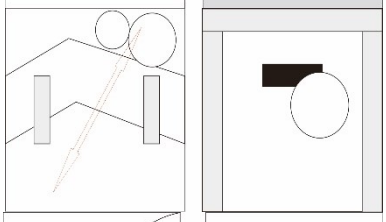
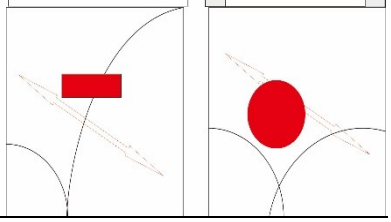
Classical Chinese gardens are built with a clear theme, in accordance with the overall principle of "although made by man, just like from heaven", the overall layout of the elements, focusing on the location of people and the spatial interaction of the landscape. The garden is a space closely connected with people's daily life and can reflect different regional cultures at a deep level. The garden construction process is all the result of overall planning and long-term construction, which makes the garden live and grow. Architecture, water bodies, plants are important components of the garden, to Jiangnan private gardens, for example, because of the abundance of water resources, cultural heyday and other superior conditions, garden construction is often the core of water, and then configured with rockery, complex and varied space, plant selection to pine, bamboo, plum, etc., garden architecture in light colors, often with funnel windows, plaques, etc. for the overall design, complete the penetration of the space combination (Lee et al., 2022; Ubillus et al., 2022; Jung, 2023). The experience of the overall design of classical gardens can also be seen as a systematic design strategy. Modern product packaging design needs comprehensive and overall consideration in terms of overall positioning, theme setting, regional characteristics, packaging upgrade, structure design, material use, color matching, printing process, cost control, transportation safety, storage conditions, sales environment, consumer experience and other aspects based on market demand, while packaging design needs long-term brand cultural heritage (Emilio et al., 2014; Huang & Wang, 2024).

**Focused Layout**

Classical gardens are very elaborate in terms of visual aesthetic composition, and the garden fragments have their own characteristics, all with extremely rigorous expressions. The classical garden composition expression form classification and basic geometric shape extraction, see Table 1 (author's own photo).

**Table 1**

*Classification of Classical Garden Composition and Extraction of Basic Geometric Modeling*

| No. Name | Representative Pictures | Representative Clips | Basic Modeling Geometry Extraction |
|---|---|---|---|
| 1 Focus Composition |  | Frame view, end view |  |
| 2 White Space Composition |  | "Bishan small view", pink wall |  |
| 3 Penetration Composition |  | Transparent window, flower window |  |
| 4 Realistic Compositions |  | Water view, porch bridge |   |
| 5 Detail Composition |  | Dumb courtyard, wall corner |  |
| 6 Layered Compositions |  | Courtyard landscape Building layout |  |

Drawing on the idea of key layout, the packaging design is presented in the theme image and structure design, targeted use of composition techniques, focusing on the characteristics of the product to show. In the detail design by increasing the level of packaging design, in order to enrich the consumer's experience of the product and increase the impulse to consume the product. The design expressions such as "white space" and "hollowing out" will make the main body of packaging design clearer, more distinctive and the quality trust of the product stronger. By visualizing the geometric extraction of gardening techniques, it is used in packaging design practice. The idea of geometric extraction of gardening techniques is shown in Figure 1.

(1) Focused composition. In creating the garden fragment and detail processing, emphasis is placed on the key layout, while focusing on the line of the sight guidance, in the core area will be used to frame scenes, end scenes and other

techniques, will be important in the design of the appropriate visual center.

(2) White composition. In the private gardens of Jiangnan, the most typical is the "Bishan Small Scene". The composition of the picture often takes the white wall as the white paper of the scroll, and then arranges the rockery, with plants and other subjects, plus the special symbolic plaque, forming a three-dimensional Chinese painting scene.

(3) Penetration composition. Many unique and auspicious-shaped funnel window designs on the walls of classical garden buildings, the garden is given a higher spiritual value, while strengthening the effect of scenery penetration between courtyards, forming layers of far-reaching space.

(4) Real and imaginary composition: Take "Little Flying Rainbow" in Humble Administrator's Garden as an example, the bridge spans over the water, dividing the view into three parts: the upper part is open, and the middle is composed of three continuous frames by the pillars; the lower part is a special view composed of water and reflection, forming a sharp contrast between the real and the imaginary space.

(5) Layered composition. The successful use of close, medium and distant views, represented by the Yichang Garden, enriches the spatial experience of the garden. In addition, the courtyard design of classical gardens achieves the effect of "one courtyard, one world", and the courtyards are connected in an orderly manner through various corridors, so that the layers are clear to the eye.

(6) Detailed composition: Many small courtyards (dumb courtyards) between corridors and walls in private homes and forests are designed in such a way that people cannot enter them, and are often decorated with rockeries and plants to form independent scenes; at the same time, many courtyard corners are built with small but complete combinations of space, and are designed with details to soften the ties between spaces, so that the whole garden achieves a harmonious effect. The details of the gardens are all able to achieve a clever connection with the surrounding environment.

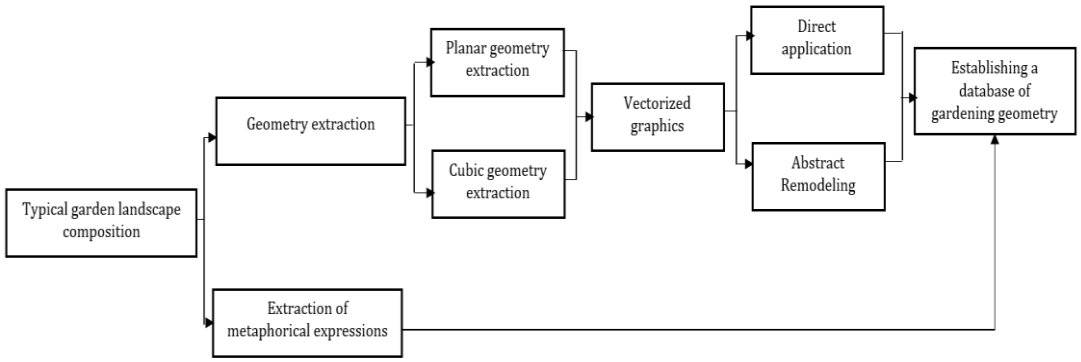



***Figure 1:*** Landscape Gardening Techniques Geometric Figure Extraction Ideas.

**Metaphorical Narrative**

The construction of classical gardens often takes poetic allusions as the entry point to determine the theme, in order to give the space a good moral, and then the details of the design around the theme, for example, the small house in the western part of the Net Master Garden, the Temple Spring House, whose function is the owner's study, Temple Spring is the meaning of the end of spring, from the ancient poem of Shao Yong in the Northern Song Dynasty, "still left peony Temple Spring", the courtyard is mainly planted with peony, because the flowering period of peony is relatively late compared with other flowers, so as to convey the moral of the end of spring and express the mood conveyed by the ancient poem. Packaging with the theme to explore and promote traditional culture, through the extraction and translation of symbols, the use of metaphorical narrative to find the thematic positioning of packaging works, packaging design graphic culture in accordance with the theme of the design, in the packaging structure, color, font, details and other aspects of the advancement, will enrich the effect of packaging to enhance the overall image of the product (Booth, 2000).

**Homeopathic Construction**

Classical gardens are a manifestation of the long-term construction and integration of people, nature and regional culture. The terrain in the northern region is flat and open, and the gardens tend to have larger zones, a dignified and symmetrical layout, and majestic architectural expression. The selection of green stone to build rockery, less water features in the garden, the construction of water will be placed in the important landscape nodes, the building walls are mostly gray with brightly colored painting; private gardens in the south of the Yangtze River because of the abundance of water resources, most of the garden pattern to the water as the core of the outward expansion, to the corridor bridge to

divide the water surface. The landscape is complex and varied, with a large number of Taihu stones stacked on top of each other to create the landscape, and the buildings use powder walls and elegant architectural colors; the classical gardens in Lingnan have an irregular layout based on the site, with a high density of buildings and regular geometric pools, and the buildings have the characteristics of "wide buildings with houses" due to the rainfall, and the rockery is chosen from Local granite, garden planting selection of local representative species, such as: water pine, banyan, lychee, etc. The structural positioning of packaging design is based on the characteristics of the product, homeopathic design in the shape, but also to allow the design elements of the correlation between, more in line with the laws of formal beauty, so that each shape can be interlocked. Specifically, homeopathic design can be carried out in the following areas, such as product characteristics, storage requirements, transport conditions, etc., while taking in account the enhancement of the visual image of the product category positioning, and ultimately also need to consider the cost of packaging, printing costs, packaging packages and other technical positioning elements.

## The Innovative Path of Gardening Techniques in Packaging Design

Taking the packaging design of "General Pear" from Dawu County, Hubei Province as an example, we explain the innovative path of gardening techniques in packaging design. For the packaging design of "General Pear" of Dawu County, we use the visualization geometry of classical garden aesthetics to guide the design practice, build the model of packaging design realization, and realize the cultural penetration, transformation, integration and innovation in the packaging design. In the cultural background, based on Dawu County for the general county characteristics, rooted in the local heritage of excellent national culture, the regional culture into the packaging design, to create a story, temperature, connotation, texture of the "general pear" brand. Through the three steps of "thematic design, homeopathic design, and cultural reshaping", we make gardening techniques in packaging design to achieve innovation and effectively integrate regional culture and product characteristics into the design.

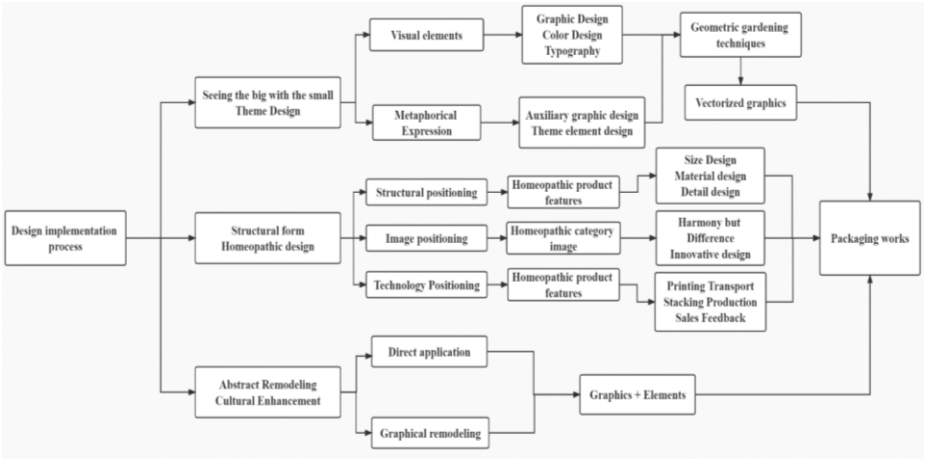



***Figure 2:*** The Innovative Path of Landscape Gardening in Packaging Design.

**Theme Design, Small to Big**

Packaging design can be seen as an independent reduced version of the courtyard, the design process through the system design, from the characteristics of the product being packaged, regional culture, audience groups, experience elements, to complete the theme of positioning. Then start with the visual elements for graphics, colors, fonts and other aspects to develop a comprehensive and integrated design theme. The classical garden is the presentation of a complex, including the integration of various elements such as architecture, water bodies, plants, and people. In contrast, the packaging itself is smaller in volume, but it is still possible to find methods from gardening techniques that can be applied to the structure and visual design of the packaging, guiding the packaging to complete the innovative design of function and cultural heritage. Packaging works and classical gardens, although small, all the guts, the use of small to see the big method of gardening techniques geometry in a direct, abstract and other ways of packaging design innovation, gardening techniques in hollowing, visual penetration, white space and other techniques, applied to the packaging structure combination, layout composition and other details to meet the product storage, display, transportation and other specific tasks; mining theme elements design, auxiliary graphic design, to achieve the cultural metaphorical expression of packaging, to enhance the cultural level of packaging works, and ultimately establish the product brand image.

**Structural Form Homeopathic Design**

Packaging design based on product "homeopathic" design, packaging design structure design positioning, serving the characteristics of the product itself, so that the "homeopathic" product characteristics of the design. During the long-term construction process of classical gardens, people created a landscape with a variety of patterns based on their own demands for the garden space, combined with the regional environment and the material materials provided by the environment. The garden is the product of the gradual transformation of the environment by the ancient people using their wisdom to realize the integration of people and the environment. The homeopathic construction wisdom of the landscape provides a good reference path for the unfolding of packaging design. The structure design in modern packaging design can be designed according to the product demand, and the packaging graphics can also be innovatively designed according to the product and outer packaging form to achieve the perfect integration of function and visual marketing (Wakefield et al., 2007); the overall image positioning of packaging design to achieve "homeopathic" category image design, comply with the attributes of the product, and dig deeper into the modern. The overall image positioning of packaging design, to achieve "homeopathic" market design, to comply with the attributes of the product, to dig deeper into the common points of modern packaging of the same product, to achieve packaging visual image innovation and product culture enhancement; packaging design technology positioning, to achieve "homeopathic" market design, to fully based on modern packaging cost, environmental protection, safety indicators and other specific factors, to achieve packaging from design, market positioning, market production of various aspects of coordination and unity, to help products To achieve a better market share.

**Abstraction Reshaping Cultural Enhancement**

The purpose of packaging is to sublimate the product, highlight the cultural heritage carried by the product, let the product give a cultural story, specifically compress the cultural information in a visual way, and realize the effective communication of cultural information. Drawing on the element extraction and reorganization techniques in classical gardens, we launched the following design practice (Saris et al., 2003). The spatial organization, fragment transformation, color combination and auspicious pattern use in classical gardens all provide feasible guiding paths for the innovation of packaging design. Classical gardens seek to inherit innovation, to Taihu stone, for example, stonemasons according to the shape of the original stone, and then placed in the lake, after decades of lake erosion, to obtain a peculiar shape, the texture of the strange "Taihu stone", used in the construction of the landscape, which is the gardening techniques in time waiting and artistic abstract upgrade, but also the inheritance of national wisdom embodied (Laamarti, Eid, & El Saddik, 2014). Through the visualization of gardening techniques for geometric finishing, graphics and elements are realized in packaging design in a direct and reshaped way to achieve effective inheritance, while focusing on the design renewal of packaging, and the principle of abstraction enhancement, the excellent traditional culture is recreated so that it can blossom into a new glory in packaging design. The geometric figures extracted by gardening techniques are used for graphic innovation by repetition, mirroring, stacking, enlarging, rotating and filling. The basic plane geometry extracted from the garden landscape fragment is reshaped and innovated (combination of circle and square), see Figure 3 (drawn by the author). The innovation of three-dimensional geometric figure reshaping extracted from the spatial organization form of landscape, see Figure 4 (drawn by the author). The innovation of reshaping auspicious figures in landscape, see Figure 5.

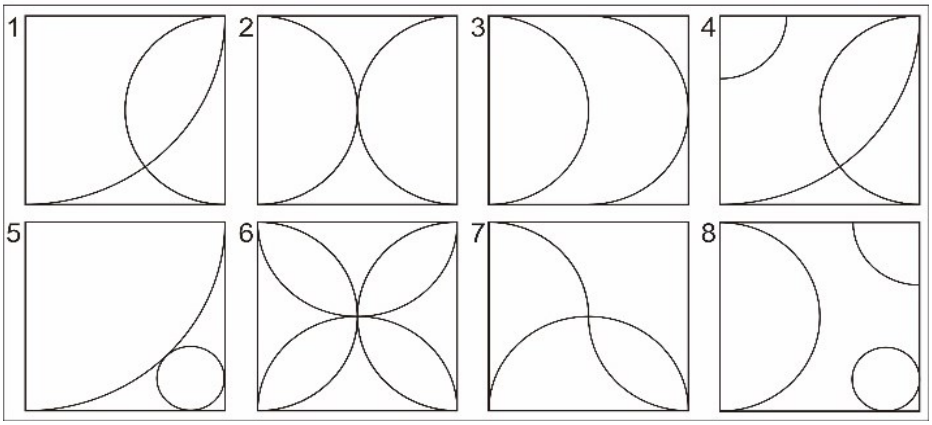



***Figure 3:*** Reconstruction Innovation of Basic Plane Geometry Extracted from Landscape Fragments (Combination of Circle and Square).

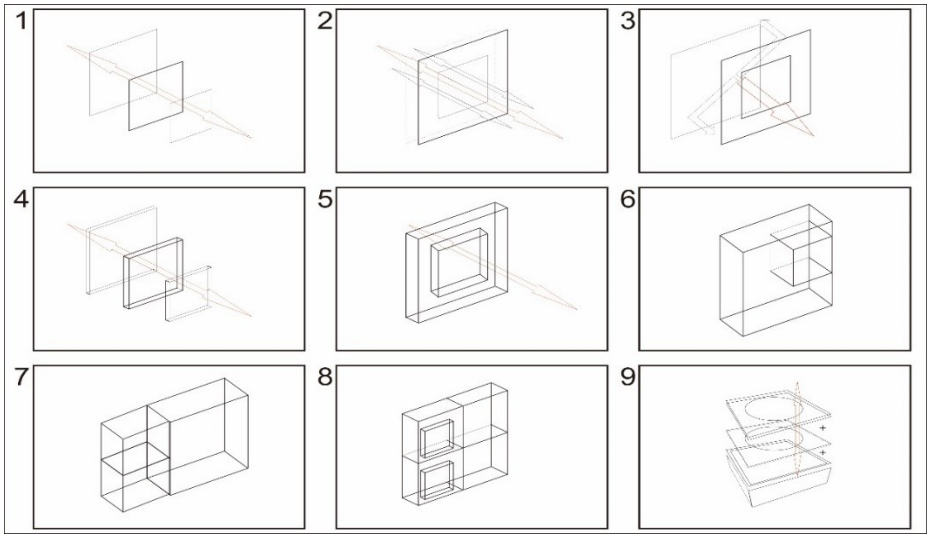



***Figure 4:*** Re-plastic Innovation of Three-dimensional Geometric Figures Extracted from the Spatial Organization Form of Garden Landscape.

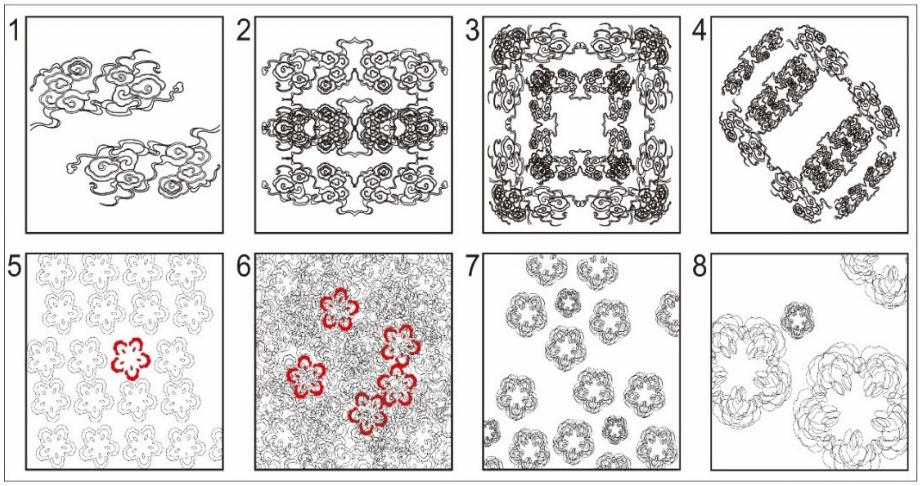



***Figure 5:*** Auspicious Graphics in the Garden Landscape Re-plastic Innovation.

## The Practice of Gardening Techniques in Agricultural Packaging Design

According to the three-dimensional geometric model created by the gardening technique, according to the design path of "see the big with the small, design with the trend, abstraction enhancement", the author carried out the packaging design practice for "General Pear" in Dawu County, Hubei Province, starting from the whole, combined with metaphor, assignment and other techniques. In the implementation of the design, the packaging structure innovation, color design, proof printing, experience design, etc. were completed, while user research, packaging assembly, logistics and transportation, unpacking experience, packaging recycling and other details were studied to achieve the innovative design of packaging with use function and characteristic Chinese traditional culture.

The branding of rural agricultural products should avoid the problem of "homogenization" by rebranding the regional culture, effectively transmitting the regional culture and product characteristics to consumers through packaging design, forming a regional brand barrier for the product, forming a unique visual image and cultural value, and highlighting the value of the product. Design can play an important role in helping to create groundbreaking solutions" (Milligan, Gatrell, & Bingley, 2004). The packaging designer starts from the product characteristics, explores its connection with the regional culture, and actively looks for effective transformation methods and design means to retain the cultural connotation while launching a moderate innovation (Okvat & Zautra, 2011). The steps for generating a three-dimensional geometric model of packaging design (using a combination of circles and squares as an example) are shown in Figure 6.

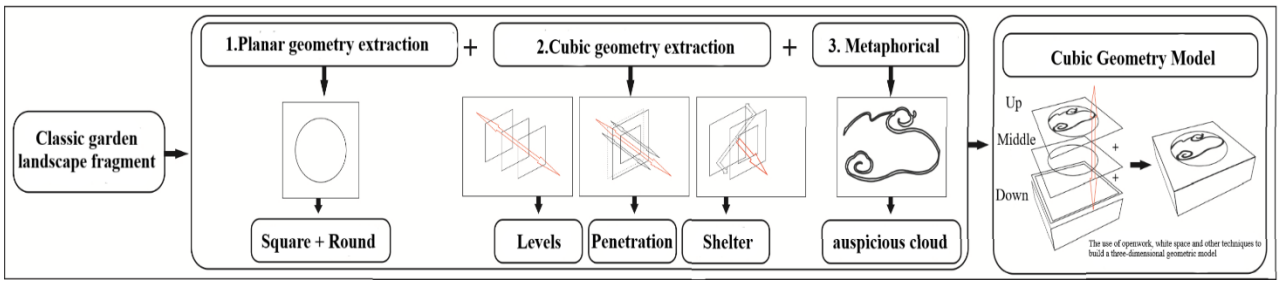



***Figure 6:*** Steps for Generating Three-dimensional Geometric Model of Packaging Design (Taking the Combination of Circle and Square as an Example).

**The Overall Design Strategy of Small to Big**

The purpose of cultural creative design is to accomplish communication and continuity, and design works based on traditional culture need to develop corresponding design strategies according to the times (Brown et al., 2004). The packaging design practice involved, the project is located in the old revolutionary area of Dawu, Hubei, and the "General Pear" is an important test result of the enterprise from the precise poverty alleviation in 2017 to the rural revitalization development in 2021. In terms of packaging design selection, technology and concept, explore new channels of green and sustainable development (Laporte, Montoye, & Caspersen, 1985). The packaging design starts from the whole, according to the product characteristics of "General Pear", defines the design as an important part of the product branding construction, and deeply explores the red regional culture of Dawu Revolutionary Old Area in Hubei Province and the integration of the brand culture of "General Pear". As for the packaging design concept, it draws on the aesthetic skill of gardening technique to make the small see the big, and the packaging design theme concept is defined as "Qilin chasing the moon". The ripe General pear is available around the Mid-Autumn Festival, and its shape is as golden as the moon, with the help of metaphor, the product is named "Qi Yue", which means reunion and reunion.

In terms of the presentation of the main image, the packaging is understood as a single "small garden", and the three-dimensional geometric model of gardening technique, represented by "Heaven and Earth", is used as the basis of the structure of the three packaging models, starting from the square front, and designing the circle in the main structure. The design of the circle in the main structure. The structural details are designed to solve the practical problems such as the stability of fruit placement inside the box and the three-dimensional cultural presentation of the package. And the symbols of decorative elements with oriental philosophy are applied to the visual elements of the package.

**The Homeopathic Design of "General Pear" Packaging**

*"Homeopathic" Product Feature Design*

According to the characteristics of "general pear", the packaging design is carried out in accordance with the trend, the ripe "general pear" has golden color and full round shape, the packaging design structure is based on the three-dimensional geometric structure of square and circle to show the theme image of the product, the internal structure. The internal structure is divided by using square inner grid to increase the stability of single fruit inside the package. According to the fruit diameter specifications between 6cm-13cm, we can develop specific packaging design plans for large fruit boxes, medium fruit boxes and small fruit boxes.

*Innovative "Homeopathic" Category Image Design*

According to the research situation, three packaging designs were made for Dawu "General Pear" packaging design, taking the analysis of fruit category packaging design as the starting point, taking in account the basic functions of fruit packaging for fruit preservation, air permeability, transportation protection, etc., and creating regionalized packaging design in terms of structure and overall image. The three-dimensional geometric model with the combination of square and circle is used in the main body of packaging design, the structure increases the design details such as heaven and earth cover, inner cover, drawer, foot buckle, etc. The visual elements are integrated with abstract traditional patterns, and the color is innovated comprehensively according to the characteristics of "General Pear" products and the market season. The package design of medium-sized fruits in 9 pieces, the front side with openwork auspicious cloud pattern appears in the full moon, auxiliary graphics choose full moon, pear blossom, hills, pine trees, etc., the color echoes the color of "general pear", the package is simple and practical, see Figure 7.

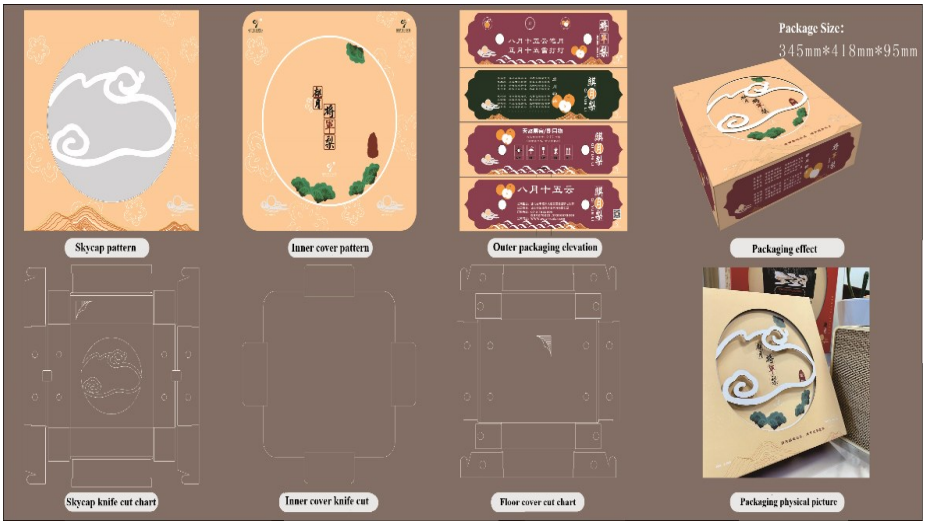



***Figure 7:*** "9" Pieces Medium Fruit Packaging Design.

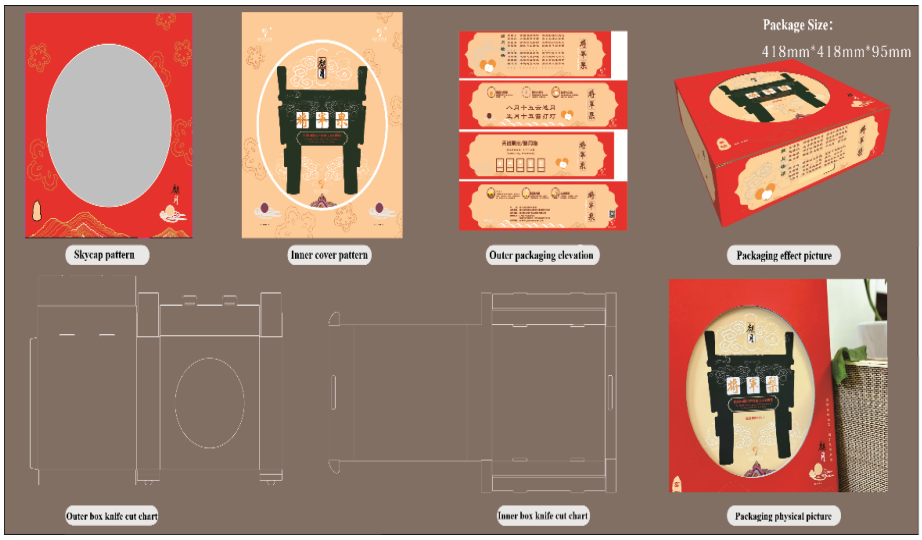



***Figure 8:*** Large Fruit Packing Design With 9 Pieces.

The theme of the 9-pack of large fruit packaging design is to celebrate the 100th anniversary of the founding of the Communist Party of China "dedication" model packaging, the "tripod" underline elements, representing a major national weapon, into the packaging graphics, the structure of the drawer structure to enrich the opening experience, "Chinese red" as the main color of the design, the internal design of three independent openings inside the tray to solve the stability of large fruit needs. The packaging image is enriched by hollowing and drawer structure. 9 pieces of large fruit packaging effect, see Figure 8 (drawn by the author). 25 small fruit packaging design, the main color of the package is blue, the front elevation with a golden circle pavement, side with hollow shape, to meet the needs of fruit breathability, and medium-sized fruit translucent sulfuric acid paper fruit film, small fruit General pear with transparent cling film preservation, in addition with the weight of the whole box of fruit, the outer box around the structure of reinforced design.

*Conforming Market Design*

The purpose of packaging design for agricultural products is to help the product be more recognizable among many similar products and to successfully complete the product marketing, so the packaging design should develop a specific target group positioning for the market.

After determining the design strategy and design concept, sketch design, effect design, packaging structure design, proofing and color proofing, final board printing, batch printing, product sales and other links will be launched in turn. Along with the market advancement, agricultural packaging design, like cultural and creative products, needs to fundamentally improve the design level and promote the localization, originality, and branding establishment of the design industry (Teig et al., 2009). The design practice process, see Figure 9 (author's own photo).


***Figure 9:*** Design Practice Process.

Packaging printing is mainly based on CMYK four-color printing to ensure that the effect of printing color is consistent with the design effect, and packaging proofing color correction is carried out before printing. Involving a variety of packaging, multiple batches of large-area color printing, you can also specify the Pantone (Pantone) spot color values, Pantone color values, ink by the manufacturer's professional deployment, can minimize color deviation. When designing the program, the color variety and color printing area should be reduced as much as possible to achieve green design, while saving printing costs. Production printing of packaging to reduce communication and transportation costs, looking for a local printer. Part of the packaging printing time, need to be adjusted according to the time of product sales, the printing can be completed before the official boxing, can ensure the best hardness of the box. Transportation of packaging materials, pay attention to the number of piles on the impact of the packaging structure. Packaging storage also has corresponding requirements, before assembly in accordance with moisture-proof, light avoidance, classification storage. After the assembly is completed, the packaging needs to pay attention to details such as orientation, the number of yards, moisture return, and the integrity of the packaging appearance. Also consider the packaging design characteristics of different sales channels, such as offline sales, online national 832 poverty alleviation sales platform, live sales, bulk group purchase order sales, etc. Through each link to achieve green design, reduce packaging costs, reduce transportation costs, reduce labor costs, enhance packaging recycling and reuse, etc. In addition, "General pear" 3 packaging design, for fruit express transport details, the bottom of the box compartment design shock absorption cushioning details, with the pull net and inflatable shock absorption piece, reduce the fruit packaging transport collision. Add wet tissue, fruit knife, product folders and other supporting design to enrich the user's unpacking experience. Packaging details innovation, see Figure 10 (author's own photo).

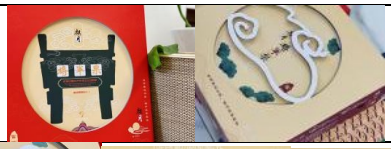

***Figure 10:*** Packaging Detail Innovation.

**The Cultural Promotion of "General Pear" Packaging**

The packaging design of "General Pear" draws on the gardening wisdom of classical gardens in terms of theme, structure, graphics, symbolic mean and elements, and presents a strong image of traditional culture innovation from the whole to the details (Lopez de Subijana et al., 2021), and the innovation of the gardening technique i the packaging application, with the overall square as the basic structure of the three models. The packaging design of "General Pear" takes the market demand as the starting point and the use function of packaging as the basis to realize the reshaping of traditional culture application in packaging design works. The reshaping of gardening culture in packaging practice is shown in Table 2.

**Table 2**

*The Remolding of Garden Making Culture in Packaging Practice*

| Cultural Value Names (Reshaping Embodiment) | Packaging Pictures | Packaging Reflects |
|---|---|---|
| Geometric Reshaping |  | Hollow structure<br>Visual image |
| (Focused Composition: Visual Center, Rich Hierarchy, Penetration, etc.) |  | Fonts<br>Patterns<br>Color |
| Metaphorical Expression of Value |  | Theme design<br>Packaging positioning<br>Packaging details<br>Packaging implementation |

The packaging design of "General Pear" has been highly recognized by the users, and it is generally believed that the packaging design has enhanced the cultural connotation of the product, and the visual image of the packaging can feel the "mood" of Chinese traditional national culture, which makes the users have higher expectation of the product and mobilizes the consumers' desire to purchase (Bauman et al., 2021). The proverb "The clouds cover the moon on the fifteenth day of the eighth month and the snow hits the lanterns on the fifteenth day of the first month" is applied to the visual design of the packaging with calligraphic fonts to combine the external "shape" of the packaging with the internal "meaning" of the expression to create a beautiful vision (Bang, Won, & Park, 2020). The overall color of the package is mainly golden yellow, and the elements such as auspicious clouds, unicorn, full moon and pine tree are integrated into the package design according to the design theme, forming a visual image that is inherited and innovative from the first generations package (Scandizzo & Pierleoni, 2018). The three "General Pear" packages realized the inheritance and innovation of traditional culture of gardening technique in package design. The application of gardening culture in the packaging design is reshaped, see Figure 11.

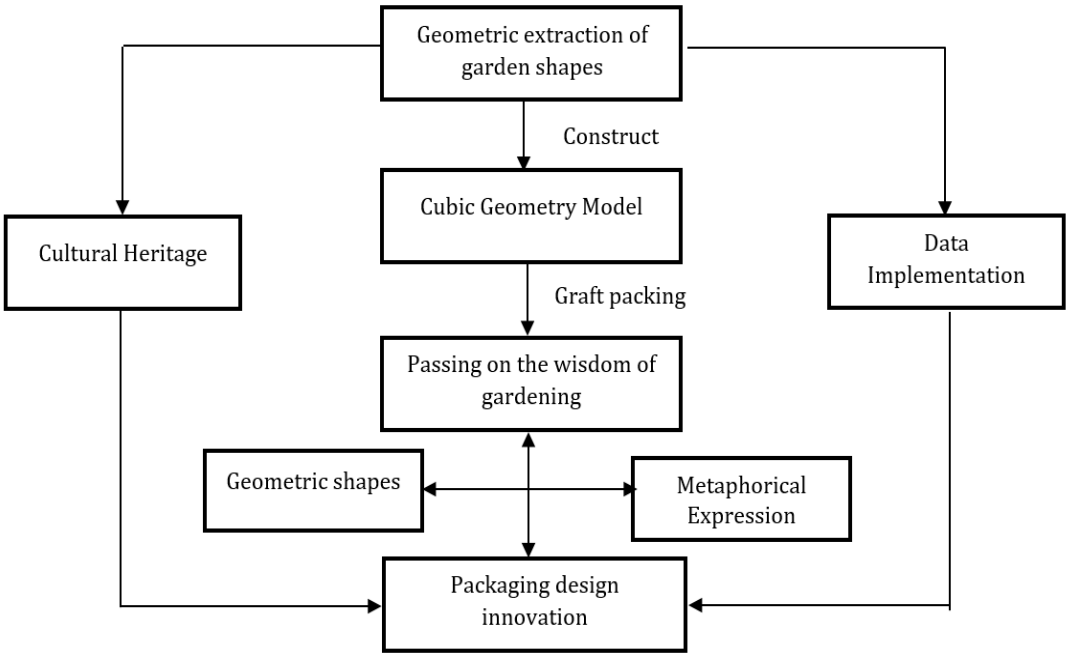



***Figure 11.*** Remolding the Application of Garden Culture in Packaging Design.

**Design Feedback and Improvement**

According to the user feedback and market verification, there are the following issues worth improving. The three-dimensional geometric model built on basis of gardening technique needs more attempts in the innovation of three-dimensional space geometry and the connection between the three-dimensional geometric model and the specific product packaging structure (Chappelet, 2019). Specifically, in the three "general pear" packaging design practice, the packaging design structure design considerations are more.

After the product boxing, packing, express transportation and other aspects of inspection, a few packaging deformations, wear and tear, etc. Among them, the online sales link, the outer layer of the courier packaging cling film, the greatest impact on the packaging structure, by the hardness of the paper packaging structure limitations, the outer packaging appeared structure fracture, tear, collapse and other problems; express sealed packaging, the "general pear " air permeability has an impact. Through the collection and collation of the problems, the next design will be targeted to gradually solve and improve the packaging design. Design improvement opportunity points, see Figure 12 (author's own photo).


***Figure 12:*** Design Improved Opportunity Points.

This study has explored the innovative potential of transforming traditional gardening techniques into structured physical workouts, particularly tailored for small spaces. By leveraging the routine activities associated with gardening and reimagining them as exercises, we have demonstrated a dual approach to enhancing both physical health and cultural engagement. This conclusion synthesizes our findings, discusses the implications for health and cultural studies, and suggests pathways for future research.

**Synthesis of Key Findings**

Our investigation centered on the classical gardening practices employed in the cultivation of the Jiangjun pear in Dawu County, a region rich in cultural and revolutionary heritage. By analyzing these gardening activities through the lens of exercise science, we identified several physical movements inherent to gardening that are comparable to exercises used in fitness regimes. These include motions such as digging (akin to squatting), pruning (similar to stretching), and planting (which involves bending and lifting). The adaptation of these movements into a structured exercise program presented in this study not only promotes physical health but also brings a cultural dimension to everyday workouts (Weed et al., 2009). The integration of landscape geometry and the targeted use of local cultural symbols in the design of exercise routines also contributed to a novel approach to product packaging, which serves the dual purpose of enhancing market visibility and encouraging physical activity. The "small space" workout routines developed here provide practical fitness solutions for individuals with limited access to traditional exercise spaces, promoting healthier lifestyles amidst urban and restricted settings (Bayzid et al., 2019).

**Implications for Health and Cultural Studies**

From a health perspective, the findings underscore the importance of incorporating more accessible and engaging forms of physical activity into people's daily lives, especially in settings where conventional exercise opportunities might be limited. These gardening-based workouts offer a viable alternative to traditional fitness routines, potentially reaching a wider audience by integrating physical health with daily chores (Aljehani, 2021). Culturally, this study reinforces the value of integrating local traditions and agricultural practices into contemporary health and wellness strategies. This approach not only preserves cultural heritage but also enhances it by making it actively part of the community's daily routines, thereby supporting rural revitalization efforts.

**Recommendations for Future Research**

Future research should focus on the quantitative evaluation of the health benefits associated with these gardening-based workouts. This could include controlled

trials to measure improvements in fitness levels, flexibility, and overall physical health. Additionally, further studies could explore the psychological benefits of combining physical activity with cultural engagement, such as improved mental health outcomes or increased community cohesion. Expanding this research to include a wider variety of plants and gardening styles could also provide broader insights into how different agricultural practices can be adapted into exercise routines suitable for various cultural and environmental contexts.

## Conclusion

In conclusion, this study has opened up a novel pathway for enhancing physical fitness through everyday activities, such as gardening, which traditionally have been viewed only within the confines of leisure or agricultural labor. By transforming these activities into structured workouts, we not only promote physical health but also deepen the cultural relevance of these practices, offering a comprehensive approach to health and wellness that is deeply embedded in local traditions and daily routines. This innovative intersection of gardening and exercise science offers promising prospects for both community health promotion and cultural preservation.

**Funding**

Phased research results of the first-class undergraduate course "Font and Layout Design" in universities in Hubei Province of 2020 (offline first-class course).
Provincial Department of Education Philosophy and Social Science Research Project in Hubei Province of 2021 (No.: 21G234); Innovation and Entrepreneurship Training Program of 2021 for national college students "Jiangjun Pear: Packaging and Branding Design of" Golden Fruit "in Dawu Old Revolutionary Base Area" (202113258005).

## References

Aljehani, N. (2021). *Towards improving women's participation in physical activities in Saudi Arabia* [Doctoral dissertation, UNSW Sydney]. https://doi.org/10.26190/unsworks/22596

Bang, H., Won, D., & Park, S. (2020). School engagement, self-esteem, and depression of adolescents: The role of sport participation and volunteering activity and gender differences. *Children and Youth Services Review, 113*, 105012. https://doi.org/10.1016/j.childyouth.2020.105012

Bauman, A. E., Kamada, M., Reis, R. S., Troiano, R. P., Ding, D., Milton, K., Murphy, N., & Hallal, P. C. (2021). An evidence-based assessment of the impact of the Olympic Games on population levels of physical activity. *The Lancet, 398*(10298), 456-464. https://doi.org/10.1016/S0140-6736(21)01165-X

Bayzid, B., Mazumder, R. G., Kamrujjaman, M., & Mustofa Kamal, S. M. (2019). Relationship be-tween Anthropometric Characteristics and VO2 Max among Young Male Taekwondo Players Residing in BKSP, Dhaka. *Sports Injuries & Medicine, 3*(3), 159. https://doi.org/10.29011/2576-9596.100059

Booth, M. (2000). Assessment of Physical Activity: An International Perspective. *Research Quarterly for Exercise and Sport, 71*(sup2), 114-120. https://doi.org/10.1080/02701367.2000.11082794

Brown, W. J., Trost, S. G., Bauman, A., Mummery, K., & Owen, N. (2004). Test-retest reliability of four physical activity measures used in population surveys. *Journal of Science and Medicine in Sport, 7*(2), 205-215. https://doi.org/10.1016/S1440-2440(04)80010-0

Chappelet, J.-L. (2019). Beyond legacy: Assessing olympic games performance. *Journal of Global Sport Management, 4*(3), 236-256. https://doi.org/10.1080/24704067.2018.1537681

Choi, D.-S., Jung, E.-N., & Park, M.-H. (2021). Comparison of balance ability and physical fitness according to the growth period in taekwondo players. *Journal of Exercise Rehabilitation, 17*(5), 354-361. https://doi.org/10.12965/jer.2142502.251

Cobb, R. M., & Sudheendra, D. (2022). A Framework for Developing a Comprehensive Venous Practice. *Vascular & Endovascular Review, 5*, e10. https://doi.org/10.15420/ver.2022.06

Consolvo, S., McDonald, D. W., Toscos, T., Chen, M. Y., Froehlich, J., Harrison, B., Klasnja, P., LaMarca, A., LeGrand, L., & Libby, R. (2008). Activity sensing in the wild: a field trial of ubifit garden. In *Proceedings of the SIGCHI conference on human factors in computing systems* (pp. 1797-1806). ACM. https://doi.org/10.1145/1357054.1357335

Emilio, E. J. M.-L., Hita-Contreras, F., Jiménez-Lara, P. M., Latorre-Román, P., & Martínez-Amat, A. (2014). The association of flexibility, balance, and lumbar strength with balance ability: risk of falls in older adults. *Journal of Sports Science & Medicine, 13*(2), 349-357. https://www.jssm.org/researchjssm-13-349.xml.xml

Huang, Y., & Wang, C. (2024). Image, Symbol, and Philosophy: Meaning Construction and Semiotic Analysis in Graphic Design. *Cultura, 21*(2), 232-245. https://culturajournal.com/submissions/index.php/ijpca/article/view/131

Jackson, A. W. (2004). *Physical Activity for Health and Fitness*. Human Kinetics.

Jung, N. (2023). Individualism in Cormac McCarthy's The Road: the Highway to Unsustainability. *Cultura, 20*(1), 95-106. https://doi.org/10.3726/CUL012023.0008

Kim, T. J., & Petitjean, M. (2021). Atypical package design and product category prestige. *Journal of Product Innovation Management, 38*(3), 379-397. https://doi.org/10.1111/jpim.12574

Laamarti, F., Eid, M., & El Saddik, A. (2014). An overview of serious games. *International Journal of Computer Games Technology, 2014*(1), 358152. https://doi.org/10.1155/2014/358152

Laporte, R. E., Montoye, H. J., & Caspersen, C. J. (1985). Assessment of Physical Activity in Epidemiologic Research: Problems and Prospects. *Public Health Reports, 100*(2), 131-146. https://www.jstor.org/stable/20056430

Lee, Y.-C., Chang, S.-F., Kao, C.-Y., & Tsai, H. C. (2022). Muscle Strength, Physical Fitness, Balance, and Walking Ability at Risk of Fall for Prefrail Older People. *BioMed Research International*. https://doi.org/10.1155/2022/4581126

Lin, Y., & Zhang, D. (2024). Historical Inheritance and Folklore Memory-Development and Innovation of Imagery Expression in Chinese Painting. *Cultura, 21*(1), 403-424. https://culturajournal.com/submissions/index.php/ijpca/article/view/515

Lopez de Subijana, C., Martin, L. J., Ramos, J., & Cote, J. (2021). How coach leadership is related to the coach-athlete relationship in elite sport. *International Journal of Sports Science & Coaching, 16*(6), 1239-1246. https://doi.org/10.1177/17479541211021523

Milligan, C., Gatrell, A., & Bingley, A. (2004). 'Cultivating health': therapeutic landscapes and older people in northern England. *Social Science & Medicine, 58*(9), 1781-1793. https://doi.org/10.1016/S0277-9536(03)00397-6

Okvat, H. A., & Zautra, A. J. (2011). Community Gardening: A Parsimonious Path to Individual, Community, and Environmental Resilience. *American Journal of Community Psychology, 47*, 374-387. https://doi.org/10.1007/s10464-010-9404-z

Saris, W. H. M., Blair, S. N., Van Baak, M. A., Eaton, S. B., Davies, P. S. W., Di Pietro, L., Fogelholm, M., Rissanen, A., Schoeller, D., & Swinburn, B. (2003). How much physical activity is enough to prevent unhealthy weight gain? Outcome of the IASO 1st Stock Conference and consensus statement. *Obesity Reviews, 4*(2), 101-114. https://doi.org/10.1046/j.1467-789X.2003.00101.x

Scandizzo, P. L., & Pierleoni, M. R. (2018). Assessing the olympic games: The economic impact and beyond. *Journal of Economic Surveys, 32*(3), 649-682. https://doi.org/10.1111/joes.12213

Soga, M., Gaston, K. J., & Yamaura, Y. (2017). Gardening is beneficial for health: A meta-analysis. *Preventive Medicine Reports, 5*, 92-99. https://doi.org/10.1016/j.pmedr.2016.11.007

Teig, E., Amulya, J., Bardwell, L., Buchenau, M., Marshall, J. A., & Litt, J. S. (2009). Collective efficacy in Denver, Colorado: Strengthening neighborhoods and health through community gardens. *Health & Place, 15*(4), 1115-1122. https://doi.org/10.1016/j.healthplace.2009.06.003

Ubillus, G. R., Neira-Montoya, C. R., Sedano-Gelvet, E. E., & Verona-Cueva, J. F. (2022). New algorithm to differentiate histochemical types of intestinal metaplasia: G&S2 method. *Jornal Brasileiro de Patologia e Medicina Laboratorial, 58*, e4132022. https://doi.org/10.1900/JBPML.2022.58.413

Wakefield, S., Yeudall, F., Taron, C., Reynolds, J., & Skinner, A. (2007). Growing urban health: Community gardening in South-East Toronto. *Health Promotion International, 22*(2), 92-101. https://doi.org/10.1093/heapro/dam001

Weed, M., Coren, E., Fiore, J., Mansfield, L., Wellard, I., Chatziefstathiou, D., & Dowse, S. (2009). *A systematic review of the evidence base for developing a physical activity and health legacy from the London 2012 Olympic and Paralympic Games*. Centre for Sport, Physical Education & Activity Research (Spear). https://repository.canterbury.ac.uk/item/865x2/developing-a-physical-activity-sport-and-health-legacy-from-the-london-2012-olympic-and-paralympic-games