

The study on immaterial role of traditional furniture¹

Dae-Woo Lee^{†2}, Dae-Sung Moon³

ABSTRACT

Furniture world which is closely associated with human life had been constantly developed, but traditional furniture disappeared after modernization almost. The reason lies rather in the importance of the diversity of Western-style furniture pursuing convenience and shapes, than in change of life style meanwhile. The diversity however reached the limit and it made a new advanced role of not only furniture, also design sector in general necessary, and as solution to solve this problem the immaterial value based on Eastern philosophy/mental was suggested in architecture and all around design sector overall as well. It means that the immaterial point which traditional furniture involved should be focused now and furthermore it's emotional and mental value which is more natural and has close relation with human being accordingly could be judged rightly.

The reason why traditional furniture had been used since long time is the immaterial tendency which is well harmonized with the surrounding environment rather than the function. To verify this, the present study aimed to analyze not only the basic, also additional function of traditional furniture used in *Hanok* (traditional Koran-style house) by the inductive method for investigating the additional effects which users felt. Such immaterial role offers the user more convenience besides the original function of furniture and this made it available that furniture dominates the space. As good examples of such roles it was investigated that traditional furniture played meaningful roles like extensional serviceability, variable space, formation & movement of space, expression of grade of rank. That allowed that this study suggested the sustainable design and also the direction of development of interactive function of furniture through the expected effect having been showed in the modern space where the immaterial role of traditional furniture was applied to and the related cases.

Key words: immaterial , traditional furniture, Design.

요 약

가구분야는 인간과 밀접한 제품으로 많은 발전을 해왔지만, 근대화 이후 전통가구는 거의 자취를 감추었다. 이는 생활양식이 바뀌었다기보다 편의와 형태를 추구한 서양식 가구의 다양성을 증시켰기 때문이다. 그러나 이러한 다양성은 한계에 도달했으며 가구뿐만 아니라 디자인분야 전반에 걸쳐 한 단계 나아갈 새로운 역할의 필요성이 대두되었으며, 이를 위한 문제해결방법으로 건축을 비롯한 디자인전반에서 동양의 정신계에 근거를 두고 있는 유심적 가치가 제시되었다.

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2) Dept. of Living Furniture Design, Seoul University, Seoul, Korea, 131-702.

3) Dept. of Living Furniture Design, Seoul University, Seoul, Korea, 131-702.

†Corresponding author: Dae-Woo Lee (E-mail: cdw3di@seoil.ac.kr).

이는 사라졌던 전통가구가 내포한 유심성에 주목하려는 것이며, 보다 자연적이고 인간과 친숙한 전통가구의 감성적이고 심리적인 영향이 가치를 인정 받은 것이라 할 수 있다.

전통가구가 오랜 시간을 사용되었던 것은 가구가 갖는 기능성보다 주변공간과 유기적으로 연계하는 유심적 성향을 지니고 있기 때문이다. 이를 위해 본 연구는 조선시대 한옥에서 사용된 전통가구를 중심으로 기본적 기능 이외의 역할을 귀납적으로 분석하여 사용자에게 나타난 추가적인 효과를 규명하고자 하였다. 이러한 유심적 역할은 사용자에게 기능 이외의 역할을 제공하고, 가구의 공간배치가 가능하게 하였다. 이러한 역할의 근거로 전통가구가 유물적 관점에서는 추출할 수 없는 사용성 확장, 공간변이, 공간형성과 이동, 위계형성에서 나아가 사용자와 상호작용이 가능한 단계에 이르는 많은 역할을 해왔음을 규명하였다. 이를 통해 전통가구의 유심적 역할이 적용된 현대 공간에서 나타날 기대효과와 가능성의 사례를 통해 지속 가능한 디자인은 물론 상호작용이 가능한 가구의 발전방향을 제시하였다.

1. INTRODUCTION

Domestic design industry which achieved a rapid growth thanks to the technical and economical development and the government-led support and promotion has won many world's leading prizes and showed its possibility in the world, but the definite roles of the influential designers does not be presented. It was caused by the commercial development of design taken by large enterprises mostly and the basic philosophy which design process should go through was missed hereupon, and this finally showed the poor identity of Korean tradition. Although Seoul metropolitan city was designated as design capital in 2010, traditional factors were poorly presented, only physical sciences in shape, color and pattern as well. It is best and necessary timing to analyze our independent design philosophy and to realize the more upgraded level of design.

1-1 Purpose and Necessity of Study

After modernization, the development of materialistic value brought the benefits of civilization which presented convenient and bountiful life to human, while it caused environmental disruption, loss of humanity and polarization as well, furniture in particular became a part of such social problems as representative environment of the materialistic value which has direct influence on human behavior. The development in furniture sector could be defined as an improvement of only diversity in material, shape and change of color etc. so, nothing than the functional role was expected and furthermore its replacement cycle with very short intervals causes a wasteful use of resource. In comparison, traditional furniture provided human with more familiar surroundings and restful effects, and this study intends to define this role as immaterial role of furniture and to find out the reason why users prefer traditional furniture. In addition, the aim of the present study lay in defining the roles of furniture which are applicable to also modern times and this should contribute to preventing the dissipation of resource and furthermore make it available that the sustainable design being communicated with human and surrounding environment.

1-2 Methods

Traditional furniture had maintained an unchanged form and function for a long time. It was resulted from that *Ondol* (Korean floor heating system) culture was in general for traditional environment and the settlement of culture from the stand-up to the sit-down meal style played a role here for the ideal harmonizing with the surrounding environment. But such harmony can be recognized rather by continuous use than by the general function and shape and therefore the influence of traditional furniture on user and environment should be interpreted by the inductive

method for the understanding regarding the immaterial role of traditional furniture. For this purpose the new tendency of investigation resulted from the limitation of the materialistic studies should be introduced, and the role of traditional furniture should be differentiated by comparison between the analysis of traditional furniture according to the existing method and that of the immaterial approach.

2. 본론 타이틀 필요할 듯 합니다.

2-1 Analysis of traditional furniture according to materialistic role

In terms of external appearance, the modern furniture was made of different materials, while traditional furniture was generally of wood. So natural pattern and color played a meaningful role for psychological relaxation and the most suitable sort of wood for each case offered consistency. But there was little big and solid furniture due to the nature of material and mostly stereotyped.

From the functional point of view, traditional furniture was classified in for main room, reception room and kitchen, and according to the purposes in for residence, storage, study, kitchen and ritual. That is, traditional furniture regarded the variable function as important according to it's placing rather than focused on the basic function. (Kim 1994, Choi 2006)

Table 1. Classification of traditional furniture

Classification		Sort of Furniture
Function	Point of use	Furniture for main room, reception room and kitchen
	Serviceability	For stay, storage, study, kitchen, ritual
Shape	Material	Chest made of paulownia, <i>meok gum nong</i> , cabinet inlaid with mother-of-pearl etc / furniture of which name includes material
	Shape	Small & cute, lovebirds, <i>beog oe li</i> stationary / furniture of which name includes shape

The materialistic classification according to function and shape described in the table 1 could not show useful value of traditional furniture. Also in design it was far away from 'good design', either. The standards suggested in the table 2 are yardstick for judgment of Modern design and Bauhaus education, after William Morris and Walter Gropius. (Kim & Park 2005, Edgar Kaufmann 1950). If these standards would be applied to traditional furniture, there is none of 'good design'. Like this, traditional furniture can not surpass modern furniture in role and advantage, from the general classification and standard.

Table 2. Standards of 'Good Design' based on the modernity by Edgar Kauffman Jr.

<ol style="list-style-type: none"> 1) Design should match the needs in modern life. 2) Design should express today's spirit. 3) Design should reflect the development of Art and Science timely. 4) Design should accept and make full use of the advanced technology and material. 5) Design should develop the shape, texture, and color by accepting and satisfying the appropriate material and technology. 6) Design should realize it's use and purpose exactly and be differentiated from other purposes. 7) Design should express the natural beauty of the used material itself and should not be seen in other thing.
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2-2 Definition of immaterial role

The analysis presented in 2-1 section showed that the value of traditional furniture is insignificant, but nevertheless some of users still preferred it despite of inconvenience. The reason why can be inferred like that there are values which only traditional furniture has and convenient modern furniture never offers, and such values are so comprehensive that they can not be reached by the above classification and standard.

This study intends to define such value as “a substantial form was thought to be an immaterial principle of material organization that resulted in a particular thing of a certain kind”, what Descartes suggested from the making view of the world. This has a thread of connection with Bernard Tschumi’s immaterialism mentioned in his “construction and breakup” on the basis of Hegel’s argument - “This emphasis on what Hegel called the "artistic supplement added to the simple building" - that is, on the immaterial quality that made it "architectural" - was no return to the old dichotomy between technology and cultural values.” (Bernard Tschumi, 1991) and Rem Koolhaas’s immaterialism which influences construction and city - "The building has become a laboratory for emotional and intellectual adventure; the fact that it is implanted in Manhattan has become -almost- immaterial." (K. Michael Hays, 1998).

The factors which touch the sensibility of users like this, besides function and shape can be defined as immaterial role being included in to Modernism, namely materialistic role additionally. Immaterial role is the additional effect exceeding the result that the existing furniture achieved during carrying out it’s own role, and it had mostly emotional/sensitive effects and also influence on behavior of user, so the result from this effect influences on the long-term cultural identity and also is influenced by it on the contrary (Moon, 2009).

Philosophical backgrounds presented in the table 3 are diverse approaches of theory based on the existence of immaterial role. Although immaterial role presented in the theories do not have great significance, but this can realize the influence of immaterial role at least.

Table 3. Background theory of immaterial value

Classification	Philosophers concerned	Contents
Orientalism New the other	Sigmund Freud Slavoj Zizek Jacques Lacan	The orient as surplus value of the West and as the negative relation of the weak, and the West as the main body for transformation and application on needs was set. The orient as the active subject was excluded.
Post colonialism	Homi Bhabha Ashis Nandy	Useful value of the colonized country is transformed into the advanced type in the colonizing country. Passive example.
Neo-Confucianism	Chu Shi I Hwang Yi I	All values are classified into reason(moral) and spirit(energy) and the advanced one means the ideal balance between them.
Consilience	William Fissell Edward Wilson	Theory means an integration of studies and does not mean the different dualism like Idea of Hellenism but complementary dualism pursuing the advanced value through the combination of studies.

2-3 Analysis of the existing investigation and problem

Immaterialism was maintained and developed thanks to traditional thought and had been ever showed as the identity of the ethnic community. So the ground for that immaterial role in detail was told very difficultly and also it seems to be not available to standardize it. Because it is very different from the materialistic approach judging the accurate value that the result working differently under the similar condition. In the existing investigations, immaterial role has been praised very much from the cultural point of view, while in reality it is rare to utilize or develop it.

The reason is due to that intrinsic esthetic inspiration can be sensed, but it is difficult to define it as a definite value. If the existing studies regarding Korean traditional space are practically checked, such problem can be found exactly, and it reflects that the purpose which tradition pursued, namely identity and independence could not be presented despite of the long-term historical development and succession (Moon, 2009 / Kuma, 2009).

Immaterialism in the existing studies is familiar through academic approach and investigation, but the it's realizing is regarded as impossible. The reason is due to that immaterialism is estimated and interpreted only by philosophical basis. Like the table, traditional furniture can be applied also by the standard used in the existing studies, but it is no wonder that the additional effects can never be explained in this way.

Table 4. Immaterial role according to the standard based on the existing studies

Classification	Basis of Immaterial role	Application interpreted in furniture
Taoism	Idleness	Simple but minimalized construction by emptying many parts
	Geomantic principle / Prophecy	Arrangement of furniture according to color and function offers psychological relax and expectations.
Buddhism / Confucianism	Empty	Empty pursuing Simple and naïve formation was pursued by lowering & emptying the shape and value of material.
	Benevolence / Manner	Dramatic arrangement excluding the brilliance made the order of rank and furniture was emphasized by one another.
Tradition	Shape, use, custom	Interactive relationship between human and the related environment is emphasized here and psychological solidarity and it's side effect are served.

It owes to immaterial role of traditional furniture definitely, that tradition furniture was steadily used in unchanged form for a long time, despite of inconvenience. But the preceding studies concluded mostly in the philosophical purpose which tradition had and therefore they could not be applied to the solution of realistic issues. So, In order to extract the immaterial role from traditional furniture, it should be actualized by organizing the practical cases that traditional furniture was applied to the real life and also by analyzing it's influences, the inductive approach is necessary.

3. 본론 타이틀 필요할 듯 합니다.


3-1 Analysis of traditional furniture on the basis of immaterial role







Immaterial role was showed in all traditional furniture in common, but it has a differentiated effects. Such effects have again common characteristic, this study classified them into the extensional role which defines the surrounding environment, the interactive role which influences on the behavior of user and the supplementary role which does not belong to the aforementioned.

The cases presented in the table 5 showed the desirable example indicating the clear function and immaterial role of traditional furniture used in Hanok (traditional Korean-style house) in Chosun-dynasty. The effects resulted from them should be classified in extensional, interactive and supplementary role and through the realization process the expected effects and utilization idea should be recommended in conclusion.

- (a) Table : According to purpose, table can be divided for staying, writing and kitchen, that allows the extensional role of room for sleeping, studying and dining. It is an opposed concept to the Western idea that the arrangement of furniture depends on the space. Also the supplementary role can be achieved hereupon by using many tables and applying to the opened & complicated space.
- (b) Folding screen : Folding screen forms open architecture which is moveable. Furthermore folding screen is easily installed and removed and the waste of material and inefficient management is here out of question. This can be understood in the category of extensional role, because furniture plays a role as wall.
- (c) Brazier : This article for heating and cooking takes a part of sleeping room, living room and kitchen function, so extensional role is achieved by changing room for different purpose and also interactive role by forming the grade of rank.
- (d) Wooden bench, mat : Wooden bench is close to chair from the functional view of point, but it takes other function like rest, dining and sleeping too, so contributes to extensional role of furniture by carrying out the function of room.
- (e) Rice Chest : It is available to control the behavior of family members and form the grade of rank, so interactive role is showed, and quick recognition by the sound of users can be referred as a supplementary role to overcome the opened space.
- (f) Bedding : Bedding based on ‘*ondol*’ system plays a role as bed and sofa as well. This resulted from the difference between the standing –and sedentary life style, and the bedding which was getting light and simple made effects such as bedroom is moveable and available to be combined with other furniture, so extensional role was presented.
- (g) Chamber pot : Korean chamber pot is a toilet portable, so room can be changed into bathroom at sight, therefore extensional role is already showed and also interactive role restricting the movement and grade of rank of user.

Table 5. Analysis of immaterial role according to kinds of traditional furniture

Furniture, Name	Immaterial role	Analysis
	<p>Table</p> <ul style="list-style-type: none"> - Same space can be varied by using table with different functions (bedroom, study, dining room). - In complicated construction, high utilization of space and easy controlling the user are available by using many small tables. 	<p>extensional supplementary</p>

	Folding screen	<ul style="list-style-type: none"> - Screen creates a wall and forms the grade of rank in the opened space and functional space too. - Creation and break up by moving screen makes variable roles available and prevents the waste of material 	extensional supplementary
	Brazier	<ul style="list-style-type: none"> - It's role as heating system and cooking changes the characteristic of space, and forms the grade of rank of users (bedroom, living room, working room). 	extensional interactive
	Wooden bench	<ul style="list-style-type: none"> - Wooden bench and mat offer the room function in the opened space and can show a detailed characteristic through application of other furniture. - Variable roles through the mobility 	extensional supplementary
	Rice chest	<ul style="list-style-type: none"> - Problem of the opened space without visual inspection is overcome by the sound and location. - It's administrator is changed each time by the grade of rank among users, but the location in the opened space make all members of family as the main administrator. 	interactive supplementary
	Bedding	<ul style="list-style-type: none"> - Bedding as roles of sofa and bed is easy to moved and combined with other furniture. - Bedding influenced by the structure of room is the standard to determine the grade of rank of users. 	extensional interactive
	Chamber pot	<ul style="list-style-type: none"> - This portable toilet gives room the characteristic of bathroom. - According to the grade of rank of users it is strictly moved and this makes management available. 	extensional interactive

3-2 Definition of immaterial role of traditional furniture

Immaterial role of traditional furniture did not happened by chance. As showed in the table 6 it has similar characteristics and it's background is also available to be analyzed. Immaterial role of traditional furniture analyzed in the section 3-1 showed that furniture in such background influenced on the culture of user mutually. So the development of furniture design on the basis of the background can be sought, and also it is thinkable to define the additional role of traditional furniture to which the behavior of users was applied.

(a) Extensional role : The selection of furniture according to the materialistic standard depends on the function of space. It is selected in the bedroom, bed, table and dressing table and in the living room sofa and table, and in the kitchen dining table, chairs and utensils, like set piece. In contrast, traditional furniture determines the role of space of itself and contributes to the extension of space actively. In particular, the mobility of furniture takes powerfully and comprehensively the lead in a

variation of space and forms the open construction which is available to be enlarged of itself, unlikely the closed architect of the Western space.

(b) Interactive role : the materialistic standard divided the influence on user into human-engineering and human sensibility ergonomics. Traditional furniture however forms the grade of rank of users and controls their behavior. In other words, traditional furniture has so big influences on users that they take care of education of culture and tradition and also of transmission of them.

(c) Supplementary role : Among immaterial roles of traditional furniture, it belongs to the internal sector and means the role showed supplementary in materialistic factors which material, color and formation have, aside from the function. In case of material e.g., the not so-well-do environment where big and heavy wood could not be used for furniture selected light and variable furniture, and that allowed furniture to be applied to also the complicated space.

Table 6. Standard of immaterial role

Standard	Back-ground	Immaterial role	Examples
Extensional	small, mobile	Furniture plays an active role by adding necessary function and extending it, without changing the basic concept of space.	Writing- and dining table, bedding, chamber pot
	open, friendly	Creation of space and keep it for a while / Separation and division of spaces with different concepts	screen, bench, mat, straw mat
Interactive	Identity, Unity	Furniture based on the educational identity can be used by not single user, but all family members together and this is well harmonized with 'Hanok', traditional Korean-style house.	Table, rice chest
Supplementary	Simple material	Same material makes constant maintenance available and the life of furniture longer and also pass down to next generation is possible despite of wood.	Wooden furniture
	same construction	Unlikely the definite separation between inside and outside construction in modern furniture, traditional one has similar or same construction and can be used for other similar purpose.	box, cabinet closet, chest

3-3 Realization of immaterial role

Immaterial role which traditional furniture has can be defined firstly as the activity having overcome its passive role and for the good reasons it can be taken the variation and extension of space and the creation of new space as well. Second, the unified material, reuse and convenient mobility have emotional and educational influences on family and the convenience for user. Third, immaterial role of traditional furniture takes educational roles by controlling and mediating the behavior of users

At present, traditional furniture mostly became extinct and it is due to that its immaterial role is unnecessary in the modern space. But the immaterial roles analyzed in this study offer a clue to the problem which modern design has been faced with, and if they would be applied to the modern design, it would be available the emotional and user-friendly furniture design which carry out also the extended roles.

In modern space particularly, it is general to arrange appropriate furniture according to the function, but for the multifunctional space furniture should take all responsibilities for various characteristics of space case by case. Therefore immaterial role found in traditional furniture can suggest a direction of the multifunctional roles of furniture (Lee, 2007).

4. CONCLUSION: Expected effects and plan for use of immaterial roles

Immaterial role of traditional furniture have continuous influence on the behavior and emotion of user and is differently showed in the combination with various factors, so the role is found by all furniture or a part of them placed in a space, unlikely the function carried out by single furniture.

Therefore the immaterial role can be maximized by defining and designing the whole furniture exists in space. The aforementioned analysis includes the result of immaterial effects, how the cultural value can be accepted and educated, and this means in other words that immaterialism influences on the behavior and identity of user (Moon, 2009).

Furniture in particular is the most touchable article in human life and it's immaterial role should have attention to this point that the active participation in solution of social problems is necessary. Table 7 explains that the simplicity, miniaturization and reuse of traditional furniture suggest the sustainable direction of design as solution to solve the waste of material and indiscreet production, and also the variation of space for user presents another approach of universal design.

Furthermore the creation of space based on the mobility shows the role of furniture to control the space, not just to be placed in space, and the extension of use resulted from the identical construction and form can be a suggestion for the extended function of street structure presented in public design.

Table 7. Example of use of immaterial role

Furniture	Immaterial Role	Expected effect	Applicable object
General	Unity of material, reuse	Sustainable application to design	School, public facility
		Environment-friendly design	Hospital
Table, Chamber pot, Bedding, Brazier	Variation, Mobility of space	Universal design	Recuperation facility
	Grade of rank of space	Control user, Efficient arrangement	Stage, hospital,
Box, cabinet, closet, chest	Extensional use	Interaction of the block-typed	Public facility
Screen , Wooden bench	Creation of variable space	Change of sustainable design	Exhibition space, Public facility
	Control the existing space	Differentiation of variable wall and virtual reality	Office area, Exhibition space

In this study, the importance of immaterial role of traditional furniture for user was presented rather than the materialistic role based on the material and construction by focusing on it and realizing it's application possibilities.

The fair and reasonable estimation of immaterial role can be a head start for the next cultural policies thanks to a good understanding regarding social identity, and the result of this study should boom the following researches to investigate the cultural roles of furniture.

5. REFERENCES

- Samdaeja Kim, 1994, traditional wood furniture, Daewonsa, : 6-17.
- Sujeung Kim. Sunwook Park, 2005, A basic study on the approaches in the design methods, Korean Society of Basic Design & Art vol.6-2 : 26, 27.
- Daesung Moon, 2009, A hermeneutical study on immaterial value of traditional housing space, Hongik university : 13, 14, 30-44, 53.
- Eoryung Lee, 2007, Museum-paper of our culture, designhouse : 119, 142, 174, 178, 262.
- Sanghun Choi, 2006, Interior & Furniture of Penthouse Joseon Dynasty, Ehwa-woman's university : 107-131.
- Kengo Kuma, 2009, Weak Construction, designhouse : 245-253.
- Cody Choi, 2006, Cultural map of the 20th century, An-graphics : 128-147.