Shuar architecture as a model of sustainability

David Eduardo Morocho-Jaramillo[1]

[1]Research Centre for Architecture, Heritage and Management for Sustainable Development (PEGASO), Universitat Politècnica de València, Spain, damoja@arq.upv.es

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Abstract

In recent decades modern architecture has focused excessively on the search for new construction techniques to facilitate and improve the construction process in cities. This has reduced the application of local construction techniques and materials, leading to the neglect of cultural heritage and architectural landscape. As vernacular architecture relates to historical inhabitance of the territory with no theoretical or aesthetic pretences it is a viable model of sustainability. At no point do poverty and nostalgia for the past correspond to the way in which this type of architecture was conceived. The ways of thinking and life of indigenous cultures open a viable path towards the conservation of their architecture. Although nowadays there is an inclination to build following the new tradition of modern materials and typologies, and leaving aside the close connection between the forms of inhabiting and their surroundings, it is necessary to create a heritage awareness of place, where its architecture can be adapted to a new way of conceiving architecture and its spaces to fulfil the needs of a modern society.

Keywords: *Identity; shuar; vernacular architecture; sustainability; cosmovision.*

1. Introduction

The indigenous population of Latin America is extremely diverse. This is especially noticeable in Ecuador, where 6.5% of the total population is made up of 14 indigenous nationalities[1] (Tsachila, Chachi, Epera, Awá, Kichwa, Shuar, Achuar, Shiwiar, Cofan, Siona, Secoya, Zápara, Andoa and Huaorani), principally the Kichwa in the mountain regions and the Shuar in the Amazon region.

Besides, there are 18 indigenous peoples who unlike the nationalities have no ownership deeds to their ancestral territories. However, they both have their own system of social, economic, legal and political organization.

The Shuar[2] people are an ethnic group from the Jivaro[3] linguistic group, consisting of six ethnic subgroups in the southeast region of the Ecuadorian Amazon region, along with other surviving ethnic groups, Shuar and Achuar in Ecuador, and the rest are in Peru, as Figure 1 shows.

Shuar people have a vision of the world which directly affects their way of life and how they interpret space. In shuar language, "*Arútam*" is considered the most important spirit, which governs nature and is present in natural features such as waterfalls, rivers, forests and orchards and can present anthropomorphically, zoomorphically or in natural phenomena. The conception of life is "continuous" for Shuar people; the

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[1] This group of people have their own historic identity, language and culture, going back thousands of years. They organize their own social, economic, legal, political, and authority system in the territories they occupy (source: CARE & FLACSO).

[2] Term from the Shuar language meaning "people" or "person".

[3] Spanish-language term derived from the Shuar term.

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human being does not have an end when the natural death comes. Therefore, the Shuar people build their own cosmos into sacred spaces such as dwelling, to being connected through a spiritual world (Chiriap, 2012).
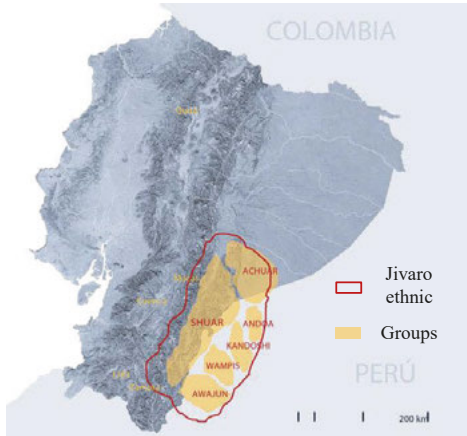

Fig. 1. Ethnic groups of Jivaro linguistic origin. Shuar nationality in Ecuador (Source: Author, 2020).

1.1. The *Jéa*, Shuar dwellings.

The *jéa,* which translates as Shuar dwelling in the Jivaro languages, is a cabin with an elipsoid floor plan located in an enclosure within the jungle. The structure and enclosure are made of palm while the large pitched roof is made of leaves (*kampanak*) (Johnson, 1977).

Historically the Shuar settlements were made up of scattered dwellings, which were not based on groups as such but were rather dwellings occupied by families from the same group. These were not exactly close together, but scattered throughout the virgin forest. Each dwelling represented a social unit, independent from the rest, where the head of the family was in charge of decision-making for the group (Karsten, 2000; Harner, 1978).

The construction of new dwellings was usually linked to new marriages. Initially, any Shuar man marrying a Shuar woman was obliged to spend time in the home of his parents-in-law before subsequently building his own home on different land (Sanz & Herrera, 2017). Families usually abandoned their homes when the land

was no longer fertile and there were no longer enough resources to feed themselves and build. It was at this point that they migrated in search of new territories.

Hence, the dwellings are not limited to a given territory but rather are dependent on the natural abundance of the place, as nature itself is the only true legacy that the Shuar feel they have a duty toward.

Shuar dwellings are not just shelters in the middle of the jungle but are the reflection of how the Shuar inhabit space, felt to be a spiritual temple[4] where spatiality corresponds to a microcosm within a macrocosm. The elements that compose it are connected with Shuar spirituality. For this reason the enclosures have no openings and are connected solely by a door at either side, heightening the spatial perception between the (sacred) interior and (profane) exterior (Eliade, 1981).
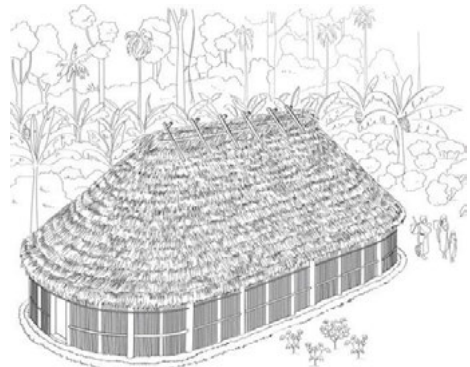

Fig. 2. Shuar dwelling, jungle and vegetable garden. (Drawing by the outhor, edited from Bianchi, 1978).

The interior space is divided into two parts with different connotations, where furniture as important simbolisms marks out this distinction.

On the one hand there is the masculine space (*tankamash*) where more sociable activities are carried out. This space is used to hold ritual

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[4] "Todo espacio sagrado implica una hierofanía, una irrupción de lo sagrado que tiene por efecto destacar un territorio del medio cósmico circundante y el de hacerlo cualitativamente diferente" ["Any sacred space implies a hierophany, a sudden appearance of the sacred which highlights a territory of the cosmic surroundings making it qualitatively different" (Translation by the author)] (source: Eliade, 1981).

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activities and manufacture weapons or artisanal baskets. Its most important element is the or central post (*pau*) of the house, representing the connection between heaven and the underworld.

Meanwhile, the feminine part (*ekent*) is the most intimate part of the home where everyday family life takes place. The most characteristic element is the shelf (*untsuriri*) resting on two central posts and used to store kitchen utensils and anything relating to household chores (Sanz & Herrera, 2017).
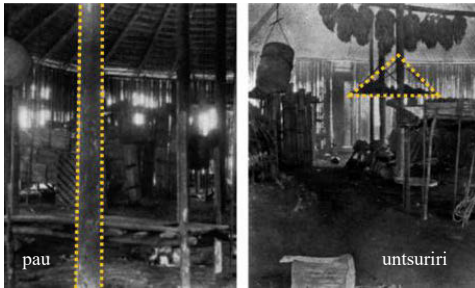

Fig. 3. Dwelling Elements (Edited from Karsten R., 2000).

The interior space is in direct contact with the exterior through an individual access found at either end of the dwelling. The *tankamash* leads to the jungle which represents the macrocosm while the *ekent* is used to connect with the Shuar orchard (*ajá*) used to grow everyday food such as banana, yucca, corn, cotton, barbasco, natem, tropical fruits, etc (Allioni, 1978).
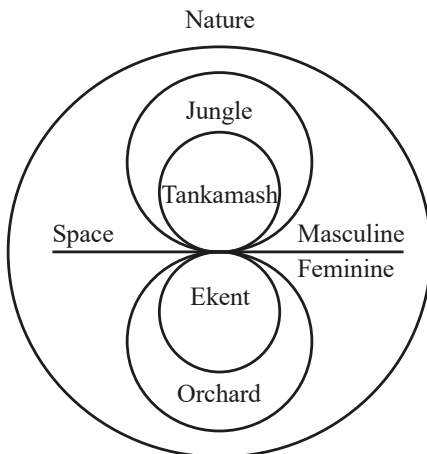

Fig. 4. Diagram of the spatial organization of the Shuar dwelling (Source: Author, 2020).

1.2. Major changes

Shuar settlements have been subjected to a series of influences which have modified how they settle in the territory as well as their way of life.

The first wave of changes in their culture – either direct or indirect – was the result of the Spanish conquest coinciding with the arrival of the first colonizers from the religious missions to the as yet untouched virgin rainforest. There, "internados"[5] or institutions were set up to recruit the younger inhabitants, teaching religion and Spanish and banning the use of their native language. It was considered that they were very far from being able to integrate into the ways of life established in the rest of the country (Gnerre, 2014; Izaguirre, 1978; Rubenstein, 2005).

This was a process of alienation and othering of their identity (Santos, 1996), widely promoting the idea that the indigenous culture has negative aspects at odds with a Westernized way of life. The first students of this process realized they were being marginalized as they were being removed from the family nucleus and the whole cultural universe which identified them as a people (Almeida, 1995).

This new way of life directly affected the Shuar, since practising rites and teaching myths was banned as these were considered to be incompatible with Western doctrine. However, the most important change introduced by religious missionaries was not really the change of ways of thinking, but the shift from the nomadic way of life of the Shuar to a sedentary one, teaching them to work and agriculture. The Shuar settlements ceased to be independent family nuclei and went on to be grouped into centres founded by religious missions. These were made up of a

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[5] "Internados" became not only spaces for religious conversion, but also sites which supplied the Shuar with tools and utensils usefull for shuar people. As the natives began to see the need for communication with the incomers in order to be able to defend their land, the arrival of missionaries was accepted in these communities. (See Bottasso, 1993 for more information)

central square where the most important buildings were located, including the church, the "internados" and surrounding dwellings, which came to be modified typologically.

Subsequently, in a second post-independence stage most of the Amazon was left in a legal and administrative void. However, in many of the Shuar communities the development of extraction and production activities led to economic migration, while the migration of urban peoples, particularly to the mountains, rapidly established new cities. These changes brought about a loss of traditional ways of life, the establishment of bilingualism (Shuar and Spanish) and the abandonment of a large part of tangible and intangible material culture.

Finally, a third wave was the globalization process in which we are immersed at present, where the modernization of communication and technology channels and economic migration between countries define this stage as a process of capitalist expansion.

Fig. 5. Méndez, Shuar colonist settlement in 1920 (Source: INPC Photographic Archive).

Nowadays cultural landscapes are no longer solely made up of families, given that groups are no longer strongly territorialized, particularly limited, historically aware of themselves or culturally homogeneous. Instead they are made up of a series of stakeholders characteristic of a world in constant change – workers, tourists, immigrants, refugees – as well as other migrant groups, affecting the policies and regulations of a people.

1.3. Dangers to Shuar architecture.

Frequently, when a person leaves their land and ways of life they also abandon their feeling of identity. This often results in anomia and these individuals no longer feel identified with any of the cultural values of a society.

However, Shuar communities paradoxically find themselves fighting for their ideals based on the way they interpret the world, while trying to assure a higher level of wellbeing for their people. Thus, to some extent multicultural integration is the starting point for better development. Shaping an awareness of heritage is essential in order to prevent this from being damaged by the modern way of life.

Architectural space in Shuar dwellings provides a precise representation of the Shuar cosmovision. Even if forms of construction change this space will find a way to adapt to them, providing the Shuar conserve their heritage values.

This type of vernacular Shuar architecture is directly linked to identity, but is not merely a way of clinging to what is characteristically theirs. If this were the case they would run the risk of being fossilized at a time when globalization makes it necessary to consider multiculturalism. Identity is not only represented by dress or traditions, but also by thinking and how this is reflected in the way of life. In the case of the Shuar, their identity is shaped by their cosmovision and intangible values.

In 1977, Böll wrote what a group of Shuar students stated of their own culture nowadays:

"Nadie tiene derecho a clasificarnos de no identificados porque no nos vestimos como nuestros ancestros, porque nosotros podemos vestirnos como otros pero, nuestra mente será de un shuar (…) Para

eso están los mitos, ritos y el lenguaje, que son paradigmas que nos inspiran a una tarea verdadera que nos exige la sociedad de hoy, aunque algunos puedan creer que vivimos contemplando el pasado, éste se ha convertido en pasado-presente-futuro." ["Nobody has the right to class us as unidentified because we do not dress like our ancestors. We may dress differently, but our thinking is still like a Shuar (…) That is what myths, rites and language are for, they are paradigms that guide us towards a true task which this society demands of us, even though some believe we live in the past, it has become a past-present-future." (Translation by the author)] (p. 174)

Fig. 6. Religious celebration in 1928 (Source: INPC Photographic Archive).

1.4. Shuar identity

While it is hard to speak of the identity of a people which has undergone different periods of change, today the links between these circumstances can be viewed from many different angles.

On the one hand, the younger generations have lost almost all feeling of belonging to the group, affecting their sense of cohesion. Meanwhile, some groups still conserve a sense of unity with authentic values which strengthen their identity as an ancestral people.

Obviously, the current globalized world does not accept hierarchization and it is necessary to adapt to multiculturalism. In terms of architecture, which reflects social, economic and environmental aspects, forms of conservation have a duty to a constantly evolving social panorama.

Two different paths are observed. In the first, identity can eventually and subconsciously assimilate what the city has to offer without question while the second shows the ability to distinguish what is characteristic of one's own from what is alien to it. The shuar people are lucky that their ancestral territories are still preserved under family usufruct, where an independent social organization is in place and can take over based on the community's needs and interests.

Myths and legends contribute to the conservation of this sense of identity, as they refer to the living identity of the shuar people, passed down through generations with the *anet*[6], paradigms of the evolution process. They are not merely entities for contemplation but rather translate into fact through an awareness of values built into a modern society, values such as firmness, bravery, solidarity and responsibility within society, or respect for others. These are the response to a society in search of greater humanity (Böll, 1997).

The family setting with its close communication and cooperation where activities were shared has become a thing of the past. It was faced with a new society of values which did not involve the same way of cohabitation, establishing norms of conduct increasing the individuality of groups and families. Nevertheless, it is enriching to take the best from both cultures, both indigenous and Western or mixed, countering the idea that one culture is better than the other, so that this inevitable cultural fusion is an opportunity for improvement.

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[6] Anet (prayers) are forms of identification as man or woman, used to invoke each prototype for a given task or situation (Böll, 1997).

Fig. 7. Shuar children in Morona Santiago when evangelization arrived (Source: INPC Photographic Archive).

2. Methodology

This article proposes a methodology to evaluate the vernacular heritage in indigenous territories. And this shows the sustainable importance of the rescue of vernacular architecture nowadays. The understanding of the change to which we are continuously undergoing is adopted in architecture; it is what is labeled as "the new tradition" (Antoniades, 1971). For this, the methodology used to rethink architecture and its valorization in indigenous territories could be reflected in the following phases:

Firstly a data collection is carried out, based on historic antecedents to decipher the changes and issues which have led to the loss of value of heritage as manifested in architecture.

A second phase focuses on the assessment of all the factors which can affect the architecture and current urban organization. This will make it possible to identify typologies, forms of spatial organization and the material adoption of architecture. The assessment of the setting and its

relation to the settlements will provide a clear vision of changes to the landscape. The analysis of traditional architecture and its spaces is evaluated from an anthropological perspective which contributes to critically valuing its most important symbolic parts and elements. In this case, as the materials adopted are so vulnerable to time, with a useful lifespan historically dependent on a nomadic lifestyle, it is important to seek out archive sources, identifying the architectural heritage which has now been altered.

Finally, the third phase establishes a series of strategies for protection, conservation, recovery and management, where following the same analysis criteria as in the previous phase, strategies are promoted to reincorporate Shuar vernacular architecture into local architecture, and thus rescue it culturally.

3. Sustainability

The knowledge and expertise of indigenous communities contribute to alternative sustainable development improving the wellbeing of people and their natural surroundings. It is therefore important to learn about and improve on aspects such as nutrition, methods for cultivation and production, enrichment of biodiversity, mitigation of CO_2 emissions and maintenance of the integrity of natural and multicultural landscapes (Correia, 2015).

3.1. Socioeconomic level

Amazonian indigenous inhabitants have had to take up new economic activities to satisfy the appearance of a new group of consumers who seek products characteristic of the place, the extraction of fine timber, the cultivation of products such as coffee, livestock, etc.

Although large-scale mining is one of the major production activities carried out in the Ecuadorian Amazon, this barely sustainable extraction may potentially cause future complications (Cedenma, et al. 2017). In addition, the importance of the services sector has increased in recent years with ecotourism agencies organiz-

ing "traditional" shows for tourists. The internationalization of Amazonian cultures brought with it alliances with NGOs which have provided investment in different projects, with the collaboration of financial organizations, development promotion, human rights defence, environmentalists, etc.

Fig. 8. "Nankais cultural interpretation centre" as an example of new architecture (Source: Design by Author, 2020).

The connection of these agents made it possible to regularize the situation of indigenous leaders, also contributing to the management of several production, health, education and environmental handling projects. However, the increased levels of communication with the rest of the world and the world view, forms of bilingual education, forms of market integration, or forms of land ownership are all aspects which jeopardize the indigenous way of life.

3.2. Environmental level

The search for the correct use of resources in harmony with the laws of nature will allow our ecosystems to be preserved for future generations. It is a proven fact that construction is one of the top energy consumers compared to other fields of production. Therefore, construction must be able to use resources responsibly through passive strategies like those inherently found in the forms of production of many types of vernacular architecture (Correia et al., 2015).

An overwhelming awareness of place, through the understanding of the different changes observed in the territory, is essential to guaranteeing guidelines to allow heritage to be conserved in the future.

Social and territorial recognition must provide incentives for the safeguarding of ecosystems as collective resources for indigenous peoples, resources which, as in the case of the Shuar, are not physically limited to nature but rather represents a cosmos in and of itself.

A singular aspect of these territories is that the ecosystems which remain unaltered by colonization constitute true legacies of biodiversity conserving numerous living experiences of biocultural memory.

The reconstitution of the urban limits of the cities contributes to a strengthened community life. It is therefore essential to create linking systems between populated nuclei, which must be surrounded by different ecosystems, such as agricultural and natural (Magnaghi, 2012).

3.3. Sociocultural level

Ancestral knowledge underlies the sustainable handling of the local natural resources, use of soil, crop rotation - all concepts passed down through generations.

Historically, the sustainability of each Shuar settlement was determined by distinct independent economic and social units. These settlements may well have been so scattered due to the local topography and form of the territories conditioned by the need not to exhaust their fertility. Therefore they used to rely on the subsistence farming of the scattered lands which could provide for themselves. However, Shuar centres currently group several family nuclei, reflecting a sense of community. The Shuar culture attaches particular importance to their cosmovision, considered a determining factor for the positioning of the dwelling in relation to its habitat (sacred sites and vegetable garden). The dwelling is the nucleus of the Shuar people, who

established their own laws. At the same time it was connected to their everyday surroundings. The vegetable garden (*ajá*) represents the domesticated site they use for their survival and is also a way to transmit family knowledge as it is where ancestral knowledge is put into practice. The same occurs with other natural sites such as waterfalls, forests and rivers where a heritage memory of the place is recorded through the activities dictated by the *anet* and the symbolisms of their cosmovision.

4. Conclusions

Due to the cultural changes and the influence of modern globalization the loss of vernacular heritage, an invaluable legacy of Shuar culture, is hard to recover. It is therefore important to search for viable paths for the rescue of indigenous cultures. However, many of the actions in the territory can have an environmental, social or economic impact on its landscapes, so that it is necessary to contribute aspects which promote wellbeing. Dwelling will be a true reflection of the needs and desires of its inhabitants, thus satisfying the cultural and physical aspects of the time (Rapoport, 1969).

The study of methods for the conservation of this architectural heritage not only helps to maintain invaluable cultural knowledge. It also promotes sustainable development based on the recovery of local identity and a comprehensive revalorization of the landscape in keeping with ancestral knowledge and beliefs.

References

Almeida, J., Castro M., Conejo M., et all. (1995). Identades indias en el Ecuador contemporáneo. *Pueblos del Ecuador* (N4). Abya-Yala.

Antoniades, A. C. (1971). Traditional Versus Contemporary Elements in Architecture. *New Mexico Architecture*. (Vol. 13), (N11&12), pp. 9-14.

Allioni, M. (1978). La vida del pueblo shuar. *Mundo Shuar, Serie E* (N6).

Bianchi, C. (1978). La casa shuar. *Mundo Shuar. Vol. 1, Serie C.* Abya Yala.

Böll, V., et all. (1997). *Identidad indígena en las ciudades*. Fundación Hanns Seidel, pp. 159, 174.

Bottasso, J. (1993). Los Salesianos y la Amazonía. *Actividades y presencias.*(Vol. 3)*. Abya-Yala.

Cedenma, Ceplaes, Minka Urbana, F. E. (2017). Cordillera del Cóndor, su biodiversidad, su gente y las amenazas de la mega-minería. *Jornadas de UASB.*

Chiriap, N. et al. (2012). Sabiduría de la Cultura Shuar de la Amazonía Ecuatoriana. *Sabiduría Amazónica. Vol. 2* (N1). UC, UNICEF, DINEIB Ed.

Correia, M., Dipasquale, L. and Mecca, S. (2015). *VERSUS: HERITAGE FOR TOMORROW: Vernacular Knowledge for Sustainable Architecture*. M. Correia & L. Dipascuale Ed. Florencia. https://doi.org/10.36253/978-88-6655-742-5

Gnerre, M. (2014). Los salesianos y los shuar. Construyendo la identidad cultural. *La presencia salesiana*, pp. 556-628.

Eliade, M. (1981). *Lo sagrado y lo profano*. Guardarrama / Punto Omega.

INPC (2015). En la mirada del otro. *Acervo Documental del Vicariato Apostólico Salesiano en la Amazonía Ecuatoriana, 1980-1930*. Mena, B.

Izaguirre, B. (1978). Los Shuar de Zamora y la misión franciscana. *Mundo Shuar.* Abya-Yala.

Johnson, R. (1977). La casa achuar y el ambiente. *Mundo Shuar. Serie B* (N8).

Karsten, R. (2000). La vida y la cultura de los shuar. *Cazadores de cabezas del Amazonas Occidental. La vida y la cultura de los jíbaros del Ecuador*. Abya-Yala.

Harner, M. (1978). *Shuar. Pueblo de cascadas sagradas*. Mundo shuar.

Magnaghi, A. (2012). El proyecto local: Hacia una conciencia del lugar. *Arquitectonics. Mind, land & society*. https://upcommons.upc.edu/handle/2099.3/36586

Morocho, D. (2020). *Arquitectura Shuar: estudio de los valores materiales e inmateriales del patrimonio arquitectónico en Yantzaza (Ecuador) y propuesta para unas estrategias de recuperación*. Universitat Politècnica de València. http://hdl.handle.net/10251/159781

Rapoport, A. (1969). *House Form and Culture*. Foundations of Cultural Geography Series. Winsconsin:University of Wisconsin-Milwaukee.

Rubenstein, S. (2005). La conversión de los shuar. *Revista de Ciencias Sociales Iconos.* (Vol. 22), pp. 27-48.

Santos, F. (1996). *Globalización y cambio en la Amazonía indígena*. Abya-Yala.

Sanz, S. & Herrera, I. (2017). La arquitectura shuar: ordenando el espacio mítico. *Revista española de antropología americana*. (Vol. 47), pp. 161-179. https://doi.org/10.5209/REAA.61976