CONTINUITY AND CONSISTENCY OF THE TRADITIONAL COURTYARD HOUSE PLAN IN MODERN KOREAN DWELLINGS

SANG HAE LEE

The courtyard plan provides the basis for a traditional house type that is deeply associated with the Korean way of life. The first part of this paper discusses concepts and characteristics intrinsic to traditional Korean house plans and introduces various examples of courtyard house layouts. Thereafter, it selects several examples of modern Korean dwellings and compares them from the point of view of plan and layout. The investigation discovers that the idea of the courtyard is still relevant to modern Korean dwellings. Transformed and/or retained, the courtyard idea still provides one of the prototypes of the modern Korean dwelling. The various forms it has taken serve to promote the continuity and consistency of traditional Korean architecture. They also lend credence to arguments that architectural tradition involves more than style and technology.

TRADITIONAL KOREAN HOUSES ARE MOSTLY OF THE COURTYARD type. The courtyard house traditionally provided for many needs of the Korean people, be they functional, practical, spatial, visual, climatic, social and/or cultural. This made the courtyard house a traditional Korean type.

The aim of this paper is to investigate modern Korean dwellings to answer a number of questions. Are the roles once played by the traditional courtyard still relevant? Does the pattern of the courtyard still persist despite social changes and new ways of living? If social and formal concepts behind the courtyard house have changed, what new forms and concepts have taken their place? Finally, if these concepts have not changed, what aspects of the traditional courtyard house have been retained?
In attempting to answer these questions, the paper investigates four types of modern Korean dwelling: "ready-built" houses for sale by private house builders, apartments in multi-unit buildings constructed by developers, "designed" houses by architects for individual clients, and "public" housing built by public housing authorities.

TRADITIONAL HOUSE TYPES IN KOREA

Historically, one of the enduring patterns in the Korean house was the courtyard plan. It resulted from centuries of trial and experimentation and normally consisted of a courtyard or group of courtyards around which rooms and other spaces were grouped to make the dwelling complex. Such a house became deeply associated with the Korean way of life.

Such a courtyard model provided various options for lateral expansion (FIG. 1). A simple house was normally an "open-courtyard" dwelling, whereas a nobleman's mansion often consisted of several courtyards whose functions varied according to their location within the complex.

Each building around the courtyard traditionally consisted of compartments of rooms that took their character from one of two major floor types, ondol and maru. The ondol floor was finished with thick yellowish oil paper and was usually found in closed rooms used for sleeping. Ondol floors were heated by flues that ran beneath them from a fire hole in the cooking stove to an exterior chimney vent. The maru floor, on the other hand, was of wood and was normally used in the main hall. One side of the maru room was usually open to the outside, with no walls between its roof-support pillars (FIG. 2). The maru floor also often extended in front of the ondol room to form a verandah (FIG. 3).

In the traditional Korean house, compartments of rooms — both ondol and maru — were measured using the traditional kan. Kan was a term used to count the number of spaces between columns, and so provided the basis for a kind of modular system. The kan was not a fixed unit of length, but varied according to the actual distance between a building's columns — usually between six and nine feet. Kan also referred to the number of spaces or rooms in a building that were enclosed in at least two directions. One such "square" kan was usually equal to between 36 and 81 square feet.

Following the modular system, the construction of a house normally consisted of an ongoing process of adding kan or rooms. A building of simple structure was usually only two or three kans, while a large building could be more than ten...
kans in size. Thus, a dwelling for an upper-class family that consisted of several buildings could be as large as 99 kans, while the humblest dwelling was usually only two or three kans.

Traditional Korean houses were characterized by one of four plan types, according to the method of kan arrangement and accompanying structural organization. The first was the ordinary “single-line” arrangement of rooms under a single ridge beam (FIG. 4A). This type was usually inhabited by peasants or servants or was used for storage since its indoor spaces were somewhat limited. The second type was the “double-line” arrangement under one ridge beam (FIG. 4B). A combination of single-line and double-line structures, or a house of single-line structure enlarged to the back and front, constituted the third type, the “two-fold” arrangement (FIG. 4C). The last type was “L-shaped,” or a variant of an L-shape, and was more common in the central regions of the Korean peninsula (FIG. 4D). These four types of room arrangement made possible various patterns for the layout of the entire dwelling (FIG. 5). A dwelling usually consisted of a building, or buildings, with surrounding walls that created one or more courtyard enclosures (FIG. 6).
CHARACTERISTICS OF THE TRADITIONAL COURTYARD HOUSE PLAN

Many scholars in Korea have pointed out that the courtyard pattern was generated as an appropriate solution to functional, practical, climatic, social and cultural needs of the Korean people. For example, the courtyard could serve as a threshing ground during harvest season, a meeting place for ceremonial occasions, an outdoor resting place during warm weather, or a playground for children (FIG. 7). In general, the courtyard served as an extension of the interior dwelling space, there being no clear-cut division between the interior and exterior of the house. Living within such a house did not mean residing only within a sheltered enclosure; the outdoor space was also used as living space according to a complex pattern of residence. Simply put, the courtyard was a room without a roof, a domain set aside for the gainful activity of the entire household that was well adapted to complicated environmental, practical, and socio-cultural situations.

Architecturally, the courtyard functioned as the main route from the public domain to the inside of the dwelling. Access from outside the house to any room within it was only possible by entering the main gate of the house and passing through the courtyard. But the courtyard also connected all indoor and outdoor spaces within the house, and almost all rooms and spaces in the house oriented their openings toward it. In this way the courtyard helped eliminate the need for corridors or an entrance porch or hall. In urban situations the courtyard also served to shelter the house from the street by reducing noise and maintaining privacy. As a buffer between street and house, it was an important facilitator of the development of a compact urban fabric (FIG. 8). It also afforded the urban dwelling good access to sunshine and ventilation, even within relatively narrow sites (FIG. 9).
Climatically, most courtyards acted as efficient micro-climate controllers. Since habitable rooms looked inward with a defensive, introverted posture, inhabitants were protected from both hot and cold weather. Cool breezes blowing into the courtyard in the summer were especially appreciated. And if a region was too cold during the winter, or if the range of daily temperature changes was too great, the courtyard could be totally surrounded by interior dwelling space. Such a house pattern was shown in FIG. 4D.

But the courtyard acted as more than just a climate-control device; it was also a domain for social interaction. Confucianism pervaded all aspects of domestic life in Korea, including the arrangement of dwelling space. Responding to Confucian ethics, the inner-most part of a house was set aside for women, while the outer part was reserved for the male householder. Additionally, according to sumptuary customs, the size and number of buildings in a dwelling complex was determined by the social status and wealth of the householder (FIG. 10).

All aspects of the dwelling — buildings, courtyards and walls — served to reinforce the Confucian social order. For example, within the overall organization of family apartments in a large dwelling, courtyards could be located in three functionally separate areas: that for women and children in the inner-most part of the house, that for the male householder in front, and that for servants near the entry gate. Thus, the pattern of courtyard layout was crucial to determining the identity of the house. In a sense, the disposition of the courtyard(s) allowed a direct correspondence between the physical arrangement of the living space and its social and practical uses.

Since the courtyard was defined by the structures and spaces that surrounded it, it was forced to mediate diverse sets of aesthetic and spatial relationships. The experience of the house was often dominated by the spatial and aesthetic nature of its courtyard(s). The wrapped spatial interval — experienced either by passage from the main gate to interior courtyard(s) or by views from an adjacent indoor or outdoor space — is a distinctive characteristic of Korean architecture. The effects created often involved layering open-courtyards, bringing distant views of nature into the house domain. In a sense, the courtyard was a spatial symbol for the introversion that formed a part of a larger tradition of Korean society.

MODERN KOREAN DWELLINGS AND THE TRANSFORMATION OF THE COURTYARD PLAN

Thus far general features of the courtyard layout of traditional Korean dwellings have been discussed in a broad context. The paper now turns to an investigation of several types of modern...
Korean dwellings in light of the questions summarized at the outset. Four types of dwellings are examined: “ready-built” houses by private builders, apartment houses by developers, “designed” houses by architects for individual clients, and “public” houses by public housing authorities.

The majority of contemporary houses in Korea today are built by private house builders. Such “ready-built” houses reflect the values and tastes of ordinary people about living space and house form. Since such houses are built for a market, they are conditioned by the demands of that market — that is, by aspects of both a modern urban life-style and traditional ways of living.

On the surface, the main features and layout of ready-built houses reflect stylistic influence from the West. This may result from a desire by modern-day Koreans for houses that symbolize a modern style. In particular, the form and use of materials in ready-built houses resemble similar qualities in modern Western houses, even though the imitation is superficial and the builders are not well versed in design control. In terms of plan, the ready-built house shows notable divergences from the traditional courtyard pattern. For example, most house plans are nearly rectangular in shape, and most houses are situated to one side of their building lot with a garden, not a courtyard, in front. One can assume the courtyard has been eliminated so that the house can more closely imitate modern Western models.

Despite such exterior alterations, however, the arrangement of indoor space in ready-built houses is not much changed from the traditional layout. On the contrary, it seems that the arrangement of indoor space actually reflects the inherited cultural context fairly closely. A typical ready-built house plan from an urban area of Korea shows how all rooms in the “modern” house are arranged around a main hall, a kind of Korean living room which acts in a remarkably similar fashion to the courtyard of a traditional house (FIG. II). Like the courtyard, the main hall serves as a transitional space through which all other spaces in the house are reached. One might say the courtyard concept has been internalized. As society has changed, the exterior image of the traditional house has changed to reflect life in a modern environment, but the inhabitants nonetheless cling to inherited dwelling patterns on the inside. Private builders seem to have understood the needs of Koreans caught between two modes of living, and they have responded by internalizing traditional living patterns within a house that otherwise appears derived from a modern Western model.

Like ready-built houses, apartment houses by developers show a translation of the traditional courtyard idea. There are
numerous types of plans for apartments for middle-class families in Korea. Among them, the medium-sized apartment shown here is typical and popular (FIG. 12). Since an apartment house is not functionally equivalent to a group of detached single-family houses, apartment layouts reflect the influence of modern cubic forms (FIG. 13). Within this new idiom developers also seem to have tried to accommodate the popular demand for traditional design features.

As in the ready-built house, each room of the apartment unit shown in FIG. 12 is accessible only by passing through the main hall, or living room. The apartment entrance hall would seem to correspond to the entrance gate of the traditional house, and the main room of the apartment is located in its inner-most zone in a similar arrangement to the women’s quarters in a traditional house. Overall, one can say that both the apartment layout and the layout of the traditional house are characterized by rooms that are closed to the outside and open onto a protected inner space.

As in the ready-built house, one can say that the idea of the courtyard has been internalized in the apartment layout. But the translation here has taken place in a much different social context, and so the example offers further evidence of the continuity and consistency of the courtyard idea in modern Korean dwellings.
The third type of house, the individually designed house, is hard to reduce to a general system of formal or stylistic classifications. Designs by architects exhibit numerous concepts and patterns, and architects’ attitudes seem to be dominated by competing issues such as tradition, modernity, experiment and challenge. Some architects have tested new styles without feeling restricted by any notion of a specific Korean cultural heritage. Others have deliberately tried to introduce modern Western styles to Korea. But both these groups seem to lack a deep understanding of the essence of Korean tradition, and they prefer to be interested in contemporary architectural expression.

A third group of architects, however, has tried to retain characteristics of traditional Korean houses using personal modern vocabularies of form transformed from tradition. The plan here shows a house that at first glance would seem to be a modern house with a traditional courtyard layout (FIG. 14), but if one looks with full and particular attention, one can see how the layout and internal organization differ totally from traditional patterns. While the courtyard form remains from the traditional house, its purpose is no longer to regulate the distribution of family quarters. The courtyard here is employed solely for the purpose of providing an intriguing view into and out of the various areas of the house.

In one sense this house does incorporate traditional notions of outdoor space. The original function of the courtyard has been neglected, and the courtyard has become an empty object that merely allows certain aesthetic effects to be created within the house. In other words, the house has adopted the symbolic and phenomenal aspects of the courtyard only; the “sense” but not the “substance” of the traditional house.

By way of contrast, the last dwelling type to be investigated, “public” houses by public housing authorities, demonstrate a different set of design intentions. In the early stages of public-housing construction during the 1960s, the design of public dwellings depended significantly on the authorities’ stated intention to “improve” the life-style and living environment of Koreans. The elite architect/bureaucrats who ran the public housing agencies placed great value on house designs that emphasized efficiency of space and economy of construction. This necessitated the standardization and programatization of the dwelling, and it often resulted in the wholesale adoption of Western plans, which were regarded as improvements over Korean models.

Following one of the principal functional tenents of Modern Architecture, for example, sleeping, living and utility zones were often separated in public housing to increase the inde-
dependence of each zone (FIG. 15). In addition, most important rooms were arranged on the southern side of the building to take maximum advantage of sunlight, a concern which resulted in the entrance hall being located either to the west or the north, an uncommon pattern in traditional Korean domestic life. In the early stages of public housing programs, the authorities generally abandoned the form and function of the courtyard. The attitude they displayed lends credence to arguments that public housing authorities generally neglect local traditions and prefer the introduction of “new” styles.

Nonetheless, from late 1970s on, public housing authorities in Korea began to realize that occupants of their houses were not satisfied with the layout of interior spaces, and they began to change their designs to reflect concepts similar to those evident in the ready-built houses of private builders (FIG. 16). Although the concept of a Western-style living room remained, it came to function not only as a place for social gathering but also as the main access and transition space in the dwelling. The courtyard idea also came to be translated within the context of public housing.

**INTERPRETATION OF THE COURTYARD IDEA IN MODERN KOREAN DWELLINGS**

The discussions above have made it apparent that individually designed houses by architects and ready-built houses by private builders diverged significantly in their adaptation of traditional courtyard patterns to modern conditions. One can say that the architects were much more involved in interpreting the form of the courtyard, while developers and buyers of ready-built houses and apartments allowed the market to control the way the dwelling evolved. Private builders have generally adapted the idea of the courtyard to the interior layout of their houses, while treating exterior features — style, structure, and use of materials — in ways superficially related to modern styles. Architects, on the other hand, have seized on the prototypical character of the courtyard pattern and tried to retain its geometrical symbolism while altering its social and practical function. In between, public housing authorities at first tried to abandon the function and form of the traditional courtyard and replace it with Western models, but then discovered residents preferred the pattern of interior organization developed through private markets.

From this investigation, one can see the importance of the relationship between form and layout of the house and associated cultural attitudes and values. Even though the courtyard idea has come to be reflected in modern Korean houses in a variety of ways through a variety of processes, the different modern manifestations are linked to a collective tradition. It
can therefore be argued that the courtyard house type still offers a vital cultural heritage to modern Korea.

These notions can be more easily understood by carefully examining the spatial domains established by the traditional courtyard pattern. As previously discussed, the courtyard constituted the outdoor domain of the traditional house. However, the boundary between the courtyard domain and the rest of the house was not well defined. Since some of the support pillars of the house, i.e., those to one side of the *maru* wooden floor, stood independently with no walls explicitly dividing indoor from outdoor space, there came to be no clear limit between indoor and outdoor living. In fact, the functions of indoor and outdoor spaces were sometimes interconnected and interchangeable according to circumstance, climate, and the desired degree of interpersonal formality. This is one reason why the courtyard could be either internalized or externalized in recognition of its function and application.

The courtyard house idea has diffused remarkably well into modern Korean dwellings at a number of levels. This may be because it embodies the very idea of tradition in the dwelling. In particular, the contrasts in translation and interpretation of the courtyard into modern housing contexts can be summarized as follows. Private builders and developers conceptualized and internalized the functional aspects of the traditional form and design. Meanwhile, architects interested in the tradition of Korean domestic space perceptualized and externalized the traditional form. Public authorities arrived at a position somewhere in-between.

The spatial organization of the traditional Korean house can be compared to the organization of the modern house within the framework of the traditional courtyard idea as follows. Traditional House: Entrance Gate — Courtyard — Rooms (Destination). Modern House: Entrance Hall — Living Room — Rooms (Destination).

Within this overall framework, however, one may note distinct differences between the ways private builders and practicing architects have chosen to recognize the idea. Architects have employed tradition as an historical reference which can be interpreted by means of sensitivity to surface qualities that arouse cultural memory. Builders have sought to respond to market demand for interior spaces that provide contextual continuity between traditional social structures and contemporary ways of living. Additionally, one can note that architects' perceptions of the traditional house are based principally on the traditional houses of rich and distinguished
families which no longer survive. In contrast, the conception of the courtyard idea created by builders has been inspired mainly by the self-protective nature of the traditional houses of common people.

In the modern prototype, the traditional "courtyard" has been relocated within a dwelling within a house lot (FIG. 17). It can be maintained that this is the result of an interaction between dwelling form and the inhabitants' needs, values, and tastes. In other words, as with other aspects of culture, dwelling form can be understood as being realized, or fit, into a whole (that is, the present reconciliation of tradition and current need) (FIGS. 18,19).

CONCLUSION: CONTINUITY AND CONSISTENCY OF THE COURTYARD IDEA

In sum, the tradition of the courtyard idea constitutes, either consciously or unconsciously a "constant" in the design of Korean dwellings and serves to promote the continuity and consistency inherent in traditional Korean architecture. Other contextual elements of tradition, i.e. the use of material, decoration, detail and so on, are employed as secondary variables. The built pattern of the courtyard has not become an ossified remnant of the past, but has been restated by new designs and means. It can be maintained that, as artifacts, contemporary Korean dwellings resonate with spatial features that link modern life either practically or symbolically to traditional aspects of Korean society and culture through the intermediary of the courtyard idea. The courtyard pattern as a cultural heritage has proven strongly resistant to change. It persists tenaciously, either conceptually or physically, at all levels of dwelling form.

Even though the style and structure of modern Korean dwellings are radically different from traditional Korean houses and in many ways have come to resemble modern Western houses, their spatial organization has remained traditional either perceptually or conceptually, externally or internally. This would seem to support the theory that architectural tradition involves more than just the notion of style and technology.

The way in which the courtyard idea has been retained or discarded has been shown here to depend on the attitudes of builders, architects, housing authorities, and owners-to-be. But the courtyard idea originated as a preconception of the house as a specific pattern of space use that could be expressed in a spatial organization that could be passed from one generation to the next. This phenomenon demonstrates that the dwelling fulfills more than simply the need for shelter. Modern Korean dwellings, either designed by architects,
executed by housing authorities, or built by builders, translate and transform this need into modern physical forms by creating new spatial patterns that have remained traditional, either conceptually or perceptually.

**REFERENCE NOTES**

1. The term “open-courtyard” is used to indicate a courtyard space with structures on either one, two, or three sides, which results from the lateral extension of the form of the building. In this sense it is opposed to an “internal” courtyard, which is located completely inside the house.

2. Most traditional Korean houses for the upper class were of wooden post-and-beam construction with a gray tile roof. Lower class houses used sun-dried mud-brick walls that supported a thatched roof.

3. For a more detailed discussion of the evolution of the four types of traditional houses in Korea, see Chu, Nam-ch’ul, *Han’guk Chut’aek Konch’uk (The Korean Residential Architecture)* (Seoul: Eijsa, 1984).

4. For a more detailed discussion of the various functions and purposes of the courtyard in Korean traditional architecture, see Shin, Yung-hoon, *Han’guk ui Salimgip (The Traditional House in Korea)* (Seoul: Yulhwadang, 1986).

5. For a more detailed discussion of the complicated environmental, practical, and socio-cultural situations related to the use of the courtyard and its relation to architectural space organization, see Kim, Kwang-on, *Han’guk ui Chugo Minsokji (Traditional House Styles in Korea)* (Seoul: Minumsa, 1988).