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Foreword

Heritage 2018 - 6th International Conference on Heritage and Sustainable Development celebrates the 10th anniversary of Heritage Conferences. As the previous editions HERITAGE 2018 aimed at maintaining a state of the art event regarding the relationships between forms and kinds of heritage and the framework of sustainable development concepts, namely the framework of the 2030 Agenda for Sustainable Development.

However, the four dimensions of sustainable development (environment, economics, society and culture) are, as in the past, the pillars of this event defining an approach on how to deal with the specific subject of heritage sustainability. Furthermore, beyond the traditional aspects of heritage preservation and safeguarding the relevance and significance of the sustainable development concept was to be discussed and scrutinised by some of the most eminent worldwide experts.

For a long time now, heritage is no longer considered as a mere memory or a cultural reference, or even a place or an object. As the previous editions of “Heritage” (2008, 2010, 2012, 2014 and 2016) have proven, heritage is moving towards broader and wider scenarios, where it often becomes the driven forces for commerce, business, leisure and politics. The Proceedings of the previous editions of this conference are the "living" proof of this trend.

As stated by some the Sustainable Development Goals of the 2030 Agenda, the role of cultural and social issues keeps enlarging the statement where environment and economics had initial the main role. The environmentalist approach (conceiving the world as an ecological system) enhanced the idea of a globalised world, where different geographic dimensions of actions, both local and global, emerged as the main relationships between producers, consumers and cultural specificities of peoples, philosophies and religions. In such a global context heritage became one of the key aspects for the enlargement of sustainable development concepts. Heritage is often seen through its cultural definition and no further discussion seems to be appropriate. However, sustainable development brings heritage concepts to another dimension, as it establishes profound relationships with economics, environment, and social aspects.

Nowadays, heritage preservation and safeguarding is constantly facing new and complex problems. Degradation of Heritage sites is not any more just a result of materials ageing or environmental actions. Factors such as global and local pollution, climate change, poverty, religion, tourism, commodification, ideologies and war (among others) are now in the cutting edge for the emerging of new approaches, concerns and visions about heritage. Recent events in the Middle-East and other parts of the World are saddling proving the rightness of these assertions and deserve our attention.

Thus, HERITAGE 2018 - 6th International Conference on Heritage and Sustainable Development proposed a global view on how heritage is being contextualised in relation with the four dimensions of sustainable development. What is being done in terms of research, future directions, methodologies, working tools and other significant aspects of both theoretical and fieldwork approaches were the aims of this International Conference. Furthermore, heritage governance, and education were brought into discussion as key factors for enlightenment of future global strategies for heritage preservation and safeguarding.
A special chapter on Preservation of Muslim heritage was included in this edition because of its singular and utmost significance and because the Venue of this edition was the city of Granada, one of the most extraordinary places to understand and feel the merging of cultures, arts and traditions. When religious and cultural issues are raising significant misunderstandings Heritage 2018 aimed at contributing to a valid, peaceful and fruitful discussion under the broad umbrella of sustainable development goals.

Authors submitting papers to Heritage 2018 were encouraged to address one of the topics of the Conference by providing evidence on past experience and ongoing research work. As a result, Heritage 2018 welcomed a significant number of papers and presentations addressing field work and case studies but also theoretical approaches on a diversity of thematic. As in the previous editions Early Stage Researchers were welcome to share the results of their research projects, namely post-graduation projects and doctoral projects, among others.

The Organising Committee also expresses its gratitude to all Members of the Scientific Committee who reviewed the papers and made suggestions that improved the quality of individual work and the over-all quality of the event.

The editors would like to express their gratefulness to all the partners and sponsors of this edition of Heritage who joined the effort to make a significant Conference. Our special word or recognition to the University of Granada that joined efforts with Green Lines Institute to make this event. Also to the Municipality of Granada, to the Bureau of Tourism of Granada and to the Council of the Alhambra and Generalife our recognition for their participation.

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Chapter 5: Heritage and culture

Furniture and other household objects as integrative elements of the indigenous house in East Mexico

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ABSTRACT: The Papaloapan River in East Mexico is a rich region historically, culturally and naturally. These characteristics are also reflected in the region’s vernacular architecture. This fascination with the built environment led me to carry out research on the indigenous houses there, based on the historical, physical and cultural evidence that still exists in most of these indigenous communities, which is manifest in the architecture, the simplicity of the forms of the houses, the construction of the spaces and even the furniture arrangements and other household items. The idea of observing furniture and household objects as integrative elements of the vernacular house is discussed by Amos Rapoport as “an approach to understand the link between human behaviour and house form”, and brings up the question of “how much one can tell from an examination of artefacts, when no written records exist, and when there may not even be a detailed knowledge of the way of life, the only evidence being the object, building, or settlement itself”. With this idea in mind, I went to live with the Mazatec people settled along the Papaloapan River for a total of six months between 2012 and 2013, an experience which allowed me to understand how the design of their houses are grounded in many traditions. Therefore, one part of the research primarily involved: understanding the relationship between the Mazatec people and their dwellings and the influence that furniture arrangements has over the design and construction of their houses.

1 INTRODUCTION

The idea that furniture and household objects are integrative elements of the vernacular house is discussed by Amos Rapoport in *House Form and Culture* (1969), who says “it is a way to understand the link between human behaviour and house form”. He also raises the question, “how much one can tell from an examination of buildings or artifacts in general, when no written records exist, and when there may not even be a detailed knowledge of the way of life, the only evidence being the object, building, or settlement itself”.

While furniture and household objects, in my view, can tell us many things about a house and the customs and traditions of its inhabitants, I bear in mind some of the cautions pointed out by Rapoport about observing the objects within a house, i.e., the way in which one’s own attitudes, values, and experiences can distort the real meaning of these objects we just observe, without knowing the reasons behind them. In order to avoid as far as possible this type of distortion and to obtain accurate information about these objects, I asked people to describe their household possessions, their function, meaning (if any) and the frequency of their use.

According to Rapoport, an object is an artefact that has been created by human production either manually or industrially. Objects are elements within a system of social communication, having values despite the anonymity implied by their industrial manufacture. They are to some
extent mediators of the relationship between man and society. Each object is representative of their owners, their place, time, etc.

In the Mazatec house, spaces and objects are linked to important domestic activities, such as eating, sleeping, and resting, among others. The value given to each of those activities represents a way of life, either personal or familiar, which is established in accordance with the needs and preferences perceptible in each space of the house. Each activity implies a constant change between the objects in each space, although there are also some areas where objects tend to have a permanent position. Therefore, to perform any particular activity, the location of objects is crucial.

However, in other cases, when a household object is observed, there is not always a total idea of its function or meaning, and generally a number of assumptions about these objects often emerge.

The simplicity of the furniture and most household objects enables the interior space of the Mazatec house to have multiple utilities, i.e., hammocks used for resting or sleeping are collected after use, leaving the room free for other domestic activities, such as eating, weaving and taking care of children (Fig. 1). Traditionally, the Mazatec people’s furniture and objects of everyday use represent to some extent their way of life.

Figure 1. Hammocks are collected during the day to enable the performance of other domestic activities (Luis Zapata, 2013).

In most indigenous dwellings I visited in the course of my research fieldwork I observed that furniture and household objects were very simple and modest. However, in the largest villages, the inventory was somewhat more diverse due to the greater possibilities to obtain domestic and modern appliances. In this paper I will describe some objects of traditional use from the point of view of function, form, placement and meaning.

2 THE KITCHEN

Traditionally, the kitchen in any Mazatec dwelling contains a large assortment of furnishings and cooking utensils. The Mazatec people use the expression “natsi” to refer to the cooking place, and specifically it refers to the maize milling process, which is carried out using a milling stone called a metate (Fig. 2).
The *metate* is undoubtedly one of the most essential objects in the kitchen. It is used for grinding maize, grains and seeds. Every house has at least one, sometimes two, but rarely more. Invariably the *metate* is tripod made of stone and has an inclined grinding surface, which is about 800mm in length and 500mm in width.

*Metates* usually have a depression formed by the continual and long-term grinding of seeds using a smooth hand-held stone (known as a *mano*). This action consists of a horizontal grinding motion that differs from the vertical crushing motion used in a mortar and pestle. The depression varies though they are typically not deeper than those of a mortar (Fig. 2).

Another kind of milling stone often seen in most kitchens is the mortar and pestle, which Mazatecs call *molcajete*. It is only used to grind chillies, which are the basis of a variety of sauces. Generally, a *molcajete* has round or oval edges (Fig. 2).

Baskets with tomatoes, chillies and onions are usually placed close to the milling stones while garlic and string of chillies hang from the walls and beams.

The hearth is the largest and perhaps the most important utensil in the kitchen since the bulk of cooking is done in it. It is usually built against a wall, or in a corner of the kitchen. A simpler kind of hearth consists of three regular-size stones on the ground forming an equilateral triangle, the size of a griddle pan or cooking pot.

Storage is a major concern in the kitchen. Long rafters are often laid across the beams, thus forming a sort of attic, in which items not in daily use are stored (Fig. 3). Plastic containers, corn husks, ladles, cooking spoons, and a number of small items are placed in the interstices and hollows formed by the wooden poles of the wall. A number of hooked sticks are also suspended from the rafters and the wall poles to hang items (Fig. 3).
Most kitchens have some shelf space. Four or more uprights of wood or bamboo are set in pairs, on the floor of the house; their upper ends are lashed to the cross beams. Between each pair of uprights, short transverse pieces of bamboo are tied at spaced intervals, and a series of planks or half bamboos runs along them, forming narrow shelves on which dishes, water jars, and other kitchen utensils are kept. Usually, such shelves are built against the house wall (Fig. 4).

Supplementary storage space for cooking pots is sometimes arranged outside, against the wall of the kitchen. Two pairs of forked sticks are set in the ground, with a crosspiece resting in the crotches of each pair. On top, saplings or bamboo rest on the transverse sticks, and on this outdoor rack, pots are stacked, mouth down. Since certain pots are reserved for certain dishes, a large number of cookpots is used, and few kitchens have sufficient room to accommodate all.

Figure 4. Clay pots and food containers are often kept on tables built against the walls (Luis Zapata, 2013).

Figure 5. Circular baskets to store ingredients hang from the beams (Luis Zapata, 2013).
Usually, near the hearth, one or more shelves hang from the roof rafters so that the cook may be in handy reach of salt, sugar, spices or any other commonly used cooking ingredients. Circular wooden frames made of liana to hold woven nets are used for food storage and hang from the rafters. The circular frames sometimes have a perforated gourd hung from the suspending cord as a barrier to rodents (Fig.5).

Drinking water is usually stored in large clay jars with a porous stone filter placed on top. To keep the water fresh, the jars are covered with mud and placed near the entrance of the kitchen in such a way that the wind could cool them. Jars can keep the water fresh because very small quantities of water evaporate through the material and cool the jar. This cooling process is enhanced by the wind (Fig.6).

Most houses have a simple plank table, with four legs, either squared or turned, which is usually large enough to accommodate a family of four people. However, the family seldom sits together to eat; the father and children are the first to sit around the table while the mother attends to them. She usually eats around the hearth or alone, because in Mazatec society women assume a subservient behaviour.

People sit on a variety of low stools called *yascun*. Some of them are cylindrical while others are rectangular and consist of a one-piece of wood, hollowed on the underside to form four feet. Some stools are highly decorated in the forms of animals, such as an armadillo (Fig.6).

![Figure 6. Wooden stools are made in variety of forms. (Left) one-piece stool; (right) Woodencarved stool (Luis Zapata, 2013).](image)

Simple and straight chairs with horizontal back slats and woven palm seats are very common in most dwellings. Chairs are typically made in two different sizes: normal sized ones for adults and smaller ones for children (Fig.7).

![Figure 7. (Left) Wooden chairs in different sizes are very common in Mazatec houses, (Right) Wooden chairs indifferent sizes are very common in Mazatec houses (Luis Zapata, 2013).](image)
A large assortment of home-made cooking clay pots, bowls, griddles, plates, and jars can be seen all over the kitchen, as well as wooden cooking utensils, gourd spoons, metallic cauldrons, cutlery and a enamelled and plastic containers (Fig.7).

Large bundles of corn husks are commonly stored in the space below the roof of the kitchen while smaller quantities are usually kept at hand, inserted between the wooden poles of the wall. Some foods, including eggs, brown sugar loafs, smoked meats and lard, are wrapped in dried maize husks to keep them fresh.

In some Mazatec dwellings, the kitchen shares the same space as the bedroom. In other words, during the day, the space is used for cooking and eating, but at night, the space is re-arranged and used as a bedroom. However, most dwellings have two or three rooms and these functions are separated.

The floor plans in Fig. 8 show the arrangement of furniture in four representative single room kitchens, each built as a separate building.

Figure 8. Standard furniture arrangement in kitchens of four Mazatec dwellings (sketches by Luis Zapata, based on Palermand Kelly descriptions 2013).

3 THE BEDROOM AND LIVING ROOM

In most Mazatec communities, the bedroom, which is the family dorm, is located in a separated building from the rest of the house. Traditionally, Mazatecs call the bedroom “the big house”, which is larger in size than any other structure within the property. The bedroom’s furniture is quite simple and modest.

In warm places, on the hottest days, hammocks, which usually hang from hooks fixed to the posts or from the beams, are often used to supplement the traditional bed (Fig. 9). However, most people usually sleep on woven palm mats called petate, which are spread on the floor by night, but throughout the day are rolled up and stood in one corner of the room (Fig. 9).

Figure 9. (Left) In humid and warm places, hammocks are used to supplement the traditional bed, (Right) Interior of a bedroom showing a platform bed with a woven palm mat (Luis Zapata 2013).
Beds are also used in most houses. They usually consist of two pairs of square legs inserted at an angle into two transverse poles to form a rigid square frame, on which prepared lengths of bamboo or wooden sticks are laid to form a broad, more or less flat surface. On top of the platform is spread a woven palm mat.

A pillow is used, even if one sleeps on the ground. Sometimes it is a small, piece of wood, but more commonly it is just a simple cotton cloth bag filled with rags with the open end tied. In humid places, hammocks and beds are protected from insects by long nets that hang from the beams and posts.

There are also cradles and hanging seats for the children. A cradle is typically a rigid frame made of wooden planks supported on rockers, but it can also be stationary or hanging from a rafter. A cradle may have a thicker mattress filled with rags or natural cotton lint. A hanging chair consists of a square wooden base supporting a square frame made of reeds or bamboo, which is used by the children who don't yet walk (Fig. 10).

Figure 10. (Left) Bed protected from insects, (centre) typical cradle made of timber sticks; (Right) hanging chair (Luis Zapata, 2013).

Usually the parents sleep in a bed, while their children sleep on the ground on woven palm mats, although sometimes the sons also sleep in beds while their sisters sleep on the floor. An indigenous man explained that preference is given to males because they need more rest, since they do physical work. In my view, this seems to be more of a cultural issue, as Mazatec males generally have more privileges than women.

The bedding is definitely casual. A man usually uses his poncho, which is a type of long blanket-like shawl, as a cover, while women weave their own cotton blankets. In cases where families are poor, a grain sack is often used as a cover.

To store clothes, people use big wooden chests and pouches made of leather or woven palm while underwear and other small objects are commonly stored in woven wicker baskets with lids. However, some dwellings also have a timber sideboard, which is usually placed close to the bed (Fig. 11). It is also customary to place a wooden box to store shoes and other small items under the bed.

Figure 11. Clothes are stored in wooden chests and timber sideboards usually placed near the sleeping area (Luis Zapata, 2013).
Things like hats, work tools and woven bags, which are used to work in the corn fields, are hung from nails and hooks in the wall, while objects of value are stored in small containers made from the fruit of the calabash tree.

Along with the sideboard and the beds, chairs, stools and one or two small tables can also be seen in most bedrooms. Close to the entry door, women often place a traditional loom and occasionally a sewing machine, since this is the brightest place within the house for working.

It is very popular to hang large movie posters, highly coloured calendars, photographs and illustrations cut from old magazines on the interior walls. Aside from these ornaments, interior decoration is mainly concentrated on the domestic altars.

The floor plans in Figure 12 show the arrangement of furniture in living rooms and bedrooms of some Mazatec dwellings I visited in the course of my fieldwork in the Papaloapan River.

![Figure 12. Examples of furniture arrangement in living rooms in some Mazatec dwellings (Luis Zapata 2013).](image)

4 OUTBUILDINGS AND SUPPLEMENTARY DOMESTIC STRUCTURES

In addition to the kitchen and the bedroom, supplementary domestic structures include: a steam bath, an outhouse, a corn crib, a pigsty, a poultry house, a laundry area, and a number of bowers to provide shade to some working areas and various kinds of domestic equipment. However, no house has all of these complementary buildings, but most have at least a laundry.

4.1 Laundry

Generally, washing clothes is often carried out on river banks, especially in communities near the river. However, most houses have a laundry area for washing clothes, which consists of a wash trough made from a rectangular block of wood that is deeply hollowed out and supported on a pair of forked sticks. Near the laundry area are also a number of plastic buckets to hold both plain and soapy water. The laundry area usually is located under a tree or a small thatched palm bower and near the house (Fig. 13).

4.2 Bathroom

The bathroom is a separate structure commonly built a short distance from the house. It is made of wooden posts that support a thatched palm roof. A wall made of bamboo or upright wooden poles covered with a thick layer of mud plaster provides the privacy needed. The floor is a raised platform made of wooden planks, large enough to accommodate a couple of jars, one or two stools and some bathing items. The bathroom is commonly located near a cistern or a borehole when there is no running water (Fig. 14).
4.3 Open privies and outhouses

In some rancherias not served by any septic system, I observed that amid the vegetation there were a number of narrow paths, barely visible, that led to an open fenced area used for defecation. Inside this privy, people dig deep pits for human waste to be deposited and then covered with ash and lime in order to keep these areas as sanitary as possible (Fig. 15).

Elsewhere in other communities, people build separate buildings consisting of upright wooden posts or timber planks and a thatched palm roof over a pit in the ground with a toilet seat over the pit. A wooden platform is also constructed on the ground. Traditionally, these outhouses are located near the house (Fig. 15).

4.4 Steam bath or “temazcal”

In most Mazatec communities, some families have a steam bath or temazcal built close to the house, usually facing the patio clearing. The temazcal is used as part of healing ceremonies thought to purify the body and for healing the sick, improving health, and for women about to give birth.

The structure of the temazcal is dome-shaped and usually is built with adobe bricks or stones or even partially dug into the ground, with mud plastered both internally and externally. The construction of the temazcal and the ceremonial rituals performed within involve a number of important symbolic meanings that are related to Mazatec cosmology and the house (Fig. 16).
4.5 Maize crib

In Mazatec communities, most people store maize cobs on raised platforms above the ground to keep them out of the reach of animals. A maize crib consists of forked sticks set into the ground, which supports a square platform made from closely spaced wooden sticks. This base is commonly raised about 250mm above the ground. Maize cribs are usually located outside the house, close to the kitchen. However, smaller maize cribs may also be found in the house next to the kitchen.

The maize cobs are piled neatly in rows and held within the crib by a movable wall, which consists of bamboos or small poles stacked horizontally, one above the other. At each end, the poles are held in place between two closely spaced vertical posts in the ground. Maize cribs are usually protected by a thatched palm leaf roof.

4.6 Poultry house and pigsty

Domesticated birds usually sleep outside on the branches of trees near the house and exposed to animal attacks. However, during the rainy season a special shelter is generally provided for hens with chicks, which is a simple small hut made of wooden poles and bamboo sticks, with a thatched palm leaf roof. Probably it gives more protection from prowling animals than it does from the rain. Poultry houses are also built to provide shade for the fowls during the hottest days, but usually they wander freely during the day.

Often a pigsty is virtually identical to a poultry house, although the latter generally is better built. A standard 3000mm x 3000mm pigsty can accommodate about 10 adult pigs. Some Mazatec families also use the same hut alternately for raising deer.

4.7 Raised platforms for the cultivation of vegetables

In the grounds of the house there are a number of raised platforms made of wooden sticks in the form of shallow boxes, which are filled with earth where vegetables, chillies, beans, herbs and medicinal plants are cultivated. This farming system keeps the food out of the reach of animals and protected from floods in the rainy seasons.

4.8 Cooking outside the house

From time to time, Mazatec families organize a party or a special meeting to commemorate a particular event, like a wedding, the patron saint’s Day, etc., to which a great number of guests are invited to participate. The problem of preparing food for so many people is a complicated task because the kitchen cannot cope. Therefore, food preparation is carried out outside of the house in large bread ovens.

Bread ovens are large dome-shaped structures built on a solid platform with stones and mud. Generally, the walls of the dome are constructed entirely of mortar and coated with mud. Bread ovens are usually protected from the rain by a thatched bower.
5 CONCLUSIONS

The social interpretation of furniture and their definition of “traditional” seem to be changing too. This can go as far as a re-interpretation of local architecture and its re-location into a new context, thus offering new ways of identification and re-inventing tradition.

The image and “emblematic” character of the house and its objects in the Papaloapan needs to be re-examined: how do people think of their houses in the modern era? Is the traditional understanding of the Mazatec indigenous house as an object of cultural identity still valid and how does it fit into a changing social and economic environment?

The Mazatec house still possesses the following qualities: cultural and environmental integration, which are manifested in the Mazatec traditions.

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