An Integrated Methodology for the Conservation of Traditional Craftsmanship in Historic Buildings

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ABSTRACT

The aim of conservation is to sustain both the physical and intangible aspects of historical buildings and to transfer them to the future. Conservation needs to consider the intangible aspects of historic buildings as well as their physical and visible characteristics. It is as important to conserve and document traditional craftsmanship, the know-how, techniques and skills of the builders, as it is to preserve traditional architecture. Traditional craftsmanship is one of the domains of intangible cultural heritage to be safeguarded as defined in the UNESCO 2003 *Convention*. In the field of architecture, traditional craftsmanship is especially embodied in construction techniques and architectural ornamentation in historic buildings.

As with the physical and architectural features of historic buildings, the means of safeguarding of their intangible aspects needs to be transmitted to the next generation. Historically, the transmission process used to be through the master-apprentice relationship. Nowadays, together with the loss of traditional building methods and drastic changes in building technology, the knowledge and skills of local builders and the related cultural expressions have been virtually forgotten by the present generation. This study therefore proposes an integrated conservation methodology to re-constitute master-apprentice relationships for the sustainability of traditional craftsmanship, considering both the intangible and tangible aspects. Such a methodology includes both the documentation of physical structures and of the related cultural expressions, the practising and transferring of the knowledge of building methods and the skills and techniques of builders to a new generation. This methodology is illustrated by means of a workshop which was organised in the Fine Arts Faculty in Selçuk University for one week in May 2013 which focused on the intergenerational transmission of the skills of 'living human treasures' of traditional architecture.

Keywords

traditional craftsmanship, master-apprentice relationships, historic buildings, conservation, 'living human treasures', intergenerational transmission, Cappadocia, Konya, tuff stone, Turkey

Introduction

The traditional ways of building in historic environments, including the use of local building materials, building techniques and the local traditional building styles of skilled masons, constitute a significant aspect of the authenticity of building culture (Karakul; 2013, 2011a, 2011b). The traditional ways of building in historic environments are the product of the master builder's knowledge and creativity in using local building materials, as well as in handling environmental features. Traditional building methods have been transferred from generation to generation through master-apprentice relationships for centuries (Karakul; 2012). In this regard, the maintenance and continuation in modern building technologies is directly related to the sustainability of the activity of masters in historic environments and to the continuation of the master-apprentice relationship.

Building methods have recently been the subject of safeguarding as intangible cultural heritage, specifically traditional craftsmanship, especially after the promulgation of the UNESCO 2003 *Convention*. Although early studies for the legal protection of elements of intangible cultural heritage, including crafts, started in 1954 in Japan, and in 1962 in Korea (Aikawa-Faure; 2014), the UNESCO 2003 *Convention* helped to disseminate the subject all over the world. The UNESCO 2003 *Convention for the Safeguarding of the Intangible Cultural Heritage*[1] places 'transmission' among the safeguarding measures essential for the viability of this heritage. Since the safeguarding of intangible cultural heritage necessitates continuous practice and the transmission of knowledge to future generations, living practitioners need to be identified and appropriate ways for practising need to be provided.

To facilitate the transmission of the knowledge and skills of talented tradition bearers and practitioners to a new generation, studies have been carried out since the 1950s in both international and national contexts. In Japan in 1954, with the law for the protection of cultural properties, a system of protection of ICH was launched, and 'Holders of Important Intangible Cultural Properties,' commonly known as 'Living National Treasures,' including those working with classical arts and craft techniques, were designated (Aikawa-Faure; 2014). In Korea in 1962, the concept of 'Important Intangible Cultural Heritage,' including folk performing arts, folk arts, crafts and traditional techniques, and the concept of 'Living Human Treasures' was defined in law (Aikawa-Faure; 2014). After the early studies carried out in Japan and Korea, UNESCO endorsed the 'Living Human Treasures System' in 1993.[2] Within this system, masters possessing high degrees of knowledge and skill have been selected as a testimony to living cultural traditions (Karakul; 2012). Regarding the continuity of historic ways of building, this programme is also significant for recognising and acknowledging master builders as the creators of intangible cultural heritage, and for transmitting their knowledge and know-how about techniques to a new generation of workers.

UNESCO encourages States to establish national systems of 'Living Human Treasures' and formulated specific guidelines for the establishment of a national Living Human Treasures System.[3] Within these guidelines, a preliminary measure for safeguarding the intangible cultural heritage is to ensure its identification by drawing up national inventories.[4] However, after this identification stage it is important to ensure that the bearers of heritage, like master craftsmen, continue to develop their knowledge and skills and transmit them to younger people. In Turkey, the national version of this system is called the *National Inventory of Living Human Treasures*, and since 2008 the Republic of Turkey's Ministry of Culture and Tourism, within the scope of the UNESCO programme, has tried to identify living craftsmen and bearers of intangible heritage.[5] So far, the selected masters are predominantly those skilled in crafts and music or are the performers of shadow puppetry. There is only one master builder amongst them.[6] Criticising the lack of master builders on the list, this study focuses on the transmission of knowledge of building methods, the know-how, the skills and techniques of master builders to new generations, and puts forward an integrated methodology for the continuation of traditional craftsmanship, considering both its tangible and intangible aspects. The study also presents the implementation of this methodology in a workshop aiming to revitalise the master-apprentice relationship in traditional architecture, but in a modern context.

Traditional building methods as intangible cultural heritage

Traditional buildings have been created by the

knowledge and the skills of builders transmitted via the master-apprentice relationship from generation to generation. Actually, traditional buildings come about as a result of communication between craftsmen, their apprentices and local inhabitants (Marchand: 2007 and 2008). In creating traditional buildings, building masters handle environmental characteristics and the needs, expectations and values of local people through their skill and know-how and express their creativity. Besides the ordering and assembling of construction materials, their processing and installation into structures and such practical work of construction (Bingöl; 2004, p.22; Blagg; 1976, p.154; Marchand; 2007, p.182) buildings also reflect cultural values and express value judgments, the worldviews of builder and society and individual diversity and creativity (Aran; 2000, p.122).

The concept of tradition is expressed through the handing down of attitudes, habits, and rules (Davis; 1999, p.17). In the area of architecture, traditional buildings have also been created by passing on unwritten rules carried exclusively in the mind of builders (Hubka; 1979, p.28). In historic environments, traditional building methods have been transmitted to the present time by the flow of information between master craftsman and apprentice (*usta- çırak*). Hubka (1979; p.28) investigates ways of studying traditional buildings and their builders. According to Hubka, folk design is carried exclusively in the mind of builders and continued by tradition - the handing down of information by word of mouth, observation, replication and apprenticeship. Certainly the transmission of the masters' knowledge to their apprentices assures the continuation of local building traditions. To safeguard these methods, building craftsmen as the bearers of this heritage, are beginning to be identified through the 'Living Human Treasures System'.

Today, the definition of the cultural heritage of humanity has evolved towards a holistic definition to include intangible cultural heritage, such as traditional craftsmanship, social practices, and performing arts, alongside tangible heritage like buildings (Karakul: 2007, 2011b). Accordingly, an accurate approach for the preservation of historic environments necessitates developing integrated methodologies for the conservation of cultural heritage. Focusing on traditional craftsmanship, such an integrated methodology entails understanding and preserving the know-how, knowledge and skills of builders alongside their physical embodiments in architecture. This methodology includes both the architectural and ethnographical documentation of physical features and of the related cultural expressions, and the transmission of the building methods, skills and techniques of the master builders to a new generation. This study illustrates this methodology by reporting on the results of a workshop organised in the Faculty of Fine Arts in Selçuk University which focused on the 'living human treasures' of traditional architecture.

Revitalising the master-apprentice relationship: a workshop with 'living human treasures' of traditional architecture

Strategies for ensuring the continuity of traditional knowledge are needed in order to transmit the diversity of local building practice to future generations. Therefore, certain safeguarding measures must be put in place so that local building methods and local builders' skills can be integrated into conservation studies. Among the safeguarding measures for traditional craftsmanship, educational and training programmes are especially significant for the transmission of the knowledge of builders to new generations.[7]

This study concentrates on a sample training programme to revitalise the master-apprentice relationship in traditional architecture, carried out during a workshop[8] with the 'living human treasures' of traditional architecture. The workshop had been organised in the Faculty of Fine Arts at Selçuk University in May 2013 for one week, and was coordinated by the author of this article who is a conservation architect. Besides transmitting the knowledge of master builders, the workshop was also planned to raise awareness about the subject in society. The groups practising the integrated methodology of this study consisted of skilled master builders, particularly those experienced in stone and timber craftsmanship, from the Cappadocia region and Konya, and students from the Department of Sculpture working as their apprentices.

Throughout the workshop, the master builders transmitted their knowledge and skills to three groups of



Plate 1
Ornamented niche carved in tuff stone using traditional techniques and tools.
Photo: Author, May 2013.



Plate 2
Carving motifs on the niche using traditional techniques and tools.
Photo: Author, May 2013.

students through a variety of exercises. The study groups produced architectural elements and ornaments from traditional architecture using traditional techniques of stone and timber craftsmanship in a master-apprentice relationship. During the workshop, the students conducted in-depth interviews - previously prepared by the coordinator - with the master craftsmen about their education and apprenticeship, as well as their experience in both restoration and new building work. All the sessions of the workshop were recorded on camera by the students.

1. *Working in tuff stone*

The first group[9] was composed of three builders from the Cappadocia Region, highly-experienced in tuff stone craftsmanship, and three students working with them as apprentices. This group worked on two architectural elements of a traditional dwelling from the Cappadocia region on a one-to-one scale and a small scale version of a carved-out settlement. In the region, the traditional dwellings are mainly produced by one of two different methods, specifically, 'carving-out' and 'building-out,'[10] requiring two different processes of construction, 'subtractive' and 'additive' (Stea and Turan; 1993, p.190). Due to the suitability of their geological formation, tuff rocks obtained after the carving-out process were also used as building stones, mainly for the secondary walls of the building, and as infill material, as well as in the courtyard and for the architectural elements (Karakul: 2011). [Plates 1, 2, 3, 4]

This group first constructed an ornamented niche, including motifs carved in the shape of a cockleshell and circular shaped rosettes on a one-to-one scale. A great variety of niches ornamented with various motifs are found on the interior walls of traditional dwellings in the Cappadocia region. During the work, the students were taught about traditional dwellings of the region and the meanings of ornaments and learned the carving techniques of master builders.

Secondly, a traditional fireplace of actual size, embellished with geometrical motifs, was worked using an original stone block. During the process, the master builders showed the students how to use the original stone block alongside new materials in a compatible way. The master builders, all highly experienced in restoration, explained to the students the significance of using original materials for retaining the authenticity of architectural elements. This helped the students become sensitive to different forms of restoration through completing the fireplace with both old and new stones, as well as learning tuff stone craftsmanship.

Finally, the group constructed a small scale version of a typical carved-out settlement of the Cappadocia region. Cappadocia is characterised by its peculiar rock



Plate 3
Traditional fireplace embellished with geometric motifs carved in tuff stone using traditional techniques and tools.
Photo: Author, May 2013.



Plate 4
Building master working on the model of the carved-out settlement in tuff stone using traditional techniques and tools.
Photo: Author, May 2013.

formation which is the product of a very long geological process (Erk; 1984, p.14). The geological formation of the region has been very suitable for construction because the stone is easy to carve and hardens after being exposed to the air (Erk; 1984; p.34). The region has a very undulating topography, and includes a great number of 'fairy chimneys' and carved-out settlements. The peculiarity of the topographical structure and earth formation is a dominant feature in the way settlement characteristics and building typologies have evolved (Karakul; 2011). A photograph of a carved-out settlement was used at the workshop as a model for the students to produce the small-scale carved-out settlement and learn to carve tuff stone.

First, the head craftsman described and discussed the general characteristics of the architectural elements, and then other craftsmen helped the students to draw the layout of the design on the surface of the stone, using specific tools such as compasses and rulers. Because the tools used by the craftsmen and their traditional ways of carving were quite similar to the ones used by sculpture students, the working process was quite peaceful and relaxed. The good communication between the builders and the students facilitated the transmission of the craftsmen's know-how.

2. *Working in marble*

The second group[11] was composed of a stone mason from Konya who was particularly experienced in working with marble, and three students working with him as apprentices. This group worked on a small scale replica of an ornamental historic column. First, the stone mason shared his ideas about the general design of the column with the students, especially its capital, base and shaft, and described the process of the work including drafting and chiseling. The capital of the column was to be of the Ionic order and the base and the shaft of the column included various geometric and foliate motifs. The students first drew the motifs on the marble block using tracing paper and then they carved them, using traditional techniques and hand tools. Although marble is actually hard to work, the drafting and chiseling process was relatively easy because the marble blocks were clean-cut and smooth. [Plates 5,6]

3. *Working in wood*

The third group[12] was composed of a master craftsman from Konya, highly-experienced in timber craftsmanship, and three students working with him as apprentices. Firstly, the wood carver gave some general information about his craft, particularly about relief carving.[13] The work began with a discussion about the

design, a geometric pattern was drawn on paper, and was then transferred to the surface of the wood by the students with the help of the master. The carving process mainly involved removing wood from a flat wooden panel using traditional techniques and hand tools like chisels. [Plates 7, 8, 9]

Conclusion

By investigating master-apprentice relationships for the transmission of local building traditions, this study has underlined the significance of disseminating information about the national inventory of 'living human treasures' to educational institutions and municipalities, and has helped the development of local studies based on the direct intergenerational transmission of traditional knowledge and skills from master to apprentice. The diversity and richness of traditional building methods in historical environments in Turkey necessarily entails the dissemination of the 'living human treasures' system from the national to the local level. In Turkey, there are only a limited number of master builders who are highly knowledgeable and experienced in local building techniques and possess the required skills. Unfortunately, they have not hitherto been able to find an appropriate forum for the transmission of their skills to the current generation. Thus, the cultural expressions that could have been transferred by these masters through traditional building methods are disappearing from the collective memory.

The continuation of master-apprentice relationships is the prerequisite for the safeguarding and sustainability of traditional craftsmanship. Traditional building craftsmanship in historic environments has survived for centuries through the transmission of the requisite experience and know-how of builders to new generations. The continuity of building tradition is especially related to the sustainability of the intangible values of these local builders. Today, the revitalisation of master-apprentice relationships is the only way to ensure the continuity of tradition. This study presents an integrated methodology to revitalise master-apprentice relationships in traditional architecture through the example of one specific workshop.

The experience of the workshop was noticeably beneficial to the development of communication between the skilled builders and the students. Throughout the workshop, the traditional architectural elements and ornaments were produced by the master builders and students together using traditional techniques and tools for stone and timber craftsmanship. In the process, the skills, knowledge and



Plate 5
Student carving the capital of a marble column using traditional techniques and tools.
Photo: Author, May 2013.



Plate 6
Ornamental marble column carved using traditional techniques and tools.
Photo: Author, May 2013.

know-how of the masters were transmitted to the students through the production of actual architectural elements from traditional architecture. This exercise thereby raised awareness about traditional building methods and the need for their safeguarding in society, and contributed to developing local extensions of national studies in Turkey, specific to different historic environments.

The workshop provided an appropriate way for the graduates of the Faculty of Fine Arts to join in the process of conserving and restoring cultural heritage. This method of study included a series of systematic practices which could be repeated and applied in other educational institutions, like other fine arts faculties and vocational schools. The integration of such studies for safeguarding traditional craftsmanship into the curricula of fine arts faculties and vocational schools would allow work by master builders in the restoration of historical buildings to be developed. Thus the implementation of such studies provides a way of conserving both tangible and intangible cultural heritage in a holistic way.



Plate 7
Master and apprentice drawing motifs on the flat wooden panel.
Photo: Author, May 2013.



Plate 8
Master and apprentice carving the motifs on the wooden panel using traditional techniques and tools.
Photo: Author, May 2013.



Plate 9
Ornamented wooden panel carved using traditional techniques and tools.
Photo: Author, May 2013.

ENDNOTES

1. *Convention for the Safeguarding of the Intangible Cultural Heritage*, 32nd Session of the General Conference, September 29 - October 17, Paris. Retrieved March 24, 2015, from http://unesdoc.unesco.org/images/0013/001325/132540e.pdf
2. See http://www.unesco.org/culture/ich/index.php?pg=00061&lg=EN (Retrieved March 24, 2015)
3. See http://unesdoc.unesco.org/images/0012/001295/129520eo.pdf (Retrieved March 24, 2015)
4. See Article 12 in the UNESCO 2003 *Convention* http://unesdoc.unesco.org/images/0013/001325/132540e.pdf
5. http://aregem.kulturturizm.gov.tr/TR,12929/yasayan-insan-hazineleri-ulusal-envanteri.html (Retrieved March 15, 2015)
6. Tahsin Kalender, a stone mason from Ahlat, is the only master builder on the list of Turkey's National Inventory of Living Human Treasures. See http://aregem.kulturturizm.gov.tr/TR,12929/yasayan-insan-hazineleri-ulusal-envanteri.html
7. See *Guidelines for the Establishment of National "Living Human Treasures" Systems*, http://unesdoc.unesco.org/images/0012/001295/129520eo.pdf (Retrieved March 24, 2015)
8. This workshop was previously summarised by Karakul (2014) in her article in *Geleneksel Mimarinin Yaşayan İnsan Hazineleri*.
9. The master builders in this group were Adnan Açıkgöz, Salih Yaşar and Atilla Özyürek, and the students were Elif Dertli, Meryem Hüsna Çelik and Gülay Kaya.
10. Stea and Turan (1993; p.192) use the terms 'carved-out spaces' and 'built-out spaces' among the major architectural elements to be considered in a study of place-making in Cappadocia.
11. The stone mason in this group was Mehmet Emin Kabakçı, the participating students were İbrahim Demir, Abdullah Bayru and Yunus İrice.
12. The master craftsman in this group was Ahmet Yılçay and the participating students were Abdullah Gümüş, Furkan Payas and Figen Demir.
13. Relief carving is a sculptural form in which figures are carved into a flat panel of wood. See http://en.wikipedia.org/wiki/Relief_carving (Retrieved March 12, 2015)

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