

Innovative Application of "24 Solar Terms" and "Same Origin of Medicine and Food" in Electric Cooker Design

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Abstract: Regarding modern household cooking appliances, there is an obvious tendency for electric pressure cookers becoming more popular, with the convenience aspects and intelligence degree also fairly well-regarded. The most important is low-temperature slow-cooking technology in the ingredient of protecting the nutrition, because it has a very important position in today's society of protecting health. This study will aim to explore new forms on how we can create an overall product series for electric pressure cooker, basing them on the intersecting and integrative aspect of China's tradition, namely their "24 Solar" culture base and "Food-Medicine Homology" health philosophy. The "24 Solar Terms" is a key time-based framework within agrarian civilization and it has been having deep influence on Chinese food patterns and health. Ancient food-medicine equivalence wisdom is about how culinary ingredients can be like medicinal herbs. We will integrate these dual features into the design of electric pressure cookers so as to provide specific solutions for cooking during each season of the year as well as taking into account different physiological conditions for individuals. This study has shown that it has multi - dimensional value: It can not only realize the dynamic protection of intangible cultural heritage, but also combine traditional cultural elements with modern industrial design, so that electric pressure cooker has cultural identity beyond function. It's this kind of new method that can make sense of practical things while improving what users think about being better.

Keywords: Traditional Culture; Twenty-Four Solar Terms; Food Preservation; The Same Origin of Medicine and Food; Product Design

1. Introduction

With the fast pace of modern life and the concept of healthy eating, the electric casserole pot is the best tool for home-made healthy food with its easy operation, intelligent control and low-temperature slow cooking to retain nutrients. And it has been change from optional cookware into very important kitchen products. The current electric stew pot market focuses more on simple functions and minimalistic designs, little integration of cultural elements and personalized customization. As consumer's cultural confidence rises along with its demand for "tailored health solutions", traditional function only models fail to address the "function & culturally resonant" need. This study addresses a family focused electric stew pot design which incorporates the "24 solar terms" idea and the "food & medicine synergy" concept—the former is ancient and traditional wisdom, and the latter promotes "nourishing with food", they both match up with current health trends. Improving product feeling and culture, this new way of combining tradition with modernity creates good-looking electric stewing pots that mix use, meaning, and usefulness, giving new ideas for cooking appliances.

2. Cultural Connotation and Artistic Characteristics

"24 solar terms" is derived from ancient Chinese observations and summary of the changes of nature. It is also a crystallization of agriculture civilization and knowledge about astronomy in China. they can also show the change of seasons and the ups and downs in the weather, temperature, precipitation and so on. And influence all kinds of aspects of people's life, including people's production activities, clothes, food, house, travel, seasonality festivals, and so on.

It is closely related to the systematic formation of health-preserving dietary habits and seasonal

health preservation systems. It refers to the fact of the "24 Solar Terms" appearing on the calendar. In TCM health preservation, the Book of Rites repeatedly emphasizes: "food and sex are desires of all men." Human life fundamentally depends on food. The Chinese nation had laid the foundation for dietary practice since Shennong's trials of hundreds of herbs and cultivation of five grains. The Yellow Emperor's Inner Canon says "Five types of grains feed; five fruits support; five livestock nourish; Five vegetables enrich." This shows that our bodies' characteristics and our health must be in tune with the seasons. We should adjust the dietary structure and lifestyle rhythm according to the characteristic of solar term, so as to improve the physical constitution continuously and maximally enhance the disease prevention effect. In spring, focus should be given on care of liver organ, during summer time pay attention to heart function care is needed, in autumn time lung function has to be taken care of and in winter mainly kidney function strengthening should take place. This establishment of seasonal-organ correspondence is theoretically from the perspective of the coupling of the climatic elements of each solar term with the nutritional characteristics of seasonal ingredients. This health governance knowledge system is still exerting practical influence on the daily life behavior of the people in contemporary China.

2.1 The Inheritance of the Concept of "Same Origin of Medicine and Food"

In the traditional Chinese health preservation cultural system, the concept of "food and medicine share the same origin" plays an important role. Traditional Chinese Medicine believes that "three parts to treatment and seven parts to nourishment". Besides treating a disease, it's even more important to care for your diet every day. Therefore, in China's traditional dietary culture, some Chinese medicinal herbs have been commonly used in daily eating habits in folk custom, being used for food and medicinal purpose. Actually, it mainly means that food and drugs also basically originate from the same material base in nature, but only have different pathways of use.

Being nutritious alone is not enough for the dietary supplement with pharmaceutical nature embodies the "food also medicine" philosophy.

scientific food combination is good combination and regulation of Yin and Yang; it helps to promote blood circulation and nourish organs. The clinical evidence of applying it show special advantages in disease prevention and adjustment of constitution.

The coordinated function of five zang and six fu organs requires food and medicine substances. It has become an important part of TCM theory. Compared to medical treatment which is complex, dietary therapy represents the simplicity and benefits of food. Inspired by the "Same Origin of Food and Medicine" theory, the functional food develops with complete utilization of the activities of ingredients from both food and medicine. and improves on all their health benefits as well as making up the inherent tastiness in a variety of these naturally occurring things as well.

2.2 The Combination of "Same Origin of Medicine and Food" and Seasonal Terms

The traditional cultural system reveals a profound integration of the "food-medicine dual nature" concept of electric stew pots with the "24 Solar Terms" theory. Seasons change in a cycle, which is both due to natural climatic phenomena and the human body's adaptability. People show various changes in criteria when selecting materials and the principles during different solar term.

When it comes to starting spring, we often use leeks and barbary wolfberries that are warming and energizing as our diet. As for the dietary preferences during the Winter Solstice period, it mainly focuses on consuming warm and tonifying nutritious mutton along with danggui (Chinese angelica). Use this kind of seasonal diet activity, enhance body's immune resistance, and self-regulation.

The seasonal dietary regulation system based on the Four Seasons 'rhythm is the theoretical essence of traditional Chinese medicinal cuisine as well as human wisdom in survival through conforming to natural laws with diet. We merge this time-based health philosophy with current kitchenware to accomplish varied development of nutritional composition and methodical construction of health administration modes.

It shows the body's adaptation to change is increased by season-specific dietary therapy based on solar terms. Frost's Descent - Those who ate yam and lotus seed porridge all the

time had significantly fewer respiratory illnesses. And this intervention provides a feasible means to attain homeostasis again in people.

3. Stylistic Features

Brand family identity assessment is assessing whether there is a significant difference between the design features of the target brand and those of market competitors in terms of branding, so as to significantly improve brand recognition. By looking closely we can see that there is a closeness in all the electric pressure cooker from the whole range with respect to it's brand identity where the designs like form, color combination, visuals and functional setup remains same in a consistence manner. This kind of validation process allows companies to dive deeper into what others think of the existing brand, giving them helpful guidance to make improvements that will only make their brand's DNA stronger.

Each solar term possesses unique natural features and cultural symbols, furnishing references for electric pressure cooker design. the warm and stable feeling conveyed by winter has been translated into something more concrete in the design, making it a visual presence Roundish shape and subdued line work successfully expresses the special coziness of winter. Using the Surface Coating technique and warm colors like Dark Brown, Ivory White and Gold give me an encircled feel. Ceramic-textured shell materials are introduced to enhance tactile warmth, and it is in line with the theme of winter health preservation and nutrition. (Fig. 1)



Figure 1. Self-Painted by the Author

The innovative design centered on seasonal health preservation features enhances the "food-medicine synergy" concept. Each stew pot comes preloaded with recipes tailored to specific solar terms, ensuring meals align with seasonal rhythms. This addresses consumers' needs for seasonal dietary adjustments while promoting wellness. Smart technology elevates user experience through automatic temperature control and cooking time adjustment, making preparation precise and convenient. The

system's ingredient recognition for weight measurement, preset recipe parameters, and intelligent temperature regulation ensure optimal processing of every ingredient.

4. Methods of Integrating the 24 Solar Terms with Modern Design

4.1 Extraction and Transformation of Cultural Symbols

The fusion of modern design and the traditional "24 Solar Term" starts from identifying some representative cultural symbols. Use natural elements such as budding buds and spring rain to express the natural vitality of the Spring Equinox; use the image of the sun from the summer heat to represent the Sun in the summer solstice; use rice straw and golden leaves to express the harvest of autumn; use snowflakes and ice flowers to express the winter scene. (Figure 2)

Cultural expression of seasonal elements within product aesthetics is quite significant too, application of decorative details and pattern language here as well becomes rather important. Symbols not only function as visual elements in brand design but also evoke emotions in consumers. After the designer has performed an analysis of semiotics by deconstructing elements in the design, the designer can combine the symbolic culture in the design with a brand's philosophy. Symbols become a means of expressing emotions. It could develop a strong emotional connection with the brand for the consumers and achieve cross-cultural transmission. Minimalism's lines and abstracts, after an innovative process, can keep its art value, and can also be in line with modern beauty.

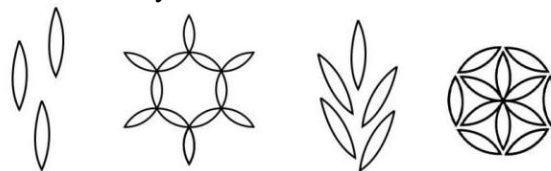


Figure 2. Self-Painted by the Author

4.2 The Combination of Function and Aesthetics

The design is important as the functional attributes and aesthetic features have to be integrated in the design process and especially with the "food – medicine dual nature" in mind. Artistic aspects v.s.practical elements are at forefront. The electricity-powered pressure

cooker is not just merely used to cook but it is something we need as well for our health and daily lifestyle as it is a way of living. The design process reaches two desires at once. The desire for function and the desire for beauty. With the seasonal changes, there will be changes to people's food consumption and health-care preferences as such it's necessary to create some modules specially: Spring has the "liver-nourishing detoxification" procedure, summer has the "heat-clearing and fever-relieving" function, autumn performs "lung-moistening yin-nourishing" operations, winter uses "kidney yang-warming" procedures. and it can intelligently change its behavior according to the differences in ingredients used, cooking time parameters, and temperature conditions in different seasons. In order to keep fresh during the change of seasons.

A modern electric stew pot needs to be preserved as to maintain its function and appearance must be very close to the internal mechanism. Visual element precision, such as temperature display devices and seasonal mode indicators, when matched with ergonomics like soft-touch materials, optimal button placements, etc., improve the feel. In addition to being useful, it is also very convenient, and it satisfies all conditions.

"24 Solar Terms" culture and modern design integration goes beyond mere design form. Cultural essence and artistic expression are combined here for an effective fusion, so that designers can feel free to create while also increasing the cultural flavor of the product. It creates more opportunities for the region to spread culture and develop it. Key is about striking a balance between function value, art appearance and user needs. Refining the seasonal cultural symbol through today's craftsman application and material science application retains tradition as well as creates new and smartly customized seasonal culinary symbol elements for healthier cooking.

5. Conclusions

This paper researches electric pressure cookers family design which focuses on integrating culture elements of 24 solar terms, food-medical relationship. Modern kitchen appliances could also be considered quite creative from this new approach. Time culture's symbolic representation is 24 solar

terms, which is included in both appearance and functions while food and medicine work together so they have synergistic effects. Users can visit seasonally adjusted health adjusting modules that change with the weather.

With regard to how product looks, there were refinements and changes in the seasonal symbols and the ones that are related to climates. these seasonal design elements are represented in the electric pressure cooker's choice of materials and styling language In terms of function, smart tech does allow for fairly precise control of cooking programs. In the meantime, there are corresponding health-aware recipes for different solar terms as well as methods for preparing ingredients for different seasons to offer users scientifically grounded and correct dietary advice.

This is beyond the limits of traditional stewing vessel functions. Integrating health consciousness, cultural communication media, and technology integration allows the product to achieve a new positioning. and it reflects the merging of "24 Solar Terms" cultural essence with modern health theories which is bringing new paths forward in creating home appliances so that old culture could turn into useful things thanks to technology.

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