Title
A Space of Exclusion and Resilience: The 'Jea' as a Counter-Site in Achuar Communities of the Ecuadorian Amazon

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Abstract
The Amazon region remains a contested space between competing visions of conservation and development (Duran-Fernandez and de Carvalho 2024). While international organizations invest in biodiversity preservation, they also support governments that promote extractive industries, exacerbating environmental degradation and Indigenous marginalization (Bebbington et al. 2018). The Achuar people of the Ecuadorian Amazon exemplify this paradox, experiencing multidimensional exclusion through geographic isolation and externally imposed economic, political, and cultural frameworks that disregard their intrinsic connection to *nunkui* (mother earth).

Drawing on Michel Foucault's concept of heterotopias—counter-sites reflecting or resisting dominant societal structures—this article explores the Achuar communities of Mashientz, Sharamentsa, and Pumpuentsa as sites of both exclusion and resistance. Their cultural practices, such as the construction of the Jea (traditional house), persist largely due to their spatial and ideological separation from external pressures. However, this vernacular architecture remains unrecognized as cultural heritage within Ecuadorian society, undermining local efforts to protect it from state-led development projects.

Based on ethnographic fieldwork conducted from May to August 2024 and informed by Indigenous scholarship (Fast and Kovach 2019; Harjo 2019; Norwood 2022; Sakakibara 2008), this article centers firsthand narratives that reveal the tangible and intangible structures of exclusion the Achuar navigate daily. Their marginalization is reinforced through dependencies on external actors, including NGOs and government agencies, where access to basic services is often conditional on compliance with external expectations. This dynamic forces communities to navigate a precarious balance between autonomy and imposed dependence. Limited access to healthcare, infrastructure, and education further defines their exclusion, reinforcing the fragile boundary between the "protected" and the "excluded."

One key focus is the shift from traditional Achuar housing to Western-style housing models, illustrating how spatial practices embody both exclusionary pressures and cultural resilience. By examining the physical space of the house, the social space of the community, and the surrounding forest as both a spatial and spiritual entity, this study uncovers how Achuar cosmology shapes their experience of landscape and belonging. We argue that these dimensions collectively foster a unique heterotopia where the Achuar's marginalization is redefined through Indigenous resilience and advocacy.

Ultimately, this paper argues that Achuar exclusion is not merely a consequence of physical remoteness but a broader societal positioning that pressures them to choose between cultural preservation and developmental inclusion. Rather than imposing external models of sustainability or progress, we encourage approaches rooted in Indigenous autonomy, amplifying Achuar voices and asserting that meaningful inclusion must emerge from communities themselves.

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Introduction

Since European colonization in the 16th century and the rise of modernity as a developmental project in the 1960s, Indigenous groups in the Ecuadorian Amazon have faced systemic exclusion.[1] This exclusion, shaped by geography, government policies, and broader societal structures, manifests as multidimensional or "deep exclusion," impacting all aspects of life, from access to healthcare and education to political, economic, and cultural disenfranchisement.[2] As a result, Indigenous communities are both marginalized and, paradoxically, integral to the functioning of dominant societies.[3] The Indigenous Achuar people of Ecuador exemplify this condition. Their exclusion is first evident in their geographic isolation—until recently, most of their 91 communities could only be reached by boat or small aircraft. Additionally, access to their territory often requires approval from the Achuar Nationality of Ecuador, their governing body. The difficult navigability of their rivers, the dense tropical forest, and its associated natural dangers have historically blocked colonization and permanent settlement in these areas. Their remoteness and constant protests protecting their territory has enabled them to resist extractive industries and the encroachment of modernity, but it has also reinforced their social and political marginalization.

Achuar isolation extends beyond geography; they are also socially marginalized within mainstream Ecuadorian society. Ecuadorians living in urban areas know little about their way of life, with public awareness rarely extending beyond outdated school lessons on Indigenous groups. In the media, the Achuar are largely absent from mainstream discourse, appearing only once or twice a month in coverage focused on government projects, cultural traditions, or land rights conflicts—often in the context of protests.[4,5] However, their daily realities and aspirations remain largely overlooked. This limited representation in education and national discourse reinforces their marginalization. The Achuar also experience exclusion through imposed Western frameworks. Under these standards, they are often classified as "underdeveloped" or in "multidimensional poverty," alongside other Indigenous groups in the country.[6] This classification correlates with the poor condition of healthcare centers and educational units in their territories. However, the issue extends beyond infrastructure; it encompasses how these institutions function, interact with, and sometimes conflict with Achuar culture and worldviews. It also reflects an ongoing debate over whether road access should be granted to Achuar lands and the varied effects such agreements have had on Achuar communities like Pumpuentsa. There, road access introduced cheaper, mass-produced building materials, diminishing the value of traditional construction techniques. Additionally, the community lost benefits like emergency air transportation and became vulnerable to threats such as illegal logging, unregulated settlements, and uncontrolled agricultural expansion. While leaders like governor Tiyua Uyunkar advocate expanding road networks across Achuar lands, elders like Julian Illanes worry that this state-driven approach could lead to rapid cultural and material assimilation.[7]

Furthermore, the Achuar face exclusion regarding their heritage. Vernacular buildings have historically been positioned outside of what is considered "architecture,"[8] despite their essential role in heritage cities.[9] For the Achuar, their traditional dwelling, the *Jea* is far more than utilitarian—it is deeply embedded in their cosmogony, reflecting their knowledge systems, environmental adaptation, and intergenerational traditions. The *Jea*, however, lacks heritage recognition by institutions such as UNESCO, unlike colonial architecture found in Ecuadorian city centers. Historically, this bias exists because colonial authorities controlled what counted as heritage, prioritizing structures that reflected their own identity.[10] As a result, heritage preservation often reinforces dominant Western narratives of national history, marginalizing indigenous cultures such as the Achuar.[11] The lack of recognition further alienates them from national identity narratives.

Foucault's Heterotopias in Achuar Society

Understanding Foucalt's definition of heterotopias as "real" spaces that operate as "other" within dominant society, Achuar communities may be considered *counter-sites*, or enacted utopias that have existed since the very foundation of their society. In contrast to mainstream Ecuadorian society, the Achuar experience a parallel yet distant reality from the colonized, and thus Westernized, spaces of the Americas. While the Achuar, alongside other Indigenous groups with

linguistic ties to the *Aénts Chicham* language, have inhabited the Amazon region between Ecuador and Peru for centuries, they have largely remained outside the rapid, capital-driven development unfolding globally. Initially, this isolation was voluntary, reinforced by the lack of state resources and the inability of local governments to invest in the Amazon region. Over time, however, for some communities it has transformed into a struggle for Indigenous autonomy against Westernization and various forms of extractivism—a fight that is now well known.[12]

However, the Achuar's isolation also presents an opportunity to consider whether their exclusion acts as a tool for protecting their culture, preserving their ancestral knowledge, and fostering autonomy and happiness. While this may seem paradoxical, fieldwork in more remote Achuar communities revealed a deep-rooted sense of happiness among their inhabitants—an observation commonly noted by anthropologists since the 1960s.[13,14] This isolation has never been an easy choice for the Achuar; it has been a struggle, fought across generations. In the past, they retreated deeper into the Amazon to avoid Western contact; now, they find themselves surrounded by a development model that, as seen throughout the region, is gradually consuming both the rainforest and the Achuar way of life.[15] For the Achuar, the forest and their *Jea*, exist in a state of symbiosis. They do not perceive themselves as separate from nature but as an integral part of it. This perspective challenges current conservation strategies that seek to "protect" the Amazon by modifying how Indigenous people live and interact with the forest. By analyzing the *Jea* as a space that fully embodies Achuar cosmogony, this research suggests that the consequences of altering these heritage environments, which for centuries has been the sole man-made structure in these communities, contribute to changes in Achuar cultural identity.

Locating the Achuar

The Achuar are riverine people—communities that live along riverbanks, relying on them for mobility, subsistence and cultural practices—who have habited the Upper Amazon region for centuries, across a vast territory that today spans across Ecuador and Peru (Fig. 1). Their territory lies within a tropical rainforest —temperature between 18ºC and 33ºC, an altitude of 200-500 m a.s.l., characterized by its richness in terms of faunal and floral biodiversity.[16] The Achuar people are one of the 14 Indigenous nationalities recognized in the Ecuadorian constitution—11 of which are present in the Amazon region. Administratively, their territory falls primarily within the southeastern Ecuadorian provinces of Morona Santiago and Pastaza. These provinces are some of the poorest in Ecuador, with more than 60 percent of its residents living on less than $3 per day.[17] Currently, 91 Achuar communities are spread across these provinces, with a total population of approximately 7,865 people managing 1,017,014 hectares of land.[18] Of this, 884,000 hectares are legally titled to the communities rather than to individuals.[19] Due to their geographical isolation, the majority of Achuar communities can only be reached by air or river.

[See Fig. 1]

Achuar & Non-Achuar Architecture

The architectural landscape of Achuar people, particularly their *Jea*, is deeply embedded in their cosmology, social structure, and Traditional Ecological Knowledge (TEK).[20] As the only known man-made structure adapted to dispersed-nomadic living and polygamous extended families, the *Jea* is more than just a shelter; it is a sacred space imbued with deep symbolic meaning.[21] Morocho Jaramillo et al indicates that Achuar settlements are closely tied to natural elements like *ajas* (family-cultivated gardens), rivers, forests, and waterfalls, shaping daily life and rituals.[22] Likewise, Garzón-Vera mention that mythology provides guidance on subsistence practices, construction, and spiritual purification, reinforcing the *Jea* as a sacred microcosm where physical and spiritual existence intertwine, transforming it into a temple of daily life.[23]

The *Jea*, a traditional thatch and pole house, is an inherently ecological structure, constructed entirely from biodegradable materials sourced from the surrounding forest. Its periodic reconstruction reinforces intergenerational knowledge transfer and strengthens kinship ties. As an Achuar family grows, they will witness the cycle of building and dismantling their home multiple times throughout their lives. During a conversation with an elder from Mashientz, he explained that a well-built house typically lasts between 10 to 15 years. Over a lifetime, a family may need to build a

new *Jea* between four to five times. This process is a collective effort, with the entire household—typically four to eight members or more—participating in its construction, regardless of age or gender, except for infants. This generational involvement sustains and transmits TEK within the community.[24] Kroeger describes the Achuar's *Jea* as follows: "Their houses were nearly oval-shaped with walls of chonta palm staves (*Gullielma utilis*), a roof of woven palm thatch (*campanaca* or *toquilla*), and a floor of stamped earth."[25]

Due to material shortages for traditional housing, the erosion of TEK, and widespread poverty in Achuar territories, the state—through the Ministry of Urban Development and Housing (MIDUVI)—introduced affordable housing programs in 2007, implementing them in Mashientz in 2009 and Pumpuentsa in 2013.[26,27] The MIDUVI housing was developed without Achuar participation in the design or construction process.[28] Under the agreement with MIDUVI, households provided wood, land, and part of the labor, while the government supplied prefabricated materials—such as zinc roofing, door locks, and nails—along with construction equipment and hired carpenters. While these standardized, Western-style structures have increasingly disrupted Achuar construction heritage, replacing traditional spatial practices and deepening socio-cultural exclusion, the *Jea* remains a symbol of resistance and continuity in most communities.

[See Fig. 2]

Methodology

This research is based on primary data collected with the participation of the communities of Sharamentsa (S), Mashientz (M) and Pumpuentsa (P).[29] To understand multidimensional exclusion over time, a literature review on the social and spatial history of the Achuar people in the Ecuadorian Amazon was also conducted. To collect primary data, between May and August 2024, the lead author conducted three two-week ethnographic visits in each community. These visits combined participant observation of hosting families (M=2, P=1, and S=5), in-depth interviews (M=3, P=3, and S=3), and walking interviews (M=9, P=8, and S=10). Fieldwork documentation included notes, ground-level and aerial (drone) photography, architectural sketches, and diagrams of houses. In the field walks, discussions focused on traditional houses (*Jea*) and MIDUVI housing, as well as environmental conditions, natural resources, the state of communal facilities, and both construction and sociocultural knowledge systems. Staying with volunteer host families in each community offered opportunities to engage in daily activities such as farming, fishing, eating, bathing, and participating in rituals like *wayusa*. Following this immersion, field notes and interviews were transcribed and analyzed. Using the systematic classification process of coding and identifying themes or patterns, we identified key consistencies and meanings.[30] Finally, the research findings were reviewed by selected community leaders, who provided feedback, leading to necessary adjustments before finalizing this study.

Study Sites

Initial conversations with Achuar communities and the Achuar Nationality of Ecuador (NAE) began in 2021, and this fieldwork took place three years later, in 2024. The three communities described below—Sharamentsa, Mashientz, and Pumpuentsa—chose to welcome us. Each of these communities presents unique perspectives as "counter-sites."[31] Sharamentsa, the most geographically isolated, lies further along the Pastaza River in Montalvo Parish and directly manages 10,549 hectares within a broader collective title of 53,678 hectares shared with four other communities.[32] Mashientz, located along the Pastaza River in Sarayaku Parish (Pastaza Province), is the least visited by outsiders and shares a collective land title of 50,000 hectares with four neighboring communities under the name Mashientz-Kapawari.[33]

In contrast, Pumpuentsa, situated on the Macuma River in Morona Santiago Province, is recognized as the oldest Achuar settlement and co-manages 44,084 hectares of communal land with four other communities.[34] Together, these communities illustrate the varied degrees of isolation, historical significance, and collective land governance among the Achuar. More detailed information about each community is presented below (Fig. 3).

[See Fig. 3]

Results

This section presents findings from this study of the *Jea* within the Achuar communities of Sharamentsa, Mashientz, and Pumpuentsa, focusing on its role in the Achuar cosmogony, construction practices, and its influence on social and familial dynamics. The results are organized around the *Jea'*s significance in life, its role in key rituals, and the impacts of modern housing models on traditional practices.

[See Fig. 4]
[See Fig. 5]
[See Fig. 6]
[See Fig. 7]
[See Fig. 8]
[See Fig. 9]

The Jea is Alive

In Western contexts, discussions about the *Jea* houses typically prioritize their morphological, conceptual, or historical aspects over their spiritual dimensions. Yet for the Achuar people, the *Jea* lies at the very heart of their cosmogony.[35,36] Descola, for example, indicates that the Achuar share an animistic relationship with nature.[37] Similarly, Duin explains that many Amazonian Indigenous communities perceive non-human entities as possessing their own subjectivity and the ability to form personal relationships, attributing social qualities to animals and spirits.[38] Building upon Duin's perspective, we find that, for some Achuar families, the house itself has a spirit and forms a relationship with the "organisms" inhabiting it. In addition, it is important to recognize that, before Western contact, the main and only built structure within Achuar communities was the *Jea*. This relationship was exemplified during a conversation with a 33-year-old Achuar man, head of a household in Sharamentsa. He explained: "For us, the house keeps us alive; without it, we could not survive in the jungle." Participatory observation further revealed that the *Jea* is not only considered "alive" but is also deeply intertwined with every stage of an Achuar individual's life, from birth to death.

The Jea Brings Life

While visiting a five-member family constructing their *Jea* in Mashientz, it was evident that every stage of the process—extracting timber from the forest, transporting materials on the shoulder, assembling posts and beams, and weaving the thatch roof—was a family effort. Although the man typically leads the construction, his wife and children actively contribute by preparing food and *chicha*, collecting palm leaves, and weaving them into thatch. Additionally, this traditional building practice fosters long-term ecological planning: families reforest areas with hardwoods and plant palm trees to ensure future construction materials. In some cases, NGOs have supported such reforestation efforts as seen in Sharamentsa and Mashientz.

When a young couple decides to marry, they first seek their families' approval during the *Wayusa* ritual—a daily tradition held before dawn, where families discuss important matters after drinking *Wayusa* tea. The tea cleanses the body through vomiting. If both families arrive to an agreement, the groom is allowed to live with his wife's family for a few months before fully integrating into their community. During this time, he learns their customs from his father-in-law and assists in hunting and cultivating the land. However, once the young woman confirms her pregnancy, her husband begins planning the construction of a house for their new family, usually in an area relatively close to her parents' home, as explained by a community member in Sharamentsa.

Since building the *Jea* takes between six months to one year, the couple usually build a small house for them prior to having kids. However, during a conversation with an elder in Pumpuentsa, the man explained: "After building a new house, we must first light the firepit and hold a chicha celebration before bringing in a newborn; otherwise, the Jea could take the baby's spirit, causing the child to die." Stories like this illustrate the *Jea's* importance in shaping an individual's identity. In fact, several rituals are closely associated with inhabiting the *Jea*, providing a sense of belonging and a

feeling of being blessed or permitted to use it. For example, during an interview with one of the families in Sharamentsa, they mentioned: "After building the house, we [the couple] are deprived of sexual activities as well as from making or eating certain types of food, like *chicha* or *chontacuros* [worms], to make the house last longer." They later explained that the thatched roof, made from specific palm leaves found in the forest, deteriorates more quickly if these activities take place inside the house. This is because *comején* (termites) will nest in the roof, creating holes until the structure collapses.

Among the three visited communities, it became evident that the number of single-parent families was higher in Mashientz and Pumpuentsa, while virtually nonexistent in Sharamentsa, which maintained a more traditional lifestyle compared to the other communities. Participant observation revealed that single-parent families—primarily women—struggled to uphold the tradition of building a *Jea*, as male labor is crucial to achieving this goal. Consequently, most single-parent women in Mashientz and Pumpuentsa did not live in a *Jea*, but in houses offered by the Ministry of Urban Development and Housing, MIDUVI houses,[39] (see fig. 2) or with their parents instead.

The Jea in Death

Death is an ever-present reality in Achuar families. The Ecuadorian Amazon, for instance, has one of the highest child mortality rates in the country, according to the 2010 Census.[40] A member of Pumpuentsa explained that when a family member dies, they are often buried beneath the *Jea*. He shared his personal experience, telling us that his two children, who passed away from an illness at a young age, are buried under their current home. He said: "For us, family must remain close. Death is just another state of life, but they are still with us, in spirit. That is why we are not afraid of the dead, they protect us and stay with us." This form of burial has traditionally been possible because *Jeas* were built with compacted earth floors, which facilitated the practice.

Previous scholarship has explored the relationship between death and the *Jea*.[41] Descola explains that in traditional Achuar households, when the father—who is typically the head of the family—dies, the house is burned, symbolizing its death alongside him. The remaining family members then relocate, constructing a new *Jea* nearby. However, as *Jeas* evolve and incorporate modern materials, such as concrete floors as seen in Sharamentsa and Pumpuentsa, this burial practice becomes increasingly difficult to sustain. The transition to new building materials not only alters traditional spatial arrangements but also disrupts deep-seated cultural practices surrounding life, death, and the spiritual presence of ancestors in the household. Sharamentsa, for instance, has its own internal law regulating what can and cannot be built within the community. This law was established to protect the vernacular architecture of the *Jea*.

The Jea is Threatened

Among the three Achuar communities visited, only Mashientz and Pumpuentsa exhibited government-sponsored housing. MIDUVI houses are structured into four spaces: a balcony, a living area, and two bedrooms. While designed for four-person households, some in Mashientz accommodated up to ten occupants. To date, only two MIDUVI housing prototypes have been introduced in Achuar communities: a rectangular layout (Type 1) built in 2009 in Mashientz and an ovoidal layout (Type 2) constructed in 2013 in Pumpuentsa. Based on observations, 50 MIDUVI houses were built in Mashientz and 39 in Pumpuentsa. To qualify for this type of housing, Achuar beneficiaries had to be registered in the national census and classified as living in 'extreme poverty' according to international human development indices.

For many, the MIDUVI house is primarily used for sleeping and storage. During the day, it is mostly unoccupied as residents prefer to spend time in the *Jea*. When asked why they preferred the *Jea*, a family in Mashientz responded: "We like this place because we can see each other, stay with the animals, and easily access the gardens and river." Unlike the MIDUVI house, the *Jea* has no interior partitions, creating a sense of openness and transparency—qualities that, based on participant observation, appear common among Achuar living patterns. The gendered organization of space in the *Jea* is not defined by physical barriers but rather by how household members perform specific activities in designated areas within the open layout. The arrangement and design of furniture—particularly the *chimpi* (male or chief's seat) and the *kutank* (female seat)—symbolize clearly defined gender roles. This gendered spatial dynamic is evident in the presence

of outsiders. Women, for instance, avoid direct interaction and often turn their backs while sharing space within the *Jea*, maintaining a distinct yet subtle separation within the same open structure. Some families also construct palisades around the *Jea*'s perimeter for minimal separation between indoor and outdoor environments. The structure, however, "breathes" through the gaps between vertically arranged wooden slats, ensuring constant cross-ventilation. Built directly on compacted earth, the *Jea* allows domesticated animals—dogs and monkeys—to share the living space. In contrast, the MIDUVI house, elevated on stilts with wooden floors, limits these direct interactions.

Today, some Achuar people still practice polygamy, despite missionaries' efforts to eradicate this way of life and impose monogamy, as recorded by Salesian missionaries.[42] Traditionally, men have resided with their wives and children under the same roof. An elder in Mashientz described in an interview: "I used to live with my three wives in the same house. However, after the government offered those [MIDUVI] houses, all my wives wanted to live apart. That's why now I live one month with each of them, rotating between houses." He disliked the MIDUVI houses and continued living in his own *Jea*, while two MIDUVI houses next to his *Jea* remained largely un-used. After visiting to each of his wives, we learned that, like many other families, each wife had hired a builder from the community to construct a *Jea* next to her MIDUVI house, primarily for use as a kitchen. While these housing changes have granted individuals in Mashientz—particularly women—greater independence, the elder's account suggests that the transition from *Jea* to MIDUVI housing has weakened traditional household structures. Many women, however, regard the shift as a necessary trade-off for greater independence within a still patriarchal structure.

The Jea is Altered

The *Jea* has long been subjected to external forces of transformation—first through missionary intervention in the 60s, and more recently through state-led development policies. The arrival of Salesian missionaries marked the beginning of these disruptions, as they reorganized traditionally dispersed Achuar settlements into nucleated communities centered around boarding schools and airstrips—devices of both Christianization and administrative control.[43] In the 70s, Salesian missionary Arnalot reflected on this cultural imposition: "In the mission, we [Salesian missionaries] forced them [the Achuar] to learn Spanish, to be at our service; the morality to follow was ours; the customs, ours; the life they had to imitate, what they had to think, the standards to follow to be considered normal... everything was ours."[44] Though the agents of assimilation have shifted—from church to state—the objective has remained the same: to fold Indigenous lifeways into dominant national narratives.

As Achuar families receive Westernized housing models like the MIDUVI home or adopt hybrid typologies that integrate MIDUVI with *Jea* construction techniques, TEK is increasingly being lost. Instead of building homes collectively with all family members and passing down elders' construction knowledge through a participatory system known as *minga*, communities now predominantly rely on external builders or a small group of local specialists for house construction. After the construction of the first MIDUVI house in 2009, most of the new hybrid houses in Mashientz began to feature modifications of the original model. When I asked residents of Mashientz why this happened, they explained that the new houses were cheaper, quicker to build, and more durable. However, when asked whether they enjoyed living in a MIDUVI house, they shared that it was "ugly," it was also too hot during the day, too cold at night, and unbearably loud when it rained—a frequent occurrence in the rainforest. Their response aligns with findings from past research on the poor thermal comfort of Westernized houses in Achuar territories.[45] Additionally, they mentioned that their family spent most of their day in the kitchen (an old *Jea*), because it remained cool in the morning and retained warmth at night.

Two significant interior spaces in the *Jea* that are changing are the *tankamash* (male space) and the *ekent* (female space). In more isolated communities like Sharamentsa, we still found a few houses without visible physical divisions or perimeter walls. However, when an outsider arrived at the house, women and children would move to the *Etsa Taamu* (east side), while men and visitors remained on the *Etsa Akati* (west side) of the *Jea*[46]. Similarly, the firepit for cooking is still located in the *ekent*, while a separate firepit for guests is situated in the *tankamash*, as observed in Sharamentsa. The house's layout further reflected these divisions, typically featuring a door on the east and another on the south,

reinforcing its gendered structure as seen in Sharamentsa. Traditionally, the gendered divisions of space extended beyond the *Jea* itself, with the *ekent* connecting to the *ajas* (cultivated gardens near the house) and *chacras* (agricultural plots). Today, these divisions are softening, with more men working in the gardens.

In 2024, during visits to families in Mashientz, we observed that the *tankamash* was being used as a living or dining area, while the *ekent* was a dedicated cooking space within the morphed *Jea* by adding a partition wall between both spaces. In single-parent homes, particularly those led by women, the traditional spatial constraints were not observed—women spoke freely with us, as there was no husband present to mediate interactions. In Pumpuentsa, the gendered division within the *Jea* had largely disappeared, and women engaged in conversations with visitors at any time. However, in Mashientz and Sharamentsa, the principles of *ekent* and *tankamash* continued to shape how men and women moved and performed activities within their territories. This suggests that while spatial gender roles were loosening within the home, they remained relevant in the broader landscape. With the introduction of Western education and employment, men and women began engaging in similar labor both within and outside the household. To some extent, Westernization has contributed to greater gender equality among the Achuar. However, this shift remains a point of contention, as elders strongly oppose the erosion of traditional gender roles.[47,48]

Discussion

The *Jea* is a central element in Achuar culture, embodying not only a physical structure but also a spiritual and cosmological significance. For some Achuar, particularly elders, the house is considered alive, with a spirit linked to the divine playing a crucial role in the individual's life cycle, from birth to death. The construction of the *Jea* involves collective family labor, ecological management, and ceremonial rituals that reinforce the relationship between the people and their environment. However, the introduction of government-sponsored MIDUVI housing and roads has led to changes in traditional construction practices and social dynamics, resulting in alterations to the role of the *Jea* within Achuar communities. These shifts have led to a decline in the transmission of traditional knowledge, as well as changes in spatial organization and family structures, particularly in relation to gendered roles within the home.

New building materials and forms, particularly in more Westernized communities like Pumpuentsa, are closely tied to identity and perceptions of progress—suggesting that one is modern, well-off, and progressive. In Pumpuentsa, which appears more Westernized, having a large *Jea* does not confer the same sense of honor upon a head of household as having electricity, appliances, and a house that resembles those found in urban areas. This was evident when visiting a community member who was economically better off than others in the community. This individual lived in a rectangular house with a pitched zinc roof, brick walls, and a concrete floor. As an authority figure, he explained: "I should set an example that it is possible to improve our living conditions. However, I still have my *Jea* for ceremonies and to drink *chicha*."

A growing use of modern construction materials—such as zinc panels, concrete blocks, and concrete structures—is driven by the scarcity of heritage materials needed for the *Jea* like palm leaves for roofing and hardwood for structural elements, something often seen in permanent settlements.[49] Additionally, the short lifespan of traditional houses (10–15 years) compared to the time investment required to build them (typically 6–12 months), as noted by a community member in Mashientz, has further contributed to this shift. A similar shift is occurring in hunting and farming practices. Traditionally, Achuar families clear small plots (1–3 hectares) when relocating to a new home, allowing their previous land to regenerate naturally, ensuring a continuous reforestation cycle. But as houses become permanent structures, mirroring urban settlements, the heritage practice of temporary living and resource regeneration may fade. An Achuar community member from Pumpuentsa described the dilemma they face: "We feel pressured. The NGOs want us to preserve the forest to help us, while the government wants us to farm and raise cattle to help us." He added: "If we don't accept one or the other, they [the NGOs] just move on to another community in greater need." This tension highlights the conflicting external influences on Achuar communities—each imposing a different vision of "progress" that may ultimately erode their traditional way of life.

Furthermore, considering the *Jea* and MIDUVI houses reveals a dual form of exclusion: the Achuar are not only being displaced from their traditional way of life but are also excluded from decision-making regarding this imposed transition. As a result, some communities find themselves adopting this new housing model without the opportunity to negotiate its adaptation, particularly given their economic constraints—an issue most pronounced in Pumpuentsa, which has road access (Fig. 10). This suggests the urgent need for Achuar community participation in the design of their homes and territories—not merely as consultants or passive recipients of architects' and planners' ideas but as active agents in the conceptualization, design, and execution of these projects.

[See Fig. 10]

Conclusions

By exploring how Achuar identities interact with traditional and new forms of housing, this research contributes to broader discussions on Indigenous territoriality, cultural resilience, and the potential for alternative development models that may emerge from within Indigenous epistemologies rather than being imposed from the outside. This case study prompts larger questions about what "modernity" means for Indigenous groups like the Achuar: Does inclusion in Western modes of living require the abandonment of traditional practices? For example, will the Achuar be able to preserve their *chicha* tradition or *wayusa* ceremony without the *Jea's* fire pit? How long will they continue to build *Jeas* adjacent to MIDUVIs as a form of cultural survivance?[50]

The Achuar heritage cities of Sharamentsa, Mashientz and Pumpuentsa have rapidly evolved since the introduction of the MIDUVI in 2009. The *Jea*–MIDUVI tension illustrates a paradox of inclusion: infrastructure projects aimed at integration of the Achuar into national frameworks often exclude their traditional living practices, encouraging communities to conform to external norms at the expense of cultural sovereignty.[51] This work suggests there is an urgent opportunity to integrate and honor the Achuar's TEK in future housing development efforts.

Community Representatives

The following community representatives reviewed this research and offered feedback prior to publication: Marco Mukuink (Community of Sharamentsa, President of the Association of Parents of the Sharamentsa School), Celia Teresa Chiriapa Mashian (Community of Mashientz, First Achuar Woman President of Mashientz from 2021 to 2023), and Pedro Tsamareint (Community of Pumpuentsa, Director of UECIB Santiak, First President of the NAE, and Former President of the Pumpuentsa Association).

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Fig. 1. Achuar territory in the Ecuadorian Amazon, 2025. (Maps by the author. Base maps by ESRI World Imagery.)

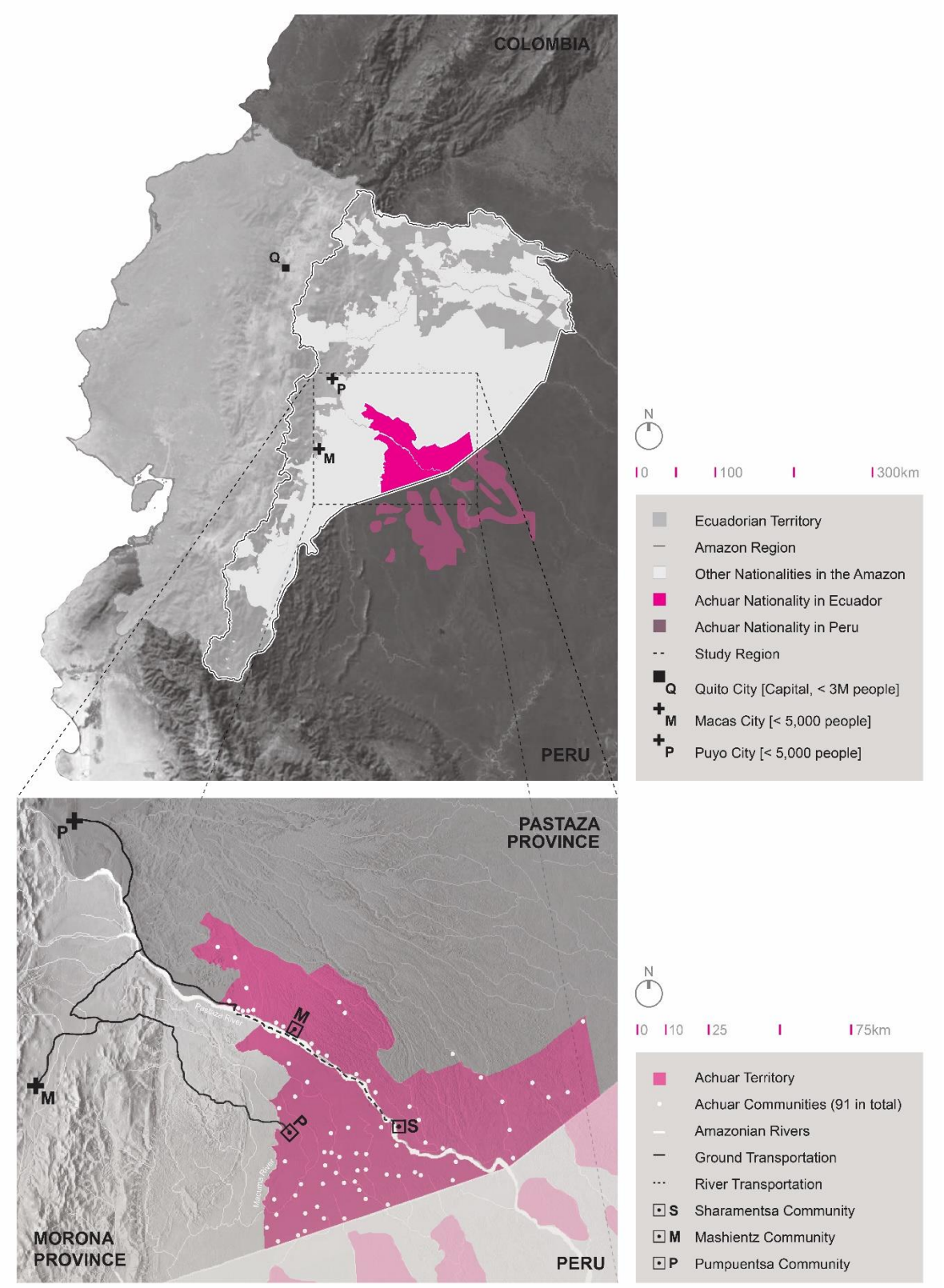


Fig. 2. Achuar communities included in the study, circa 2024. (Maps by the author. Composite satellite images from @Maxar, @ Mapbox, and @OpenStreetMap.)



Fig. 3. Spatial and social contexts of selected Achuar communities. (Table by the author, prepared based on information shared during participant interviews.)

	SUBTOPIC	SHARAMENTSA COMMUNITY	MASHIENTZ COMMUNITY	PUMPUENTSA COMMUNITY
GEOGRAPHICAL CONTEXT	Location	Pastaza Province	Pastaza Province	Morona Santiago Province
	Forest Condition	Primary forest	Largely primary forest	Degraded forest due to livestock and monoculture
	Land Tenure	53,678 ha Collective title shared with four other communities	50,000 ha Collective title shared with four other communities	44,084 ha Collective title shared with four other communities
DEMOGRAPHICS & ECONOMY	Population	188 residents, 33 families	185 residents, 35 families	396 residents, 112 families
	Primary Economic Activities	Community-based tourism (CTC), farming, and employment with NGOs	Farming	Farming and employment with government institutions (education)
	Monthly Household Income Examples	$300 – $450 (farmers and monitors), $600 – $800 (teachers), $1,000 – $2,000 (NGO leaders)	$150 – $250 (farmers), $600 – $800 (teachers)	$250 – $500 (farmers), $600 – $1,000 (teachers)
	NGO Presence	Pachamama (conservation), Kara Solar (renewable energy), Nia Tero (renewable energy), WWF (tourism)	Conservation International – CI (forest conservation)	CI (forest conservation), Chankuap (farming)
SETTLEMENT & HOUSING	Settlement Type	Linear (around airflied)	Dispersed	Nucleated (state-regulated grid layout)
	Housing Type	Jeas (no MIDUVI houses)	Jeas, MIDUVI houses, hybrid houses	Jeas, MIDUVI houses, hybrid houses
	Household Plot Size	100x100m plot (near community center)	100x100m plot (near community center)	100x100m plot (near community center)
	Farm Proximity Per Household	30–min to 45–min walk	45–min to 1–hour walk	Within 1–hour walking distance
INFRASTRUCTURE & PUBLIC SERVICES	Education Facilities	Primary school (2 classrooms)	Primary school (1 classroom), High school (2 classrooms)	Intercultural Bilingual Community Educational Unit (UECIB), Child Development Center (CDE)
	Health Facilities	None	None	Pumpuentsa Healthcare Center
	Tourism Infrastructure	Community-based Tourism Center (CTC), cabins, restaurant	None	None
	Other Infrastructure	Airstrip (good condition), communal center (good condition), laundry facility (good condition), port + solar panels (good condition), volleyball court, soccer field	Airstrip (poor condition), communal center (poor condition), volleyball court, 2 soccer fields, evangelical Christian church (good condition)	Airstrip (not in use), Autonomous Decentralized Government offices (GAD), covered sports complex (good condition), soccer field, synthetic mini-soccer field, evangelical Christian church
TRANSPORTATION MODES	Transportation Modes	Air (primary), river and ground (alternative)	River and ground (primary), air (limited)	Ground (road partially constructed)
	Travel Time to Nearest City	1 hour (air), 8–11 hours (river + ground)	4.5–6 hours (river + ground), 45min (air)	3–4 hours (ground)
	Cost of One-Way Travel to City	$105–$275 (river + ground), $300 flight	$25–$65 (river+ground); $300 (flight)	Approximately $13.50
	Energy Sources	Solar panels, solar-powered lighting	Solar panels (only two houses)	Gas-powered generator (< 10 houses)
UTILITIES & ENVIRONMENTAL SERVICES	Water Access	Piped water	None	Piped water (natural spring project)
	Internet Access	High-speed Starlink internet (communally shared)	HughesNet Ecuador (only 2 houses own it and rent it to the community)	HughesNet Ecuador (3 houses owned and a 1 rent it to the community)
	Waste Management	None	None	CI-managed waste collection
	Sewerage	None (for community) and CTC (discharge to river)	None	None
	Road Acess	None	None	Yes

Fig. 4. Multi-generational household cluster in Sharamentsa: grandfather, grandmother, their son, his wife, and eight grandchildren. (Map by the author, July 2024.)



Fig. 5. Housing typologies in Sharamentsa. (Photographs by the author, July 2024.)



Fig. 6. Multi-generational household cluster in Mashientz: grandmother, two adult daughters, and six grandchildren. (Map by the author, May 2024).



Fig. 7. Housing typologies in Mashientz (photographs by the author, May 2024).



A1 ***Jea House-1***
Achuar Traditional House
Built before 2009



A2 ***MIDUVI House-1***
State-sponsored housing
Typology 1
Built in 2009



A3 ***Hybrid House-1***
Self-built house following the
MIDUVI example
Typology 1
Built in 2012



A4 ***Hybrid House-2***
Self-built house based on
Kitchwa architecture
Typology 2
Built in 2022

Fig. 8. Multi-generational household cluster in Pumpuentsa: grandfather, grandmother, son, daughter, her husband, and two grandchildren. (Map by the author, July 2024.)

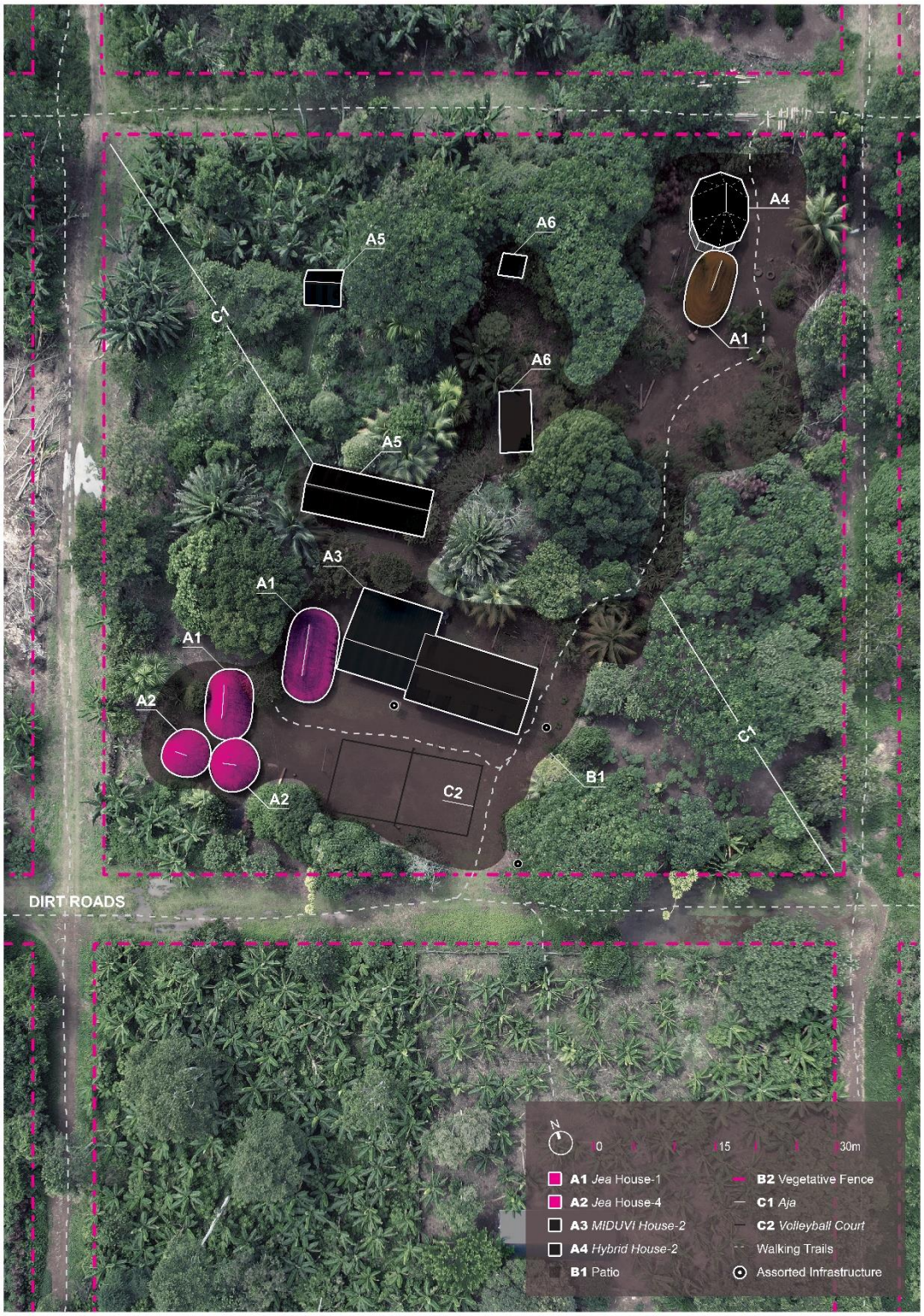


Fig. 9. Housing typologies in Pumpuentsa (photographs by the author, July 2024).



A1 ***Jea House-3***
Jea with palisade *(Kanutai typology)*
Built in 2012



A2 ***Jea House-4***
Round *Jea* House *(Muntsu typology)*
Built in 2013

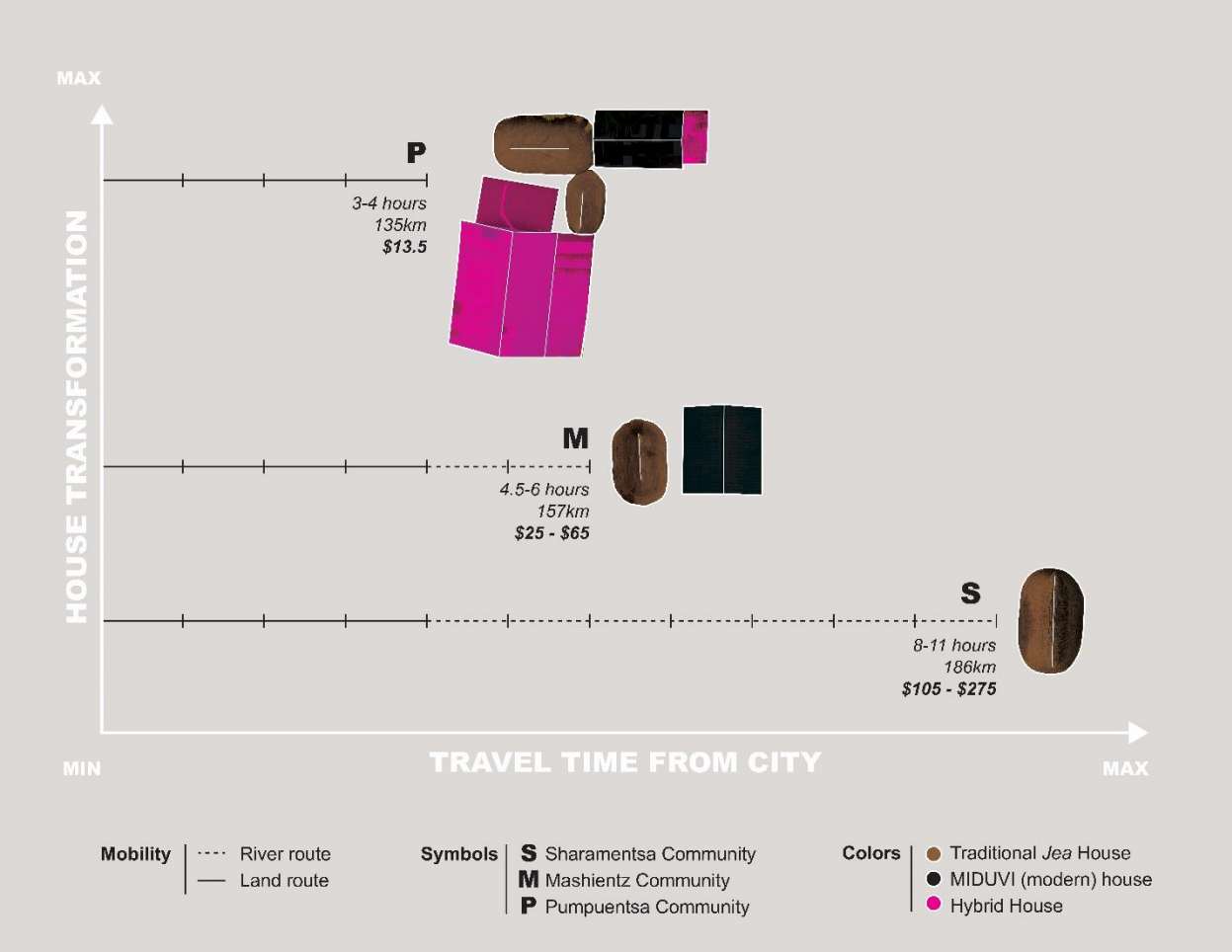


A3 ***MIDUVI House-2***
State-sponsored housing
Built in 2013



A4 ***Hybrid House-2***
Self-built house referencing
urban housing models
Built in 2016

Fig. 10. Transformation of the *Jea* into modern housing in relation to urban proximity. (Diagram by the author.)



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