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*Where craft shapes the city: the intangible
heritage of the Barniz de Pasto technique
and its influence on architectural identity in
the city of Pasto, Colombia*

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A special and profound gratitude is extended to the Master Artisans of the Barniz de Pasto named above, and to all collaborators working in their workshops.

Beyond the spatial construction or the consolidation of a physical building within the city of Pasto, the primary motivation of this thesis is to give visibility to the hands and hearts of those who craft the Barniz de Pasto pieces every day, bearers of the invaluable intangible heritage of southern Colombia. Their work requires not only technical knowledge, but also dedication, sensitivity, and effort, qualities that are embodied in each of their creations. Special thanks are extended to the artisans who, with humility and generosity, opened the doors of their homes and workshops, offering us a place within their daily routines and sharing their time to explain the step-by-step process of the technique. Their openness allowed us to understand the context, history, and real working conditions in which this craft is practiced, inspiring in us the curiosity and motivation to develop not only a written thesis, but also an architectural proposal that honors and dignifies this tradition.

Acknowledgments

We express our deep gratitude to the Politecnico di Torino for the opportunity to access rigorous methodologies and a broad perspective on architectural conservation and the value of heritage. To our advisors, Elena Vigliocco and Manuela Mattone, for their generous dedication, for accompanying each of our questions with patience, and for guiding us with the clarity and expertise that made this work possible.

Our heartfelt appreciation also goes to the Pontificia Universidad Javeriana, which for five years was much more than an academic institution: it was our home, the place where we grew both as architects and as individuals. There, we encountered professors who supported us with professionalism, but also with a humanity that truly left a mark. Special thanks to Mónica Álvarez, Ernesto Moure, and María Isabel Tello, who not only guided us through the thesis process but also offered words of encouragement, confidence, and the enthusiasm that awakened the curiosity that now connects us to heritage and commits us deeply to its preservation.

Abstract

El presente trabajo de tesis propone una intervención urbana y arquitectónica en el centro histórico de la ciudad de Pasto, en Colombia, orientada a la recuperación, valoración y conservación del patrimonio material e inmaterial asociado a la técnica artesanal del Barniz de Pasto, declarada patrimonio cultural inmaterial de la nación y símbolo identitario de la región de Nariño. Este proyecto busca demostrar como la valorización del patrimonio inmaterial va a contribuir a salvaguardar el patrimonio arquitectónico de la ciudad.

El proyecto tiene como base el reconocimiento de la pérdida progresiva del oficio debido a la falta de valoración de la técnica y también de sus artesanos a nivel nacional, situación que ha generado dificultades espaciales y económicas para los que la practican, y la estrecha relación que este hecho tiene con la falta de un espacio destinado a la visibilización, apreciación y promoción de esta técnica.

Como respuesta a esta situación la propuesta, que tiene como fundamento una lectura integral del territorio, la historia urbana del sector, la arquitectura existente y el significado simbólico de esta, complementados con trabajo de campo y entrevistas a los artesanos, parte de este entendimiento complejo de

ES.

abrir la realidad de la práctica, y de la ciudad en la que se realiza para articular estrategias de restauración, conservación y diseño que abarcar no solo la problemática del barniz sino también el deterioro patrimonial y espacial de la ciudad de Pasto.

En una escala urbana se crea una cadena de relaciones patrimoniales, sociales y espaciales que conectan nodos esenciales de la ciudad que forman un circuito de valor histórico completo. Además comprende la reconfiguración de la plaza de la iglesia de Santiago, esencial para la articulación de la calle del Colorado en la que culmina la intervención por medio de un centro cultural para el mopa-mopa, que integra espacios de exhibición, talleres y zonas de encuentro concebidos para difundir y visibilizar la técnica artesanal, promoviendo la participación de la comunidad y la permanencia de la práctica en el tiempo. De esta manera la propuesta no solo preserva el patrimonio sino que lo transforma en parte activa de la identidad, la cultura y el desarrollo local.

Abstract

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This thesis proposes an urban and architectural intervention in the historic center of the city of Pasto, Colombia, aimed at the recovery, appreciation, and conservation of the tangible and intangible heritage associated with the artisanal technique of Barniz de Pasto, declared an intangible cultural heritage of the nation and an identity symbol of the Nariño region. This project seeks to demonstrate how enhancing the intangible heritage will contribute to safeguarding the architectural heritage of the city.

The project is based on the recognition of the progressive loss of the craft due to the lack of appreciation for both the technique and its artisans at the national level, a situation that has generated spatial and economic difficulties for those who practice it, and its close relationship with the absence of a space dedicated to the visibility, appreciation, and promotion of this technique.

As a response to this situation, the proposal, founded on a comprehensive reading of the territory, the urban history of the area, the existing architecture, and its symbolic meaning, complemented by fieldwork and interviews with artisans, emerges from this complex understanding of the practice's reality and the city in which it takes place, in order

to articulate restoration, conservation, and design strategies that address not only the issues related to barniz but also the broader heritage and spatial deterioration of the city of Pasto. At an urban scale, a chain of patrimonial, social, and spatial relationships is established, connecting essential nodes of the city to form a complete network of historical value. The proposal also includes the reconfiguration of the Plaza of the Church of Santiago, a key element for the articulation of Calle del Colorado, where the intervention culminates with the creation of a Cultural Center for Mopa-Mopa. This space integrates exhibition areas, workshops, and meeting zones designed to promote and make the artisanal technique visible, encouraging community participation and ensuring the continuity of the practice over time. In this way, the proposal not only preserves heritage but transforms it into an active part of the city's identity, culture, and local development.

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introduction



Image 0. Barniz piece made in Granja workshop.
(Photograph by Mauricio Dueñas Castañeda, 2022)

The value of a city lies not only in its buildings, but also in the stories and traditions that have shaped its identity. In the case of Pasto, a city located in the south of Colombia, near the border with Ecuador, its cultural richness is expressed through a deep connection between the place and the artisanal practices that have endured over time. Among these, the technique of Barniz de Pasto, or mopa-mopa, stands out: an ancient, pre-Hispanic craft that has survived for centuries and has become one of the most representative symbols of the city's heritage.

Undergoing a process of deterioration due to the lack of recognition and governmental support. Together with the limited appreciation of those who practice this art, this has led to a progressive loss of both the craft and its surrounding context, further worsened by the absence of appropriate spaces where the knowledge associated with the craft can be exhibited, promoted, or taught to new generations, and thereby integrated into the social fabric of the city.

Yet, this issue reflects a broader problem affecting the historic center of Pasto: the deterioration of its urban and heritage fabric as a result of poor planning, the lack of effective conservation policies, and above all, the weak connection and appreciation for it from its inhabitants. This reveals the need to understand heritage not only as tangible assets in need of structural or physical restoration, but as a living set of memories and practices that shape the collective identity of the community.

From this understanding, this thesis proposes a multiscale approach that considers not only the material aspects of the city but also the spirit of its territory, its practices, and its buildings. It seeks to respond to the complex challenges of such environments through strategies of restoration, conservation, and design including the creation of a space where the craft can become tangible through experimentation, learning, and appreciation. This place, beyond being a physical container or a long-needed symbol, is conceived as an articulator of urban life, that seeks to establish a presence in the collective memory and strengthen the relationship between people, place, and heritage.

Thus, the project is not limited to restoring buildings or preserving a traditional craft through isolated interventions, but rather configures an integral strategy that acknowledges the changing city and its ability to rebuild itself through its own legacy, thereby resisting the passage of time. This thesis also becomes an opportunity to reflect on how architecture has been, and continues to be, a medium for preserving memory, and how that memory gains strength through its physical manifestation in built form.

The city of Pasto
and the artisanal
technique of
“Barniz de Pasto”

chapter

01

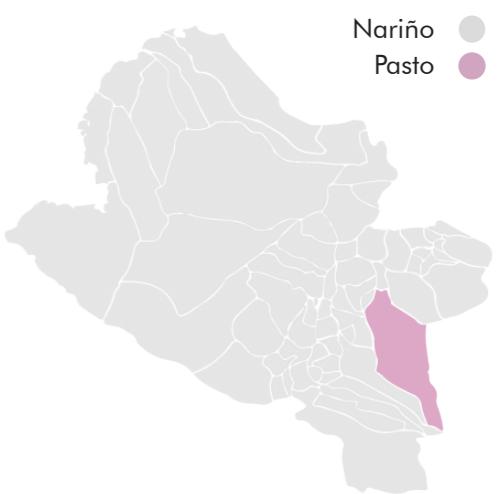
Localization of the city within the country

In the southwest of Colombia is the department of Nariño, a territory defined by its complex geography, which includes three distinct ecological regions: the Amazonian foothills, part of one of the world's most important biodiversity reserves; the Pacific lowlands, known for their wide variety of species and ecosystems; and the Andean region, where high-altitude landscapes, páramos, and volcanoes stand out, making this one of the most diverse regions in Colombia and the world (University of Nariño et al. 2007, Camacho Caicedo 2016, Gobernación del Departamento de Nariño 2024)

In addition to this climatic diversity there is an extraordinary cultural richness that has been shaped since pre-colombian times by indigenous people, such as the Pastos, Quillacingas, Sindaguas, Nulpes, Tumacos, Abades, and Chapanchicas (Narváez Ramírez, 2006). These communities “possessed their own systems of knowledge, methods of production, social organization, and cultural practices, rooted in the territory long before colonization” ibid. with expressions so significant that they are still considered of great archaeological value today.

It is precisely its geographical location, in the border of the country, defined by the Andes mountains and neighboring Ecuador, that has deeply influenced Nariño's territorial dynamics: over time, its complex topography, together with historical shortcomings in connectivity, infrastructure, and planning, has limited its development in comparison to other regions of the country. Since colonial times, the economic model established in the region has not been one for progress. As Guillermo Alfredo Narváez explains in his article “Elementos para la historia económica del departamento de Nariño (I)”:

“Between the 17th and 18th centuries, in what is today the department of Nariño, a backward, semi-feudal mode of production



was consolidated, characterized by forced labor institutions such as encomiendas, slavery, mita, and resguardos, the result of which was the prevention of the region's economic development." (p.14)

This process only deepened in the centuries that followed, particularly with the establishment of the Republic, based on a centralized model promoted by Nariño itself, which considered it necessary to confront Spanish rule. However, as Rodriguez (2005) notes:

"what was overlooked, or perhaps underestimated, was that in Colombia multiple variants were intertwined, turning this territory into a melting pot of ethnicities, identities, cultures, and traditions, within a geography that enabled each of these differences to maintain their own territory and well-defined natural boundaries." (p.14)

This centralization has further deepened regional inequalities, making it difficult for departments like Nariño to participate actively in processes of national planning and development and these differences have remained despite the legal introduction of decentralization in 1991 (Political Constitution, Article 1, 1991 – Asamblea Nacional Constituyente). As noted by La Libertad (2020), centralist traditions and state structures have failed to grant greater autonomy to territorial entities, resulting in a culture of dependency and reducing decentralization to the mere submission of reports, requests for funding, and lobbying efforts from the region to the center.

However, this cultural detachment is also the result of a series of historical events that led to the disconnection of the city of Pasto from the rest of the country, which for years has diminished the culture celebrated in the South. On a national level pasto and Nariño's cultu-

re is synonymous with intellectual deficiency and is commonly used in a derogatory manner. This perception stems from a historical generalization dating back to Pasto's role in the independence movement, one of the most violent episodes in Colombia's history, which included the so-called "Black Christmas." During this event, Pastusos who opposed independence were massacred, raped, and murdered; an atrocity ordered by Bolívar and executed by Sucre (Rosero, 2012), until this day, these events remain in the collective mind of people in this region. The book "*La carroza de Bolívar*" echoes this historical reality and provides insight into the violent context the region endured, which has contributed to Pasto's isolated position within the Colombian context.

These historical events have led to a lack of support in promoting the recognition of other regional values, such as the cultural impact of Nariño on the country, which holds a wide variety of traditions embodied in both tangible and intangible expressions, some of which have been declared UNESCO Intangible Cultural Heritage, such as the Carnaval de Negros y Blancos (Blacks and Whites' Carnival) and the traditional Barniz (lacquer) craftsmanship. Unfortunately, national recognition does not match the international acclaim these traditions have received, which affects the population in social, economic, and cultural aspects, further deteriorating them (Álava et al., 2008)



*Image 1. Pasto city view from afar.
(Photograph by Mauricio Enriquez, 2023)*

The art and craft of Barniz

Pasto lacquer, also known as mopa-mopa lacquer, is an ancestral artisanal technique used to decorate usually wooden objects, by applying fine, colored, thermoformed sheets made from the resin of the mopa-mopa tree.

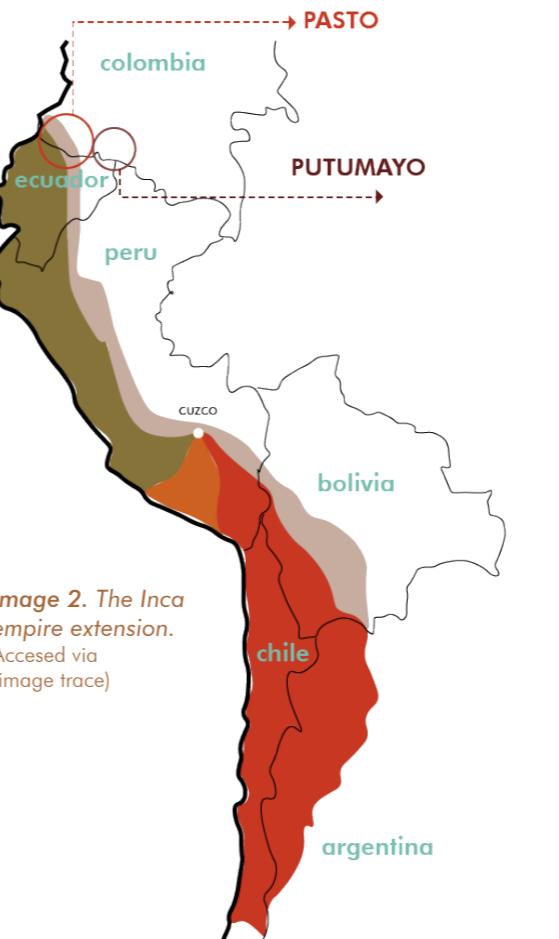
It is one of the few traditional Colombian crafts of Indigenous origin that has endured over time, surviving with very few fundamental changes in how it is processed and worked since it was first encountered by the Spanish conquistadors (Carvajal & Eudoro, 2005). This is the only technique of its kind still preserved in the world and is practiced

exclusively in the city of Pasto, in the department of Nariño.

Although today the practice is concentrated exclusively in Pasto, its origins date back to the Indigenous peoples who inhabited the Andean and Amazonian foothill regions (that are known today as the departments of Nariño and Putumayo) during pre-Hispanic times. For years, it was believed that the use of mopa-mopa resin had begun with the arrival of the colonizers, but recent research such as that of Sánchez Monzón (2020), and archaeological findings mentioned by Lopez Perez (2007) show that this technique has much older roots.

The Indigenous communities of the region were already using plant resins for decorative purposes on ritual and utilitarian objects long before the Spanish colonization. In fact, mopa-mopa resin was already being used more than a thousand years ago, and its application has been documented in objects from the Inca Empire, such as the queros (ceremonial wooden vessels decorated with colored resin sheets) which continued to be produced for about 300 years (Newman et al., 2023).

Today, the most widely accepted theory, proposed by researcher Lopez Perez (2007) states that it was precisely in the territory of Nariño where mopa-mopa began to be systematically worked, and that from there the technique spread southward (*Image 2*), reaching Quito and later Cuzco, the center of the Tahuantinsuyo (Inca Empire), before eventually retreating back to its place of origin. This trajectory highlights Nariño's role as the original epicenter of an ancestral knowledge that has survived primarily in the place where it was born.



The word barniz comes from Spanish and refers to a liquid applied as a coating to a surface, giving it a glossy or enamel-like finish. The first Spanish chroniclers who observed objects decorated with the resin were unaware of the material's origin or the technique used to apply it. Because of its appearance and shine in a way similar to that of a liquid coating, they may have mistaken it for conventional varnish, which explains the adoption of the term to name this technique (Newman et al., 2023)

With the arrival of the Spanish colonizers, the technique of Pasto lacquer did not disappear; instead, it began a process of transformation and adaptation. The use of lacquer as a decorative technique is mentioned in accounts from the 16th century throughout the territory stretching from Nariño to Quito, but it wasn't until 1740 that Juan and Ulloa (1748) described the working method of mopa-mopa in detail:

“With this, all sorts of varnishes are made on wood, and they turn out so beautiful and durable that neither boiling water softens them nor do acids dissolve them [...] and it is applied to the piece, where it dries and becomes permanent, vivid, and glossy, imitating Chinese lacquer, and with the particular property of not dissolving again or absorbing moisture, even when saliva is applied. The pieces crafted

and lacquered in this way by the Indians of that region are taken to Quito, where they are widely used and highly valued” (p.470)

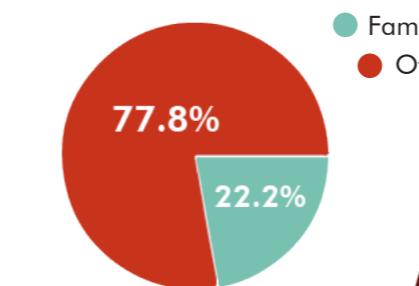
Mentions like this allow us to infer the value and prestige these objects held in vice-regal circles due to their trade in other cities of the Viceroyalty of Peru and New Granada. Their establishment and permanence in Pasto were probably due to its strategic position in relation to major cities that demanded such goods: Cuzco, Lima, Quito, Popayán, and Santa Fe de Bogotá, and its proximity to the region where the resin was obtained, encompassing Caquetá, Putumayo, and Sucumbíos (Gomezjurado, 2014).

Although varnish never became part of a large-scale industrial production, its artisanal manufacture persisted even during the independence movements and the formation of the republic, becoming a symbol of local identity in the face of national transformations.

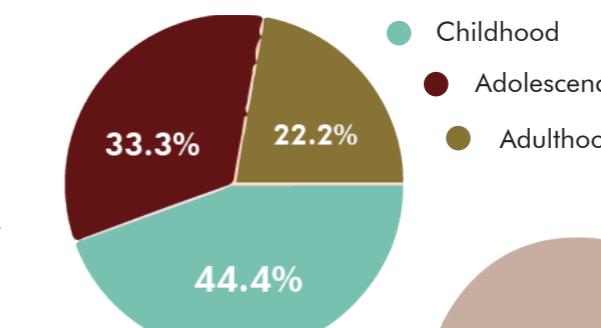
Contemporary Practice and Transmission

Even though Pasto lacquer has survived for centuries, its current practice faces several challenges that affect its sustainability and transmission. Understanding the present situation of the technique allows us to understand its fragility and the efforts necessary for its preservation.

A fact that stands out from this research is that although this technique has historically been passed down from generation to generation not all artisans today acquire their knowledge as a direct family inheritance. According to the data collected, only 22.2% of surveyed artisans learned the Pasto lacquer technique as part of a family legacy, while the other 77.8% learned it somewhere else, this highlights a rupture in the traditional forms of transmission. (Graph 1)



Graph 1. Method of knowledge acquisition. 2023.
Source: Own interviews



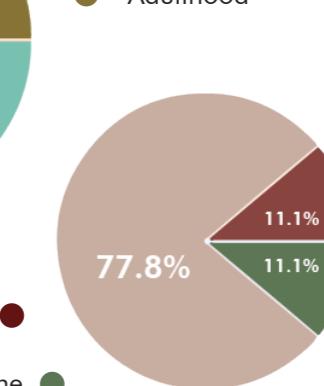
100%

of artisans learned the technique during childhood

This trend also shows that lacquer remains a craft that is best transmitted through prolonged presence and training within family or community settings even though intergenerational transmission has weakened (Graph 2)

Another aspect that reflects the deeply community aspect of Pasto varnish is the nature of the spaces where it is produced. According to the data collected on the survey, 77.8% of artisans work in a dedicated workshop within their own home, 11.1% in a domestic space mixed with other household uses, and 11.1% in external workshops. This data reaffirms that the practice is strictly artisanal and not industrial at all and also demonstrates the close connection it has with domestic and family life. The fact that most workshops are located within homes shows how varnish is an active part of the city's social and cultural fabric. (Graph 3)

Graph 2. Age of knowledge acquisition. 2023.
Source: Own interviews



Graph 3.
Types of workshop spaces in the practice of barniz. 2023.
Source: Own interviews

The production of Pasto barniz is exclusively located in the city of Pasto.

100%

100%



Image 3.
“Barnizadores de Pasto”, Manuel María Paz. Watercolor, 1853

Inside the workshops

Voices and spaces of Barniz artisans: site visits and interviews in Pasto



Image 4. (Top left) workspace at the Granja workshop. (Photograph by the author, 2023)



Image 5. (Top center) scene documenting the artisanal process of Barniz at the Granja workshop. (Photograph by the author, 2023)



Image 6. (Top right) workspace at the Narvaez workshop. (Photograph by the author, 2023)



Image 7. (Middle left) scene documenting the artisanal process of Barniz at the Wilson Orlando Chavez workshop. (Photograph by the author, 2023)



Image 8. (Middle center) workspace at the Narvaez workshop. (Photograph by the author, 2023)



Image 9. (Middle right) scene documenting the artisanal process of Barniz at the Narvaez workshop. (Photograph by the author, 2023)



Image 10. (Bottom left) workspace at the Richard valderrama workshop. (Photograph by the author, 2023)



Image 11. (Bottom center) scene documenting the artisanal process of Barniz at the Lasso workshop. (Photograph by the author, 2023)



Image 12. (Bottom right) workspace at the Granja workshop. (Photograph by the author, 2023)



Image 13.
Scene documenting the artisanal process of Barniz at the Narvaez workshop. (Photograph by the author, 2023)

In order to achieve an immersion that would allow us to directly understand the realities of the artisans, as well as the spaces and daily practices that shape their practice under real conditions, we conducted fieldwork through visits to barniz workshops in the city of Pasto. Several artisans opened their doors to us, allowing us to closely observe their work. These interviews not only complemented the information previously collected and presented here, but also gave us the opportunity to delve into the personal experiences of those who dedicate their lives to this craft.

The testimonies reveal the dual nature of the workshops: some, as an extension of the home, deeply intertwined with daily life, combining spaces that shift from one use to another to accommodate family life and the artisanal work; and others as independent production workshops subject to the demands of the craft itself and contemporary working conditions. Direct dialogue with the artisans also allowed us to learn firsthand about their perception of market changes and the dissemination of the craft, which, although today enjoys growing international recognition, is not reflected in Colombia in terms of economic income, quality of life, or working conditions.

Similarly, the visits allowed us to understand the social dimension in which the approach to and learning of the technique generally occurs: simply being near a workshop or an artisan was, for many, the reason that led them to learn and dedicate their lives to barniz. This social characteristic is thus revealed as an essential component for the dissemination of the technique, reinforced by the fact that numerous artisans not only teach but also openly express their desire to share their knowledge, which demonstrates a collective will for promotion and continuity.

In this sense, it is essential to recognize that there are no reservations when it comes to transmitting the craft; on the contrary, the willingness to share it strengthens its communal nature and reinforces its chances of enduring over time.

Regarding the body posture that artisans adopt while working, we observe that, although there are tables or surfaces intended for work, most artisans prefer to handle the pieces very close to their bodies, using their bodies to support them, as shown in *Image 13*.

Another key aspect is the storage of finished or in-progress works. We observed that for this purpose, workshops have furniture and niches specially designed by the artisans themselves, which allow the pieces to be arranged in an organized but also visible manner as can be observed in *Image 13* in the cabinet located behind the artisan, where completed works are displayed alongside the very materials and tools used in their production. This illustrates how spaces in the workshops are not strictly differentiated by a single function, and how this spatial feature aimed more at displaying the work than simply storing it, while keeping it within the artisan's reach reinforces the everyday relationship between the creator, the object, and the workspace.



Image 14. Perspective of a production area in the Granja Barniz workshop. (Photograph by the author, 2023)

Images 14 and 15 highlight the nature of the workspaces within the Barniz de Pasto artisans' workshops. Understanding and having the opportunity to immerse ourselves in the production spaces of the craft is essential for comprehending the challenges it faces, particularly in terms of infrastructure, where the informality of production spaces creates tension when it comes to preserving and transmitting the tradition.

By analyzing the artisans' testimonies alongside our spatial observations, the problem becomes clearer: barniz is a practice that often takes place in precarious or resource-limited environments, yet these spaces remain fundamental for its continuity. Engaging with the practice in this way provides a key source of information, allowing us to ground discussions about the conservation of the technique in the material reality of the craft, which in turn will guide the proposals developed later in this work.



Image 15. Perspective of a production area in the Granja Barniz workshop. (Photograph by the author, 2023)



mopa mopa

1.

The buds of the mopa-mopa shrub are harvested in the Putumayo rainforest during the rainy seasons of May and November. Collectors form one kilogram blocks of agglutinated resin and send them to the workshops in Pasto.

the craft begins

*Scientifically known as “Elaeagia pastoensis Mora”. The mopa mopa produces a natural resin that, when softened by heat, becomes highly malleable and adhesive.

cooked mopa - mopa



mopa - mopa buds

2.

setting the stage: the art of preparation

The resin is softened by repeatedly immersing it in hot water and is then ground or pounded to remove impurities. This process is done entirely by hand, as using tools would cause the resin to stick to them, and it can take up to a full day to complete. It is then repeatedly kneaded to achieve a homogeneous, malleable, and clean texture in preparation for dyeing.



cleaned and grounded mopa-mopa

3.

the colors of nature

While the resin is still warm, it is mixed with natural pigments (such as annatto or cochineal) or modern synthetic dyes, producing intense tones like red, black, or ivory. It is kneaded until the color is evenly distributed.



natural colored mass

Step by Step

Image 16. Barniz piece made in Germán Obando's workshop.
(Photograph: Mauricio Dueñas Castañeda. 2022) [image trace](#)



4.

unfolding the craft

The resin is stretched and pulled over a rough surface or the artisan's leg until it forms thin, band-like sheets. The thickness of the sheet is adjusted by touch, depending on the type of work: thinner for embossing, thicker for relief.

Step by Step

As recounted by Óscar Granja, master artisan and son of an artisan, who has dedicated his life to preserving this ancestral technique. (Semana Magazine, 2021)

The colored sheet is adhered to the wood using the heat from the palm of the hand. Once attached, it is trimmed with a precision scalpel to create geometric or figurative patterns, layering pieces according to the desired design.

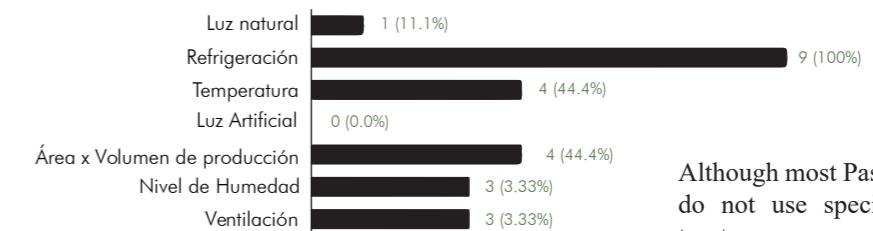
“As soon as the entire process is complete, heat is applied to the piece so that the mopa-mopa fully adheres, and finally, we apply a coat of matte or glossy lacquer.”

5.

the final touch: precision and poetry



Graph 4.
Primary conditions for product storage.
2023. Source: Own interviews



Although most Pasto lacquer artisans do not use specialized techniques to store mopa-mopa, certain factors are beginning to gain importance.

According to the survey, refrigeration (9%) and temperature control (4%), are the most considered elements. This reflects a practice that remains artisanal with slight adaptations to contemporary needs.

Image 17. Barniz piece made in Germán Obando's workshop.
(Photograph by Mauricio Dueñas Castañeda. 2022) [image trace](#)



Image 18. Scene documenting the artisanal process of Barniz at the Narvaez workshop.
(From the exhibition "Memoria Viva, photograph by Richard Valderrama, 2024)

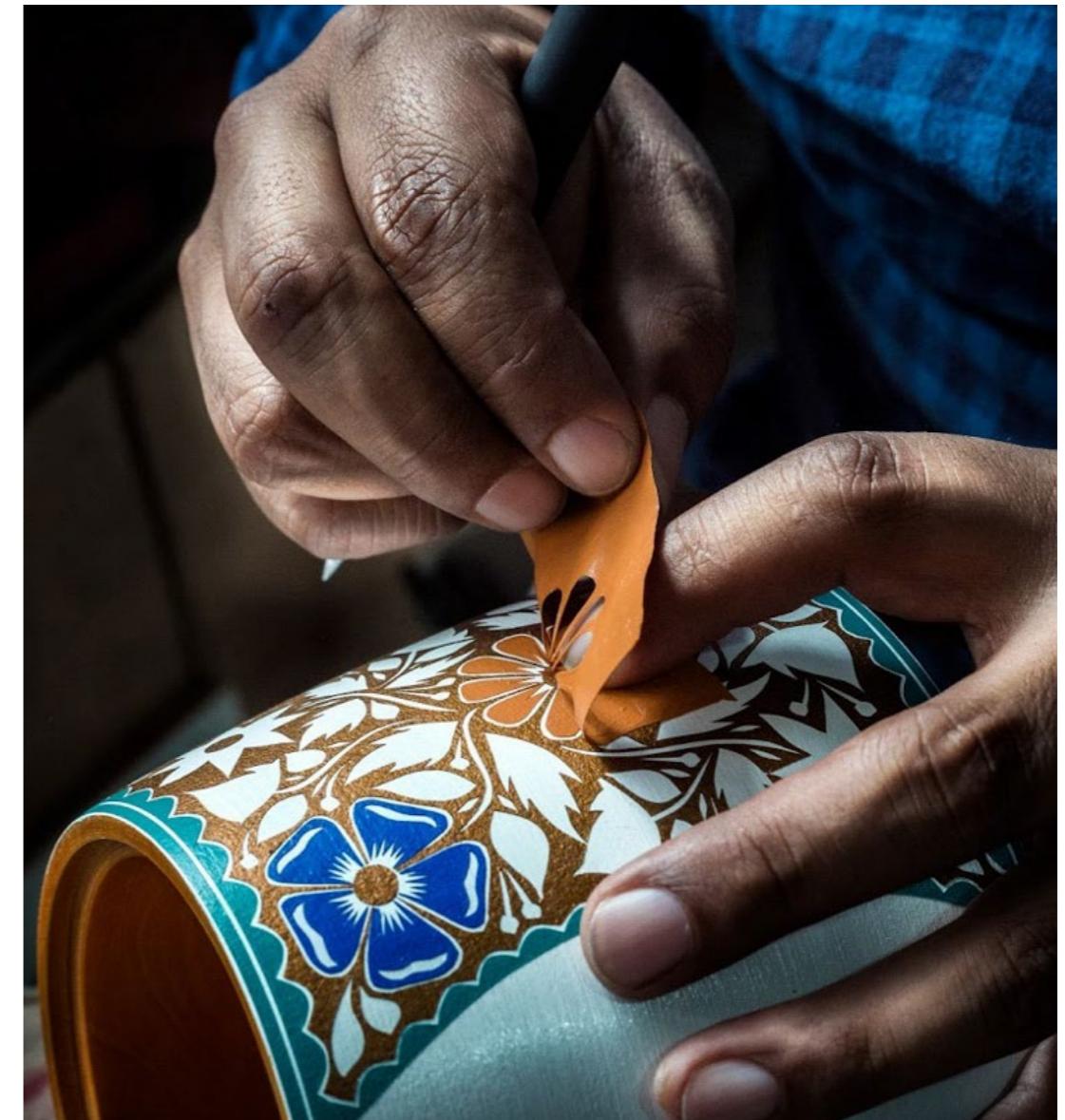


Image 19. Scene documenting the artisanal process of Barniz at the Narvaez workshop.
(From the exhibition "Memoria Viva, photograph by Richard Valderrama, 2024)

The process described above has remained virtually unchanged since colonial times.

This continuity can be observed if we compare it to what probably is the earliest detailed description of the technique, written by father Juan de Velasco in his “History of the Kingdom of Quito” (1789) In it, the process is described as it was practiced at that time, and it alignes in its fundamental stages with the method still used today by artisans in Pasto, from the collection of mopa-mopa to the application on decorative objects.

The faithful preservation of the traditional method, passed down through generations for over two centuries, is one of the key elements that supported the designation of Pasto lacquer as Intangible cultural heritage of humanity by UNESCO. More than just a technique, it is a living expression of ancestral knowledge, local identity, and cultural permanence over time.

Barniz de Pasto, Cultural heritage of humanity

This craft, passed down through families and communities since pre-Hispanic times, was inscribed in 2020 by UNESCO on the “List of intangible cultural heritage in need of urgent safeguarding”, in recognition of its technical, symbolic, and cultural importance. The declaration considers on it three traditional activities related to carpentry, and decorative lacquering, and states that:

“the techniques associated with the collection of mopa-mopa, wood processing, and decorative lacquering are a source of identity for the communities involved, and Pasto or Mopa-Mopa lacquer has allowed artisans to work independently, join guilds, and/or become part of family-run commercial structures.” (UNESCO, 2020)

The inclusion of this technique on the “List of intangible cultural heritage in need of urgent safeguarding” was due to the threats it faces from factors such as development and globalization processes (which offer more profitable alternatives for younger generations) the scarcity of mopa-mopa trees in forests due to deforestation and climate change, as well as the difficulty in accessing harvest sites and the precarious conditions of artisanal workshops.



Image 20. Barniz piece made in Germán Obando's workshop.
(Photograph by Mauricio Dueñas Castañeda. 2022) [image trace](#)

Global prestige, unmatched national commitment

Unfortunately, national recognition does not match the international acclaim these traditions have received, which affects the population in social, economic, and cultural aspects, further deteriorating them (Álava, Rivera, Goyes, and Bastidas; 2008).

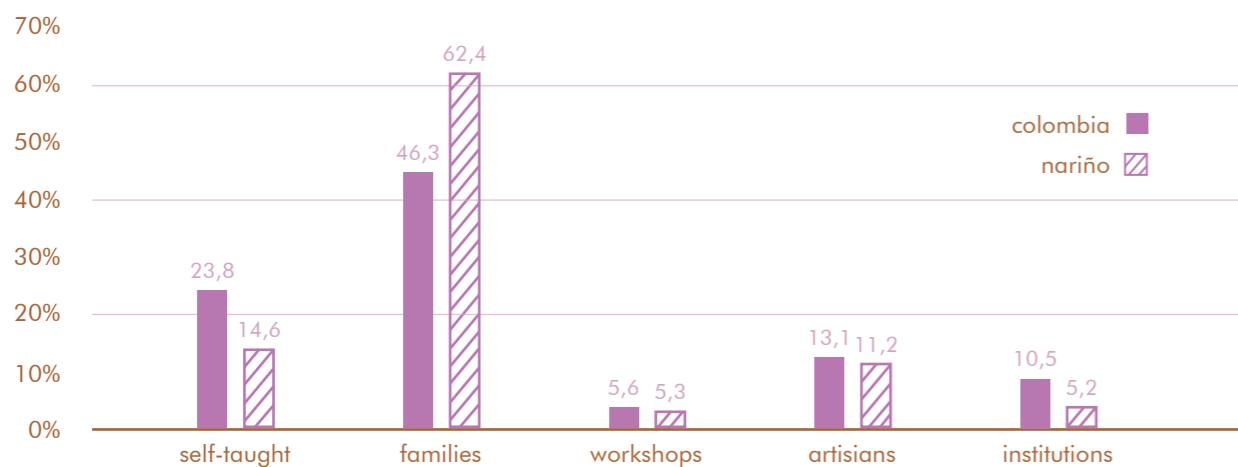
When it comes to barniz (lacquer), it is often an unknown technique in the national context, generating interest only once people get actually close to it. However, its current level of recognition remains very low, despite being one of the oldest techniques in Colombia. Although it developed during the colonial period in what was then the “Villa de San Juan de Pasto,” and its production and commercialization later extended to the city of Quito, Ecuador, its origins trace back to the Indigenous period. It has preserved from that time a graphic representation style in its technique, where nature and landscapes play a central role in the ornamentation. As highlighted in the book “Naturaleza y Paisaje” (Nature and landscape):

“Artistic expressions such as painting and sculpture during the viceregal period of our country predominantly featured religious imagery (...). In contrast, Pasto’s barniz, which has barely received any detailed mention in our art history texts, represents an important yet distinct parallel development. In this case, the ornamental motifs exclusively depict scenes of landscapes, vegetation, and fauna.” (2019, p. 341)

The artisanal technique of barniz holds significant value in Pasto’s culture, not only because of its origins and ancestral meaning, which set it apart from other crafts, but also due to the craftsmanship itself. According to Grisales (2017), as an artistic or artisanal expression, it is deeply woven into the essence of its territory. Barniz serves as a catalyst for the construction of both culture and territory; thus, minimizing the importance of a value such as this technique leads to the deterioration of the culture itself.

As shown in the graph (Table 1), the way in which the people of Nariño have acquired their artisanal knowledge has primarily been through their families: 46.3% in Colombia and 62.4% in Nariño. This is how this cultural heritage has been preserved and passed down from generation to generation, as its meaning is deeply rooted in its citizens and the traditions of the region.

Table 1. Method of training for artisans in Colombia and Nariño. 2018.



The issue of recognition results in a spatial deficit for the places where the artisanal barniz technique is practiced, affecting its decorators socioeconomically. According to the “Design notebook of artesanías de Colombia”:

“They belong to a group of artisans who have set up small workshops in their homes, preferably with direct access to the street, but with little lighting and limited space. Other artisans have better conditions and even hire workers.” (p. 49)

This reveals a reality in which the quality of life and working conditions of a specific group of artisans are deteriorating. This issue not only affects them but also threatens the cultural heritage of society as a whole. For this reason, despite being a technique with international value and recognition, barniz is not among the top artisanal techniques with the highest production in the department (Table 2).

Table 2. Artisanal and leather goods Production Lines in the Department of Nariño, 2012.
Source: Ortiz and López (2015, p.264)

	quantity	part.
Goldsmithing craftsmanship of Barbacoas	11	3,91%
Toquilla straw hats	23	8,19%
Ceramics and pottery made with molds and recyclable materials	17	6,05%
Basketry and crafts using fique, mimbre (wicker), and teteaca fibers	47	16,73%
Crafts decorated with Pasto's lacquer (barniz de Pasto), tamo, and teteaca veneer	17	6,05%
Leather goods and embossed leatherwork	69	24,56%
Carving, fretwork, miniatures, and musical instruments made of wood	36	12,81%
Rock art carving technique	11	3,91%
Garments made using looms, embroidery, and fabric patch appliqués	30	10,68%

In the article “Socioeconomic characterization of the artisan community of Nariño, Colombia”, it is identified that the workplace, i.e., the workshop where the crafts are made, is an important variable in their development and production.

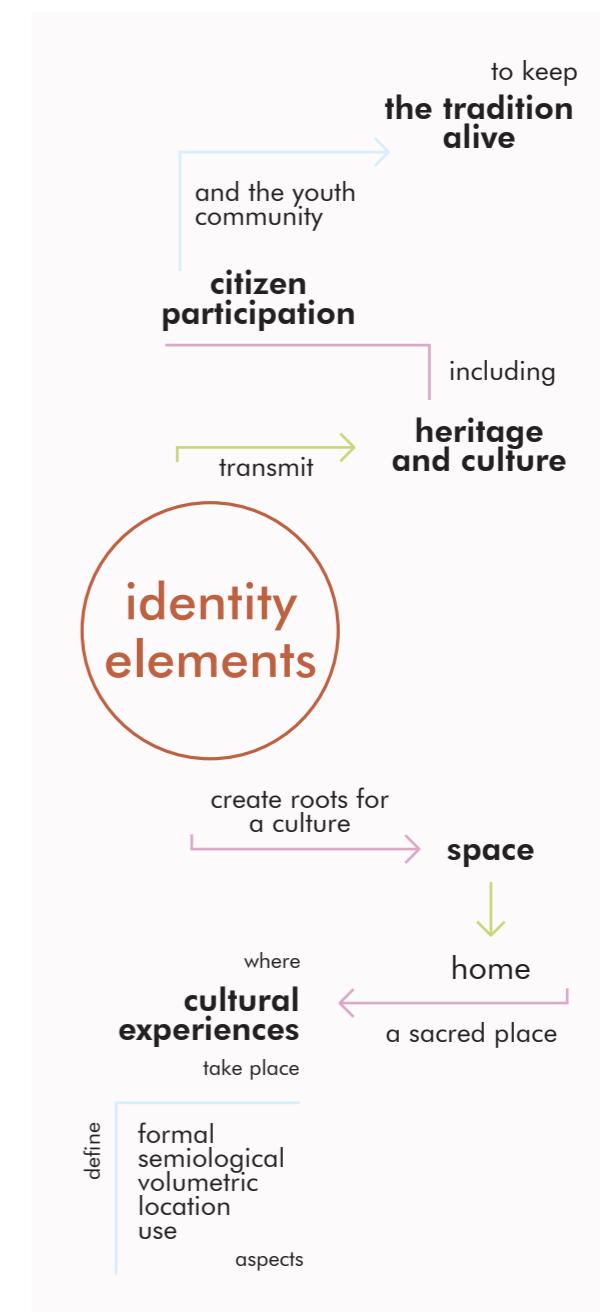
“Working in a workshop, whether it is owned, rented, or satellite, reduces the probability that someone from the artisan community will engage in the production of goods (...) and these are generally developed in the artisans' homes.” (2015)

For this reason, the development of the artisanal barniz technique has not achieved the national recognition expected, which hinders a broader reach of artisanal production. Thus, cultural heritage is linked to architectural heritage, as Torres (2020) explains in the book Aquixtla, when discussing the elements of identity that root a culture to a space. He mentions how the home becomes a sacred place of cultural experiences, defining formal, semiological, and volumetric aspects of location and space use that complement it and establish a value in the dwelling.

The issue lies in the spatial conditions: How are the homes affected and altered when working with the technique at home? And how has there not been a proper spatial intervention for artisans who need improvements to adapt these conditions? (Concept map 1)

The buildings where artisanal products are produced or displayed do not meet their specific requirements, as the architecture lacks adaptability. This has prevented the proper adjustment of spaces, which are mostly located within the home. It is important to consider that adaptability is applied through different approaches: by intuition and adjustment to natural conditions, by family needs, or to improve existing conditions. (Colmenarez, 2009)

In addition to the spatial limitations in the production of the craft, there is also a lack of spaces for appreciation and celebration of this heritage value, which is so important to



Concept Map 1. Description of the problem according to Authors. Source: Torres, G. (2020). Aquixtla. Cultural, Material, and Intangible Heritage. Map: Own elaboration.

Pasto's culture. While it is recognized as a cultural component, it lacks citizen participation and spatial manifestation, which leads to the loss of local tradition and heritage. As Insuasty states:

“Understanding the importance of citizen participation in relation to their territory is essential, especially considering that

Pasto is characterized by a great number of heritage expressions, among them the Barniz de Pasto Mopa-Mopa, which make this region a place with uniquely valuable criteria for this type of goods and heritage manifestations.” (2020, p. 34)

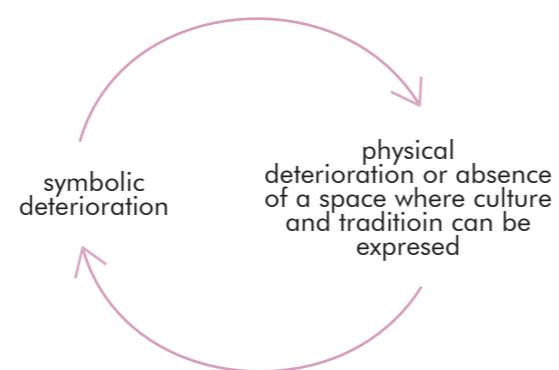
This citizen participation is also affected by the lack of alignment between the value of the crafts and the museums or spaces where this technique is exhibited or practiced. The place where this cultural expression takes place has not been designated as heritage due to poor conditions and insufficient architectural infrastructure. Likewise, there are no spaces that match the quality of Barniz products, nor are there spaces that allow for cultural immersion or interactions that foster learning of the technique and recognition of its cultural and historical value.

The development of citizen participation has also been hindered in the area of tourism. Nariño is not strong in this aspect and does not rank among Colombia's main tourist destinations. Although it is a border city, 89% of tourism in Pasto is national. And even though the technique has not achieved national recognition, these kinds of artisanal elements are what capture attention and spark interest among tourists. The cities that most frequently visit the municipality are: Bogotá (36%), Medellín (22%), Cali (21%), with only 11% coming from international visitors. (FONTUR, 2014)

Although the “Tourism product design for the municipality of Pasto” proposes a development plan that highlights the importance of heritage in the city and its surrounding areas, the issue cannot be addressed only from a tourism-centered approach. To sustain tourism, it is necessary to understand and promote traditional practices that are deeply rooted in the culture, these are what differentiate the region in the national context and are

what attract visitors and generate recognition within those who visit it.

For this reason, the social and spatial issue must be tied to a heritage-related problem, where symbolic deterioration is linked to the physical deterioration or absence of a space in which culture and tradition can be expressed. In fact, some of the identified weaknesses in Pasto's tourism include: “the deterioration of heritage areas in urban zones” and “the absence of heritage interpretation spaces specialized in the artisan sector,” as there are no spaces where artisans can experimentally present their work. (FONTUR, 2014)



Concept Map 2. Feedback Loop of Heritage Loss. Visual description of the problem described by authors. Map: Own elaboration.

Both in homes and public facilities, identity is developed through what Javier Marcos Arévalo (2004) calls “places of memory”.

Heritage assets are a selection of cultural assets. In this way, heritage is composed of the most culturally relevant and significant elements and expressions. Heritage, then, refers to symbols and representations—to the ‘places of memory,’ that is, to identity. From this perspective, heritage possesses an ethnic and symbolic value, as it constitutes the expression of a people’s identity and their ways of life. The signs and identifying features that unite the group internally and differentiate it externally shape the heritage.” p. 929)

Likewise, the spatial deficit in heritage is highlighted specifically, the lack of places that

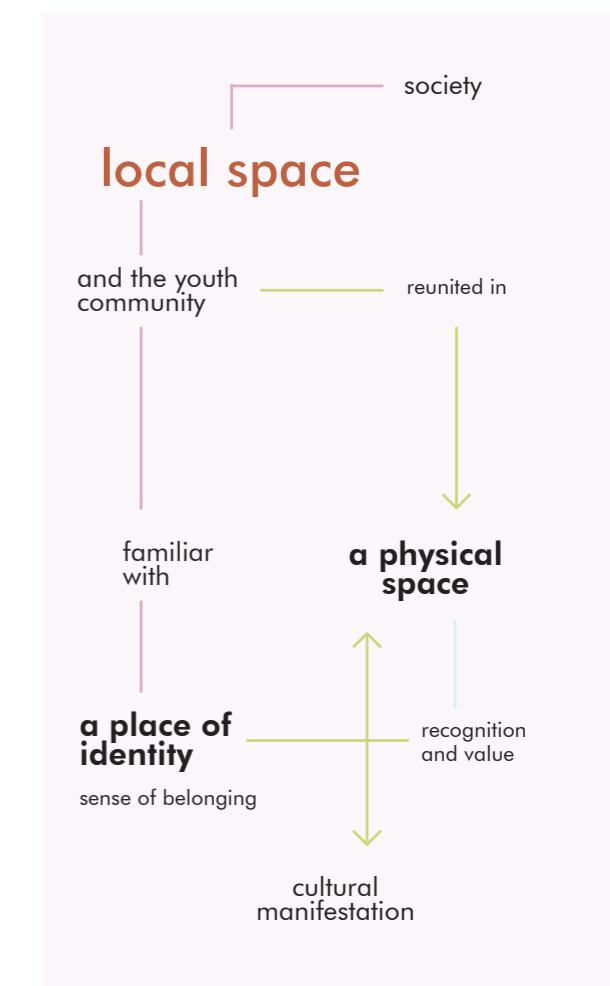
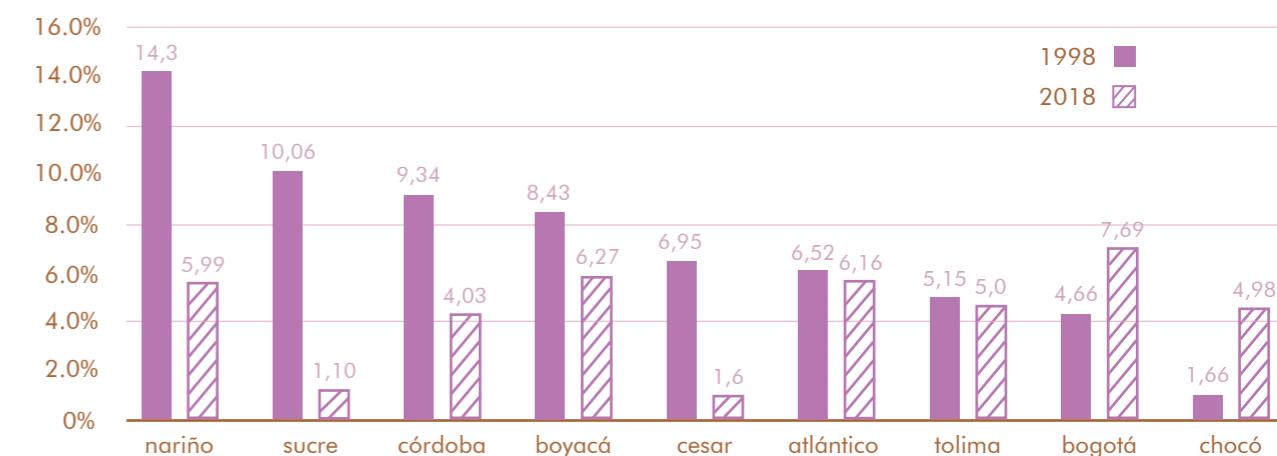
can bring together hundreds of citizens or large-scale facilities, where a historic center can be valued through housing and the traditional dynamics that form part of its history can be understood.

Additionally, it is important to consider the labor and cultural challenges tied to this spatial issue, which is evident in how the Nariñense community, historically artisanal, has lost more than 50% of its population engaged in this trade. This is shown in the graph (Table 3), comparing artisan concentration by department over a 20-year period. It reflects the abandonment of this activity, caused by low income and lack of governmental recognition. As Torres (2020) analyzes, if a community fails to involve its youth, the elements of cultural identity will be lost, traditions will not be passed on to new generations, and they will not remain alive.

This also leads to the problem of the relationship between citizens and both art and artisans. As Guillén et al., (2009) affirms,

“If participation is the result of the civil society-state relationship, such action requires a space in which the citizen feels familiar. A space for everyone, which strengthens the sense of belonging that the individual must feel in order to express themselves.” (p.181)

Table 3. Concentration of Artisans by Department in Colombia, 1998–2018. Source: (Artesanías de Colombia, 2019; Ministry of Economic Development of Colombia and Artesanías de Colombia, 1998).



Concept Map 3. Varnish as a cultural manifestation in the local space. Source: Origin, Space, and Levels of Citizen Participation Map: Own elaboration.

This issue, concerning Nariño's society and culture, not only affects this population but also deprives the entire country of enjoying these expressions and integrating them into its national identity. This leads to the question: How can national recognition for the barniz technique be achieved through the stimulation of space?

Preservatioin issues

When we talk about heritage within the architectural context, it is often understood as all that is material and immovable. While architecture is constructed by rigid, heavy elements, what gives architectural heritage its value is not only the spatial configuration or the composition of the elements of a facade, but also the experiences and traditions that have taken place in a grand plaza or a modest house. It is also about understanding the “why” and the “how” of things within architectural heritage. The “why” refers to the immaterial meaning that is given to a space through tradition, and the “how” is the material solution to something symbolic within a culture. To understand architecture from this perspective, it has to be clear the understanding of the “why,” as heritage architecture stems from traditions, experiences, and the dynamics that occur in a place. This is how intangible heritage from a tradition is linked to material heritage, both movable and immovable.

Understanding how architecture acquires that heritage value is essential to comprehending heritage itself; architecture lacks value unless it possesses qualities granted based on moral or cultural criteria, as Torres (2020) states:

“Values are not inherent in objects; rather, each human being assigns them based on criteria, norms, or customs.” (p.27).

It is value that connects tradition with architecture as it is in this space where activities occur, and likewise the space transforms and changes based on what happens within it. Understanding that all architecture possesses value, regardless of whether that value is considered high or low is important because the mere fact that it is constructed involves a historical process that determined the building. Similarly, the people who inhabit that space, the culture, and the impact it has had on its context determine the values.

But cultivating this value in architecture requires both a physical conservation of the space and an intangible conservation of the tradition. The transmission of knowledge, skills, and know-how is passed down from generation to generation, preserving cultural heritage (Torres, 2020).

That is to say, through conservation, an immaterial cultural value is assigned to a material space. A tradition is materialized and spatialized, which is why the conservation of heritage is crucial for the preservation of the space.

This connection between space, object and tradition is found in all cultures. The characteristics a space acquires due to a dynamic process define its value. This is evident in the case of Mexican cuisine, which was declared an intangible heritage. In the book Aquixtla, it is described:

“...part of the values are the preparation methods, which of course include the utensils and their manner of use. It is well known among Mexicans that beans cooked in an aluminum pot do not taste the same as those cooked in a clay pot.” (p.117).

Here, the value of an object is linked to the value of a tradition: the material aspect merges with the immaterial and allows it to gain greater significance. Similarly, the practice of a tradition within a space is positively or negatively affected; if the space adapts to the required conditions the practice will not be altered; on the contrary it will be stimulated.



Image 21. Barniz piece made in Granja workshop.

(Photograph by Mauricio Dueñas Castañeda, 2022)

and if this tradition is rooted in the preservation of cultural heritage, which is passed down from generation to generation, caring for or improving a space that stimulates preservation will ensure that these cultural aspects are not lost. As López cited in Quintanar (2004) points out,

“The construction of new ideals that value and conserve the heritage of our planet for future generations is a task that concerns us all” (p.128).

A tradition can materialize in space according to the concept of the Casa-taller (house-workshop), where sociocultural aspects govern the distribution and the way in which a building develops. As Rapoport states,

“Sociocultural factors are those that determine the form of the dwelling. That is, the house is not only the result of physical aspects but also the consequence of various sociocultural factors” (p.65).

In the architectural aspect, many social, economic, and cultural factors must be considered when intervening in a building.

The importance of preserving a technique that is part of a tradition lies in conserving the space where it is practiced; if the space does not contribute to its preservation then the technique will gradually lose the values it once held. And if the formal values of a traditional house have been lost over time the transmission of knowledge will not occur. The way things are done and the knowledge involved are passed on to younger generations and in this way the tradition is preserved. Likewise an intangible cultural value is assigned, one that fortunately, is still created, recreated, and endures over time (Torres, 2020).

The involvement of the house-workshop concept in a culture where craftsmanship is practiced dates back to ancient Rome, where living close to one's workplace was common. In the Roman domus, the tablinum was the most important room, distinguishing public

areas from private ones separated by wings or corridors. However, with the arrival of the Industrial Revolution in the 19th century the house-workshop concept began to disappear as factories emerged. The house-workshop is what enables quality of life for artisans, where their home is also their workspace since this tradition is not learned in educational institutions but is passed down within the family; but if the architecture of modern houses fails to adequately adapt and separate public from private spaces, or rest from work areas, the work itself becomes tedious, the technique is practiced in improvised spaces, and the quality of work life decreases. As Torres states:

“Current urban and architectural forms tend to suppress the possibilities of interpersonal communication due to a lack of areas that foster personal and group relationships. In contrast, traditional architecture, through its spaces, enables group interactions among the population.” (p.24)



Image 22. *Pasto varnish workshop in the 19th century*. Painting by Édouard F. André, from *L'Amérique Équinoxiale (Colombie, Équateur, Pérou)*, 1875–1876

Preserving or bringing back architectural concepts that encouraged proper spatial and sociocultural functioning allows us to work with values that have been lost in modern times, values whose absence has negatively impacted the development of certain techniques and contributed to the decline of tradition. The current way of organizing space to carry out work activities within the home does not contribute to the growth or, consequently, the recognition of craftsmanship. Therefore, designing housing with the inclusion of the traditional *house-workshop* concept allows for spatial organization that not only fosters the technique but also improves the quality of life for artisans.

The quality of workshops within the home is enhanced when the importance of architectural adaptability in the space is understood, the configuration of different architectural elements that are flexible and able to adapt to the various dynamics required in a living space. This ties in with the concept of adaptation as described by Ewald Bubner (1974), who defines it as the accommodation of an organi-

sm or of different parts of it to its environment in order to preserve or improve living conditions. Preserving a tradition practiced in a space requires improving the living conditions where that tradition takes place. To conserve it, we need spaces that incorporate spatial flexibility, and that are based on the house-workshop concept, where the space becomes both a resource and a tool that drives cultural advancement.

The preservation of tradition also requires architecture that allows the community to be included in it, spatializing a tradition through places that make it possible to showcase the techniques because as Torres (2020) affirms,

“It is vitally important to show the techniques and the way in which the crafts are made so that the public has elements for appreciation... Unfortunately, it often comes down to price bargaining because people don't know anything about the process... and this hinders the preservation of the tradition.” (p.117).

Spatializing places of memory that include a community and allow them to immerse themselves in a culture in a more personal and meaningful way is essential. Understanding how craftsmanship is driven by spaces dedicated to its exhibition as places of memory, allows us to address the issues that have led to the

lack of recognition of the technique from an additional perspective.

What makes the Barniz (Mopa-Mopa lacquer) heritage is also that intangible value passed down to new generations. Preserving this memory requires spreading and exalting such knowledge through the construction of social heritage where workshops, artisans, and the community are involved and interconnected. As Arévalo (2004) emphasizes,

“How can we safeguard this type of heritage...? There are two complementary approaches: one, by transforming its intangible nature into tangible forms in order to transmit it to future generations through various media (digital, audio, visual, written, iconographic...)” (p.932).

The implementation of exhibition spaces helps safeguard a heritage that may be at risk of disappearing over time, through the creation of a place (or multiple places) that foster community appropriation and achieve national recognition of the tradition.

Urban,
territorial and
historical analysis

chapter

02

The fountadion of San Juan de Pasto: From pre-columbian networks to colonial planning

The founding of the city of San Juan de Pasto followed a preexisting territorial logic. Before Spanish colonization the south of Colombia was part of a complex network of Indigenous roads known as the “Qhapaq Ñan”, the “spine of the empire”: name for a network of over 23,000 kilometers that connected ecosystems and communities between the Andes and the Amazonian foothills (Figure 2). This extensive system “linked multiple productive, administrative, and ceremonial centers built over more than 2,000 years of pre-Inca Andean culture” (UNESCO World Heritage Centre, n.d.). This region marked and belonged to the northern frontier of the Tawantinsuyu (Inca Empire), facilitating cultural and commercial exchanges among Indigenous peoples such as the Pastos and Quilacingas (Uribe, 1977).

With the arrival of the Spanish, the pre-Hispanic routes were reused and formalized as royal roads (caminos reales), connecting key cities like Quito, Popayán, and Santa Fe de Bogotá. Pasto was founded along one of these strategic nodes, taking advantage of its location as a transit point between the Viceroyalty of Peru and that of New Granada (Ferro Medina, 2022).

The city of Pasto was organized in 1537 following the Castilian grid layout, with the Plaza Mayor as its central hub, surrounded by the Cabildo (town council), the jail, the main church, and the homes of the first settlers (Figure 3). From this plaza, four main arteries radiated outward, structuring the urban grid composed of longitudinal streets and transverse carreras (avenues) (Muñoz Cordero, 2017). During the colonial era, some of these streets corresponded to today's carreras 23, 24, 25, and 26, while streets such as 18 and 19 were recognized as public thoroughfares.



Figure 2. Royal Roads of the Inca Empire (Tawantinsuyu). Author's own elaboration based on information from various historical maps and archival plans of the era.

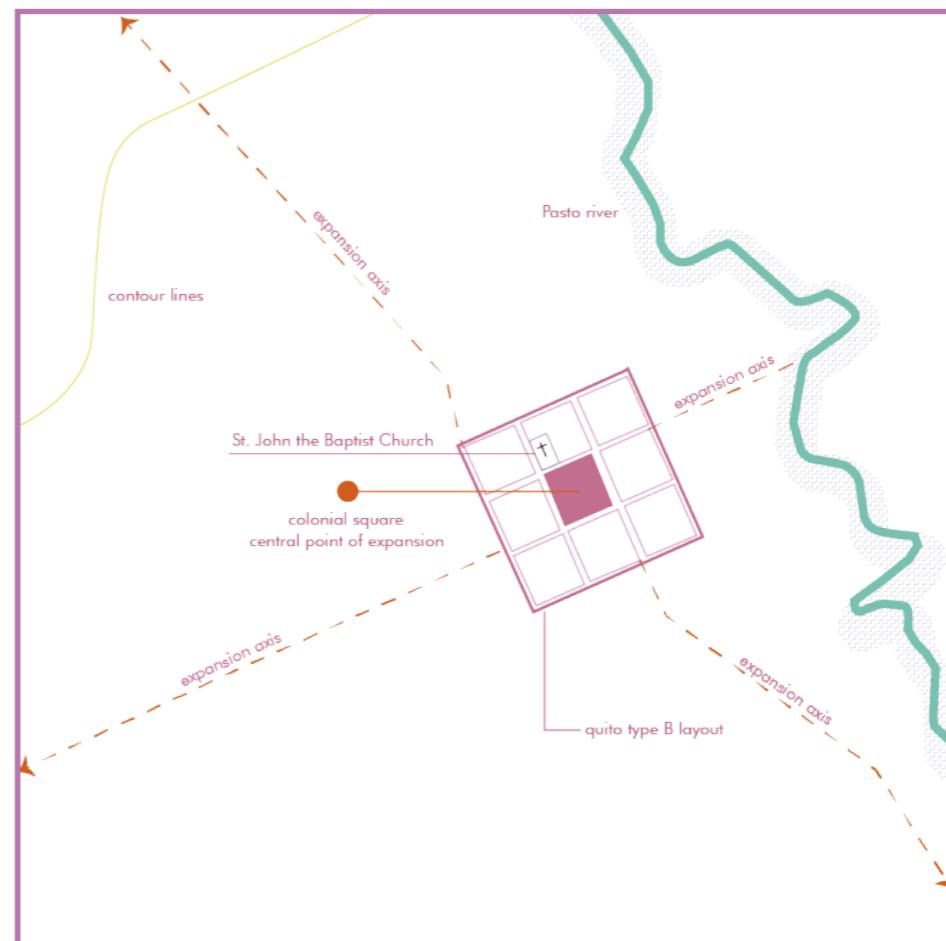


Figure 3. The foundation of Pasto City, 1537. Author's own elaboration based on information from various historical maps and archival plans of the era.

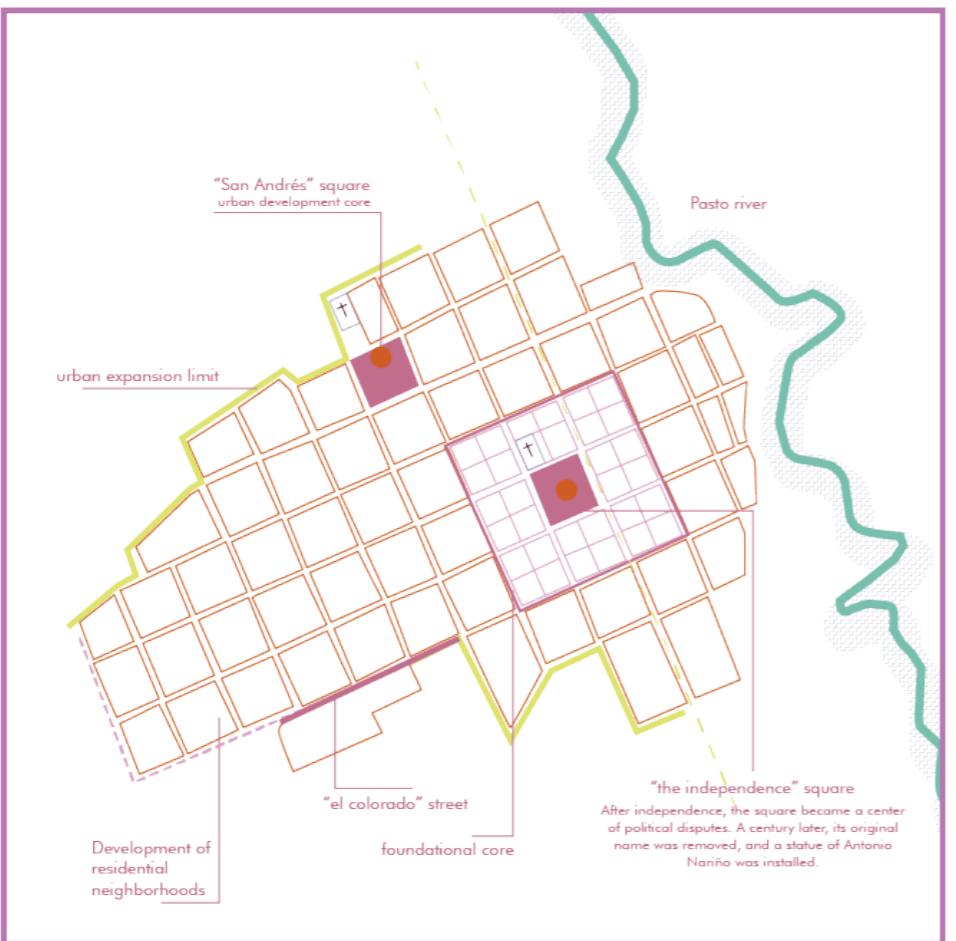


Figure 4. 19th-century urban expansion.
Author's own elaboration based on information from various historical maps and archival plans of the era.



Figure 5. 20th-century urban expansion.
Author's own elaboration based on information from various historical maps and archival plans of the era.

Later Pasto's Urban Evolution

By the end of the 18th century, Pasto's workers were organized into guilds authorized by the town council, including musicians, carpenters, tailors, and painters, among others. Within this social and urban framework, the Barniz de Pasto workshops became a key component of the city's artisanal activity, especially in neighborhoods like Calle del Colorado, where the tradition remains alive today.

“Cities are not as we imagine them; they are, in fact, living organisms. As such, they are an organic whole—like a human body. They have structures like our bones, their buildings form the body, the sap is the torrent of inhabitants circulating through their labyrinthine arteries, they possess memory, history, and like any living organism, they have their largest and most sensitive organ: the street.” (Sansón, 2012, p. 32)

In the 19th century Pasto experienced significant urban transformation, expanding beyond its original foundational boundaries (Figure 4). This period brought political and spatial changes such as the renaming of the Plaza Mayor to Plaza de la Independencia, which reflected the shifts of the time and eventually housing a statue of Antonio Nariño (Moncayo & Palacios, 2013). New urban development hubs emerged, one of them being San Andrés Square, while residential neighborhoods gradually integrated into the city grid, pushing its limits outward. This expansion was not coincidental but rather the result of rural-to-urban migration. As urban studies indicate,

“Urban growth was fueled by migration from the countryside, which generated economic pressure that densified the city center and displaced some activities toward the periphery” (Piaarpusan Pismac, 2012).

Within this context, educational, health, and industrial institutions relocated to marginal areas. The consolidation of new residential sectors also marked a broader urbanization

process, extending Pasto's urban fabric beyond its original colonial limits.

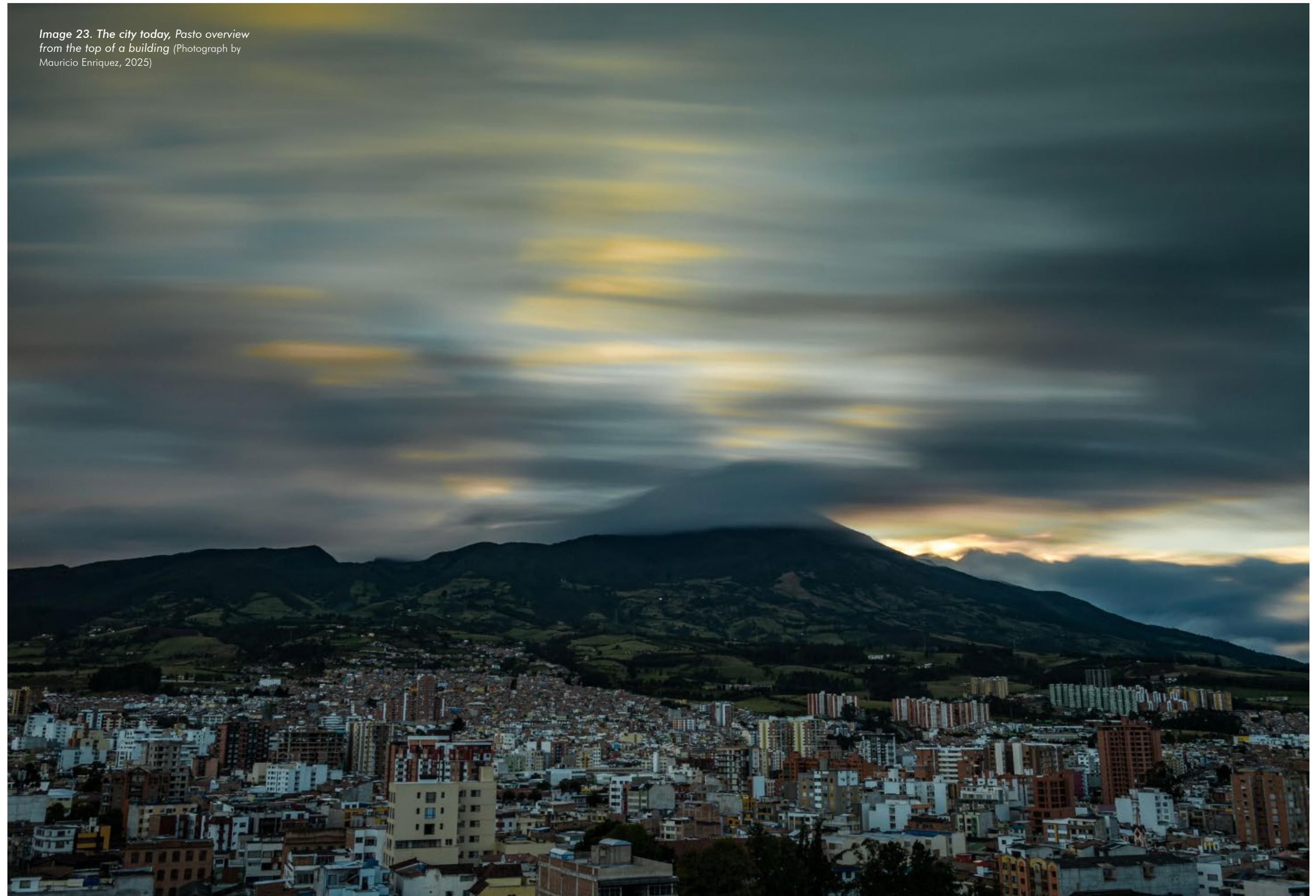
As the 20th century went on, Pasto continued to undergo substantial transformations like the significant expansion, and the consolidation of new urban centers (Figure 5). While the historic core remained concentrated around commercial, institutional, and religious entities, the newly developed areas began to follow a more irregular layout gradually departing from the original colonial grid.

Beginning in the 1970s the urban structure started to shift in response to new housing policies, such as the UPAC system (Unidad de Poder Adquisitivo Constante), introduced in 1972 to facilitate access to mortgage credit in Colombia (La Red Cultural del Banco de la República, 2017). This system triggered a wave of urban expansion promoting the development of residential zones. In cities like Pasto this resulted in a more dispersed and less regulated form of growth, characterized by the appearance of “proyectos de conjunto”, or planned housing developments.

At the same time, “the fragmentary destruction of old sectors of the city intensified, as shopping centers and housing complexes were built” (Piaarpusan Pismac, 2012). This process contributed to the degradation of the historic center, where traditional buildings that were never recognized as heritage structures were replaced by modern constructions, accentuating the loss of historical value and deepening the deterioration of the city's core.

This journey through the urban history of Pasto makes evident how the city has been shaped by a complex interplay between tradition and transformation. Observing its evolution and the forces behind it is key to understanding the city today along with the cultural, social, and symbolic values that define it, values that must be strengthened and in order to guide future development in ways that remain coherent with Pasto's traditions while responding to the contemporary needs of its inhabitants.

Image 23. The city today, Pasto overview from the top of a building (Photograph by Mauricio Enriquez, 2025)



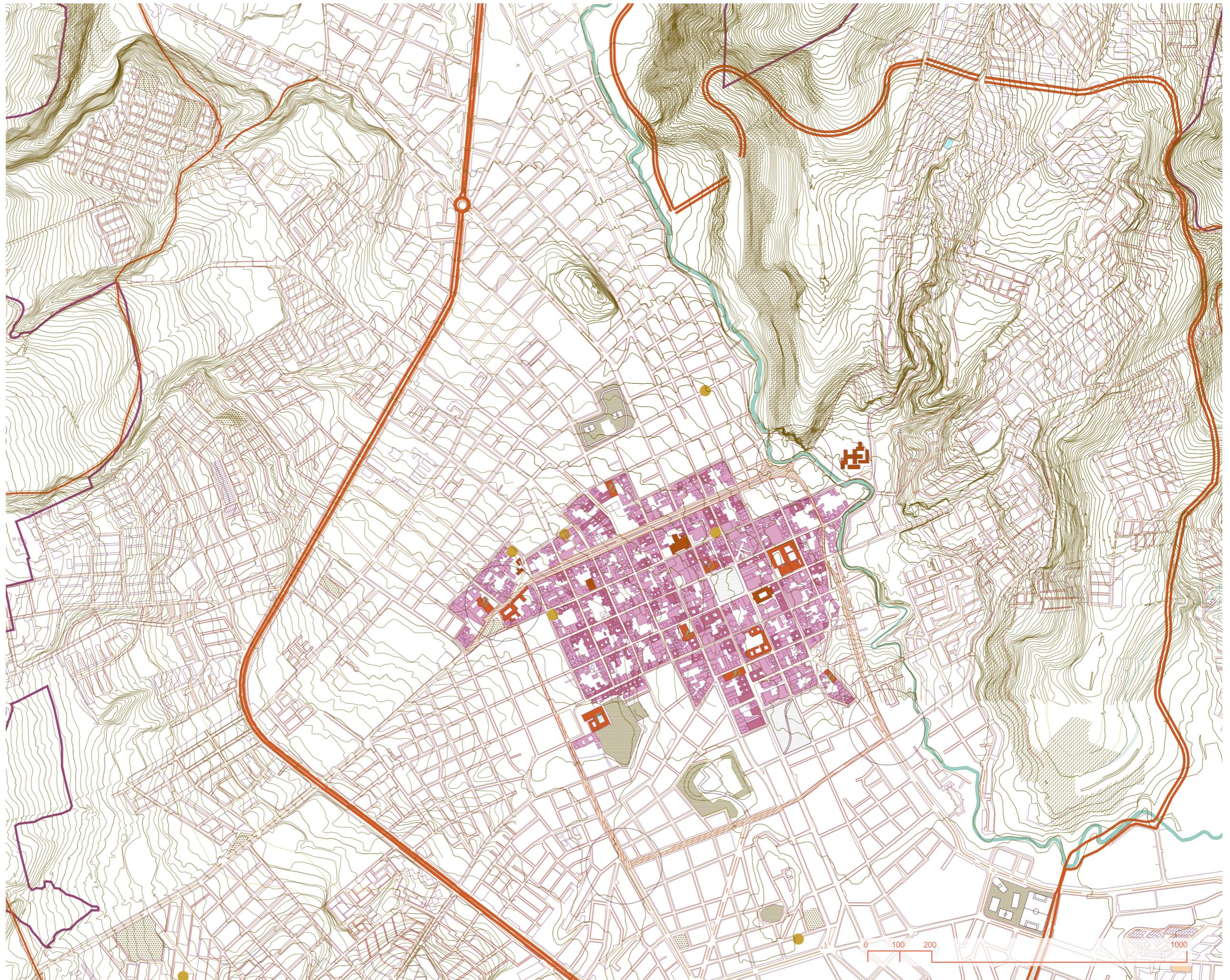


Figure 6. Pasto and its territory: Geographical context

The map illustrates the location of Pasto city within the department of Nariño. Its purpose is to highlight the boundaries of the urban core in relation to its complex geographical features, such as the surrounding topography, the Pasto River, and the main road arteries that define it.

The aim is to provide a clear view of the city's geographical distribution in order to understand how its location, set within the challenges of mountainous terrain, influences its territorial dynamics and the planning of its future development.



Image 24 (top), 25 middle and 26 (bottom). Urban views:
photographic samples of Pasto's historic center
(Photographs by Mauricio Enriquez, 2025)



Image 27. View of the San Agustín
church square, historic center of Pasto.
(Photograph by Mauricio Enriquez, 2025)

The analysis of Pasto's historic center is structured through the P.E.M.P. (Special Management and Protection Plan), a heritage management instrument that establishes the guidelines required to safeguard assets of cultural interest. The zoning of conservation levels aims to classify buildings and public spaces according to their heritage value (*Figure 7*), setting clear directives for their management (Instituto Distrital de Patrimonio Cultural, 2025).

In this framework, the plan identifies four levels of intervention that determine the types of activities permitted for the assets within each category. The first level: integral conservation, includes all Bienes de Interés Cultural (BIC) with exceptional value that must be preserved in their entirety, as well as the public spaces associated with them. The second level: architectural type conservation, refers to goods that while not requiring full preservation, possess architectural features that must be safeguarded (such as façades, spatial arrangements, and materials) allowing interventions as long as their authenticity is maintained.

The third level: contextual conservation, refers to the urban landscape and buildings that contribute to it. Even if they no longer retain their original architectural value, their preservation focuses on maintaining the cohesion of the surrounding environment. The fourth and last level covers properties with no heri-

that any new developments are compatible with their context and contribute positively to the quality of the urban landscape (Alcaldía de Bogotá, 2022).

Understanding this conservation framework is essential for guiding restoration, rehabilitation, and adaptation efforts, ensuring that the city's evolution preserves its architectural and cultural legacy. Examining this map then becomes a fundamental revision requirement for our proposed intervention, as it enables us to identify where it can take place within the city while respecting the established heritage guidelines.

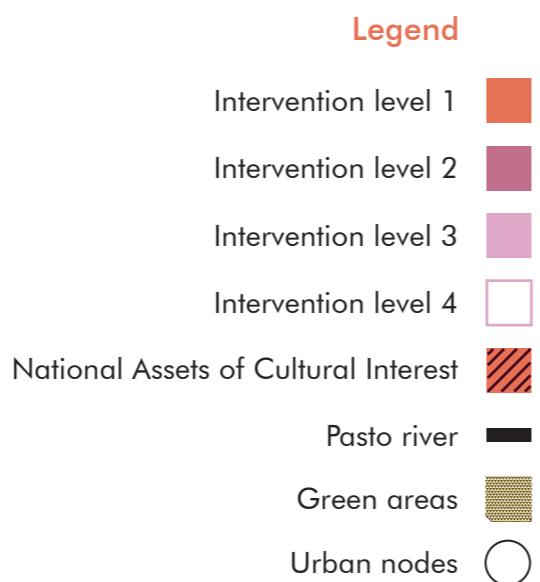
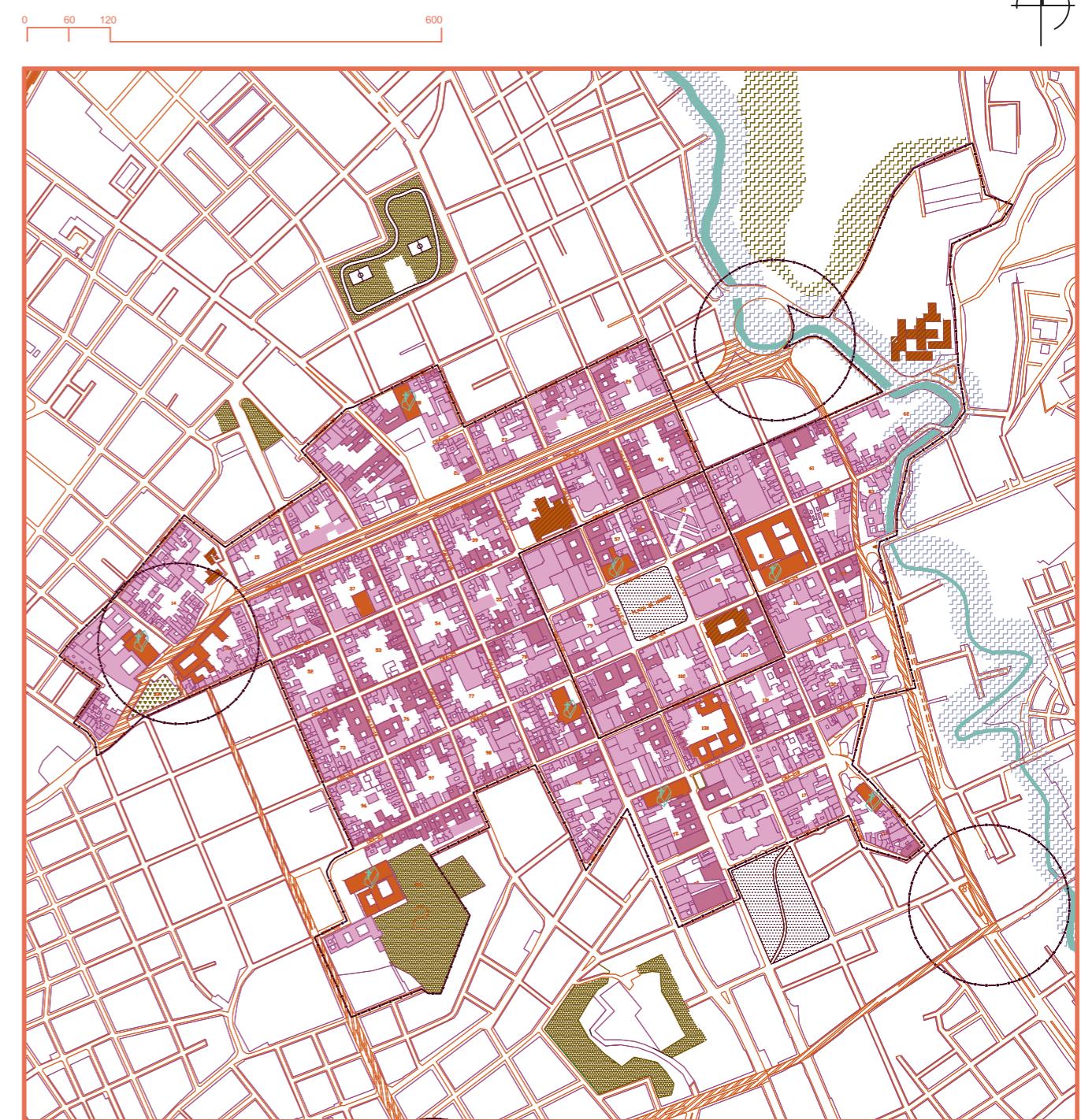


Figure 7. Historic center of Pasto: Levels of conservation. Author's own elaboration based on information from official sources (PEMP and POT)

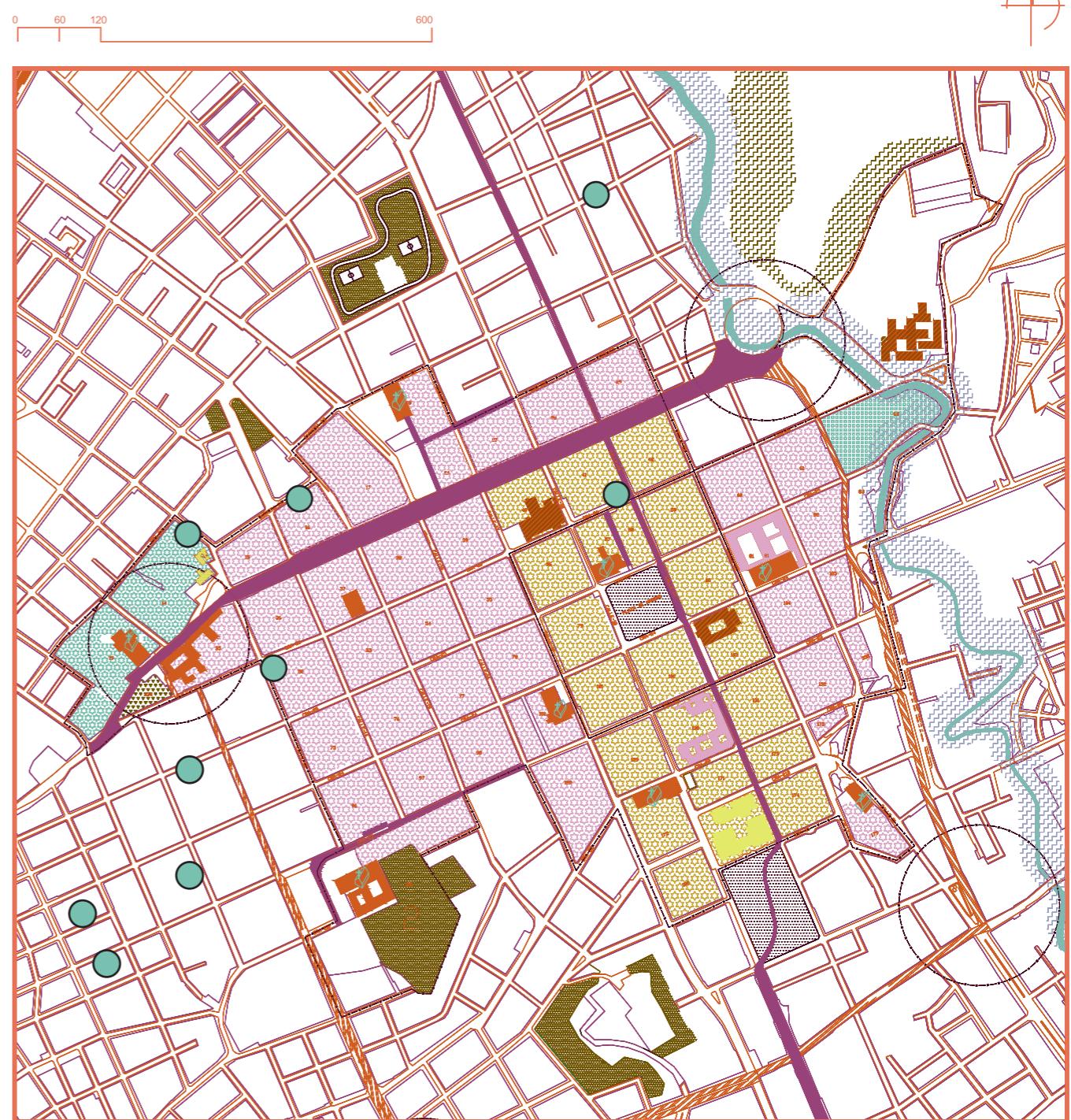


In this sense, analyzing the land use of Pasto's historic center becomes a complementary tool that allows us to understand the functional distribution of space. In the map (Figure 8), we can observe a clear predominance of commercial and mixed-use activity, emphasizing the social character of the area. It also becomes evident how the arterial roads surrounding the historic center are fundamental to its configuration, shaping it and structuring its main flows.

This study also highlights the location of Barniz de Pasto artisan workshops, allowing us to visualize how the activity is embedded in the urban fabric, confirming that the cultural identity of the center is expressed not only through its architecture but also through its everyday activities.



Figure 8. Historic center of Pasto: Functional zoning and craft activity. Author's own elaboration based on information from official sources (PEMP and POT)



Based on the analysis of the previous maps and a thorough understanding of the urban dynamics within the city center, we can illustrate a network of relationships emerging between production areas, commerce, exhibition, and education. This web of interactions lays the foundation for the strategic selection of the intervention site.

The significance of Calle del Colorado is evident not only for its historical value but also for its fundamental role as a key axis linking the heritage network within Pasto's city center. Its position as a connector between the historic core and the later development zones (now characterized by a high concentration of Barniz de Pasto workshops) makes its development crucial to strengthening the relationship between these areas.

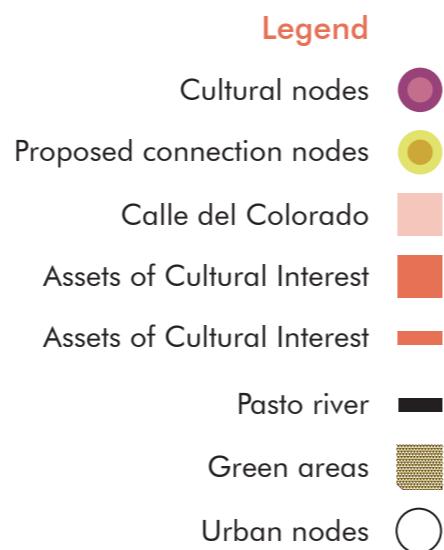
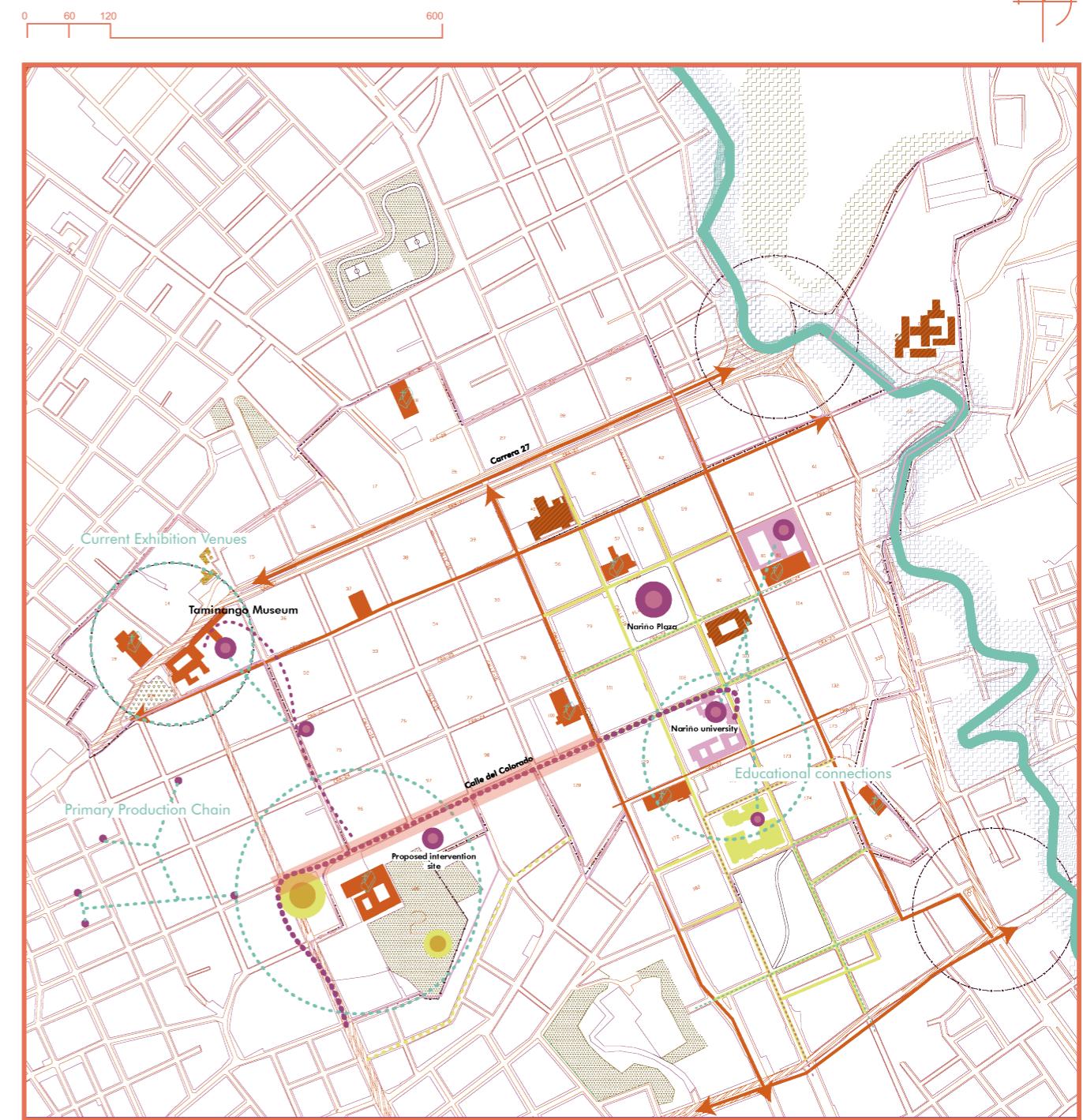


Figure 9. Historic Center network of relationships.
Author's own elaboration based on official information and analysis.



Urban analysis and historical context of the site

After observing the urban nodes and the network of relationships that shape Pasto's historic center, it becomes essential to shift our focus to a more specific scale. The study now turns to a sector of great significance within the city: the Plaza of Santiago Church and Calle del Colorado (*Figure 10*).

Our interest in this specific area stems from both its undeniable historical value and its strategic location as a key meeting point within the city center, as it connects with the flow coming from the Taminango Museum. The aim of this analysis is to understand what has shaped this street over time, which values define it, what is its memory, what spatial and functional dynamics have made it what it is today because it's clear that beyond its urban role it also contains an important cultural dimension and significance for the community. Both these places have served for hundreds of years as spaces of interaction, social life and collective memory and this makes them a living testimony of the city's social and historical transformation.

By concentrating in this part of the historic center we seek to achieve a comprehensive understanding of the area's reality observing how historical processes and the natural passage of time have left an imprint in the physical configuration of the urban space. This approach will provide the framework for an intervention that enhances the site's potential and as it understands its cultural values also reinforce them thus continuing to make the important part it has always been of the city's historic core.

Figure 10. Aerial view of the study site: The plaza of Santiago church and its immediate surroundings. Author's own elaboration on global earth image accessed on 2025.



the Calle del Colorado

“Calle del Colorado holds significant cultural and architectural value due to the preservation of its colonial heritage. The houses along the street were built in the 18th and 19th centuries and still retain their original features, such as tiled roofs, adobe walls, and brightly colored façades. These buildings exemplify Spanish colonial architecture in Colombia and serve as a source of pride for the city and its residents.”

and the Santiago Church

The Church of Santiago Apóstol in Pasto is one of the city's most emblematic temples. Built in the 16th century, it was among the first churches constructed during the Spanish colonial period in the city.

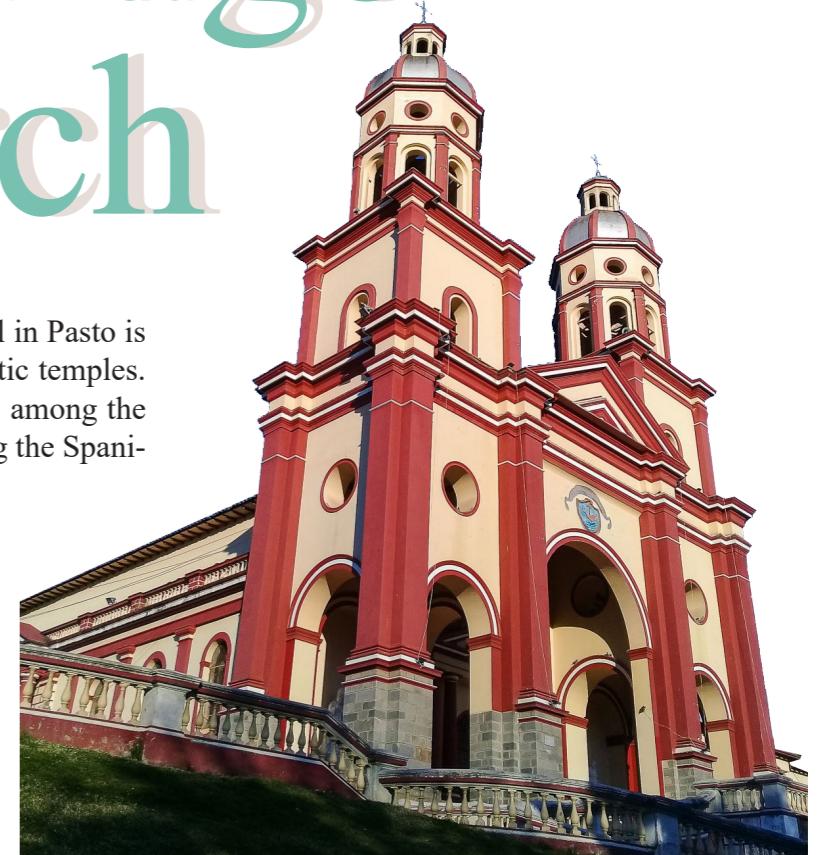


Image 28. Santiago's Church (Photograph by the author, 2023)



Calle del Colorado, South Facade.
Photographic survey by the Author (2023)



Calle del Colorado, North Facade.
Photographic survey by the Author
(2023) (mirrored image)

la calle del Colorado



Image 29.
La Navidad negra (The black Christmas), 1822.

Historical analysis

To understand the profound significance of Calle del Colorado in the collective memory of San Juan de Pasto, it is essential to examine the historical events that shaped its fate; the history of this street is not only intertwined with the city's urban development but is also indelibly linked to one of the most tragic and conflictive episodes in the history of Colombian independence. Looking further back into the history not only of Pasto but of Colombia as a whole, there is a figure who is widely regarded by many Colombians as a national hero, yet in Pasto he is still remembered as the executor of one of the city's most tragic events specifically in Calle del Colorado.

As the book "Manual de la historia de Pasto XV" describes, the republican project led by Simón Bolívar sought to consolidate final independence from the Spanish crown, but this ideal didn't resonate in Pasto. The people of Pasto, were firmly royalist with their convictions, rejected the decisions made by the town council and the clergy that favored surrender. Benito Boves, in October 1822, led a new uprising against the independence movement, prompting an immediate military response from the republican army. Upon learning of the rebellion, Bolívar ordered the deployment of a force of over 2,000 well-armed and battle-hardened soldiers.

By contrast, Pasto's militias barely numbered 1,500 men, fewer than half of whom were equipped with rifles, while the rest carried machetes and spears relying more on skill than firepower. The disadvantage was severe. Facing inevitable defeat, the militias withdrew in an effort to save their lives, leaving the civilian population vulnerable. Republican troops then entered the city and committed a series of atrocities: home invasions, sacking, rapes, murders, and acts of sacrilege in sacred places.

For three days and three nights, the city experienced immense suffering. The violence spread to nearby estates as well. The first

victims fell in the Santiago area and the present-day Calle del Colorado, a sector that is marked forever by this episode. While official reports spoke of victory, the population would remember the event as the "Black Christmas" or the "Night of the Rifles," a devastating moment in Pasto's history (Image 29). (Muñoz Cordero, 2017)

"Because of the blood that ran through that sector, relatives named it 'El Colorado', in eternal remembrance."

(Muñoz Cordero, 2017, p. 36)

This event not only left a mark on the collective memory of the city, but also deeply shaped the identity of the neighborhood.

Understanding Calle del Colorado not only means understanding its physical layout, it is necessary to explore the social dynamics that have shaped its character over time. Who lived in this space? What did the street mean to its inhabitants? And how have these relationships evolved to the present day?

These questions offer a basis to understand a point to explore the transformation of the area through its social and symbolic fabric, analyzing how the cultural values and everyday dynamics of its residents have influenced and continue to influence its architecture and spatial configuration.

Calle del Colorado, is formerly known as la vecindad de la calle del Colorado, and it has historically been a place rich in cultural identity and social vitality. For decades, it was home to shoemakers, seamstresses, tailors, and various artisans, becoming an important commercial area. Beyond its economic role, it was a daily scenario for Pasto's traditions, which defined the community life of the nei-

ghborhood.

During the 20th century and into the first decade of the 21st, Pasto celebrated Día de los Inocentes (Innocents' Day) with a different amount of activities, the most notably ones were the playful pranks between neighbors and especially the so-called Día del Agua (Water Day), during which residents took to the streets to douse one another in water in a festive, community centered atmosphere. Calle del Colorado keeps the memory of these practices, reaffirming its role as a space of cultural expression and social gathering.

Despite its strong symbolic character, this street always maintained a clear commercial role. The street housed shops, carpentry workshops, tailoring businesses, and was even home to families engaged in festive crafts such as float construction, a tradition that is still preserved by some current residents. Also, well-known football players once lived there, and the street was home to specialty shops selling sports equipment, evidence of the diversity of uses and social profiles that have coexisted in this sector.

Over time, traditional practices have also been transformed by greater collective awareness of environmental impact. Motivated by both cultural and environmental perspectives, Yury René Rosero Herrera has promoted the idea of replacing the December 28th celebration, known as "Día del Agua", with a more environmentally friendly alternative. This new expression, known as El Arcoíris en el Asfalto (The rainbow on the asphalt), has become so deeply integrated into Pasto's culture that it now feels intrinsic to the city's identity—as though it were written into its cultural DNA, as if the pages of history had always reserved a place for it.

Calle del Colorado, in the city of Pasto, is not just another street. It is not merely a route traveled without recalling lived experiences, history, or community. Calle del Colorado is a landmark, an urban reference point, a crossroads, and a place of encounters. What began as a localized neighborhood tradition has

expanded throughout the historic center and even into other parts of the city, demonstrating the power of this symbolic act to bring the community together around a shared cultural practice.

It was once home to bakers, tailors, and artisans from Pasto; it witnessed the births of many families and bears the memory of one of the most tragic events in the southern region's history at the hands of Bolívar. Today, it remains a space rich with meaning, where the "Carnaval de Negros y Blancos" begins each year with the traditional "Fiesta del arcoíris en el asfalto" (The rainbow on the asphalt).

Every December 28th hundreds of locals walk toward the church of Santiago and with the characteristic creativity of the Nariñense people, draw on the pavement with chalk, reviving the collective memory of their city.

The colonial architecture and specifically starting the Calle del colorado provides a unique and magical background to this tradition.

Calle del Colorado, in the city of Pasto, is not just another street. It is not merely a route traveled without recalling lived experiences, history, or community. Calle del Colorado is a landmark, an urban reference point, a crossroads, and a place of encounters.



Image 30 (upper), Image 31 (central) and Image 32 (lower); Arcoíris en el Asfalto (The rainbow on the asphalt), in Calle del Colorado, Pasto, Nariño.
(Photographs by: @_santa.fotografia_)

Its urban image, its built memory, and its human fabric make this street not just a physical space but a living stage of cultural expression, where past and present meet in every stroke of color. (Image 30, Image 31, Image 32)

However, this enthusiasm from the people of Pasto to promote their culture, their carnival and their history should also be extended to architecture. It is not just about having stricter protection laws, it is also essential that the community understands that by caring for their architectural heritage they are also protecting their intangible heritage, their history and their cultural identity.

In audiovisual records recovered in social media, TuBarco Noticias Pasto (2023) documenting the demolition of part of a house located on calle del colorado (an officially protected building under the PEMP) some people can be heard expressing disapproval of the act, while others say "Let's hope they tear down all those old houses so the city can grow and modernize". Yet modernization does not always mean progress and demolition is not always synonymous with improvement

Protecting what already exists, conserving it and adapting it to new needs is a way of strengthening our culture, preserving our his-

tory and, most importantly, honoring it. As described in the book *Manual de Historia de Pasto, Volume XV*:

“The republican-style architecture of Calle del Colorado with two-story homes featuring tiled roofs on their façades, traditional ‘saleros,’ and protruding wooden balconies adorned with geranium planters, forms an endogenous urban landscape. This stair-stepped ensemble, imagined yet possessing its own Andean city aesthetic and language, stands as a self-contained architectural entity.” (Muñoz Cordero, 2017, p. 29)

Figure 11. Site Analysis: The Plaza of Santiago Church and Its Surroundings. Author's own elaboration.



Building on the understanding of the historical value of calle del colorado, and the need it creates to safeguard heritage through adaptive strategies, our approaches shifts to a more detailed scale. Closely linked to the broader urban proposal for the historic centre, the intervention now focuses on the design of the plaza of the church of Santiago, a key space for articulating the cultural circuit.

This plaza operates a key urban node, linking Calle del Colorado with the pedestrian flow that arrives from the Museo de Taminango. However, despite its strategic location, the current plaza suffers from significant deficiencies as a public space, it is fragmented by vehicular traffic and lacks gathering areas that encourage permanence and social interaction. The aerial view in figure 19 highlights how the church and its plaza are defined, and to a certain degree it is constrained, by Calle del Colorado and Avenida Boyaca. This

marked delimitation reinforces the necessity of a comprehensive reform as the reorganization of the historic core demands high quality public spaces that can emerge as a true point of encounter for the community.

The architectural imprint that a building leaves on a city carries significant value not only through its physical presence but also through the symbolic and historical recognition it possesses. Understanding this dual nature is fundamental when addressing and solving everyday challenges that arise within a community in the context of historic city centers, but preservation efforts must go beyond physical interventions like facade restorations or material conservation, it requires deeper actions that enable the reconstruction and reintegration of the social fabric.

By doing so, the architectural values of a place are recognized but also shared with the community around it and the collective cultural identity that fosters within it.

In the case of barniz de Pasto, despite its deep cultural roots it faces several challenges mainly due to a lack of recognition and integration within the city. The absence of a clearly defined space where it can be represented results in a spatial gap that affects not only the production but also the transmission of the craft thereby weakening its continuity and survival. This issue also affects the architectural heritage of the city of Pasto because it has lost its connection with collective memory, and it has caused its deterioration and in some cases even disappearance. Therefore, understanding the city's history and the significance of spaces like Calle del Colorado and Plaza de Santiago within it is fundamental to recover the value of its intangible cultural expression and to strengthen it over time.

With this in mind, we set out to unveil the spirit that shapes the street's identity, not only limiting ourselves to identifying the types of uses (the what), but also understanding the deep dynamics and typologies of its environment (the how) that define its character. The analysis focused on brea-

king down the multiple functional and morphological layers that coexist (Figure 12):

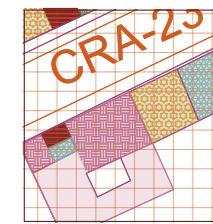
1. Identification of points of convenience and artisanal markets, which reflect the demand for everyday products and trades.
2. Mapping of the presence of tailoring shops and supply chain suppliers, recognizing the production life and support that nourishes the trade.
3. Nodes and transitory uses, that allow the street to adapt to sporadic changes and uses.

By understanding these various typologies of environment, ranging from commerce to production and services, one can better understand how the urban fabric has evolved. This in-depth analysis was the basis for ensuring that the regeneration in Calle del Colorado is contextual, integrative, and reinforces the collective memory that drives the survival of Pasto lacquer.

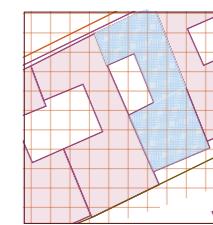
Figure 12. Typological diversity and spatial dynamics in Calle del Colorado. Own elaboration based on official information and analysis.



This segment of the street concentrates a wide variety of uses within a small area, reflecting the layered and dynamic character typical of urban life on the city center and on the street.



Multiple uses coexist within a single house, activating the ground floor and contributing to the street's vibrancy.



Contrast in ground-level occupation, houses can be fully activated with commercial use or remain entirely residential, reflecting the diverse character of the street.



Image 33. Calle del Colorado (Photograph by Mauricio Enriquez, 2025)

State of
conservation
analysis in Calle
del Colorado and
restoration project

chapter

03

Typological analysis of facade elements on Calle del Colorado's Architecture

The architecture of Calle del Colorado is no coincidence, it reflects a distinct expression of the traditional Colombian architecture, framed within the republican style typical of cold-climate cities; a fusion of republican and colonial elements is evident in Nariño's architecture. In the article The Architecture of the Republican Period in Pasto, Its Influence in Nariño and Its Relation with Colombia we can evidence some of this historical events that marked Nariño's architecture.

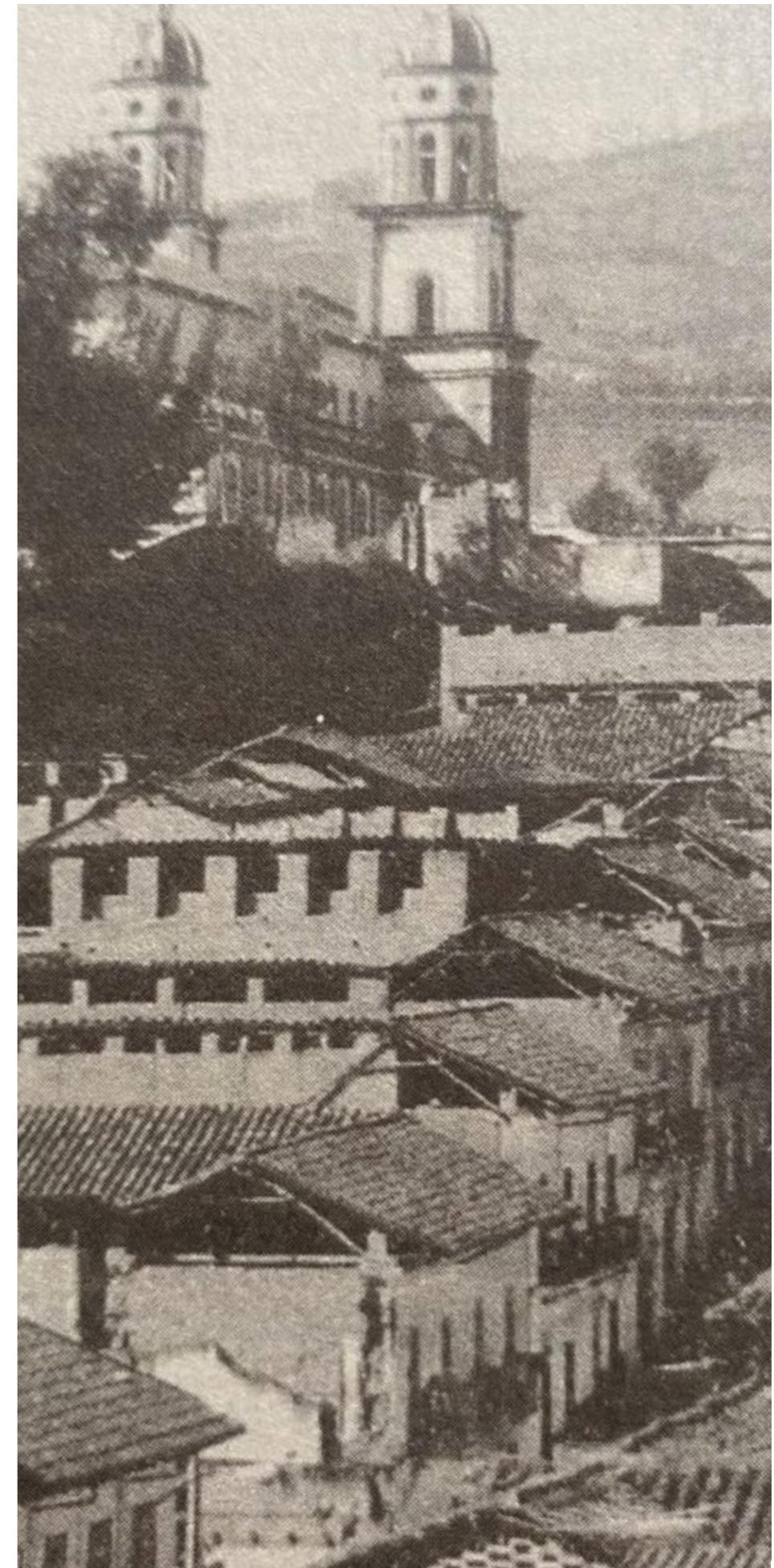
The city's position on rugged terrain contributed the formation of a tiered urban landscape, composed of slender houses with four-sided clay tile roofs, central courtyards, and projecting balconies supported by wooden beam cantilevers. As evidence of its history, unlike other regions of the country where republican architecture quickly adopted European influences (such as English, French and Italian), and aim to overcome the colonial legacy, in Nariño, and most notable in the city of Pasto, the architecture maintained a strong Hispanic heritage.

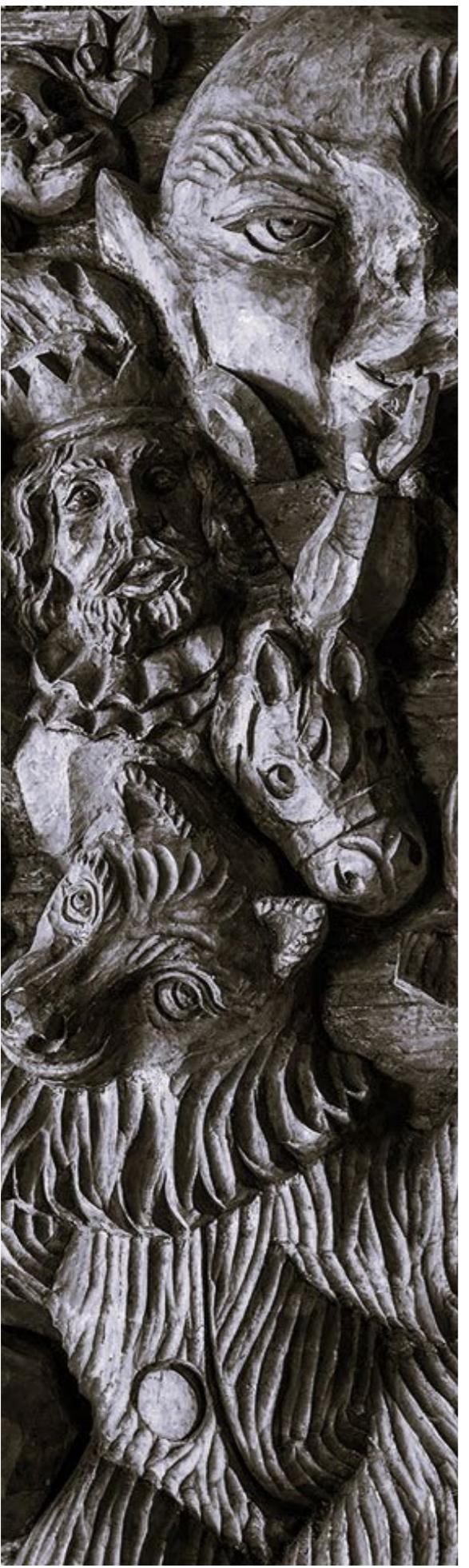
This Particularity responds to its royalist stance during the independence process. As a result, during the consolidation of the Republic, Pasto's architecture integrated more

slowly and selectively the republican elements. The building retained colonial structures such as extended eaves while incorporating neoclassical details on the facades, including moldings and ornate cornices, creating an eclectic architectural language characteristic of pasto's historic center. (Bolaños et al., 2010)

Although over time the inhabitants of these spaces may no longer be present, the architecture will remain as a silent witness to history and collective memory. In Pasto, some of the most representative elements of republican-style architecture are extended eaves, individual balconies and carved doors. Unlike other cities in the country, these balconies exhibit exceptional artisanal craftsmanship, with elaborate wood carvings that demonstrate a technical and aesthetic complexity unique within the national context. This particular feature is largely attributed by the influence of the Quito school on the artistic development of Nariñense artisans during the republican period. Thus, carved balconies and doors not only fulfill a constructive function but are also consolidated as authentic works of art

Image 34. Calle del Colorado historical picture (Source: Las dos Orillas journal 2019)





exclusive to the region artistic development of Nariñense artisans during the republican period. Thus, carved balconies and doors not only fulfill a constructive function but are also consolidated as authentic works of art exclusive to the region.

The traditional construction system is still maintained in Pasto's historic center, and one example of this architecture is Calle del Colorado, where it could be said that nearly 80% of the properties still preserve those republican typological elements. This is evidence by the use of materials such as clay tile for roofing, brick and flooring, and cornices that finish the eaves on the main facades.

However, by the 19th century, with the consolidation of the republican period, new structural and ornamental materials began to be introduced. Elements such as iron, steel and concrete were incorporated into the structure, while finished included materials like brass, sanitary porcelain, plaster moldings and wallpaper, diversifying the formal and aesthetic repertoire of urban architecture in Nariño. (Bolaños et al., 2010)

Safeguarding Architectural and Intangible Heritage

Protecting this heritage is fundamental; even more important is promoting the unique techniques that compose it, such as the artisanal production of wooden architectural elements, which are exclusive to the region. Valuing, restoring and recovering these elements not only strengthens local aesthetic identity but also supports and makes visible another highly relevant artisanal technique in the city of Pasto, the Wood carving. (Image 35)

Given the architectural condition, the cultural richness and the profound historical significance both in calle del colorado and in the city of Pasto in general, it is urgent that existing laws are not only formulated but en-

Image 35. Detail from a wood carved piece from "Taller Museo Alfonso Zambrano." (Source: SITUR 2025)

forced with the necessary strength and commitment. While fostering community appreciation of heritage is fundamental it is equally important that responsible institutions act with firmness and consistency.

The PEMP (2012) (Plan especial de Manejo y Protección) presents valuable guidelines for conserving and restoring significant architectural elements, nevertheless, its impact is limited when regulations are excessively relaxed depending on the assigned conservation level of properties. This categorization, although useful as a management tool, can weaken the comprehensive protection of the urban landscape by allowing certain elements to be maintained, while others equally important for the architectural unity of the ensemble, are ignored or transformed without effective control.

Nevertheless, despite some limitations in the effective implementation of these laws, the PEMP for Pasto's Historical Center constitutes a valuable tool for protecting the city's urban and architectural heritage, its technical structure allows for the identification of architectural typologies and specific guidelines for the conservation of facades, traditional materials, and ornamental elements that define the local identity. Furthermore, it recognizes the symbolic and cultural value of elements such as eaves, carved wooden balconies, internal patios, and urban proportions, proposing their recovery and preservation as an essential part of the heritage fabric.

If applied rigorously and with a participatory approach that integrates the community, the PEMP has the potential to be an effective instrument not only for preserving the past but for projecting Pasto's living culture into the future.

The strategy to recover the architectural fabric on Calle del Colorado must prioritize the preservation of traditional materials, such as clay tiles on roofs, smooth plaster finishes on facade walls, and the restoration and maintenance of wooden carpentry.

The PEMP (Special plan for Management and Protection) also promotes the use of earth tone color palettes on the building's facade, resulting from a color analysis applied to traditional architecture. A strategy that could significantly strengthen it is the implementation of a structured chromatic plan similar to the Piano del colore used in various Italian cities. This tool, developed for the restoration of facades in historic centers, establishes technical and cultural criteria for color management, ensuring visual coherence, respect for original materials, and the preservation of urban identity. Its incorporation in the Pasto context would not only organize the historic center visually but also prevent inappropriate color alterations that distort the heritage reading of the built landscape.



Image 36. The Piano del Colore of Rapallo: Methodology and Illustration of Facade Color Sampling
Source: Ufficio stampa del Comune di Rapallo

Based on this methodology, we conducted a detailed analysis of Calle del Colorado to understand better its chromatic heritage and richness. The next elevation drawings, documented two facades to show their current colors, architectural composition, and possible relationship to the street's original color scheme.

Figure 13. South facade analysis: The colors of Calle del Colorado. Actual state. Own elaboration.



Figure 14. South facade analysis: The colors of Calle del Colorado. Republican era hypothesis. Own elaboration based on official information and analysis.

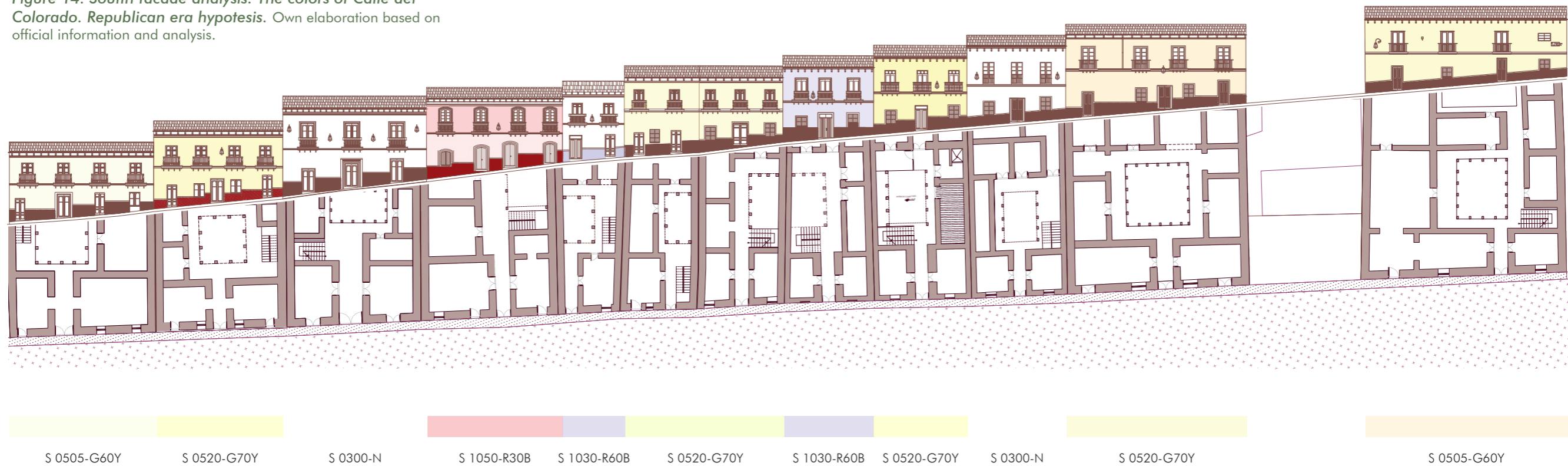
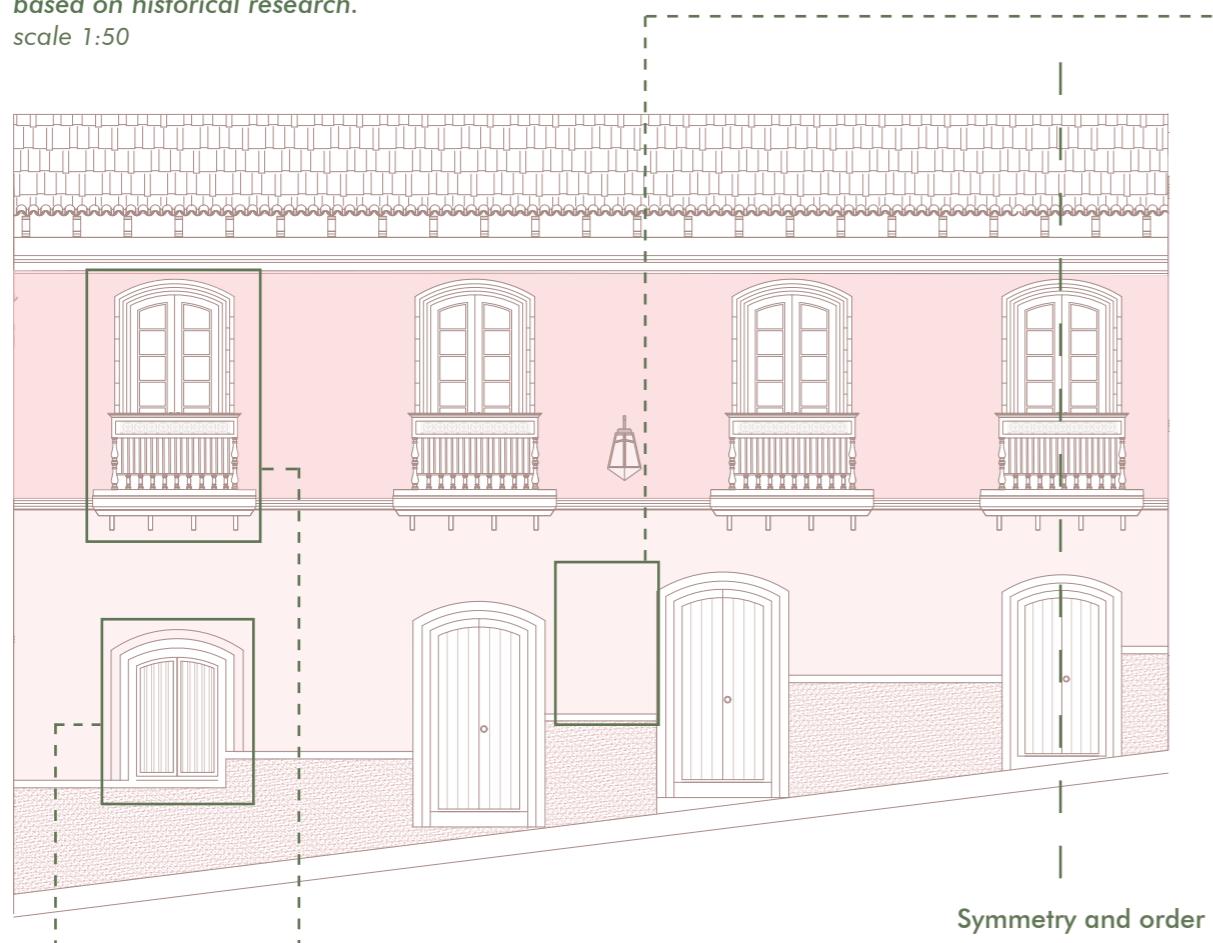


Figure 15. Hypothesis of the original facade based on historical research.

scale 1:50



Symmetry and order

Republican architecture is distinguished by a strong sense of order and rhythm in its façades, achieved through the regular repetition of openings often aligned vertically and horizontally to create a balanced composition. The façades follow strict symmetry or a clear proportional logic, with well-defined axes and modular spacing between elements.

The wood

During the Republican era, wood played a central role in façades, particularly in doors, windows, and ornamental elements like balconies. These components were not only structural but also aesthetic, contributing to the aesthetic characteristic of the period.

Architectural elements adapted to the constructive possibilities of their time, with proportions, materials, and detailing reflecting the available techniques and resources.

Figure 15 and 16. Comparative aesthetic observations between the original and current façades and visualization of significant architectural modifications. Own elaboration based on official information and analysis.

Figure 16. Visual representation of the current state of the houses facade.
scale 1:50



changes in proportions and materials

Significant transformation due to the progressive subdivision of the building into smaller commercial units. This fragmentation results from the partial sale or independent rental of spaces, leading to alterations in the original façade.

introduction of new openings

changes reflect functional adaptation to informal commerce and high land-use intensity.

Continuing with the analysis, we conducted a comparative study between the original design for the facades and their current condition. The observations reveal how architecture has reflected the evolving needs of its inhabitants during the republican period and also today. In the past, houses were designed in response to domestic life, climate, and the

availability of materials, while contemporary modifications respond to commercial demands, densification, and changing urban dynamics. These observations lead us to understand architecture as a living system that absorbs and reflects social and economic transformations.

It is essential to conduct a comparative analysis to understand how the PEMP addresses and considers key elements for the proper development of restoration processes. Although the plan recommends the use of earth tone color ranges on walls, allows carpentry with mineral pigments and authorizes differentiated plinths through paint or cladding of stone or clay up to one meter high, there are properties where the materiality of the plinth does not correspond to the original aesthetic nor to the republican or colonial values characteristic of the sector. The PEMP also recommends conducting stratigraphic probes, by layer scrapes, to detect original colors before repainting, and establishes that paint must be kept in good condition against weathering, following cleaning and patching.

The piano del colore proposes similarity to the PEMP, a study of the original color by identifying traditional chromatic ranges on facades, especially those in earth tones. However, it goes further by also evaluating original materials and their natural color without paint, respecting the inherent tone of each element on the building and avoiding painting surfaces that do not require it. Additionally, it performs an analysis related to the immediate urban environment considering how the colors of one facade can harmonize with neighboring houses and maintaining chromatic continuity at the block or neighborhood level, avoiding abrupt breaks. This tool aligns with the construction period and architectural style of each building, adapting the color scheme to its historical context and avoiding the imposition of modern or artificial color on traditional buildings.

A significant point is that, thanks to this detailed analysis, different color palettes can be generated that allow achieving a balance, a chromatic average that considers both respect for heritage and integration with the current context. In this sense, while maintaining a range of natural tones is recommended, it is also important to recognize how the Latin American context perceives color and its social impact, allowing chromatic proposals to engage in dialogue with local cultural

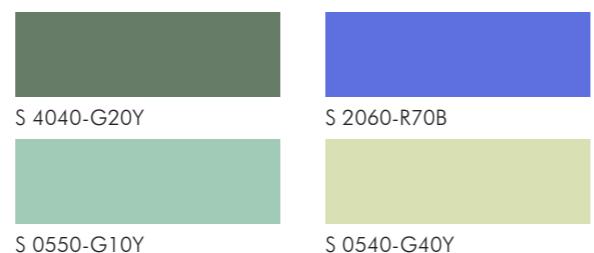
identity without losing respect for heritage values.

The results of this study are presented below. The following palette is composed of the colors obtained from the analysis of the existing facades in Calle del Colorado, as well as the hypothetical facades.

Colors



Colors for wood elements



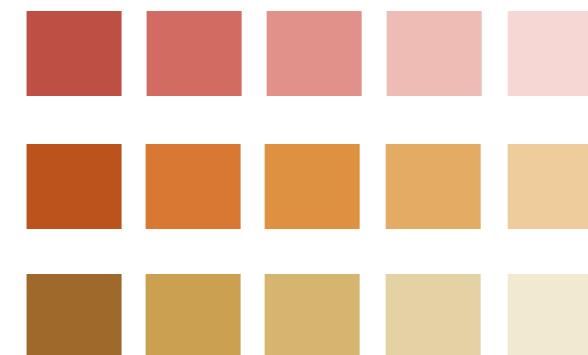
Based on this chromatic analysis, and taking into account the guidelines established by the PEMP of Pasto's historical center, we deve-

loped an intermediate proposal for the color palette. This palette considers the plan's recommendations regarding the use of earth tones for walls and mineral pigments for woodwork finishes, while also incorporating observations made on the current facades.

The proposed palette seeks to establish a meeting point between traditional tones that can evoke the street's heritage identity and the more recent hues introduced through contemporary adaptations. In this way, the chromatic composition expresses the temporal continuity of the street, reflecting harmony between old and new, while preserving the expressive values and authenticity of its architecture.

Additionally, the proposal enhances the PEMP's guidance on the use of natural origin colors, derived from mineral and earthy pigments such as iron oxides, clays, or natural soils historically employed in traditional architecture for their durability. This approach ensures a coherent and contextually appropriate color range, aligned with conservation regulations. Accordingly, the chromatic selection is oriented toward tones that dialogue with the visual character of the street while maintaining its heritage identity:

New color scheme for façades



New color scheme for wooden supports



The collection of color samples allows us to identify the visual richness of the facades but it also makes evident the passage of time upon them. In most cases, they appear worn, dirty, or even show material loss. This ongoing process of deterioration affects both the aesthetic perception and the conservation of the buildings. For this reason, it becomes necessary to move on to a more detailed examination of the facades state of conservation, with the aim of recognizing the degrees of intervention required and understanding how the passage of time has left its mark on the street's architecture.

The decay analysis was conducted directly on site, through a photographic survey and systematic observation of the facades condition. Each building was documented in detail focusing on visible signs of deterioration, such as surface wear, material loss, and dirt accumulation. This fieldwork was then translated into digital drawings allowing us to clearly illustrate and categorize the different levels of decay. In this way the graphic material presented here not only marks the state of conservation of Calle del Colorado explicit, but also provides a precise basis for determining the interventions required.

Facade decay analysis of the houses on Calle del Colorado

The signs of decay observed along the facades of the houses on Calle del Colorado were classified into six categories, allowing for a clearer understanding of the deterioration present in the architectural fabric.



Dt

Detachment

The facade shows visible signs of detachment, with areas of paint, plaster, or other surface materials peeling or coming loose

from the underlying structure. These separations not only compromise the aesthetic appearance of the facade but can also allow moisture to penetrate, leading to further deterioration.



Di

Disintegration

The facade exhibits significant material breakdown, particularly in areas where the earthen wall has been exposed to prolonged moisture. Portions of the surface appear fragile, powdery, or washed out, with clear signs of structural weakening. This level of deterioration suggests a loss of cohesion within the material itself, commonly caused by water infiltration, poor drainage, or lack of protective coatings.



E

Electrical Wiring

The facade displays an overabundance of visible electrical wiring left exposed. This excess of cables can not only detract from the building's aesthetic appearance but also present potential safety hazards. The cluttered wiring may also contribute to the deterioration of the facade by creating points of stress on the materials or allowing moisture to accumulate around electrical components.



St

Surface Staining

Various types of stains are present on the facade, including those caused by water runoff, atmospheric pollution, and organic residues. Can range in color from dark gray or black to greenish or brown, depending on their origin.

Common sources include dripping water that transports dirt or pollutants and particulate matter from urban environments.



Cp

Crack patterns

Cracks on the facade surface, varying in depth and morphology. These include both superficial and through-passing cracks, which may appear linear or branched. The distribution of cracks suggests the presence of preferential cracking paths, likely associated with underlying structural weaknesses or material degradation.



G

Graffiti

Graffiti is present on the facade surface, indicating human-induced deterioration. Its appearance obscures architectural details and original materials, contributing to the visual degradation of the construction.



Foldable pages

Restoration project

Based on the results of the decay analysis conducted on the façades, we identified the main types of damage and their distribution along Calle del Colorado. In response to these findings, we defined specific intervention criteria that directly address the recovery of the urban ensemble.

The restoration process is organized into three complementary phases, that group different types of deterioration according to their nature, with the objective of defining coherent solutions for each intervention that correspond with similar causes or ways of treatment:

1. Surface and Façade Stabilization

- Surface Disintegration (tapia erosion)
- Detachment (plaster, coatings, paint)
- Crack Patterns

The objective is to stabilize deteriorated materials, recover detached layers, and address cracking to prevent further material loss or structural damage.

Material consolidation

This is the first critical phase in stabilizing degraded earthen surfaces, like tapia walls. Its objective is to strengthen the deteriorated substrate, preventing further disintegration or powdering before any filling or reprofiling begins.

The process begins with the preparation of a compatible earthen slurry, made from soil of similar granulometry and mineral composition to the original wall, which according to Silva et al., (2014), in the “Repair of rammed earth by injection of mud grouts: a case study from Portugal” has shown to give better structural performance to the resultant material.

This mix can also be improved with natural stabilizing agents like plant-based polymers or resins, to enhance cohesion while main

aining full compatibility and vapor permeability. This slurry, that can be applied through brushing, spraying, or gentle gravity-fed injection, penetrates the decayed surface layers and binds disaggregated particles restoring the structural integrity without altering the material’s natural behavior.

After the consolidation, any voids or areas with significant loss are filled with earthen repair mortars of matching texture and color to ensure structural solidity and making sure that the finished work looks visually continuous.

Cracks treatment

After the consolidation process, any visible cracks are cleaned and filled with compatible, flexible, and “to prevent damage to the masonry units... softer or more permeable mortars than the masonry units” according to the practical conservation guide for heritage properties (Region of Waterloo n.d.) (structural reinforcement may be required for deeper or structural cracks). Once this process is completed, a uniform finishing layer is applied to visually integrate the repair with its surroundings.

In addition waterproofing can be realized at the top of the walls, around windows, and along cornices or other identified critical places, to prevent water infiltration, thereby reducing the risk of future cracking, deterioration, or material detachment.

Reattachment of Coatings

In cases where the original wall finish shows an advanced level of deterioration like large detachments, loss of cohesion, or disintegration, the intervention requires an approach aligned with the specific technical guidelines for this type of structure. These guidelines establish that, in earthen constructions, reintegration processes must be based on materials with a composition similar to the original substrate, prioritizing physical and chemical compatibility (Silva et al., 2014).

As a result the restoration proposal considers the application of replacement mortars based on lime or earth, consistent with the composition of the original substrate and adapted to each of the building's conditions. There can be cases where the coating is irrecoverable and when the strategy would not be to replicate the finish but rather reconstruct the visual and material unity of the wall using the reapplication of compatible lime or earth-based mortars that "match, as closely as possible, the existing mortar in colour, texture, and properties." (Korany, 2011).

2. Surface Cleaning and Visual Recovery

- Graffiti
- Surface Staining and Discoloration

The next phase focuses on restoring the visual composition of the facades and protecting them from deterioration caused by pollutants, biological growth, or acts of vandalism. Cleaning them is not just a procedure with aesthetic purposes but is also fundamental in the conservation of earthen facades, as the accumulation of dirt and microorganisms accelerates degradation processes and diminishes the architectural value of the buildings:

"The removal of any undesired matter (e.g., dust, aged coatings, deposits of pollutants, graffiti, and dirt) is one of the most important and delicate operations that affects the different ways (potentially invasive, aggressive, and completely irreversible) the original material should be approached (...). This is an essential approach because it helps to remove foreign matter which could promote the degradation of the heritage materials as well as cause changes to their original appearance." (Weththimuni ML, Licchelli M. 2023 p.2)

According to the municipal regulations established for this heritage zone, cleaning and stain removal must be carried out regularly (PEMP, 2011). This underscores the importance of integrating a continuous maintenance system within the overall conservation strategy of the historic fabric.

Selective cleaning

Depending on the type of substrate, either dry methods such as brushing or wet methods such as low-pressure water cleaning and chemical poultices are employed to remove surface deposits. In the case of graffiti, biodegradable commercial removers are applied, as noted by Ricci et al. (2020): "these graffiti removers are commercial ready-to-use products and thus may be employed by non-expert users ... applied directly on the stone surface with a brush, left to soak for a few minutes, and then removed with a dry paper towel and rinsed with a wet sponge." (p.6) These procedures are safe and can be implemented as part of the initial intervention, as well as periodically in future maintenance programs for continuous heritage preservation.

Stain removal

This process begins with an assessment of the stain's type and origin, as well as the substrate's porosity and sensitivity. Based on this, appropriate cleaning agents are selected: for pollution-derived stains, alkaline poultices or mild solvents are used to dissolve contaminants adhered to the surface, which are then absorbed and removed along with the cleaning medium, without altering the wall's original composition.

Surface protection

Finally, a protective coating is applied to safeguard the facade from dirt accumulation and reduce biological growth, while also facilitating future maintenance. This procedure ensures both the physical and visual preservation of the facades over time, maintaining their coherent integration within the historic urban ensemble. Anti-graffiti coatings either sacrificial or semi-permanent are also applied, considering the sensitivity of each surface.

3. Infrastructure Integration and Visual Order

- Excessive Electrical Wiring

Foldable pages



The objective is to minimize the visual and material impact of infrastructure on the historic fabric, improving safety and legibility. Excessive cabling can visually disrupt the façade and even physically damage the building materials over time.

Optimizing installations respects the aesthetic and the safety of the buildings; the procedure of undergrounding electrical networks is described on the PEMP within the “Guidelines for solving environmental and public space problems”

Survey and Removal of Obsolete Wiring

Identify and remove unused or redundant cables, leaving only essential wiring.

Undergrounding of Electrical Networks

In line with PEMP guidelines implementation of a Program for undergrounding electrical networks. This involves burying cables to eliminate visible wiring, thus preserving the facade's visual integrity.

The restoration strategies described above are illustrated in Figure ##, which visually synthesizes the proposed intervention approach.

Beyond material restoration: toward an integrated heritage management approach

Up to this point, the proposed intervention strategies aim to ensure the physical and visual conservation of heritage. However, this task cannot be limited solely to the material dimension. Restoring buildings without establishing the legal, governmental, and management frameworks that guarantee their long-term preservation represents an incomplete effort.

True heritage preservation involves not only the periodic restoration work described here but also the protection of the symbolic and social value it holds.

It requires ensuring that its care does not

depend only on individual will or isolated interventions, particularly in countries like Colombia, where collective awareness of heritage value remains limited and economic interests often prevail over cultural assets. This raises a crucial question to our project, What is the point of preserving the image if there is no legal framework to ensure its permanence in time and space?

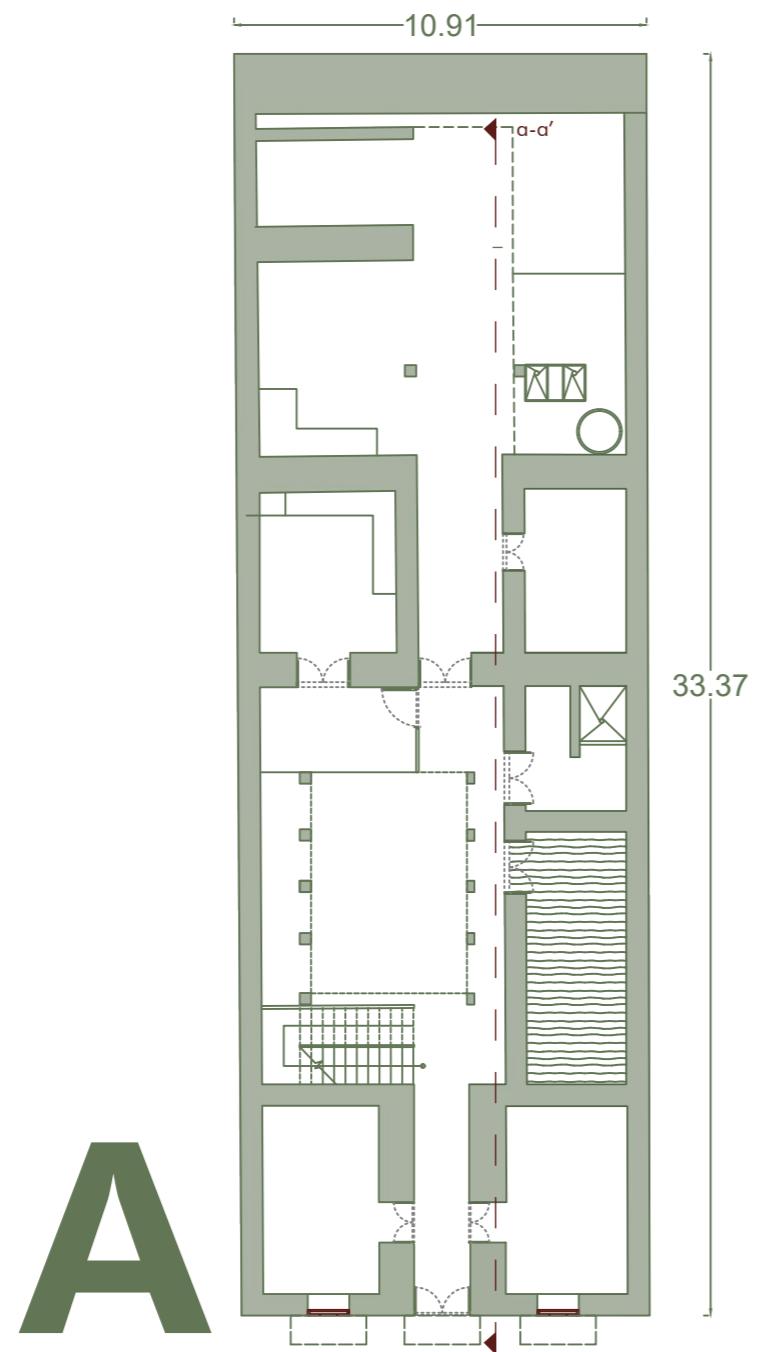
In Colombia, laws do exist that mandate the preservation of architectural heritage, most notably Law 397 of 1997 (General Law of Culture) and its later revision, Law 1185 of 2008. These law declare cultural heritage to be of public interest and establish that the owners of Cultural Heritage Assets (Bienes de Interés Cultural, BIC) are legally obligated to preserve them. However, in practice, these provisions are rarely enforced with the necessary rigor.

In places such as the historic center of Pasto, many heritage buildings even when listed within the PEMP (Special Plan for Management and Protection) are in a state of deterioration. Since most are privately owned they receive minimal, or no maintenance.

The government offers neither incentives nor economic support to help restore or maintain heritage sites, which makes existing legislation ineffective when confronted with the real challenges of intervention. In contrast, Italy has a robust legal framework, such as the Codice dei Beni culturali e del Paesaggio, (Presidenza del Consiglio dei Ministri, 2004) which not only mandates owners to preserve their properties but also enforces penalties for noncompliance and provides tax benefits and subsidies to promote restoration.

This combination of coercive measures and economic incentives ensures that heritage is not only legally protected but also effectively preserved over time. A similar structure in Colombia could strengthen the impact of the PEMP and ensure a more sustainable and equitable approach to managing architectural heritage.

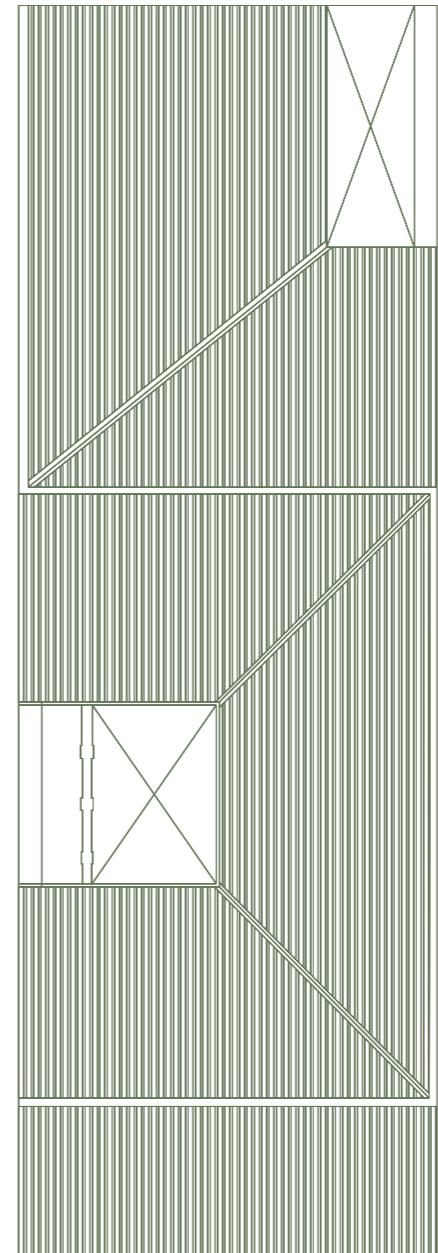




house with one side courtyard

The house with a side courtyard is a typological variation that emerged during Colombia's Republican period (approximately 1850–1930), particularly in urban areas experiencing expansion and modernization. Unlike the traditional colonial house with a central courtyard, this type repositions the courtyard to one side of the building. This layout allowed for improved cross-ventilation and natural lighting, while also enabling a clearer separation between public and private spaces within the dwelling.

According to the study “*Tipologías Arquitectónicas Colombianas y Republicanas*” (2008), these houses represent a functional and spatial evolution compared to colonial models, incorporating neoclassical decorative elements and adapting to the transformed urban fabric of the Republican era.



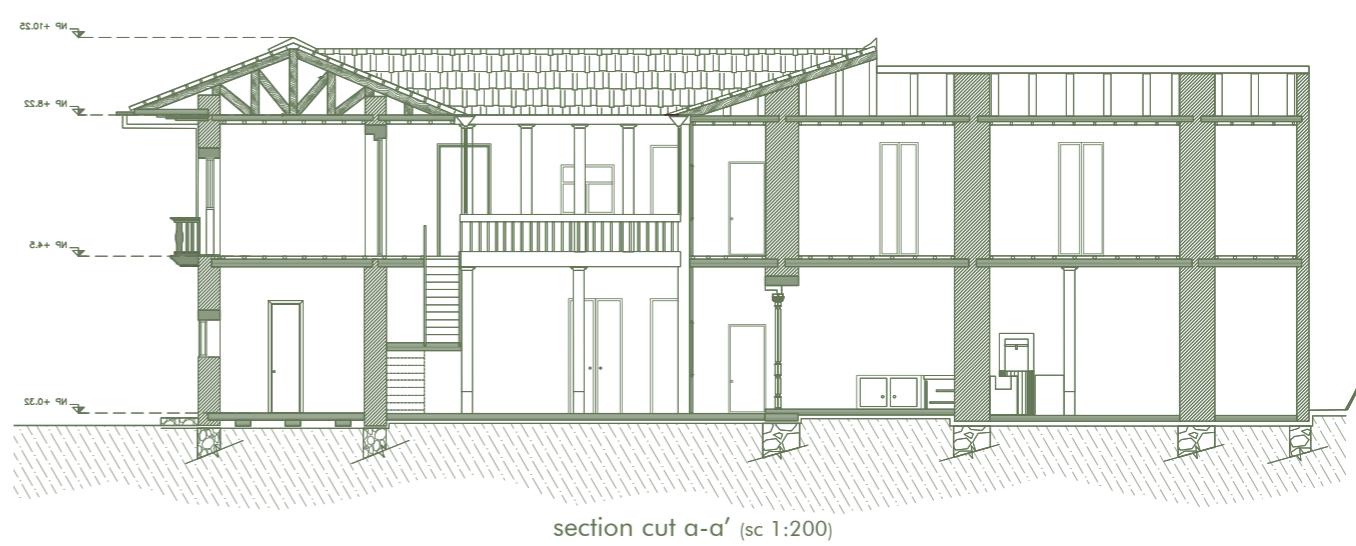
house # 5

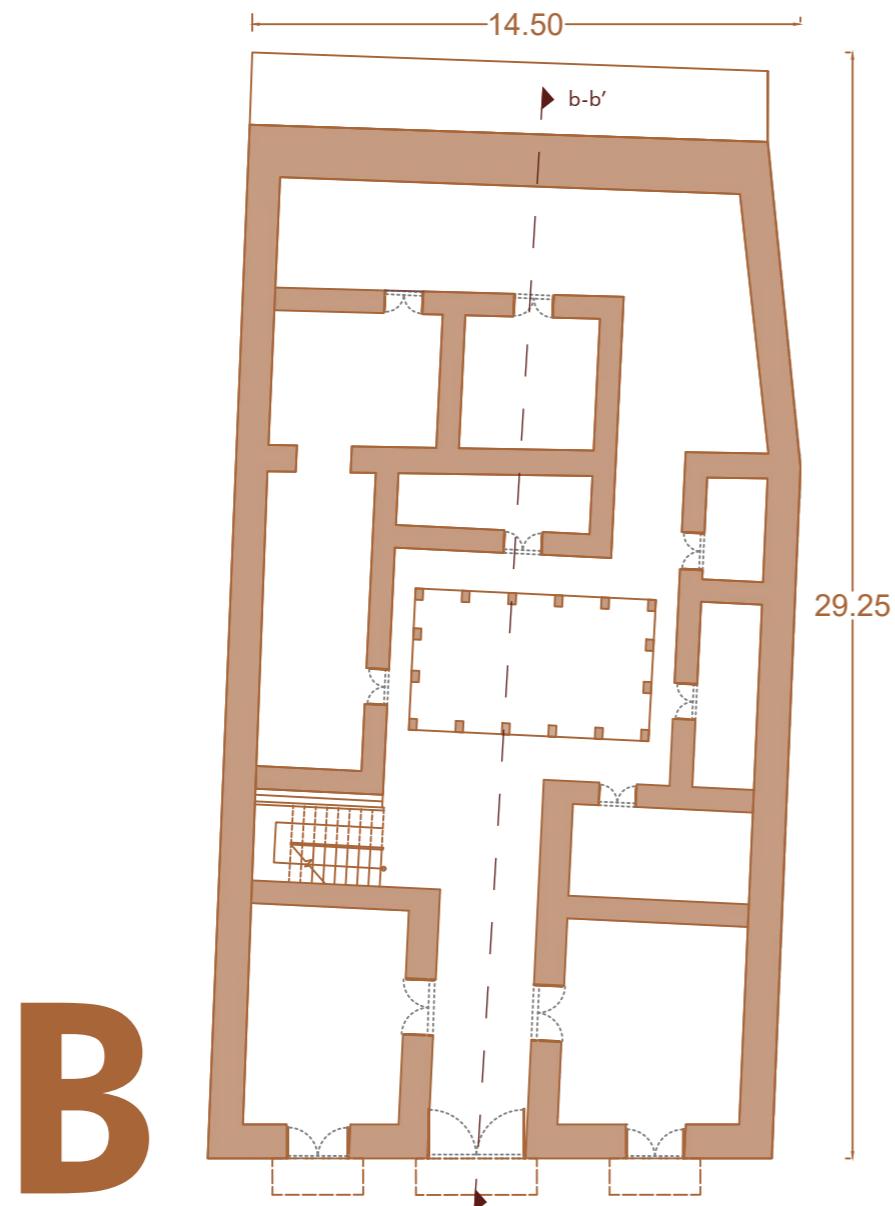


hypothesis original republic facade based on historical research



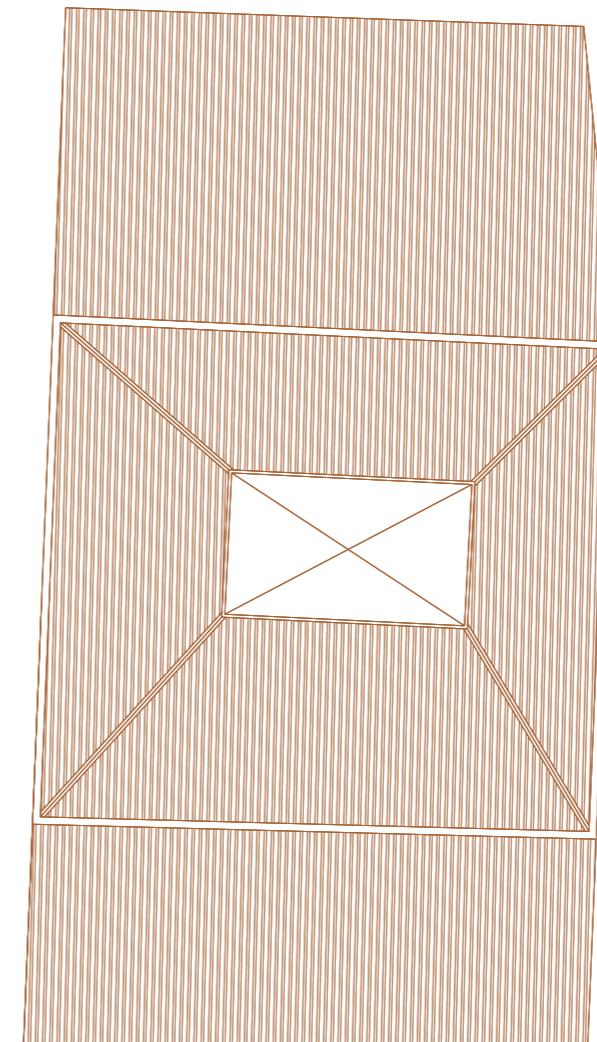
cleaned up representation of the current facade





house with one central courtyard

The house with a central courtyard is a classical typological model that became widely consolidated during Colombia's Republican period, particularly in cities where commerce and domestic life overlapped. In contrast to the side-courtyard variation, this type maintains a symmetrical layout organized around a single main patio, accessed through a central *zaguan* that structures the entire plan, which allowed for clear spatial hierarchy: commercial rooms opened toward the street, social and private spaces surrounded the courtyard, and service areas were placed discreetly toward the rear. According to architectural studies of Republican domestic layouts, this type reflects the adaptation of earlier colonial models to denser urban fabrics, preserving traditional patio organization while incorporating new functional divisions and circulation patterns.



house # 11



hypothesis original republic facade based on historical research



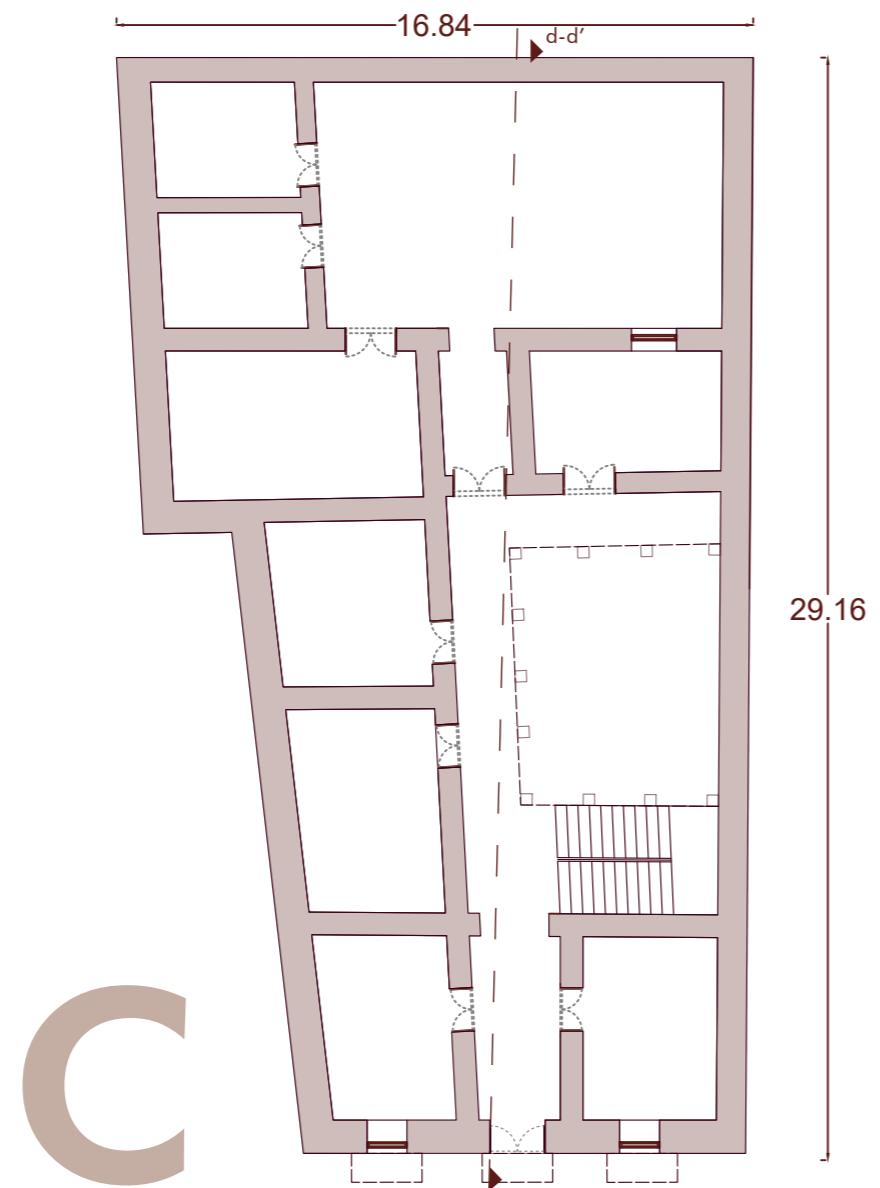
cleaned up representation of the current facade



section cut b-b' (sc 1:200)



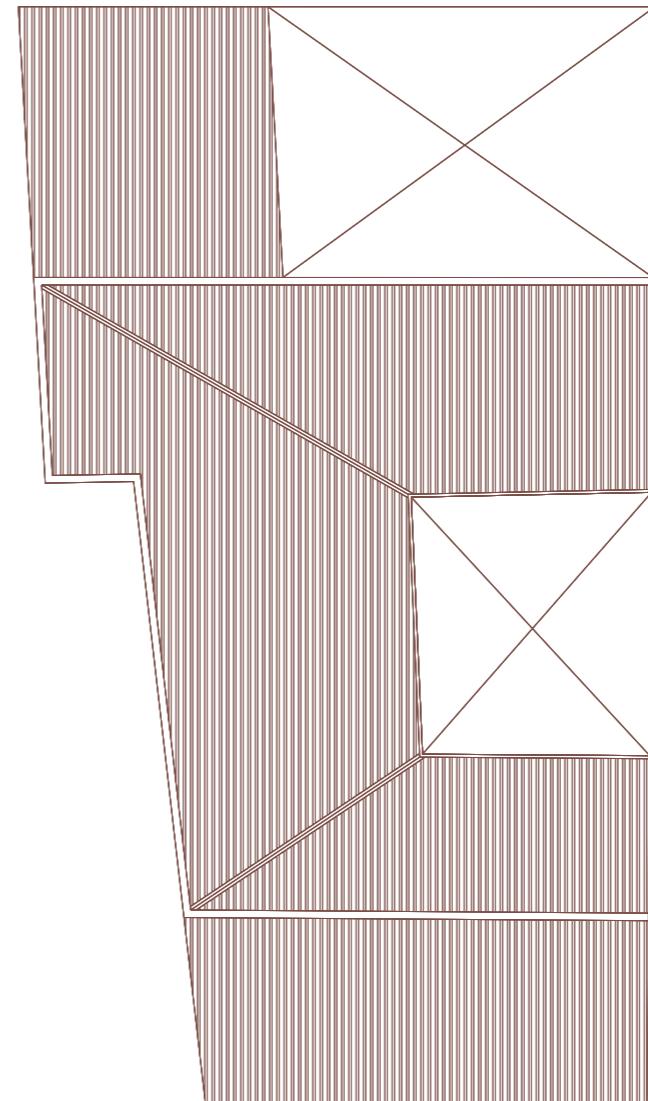
Figure 22. Axonometric perspective section:
type B house, interior view. Own elaboration.



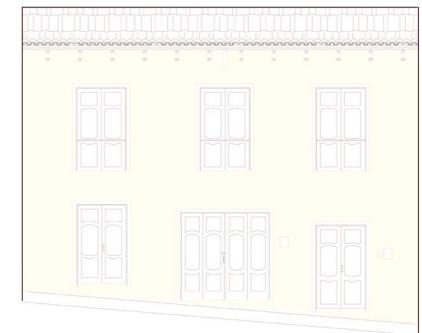
house with two side courtyards

Unlike the classical model, where the zaguán opens directly into the main courtyard, this type maintains a central axial entrance that continues as a long, uninterrupted passage toward the rear of the property. The principal courtyard remains at the heart of the house, providing light and ventilation to the social and private rooms arranged around it.

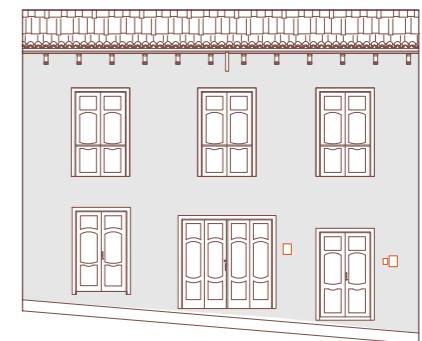
Toward the back, a secondary service patio accommodates kitchens, storage areas, and other domestic functions, reinforcing the spatial hierarchy typical of Republican domestic architecture. This configuration reflects an effort to preserve the symbolic and functional importance of the central patio while adjusting circulation and depth to the constraints and needs of evolving urban environments.



house # 23



hypothesis original republic facade based
on historical research

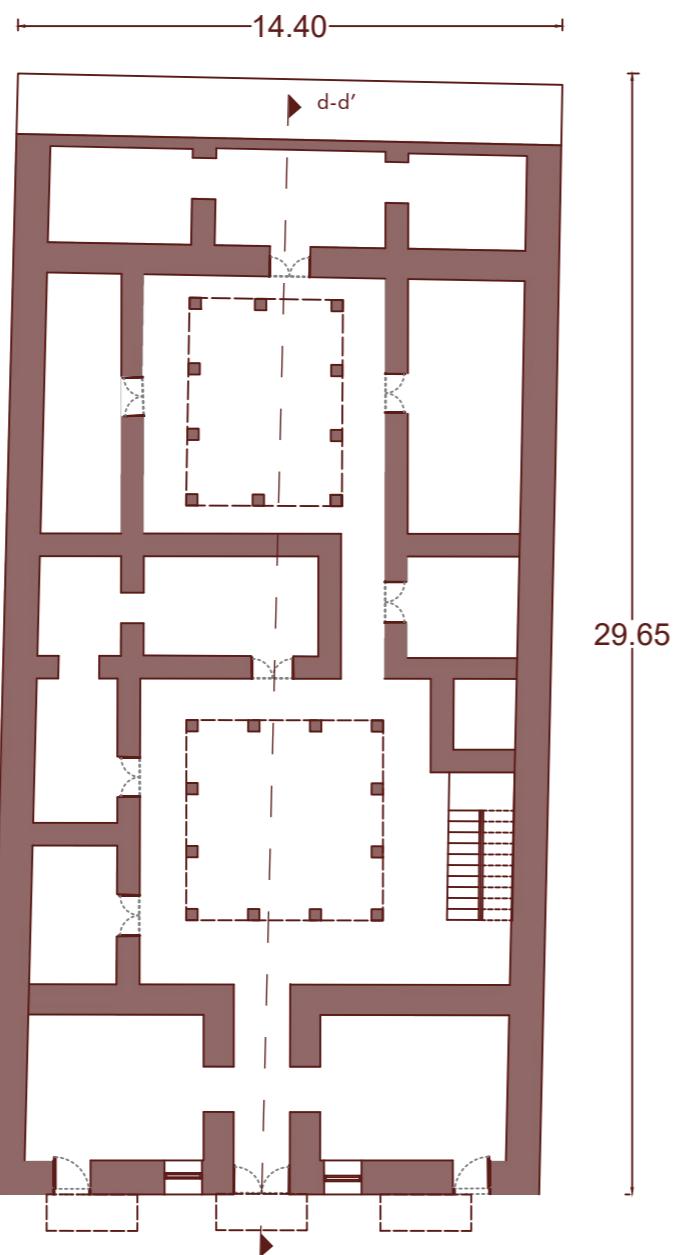


cleaned up representation
of the current facade



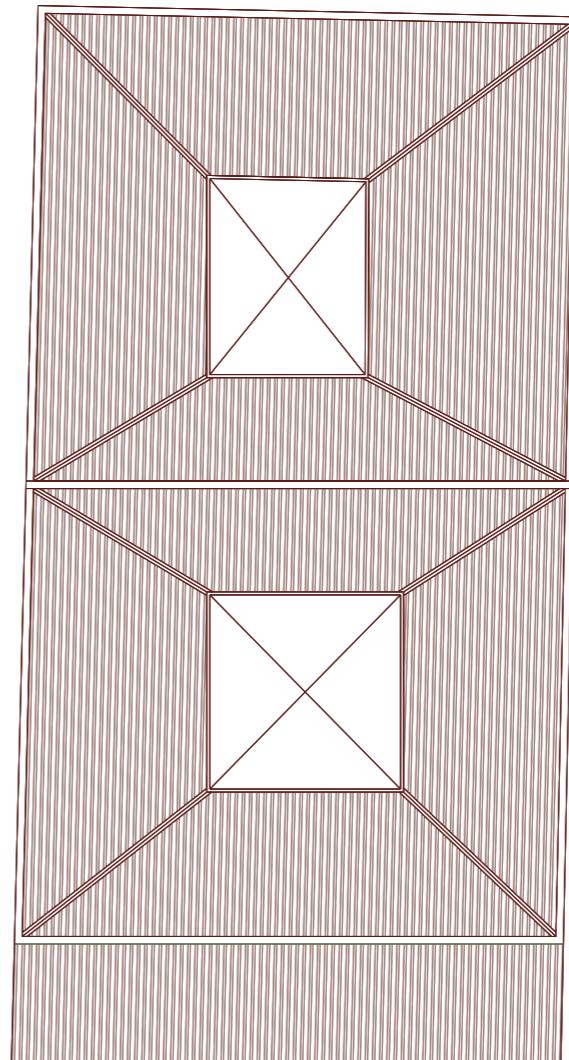
section cut c-c' (sc 1:200)

D



house with two central courtyards

The house with two central courtyards represents the most distinguished and aristocratic typology of the Republican period. Its layout is organized around two consecutive patios, each framed by corridors with inward-sloping roofs supported by perimeter columns. A central zaguán leads to the first courtyard after passing the two front rooms commonly used for commercial or reception purposes, reinforcing the ceremonial quality of the entrance sequence. The main staircase is positioned along one side of this patio, while the second courtyard introduces a more private and refined domain of the house, where domestic and service functions were arranged with greater order and separation. This dual-courtyard configuration reflects the spatial ambition and social status associated with the largest and most prominent urban residences of the era.



section cut d-d' (sc 1:200)

house # 12



hypothesis original republic facade based on historical research



cleaned up representation of the current facade

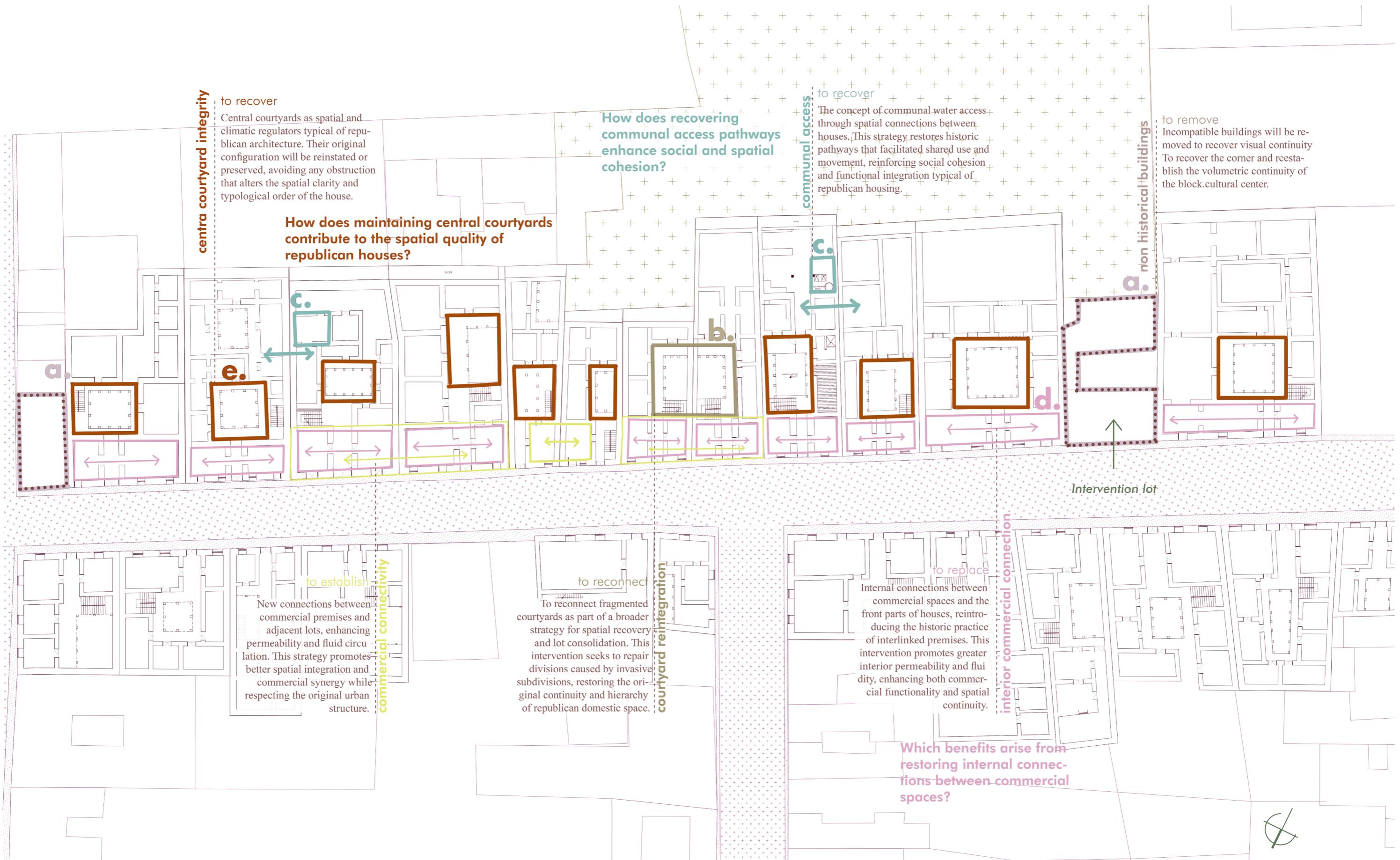


Figure 23. Valoration floorplan for Calle del Colorado. Own elaboration.

Design approach
and proposal

chapter

04

Between memory and modernity a proposal for the revitalization of Pasto's historic core

Historic centers are the living memory of cities. Within them, layers of time, culture and identity are the ones that shape urban life. However, their permanence is sustained by a balance between memory and transformation. In the case of the city of Pasto, the historic center still preserves some traces of a cultural past, yet urban expansion and the loss of traditional functions have weakened the networks that kept it alive in the past. The challenge here is to not freeze the past but to allow it to evolve, and to make the historic center a place where heritage coexists with contemporary life, where the city's culture is not only confined to the celebration of the carnival but extends into everyday life, into workshops, streets, and collective practices that sustain its identity throughout the year.

As Carrión (2001) affirms (*Figuerre 23*), historic centers enter a state of crisis when they begin to lose the central functions that once gave them meaning. This idea helps us understand how the Calle del Colorado, like many areas in the city's historical center, risks evolving from a place of encounter and social activity to one that no longer safeguards either its symbolic or functional value.

Urban expansion displaced many dynamics toward the periphery in Pasto, leaving the center with the perception of the old, without the vitality and character that once defined it, causing its aesthetic architectural and social values to fade through time. Therefore, to preserve does not only mean maintaining facades or buildings, it also means restoring the social life and dynamics that once gave meaning to those spaces, resignifying the center once again as a living place where past and present coexist.

In this context, the recovery of Pasto's historic center should be understood not simply as an act of preservation but as an opportunity to reactivate its social and cultural nodes. The challenges here lies in reconnecting the

fragments of the city, its workshops, plazas and heritage buildings, to reestablish continuity within spaces that are isolated nowadays. This proposal intends to transform the historic center into a living system that reflects the identity of its people while adapting to contemporary urban life. Through the articulation of cultural, educational and artisanal nodes, the city can rediscover its own rhythm, integrating tradition and innovation, with memory and movement.

The revitalization of Pasto's historic center is conceived as a process that goes beyond physical restoration to foster social reconstruction. The urban design here becomes a medium for dialogue between space and community, where participation and shared identity guide transformation. As Rojas in *Back to the Centre* (2004) argues, integrating cultural, economic, and social aspects is essential for achieving sustainable recovery, while Hardoy et al., (1992) emphasize that true change images from collective participation and local knowledge. Under this approach the urban project reinterprets the city's heritage as a living structure, capable of adapting, learning, and continuing to express the essence of its people through space.

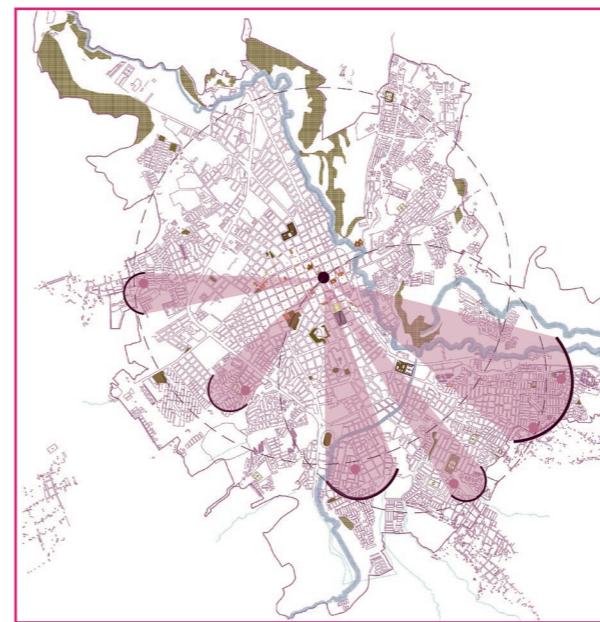


Figure 23. Periphery and historic center, Fernando Carrion. Author's own elaboration based on urban theories applied to Pasto city center.

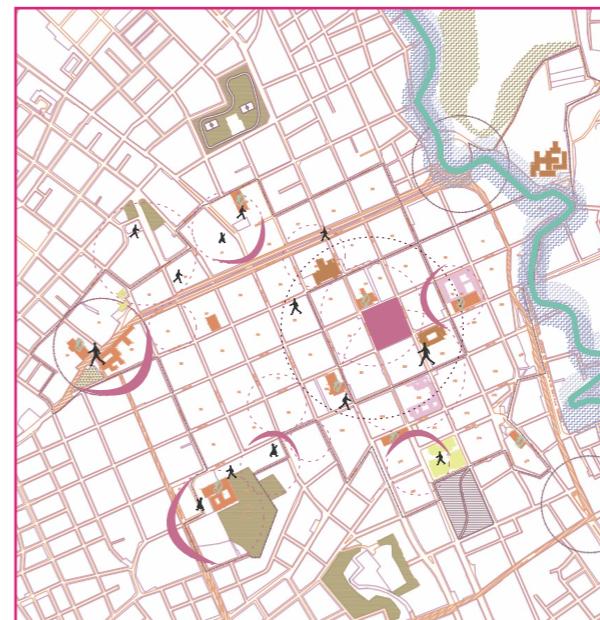


Figure 24. Periphery and historic center, Eduardo Rojas. Author's own elaboration based on urban theories applied to Pasto city center.



Figure 25. Periphery and historic center, Jorge Enrique Hardoy. Author's own elaboration based on urban theories applied to Pasto city center.

The proposal plan results from a comprehensive analysis of the nodes and potentials identified in previous urban studies, shaping a strategy for the revitalization of the historic center. The design strategy focuses on connecting the recognized heritage points of interest within the city center which today remain disconnected, thereby creating a cultural and heritage circuit that unifies the historic core. To achieve this connection, the primary focus of the proposal is the articulation between the Taminango Museum and the church of Santiago, important for its historical and architectural value and essential for linking the intervention to Calle del Colorado; this is proposed through the reconfiguration of the existing street, transforming it into an urban axis corridor that allows a more pedestrian-friendly environment. This intervention unifies the urban landscape fostering a safer space with better spatial quality that allows for a more fluid experience of the city and its heritage.

Additionally, the proposal includes the pedestrianization of Calle del Colorado (1) from the 15th street up to Boyacá avenue and the semi-pedestrianization of its extension (2) towards the east, with the focus on it regaining its prominence as a protagonist of the city. This measure aims to promote pedestrian activity that will stimulate the existing local commerce that already exists in the axis and on the street and reinforce the community life of the whole area as it directly con-

ncts heritage and people with the Barniz de Pasto workshops located nearby (3).

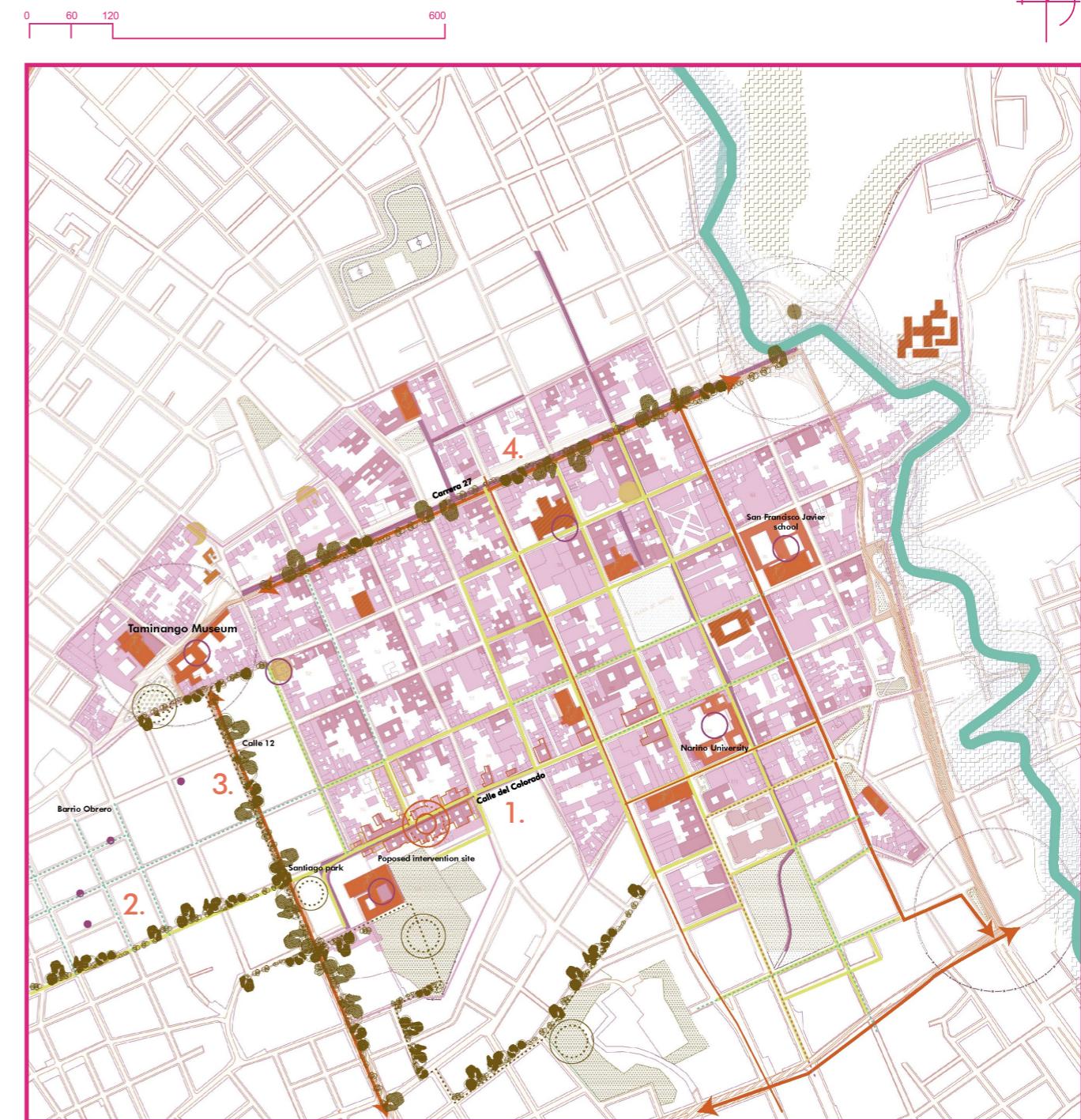
This very necessary connection would integrate local artisanal production with what we have called the “heritage circuit”, providing a new platform for it to be visualized and recognized. Making the workshops an active part of the system not only safeguards and promotes the intangible heritage but also ensures its continuity as it becomes intertwined with a tangible part of the city’s urban identity.

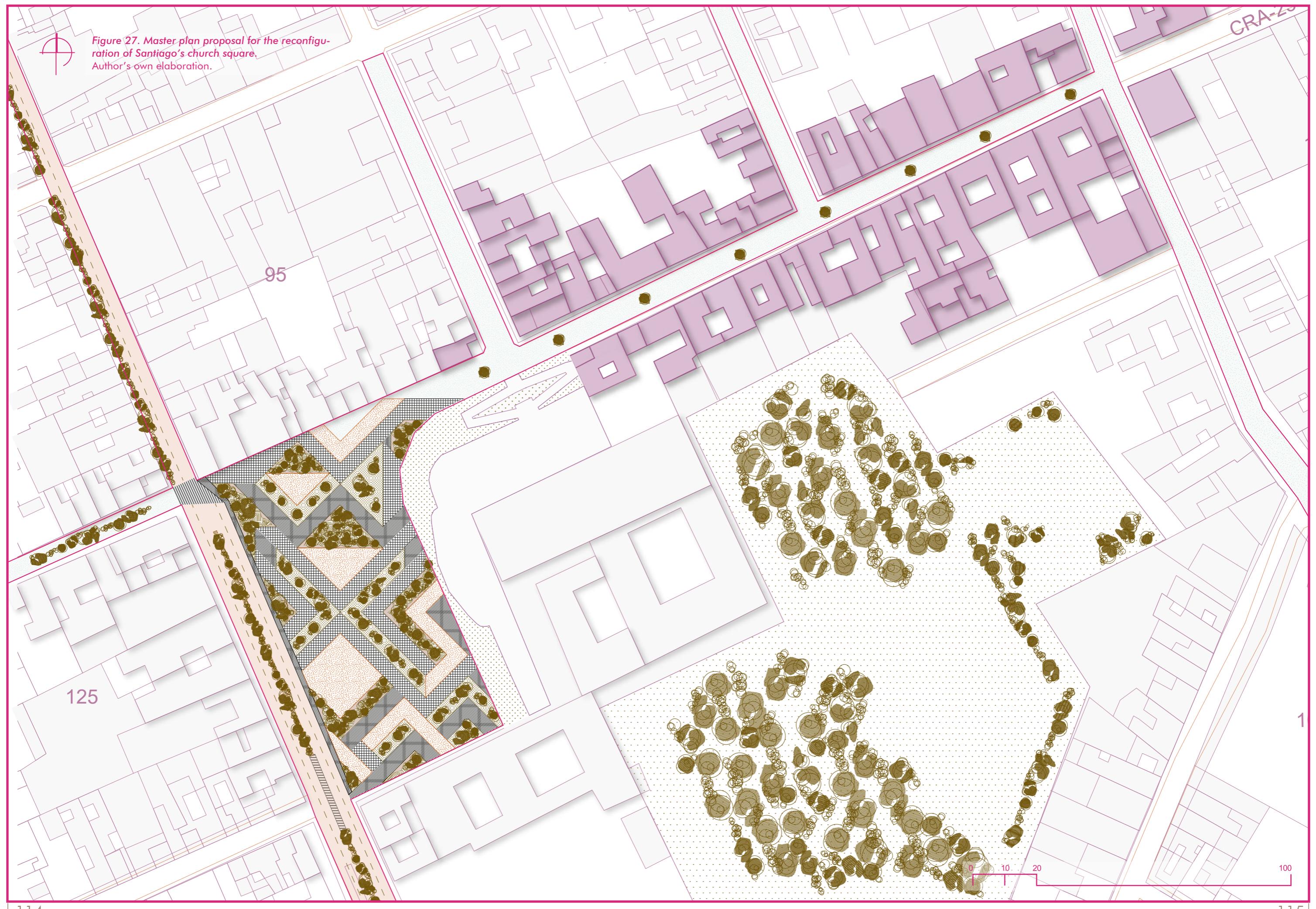
Besides, the proposal seeks to align with the existing government initiatives for the city center. By linking these points the proposal creates urban cohesion as it strengthens the continuity of public space and gives a better experience of movement for the community when they are in the area. The connection currently undergoing development with Carrera 27 (4) complements and closes the circuit on the north side of the city. By articulating these axes the whole foundational core of the city is enhanced, consolidating a coherent network of public spaces that are a continuation of one another and that allow a shared revitalizing dynamic between locals and visitors enhancing the old city center.

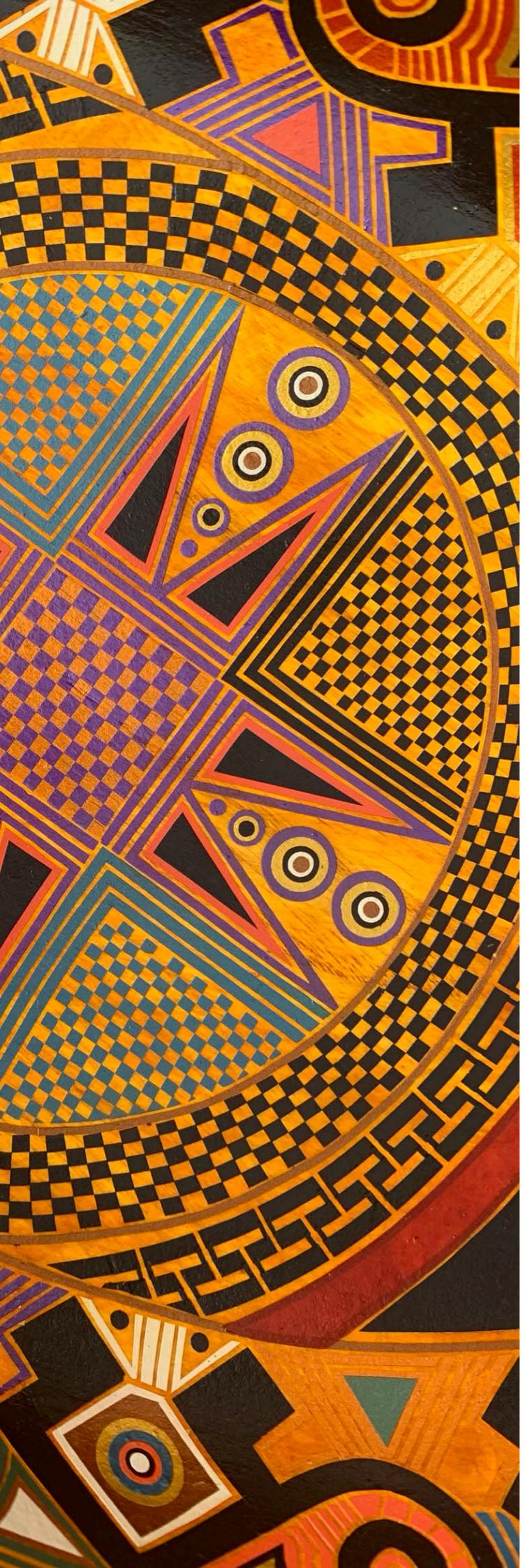
Legend

- Project Pedestrianization Extension ■
- Partial Pedestrianization and Shared ■■■■■

Figure 26. Strategy for urban cohesion: Proposal for a pedestrian and heritage circuit. Author's own elaboration.







About the design for the new Santiago's Church plaza

According to Rojas (2004) the recovery of central urban areas must be approached through an integrated perspective that brings together the social, economic, and cultural aspects of the spaces being intervened. Integrated planning promotes coordination among the different actors involved, reinforcing the project's coherence and sustainability. As a result, citizen participation becomes an essential component, as it encourages inhabitants to strengthen the sense of place and their sense of belonging and commitment to its preservation.

Heritage recovery is not limited to the physical restoration of material assets, but also involves promoting cultural and artisanal practices that consolidate the sector's identity. Likewise, economic diversification contributes to the project's sustainability by generating employment opportunities and local dynamism. Improving residents' quality of life is achieved through the creation of a well designed public space, the optimization of urban infrastructure, and the promotion of community based initiatives.

These actions look to strengthen the social fabric and consolidate Calle del Colorado as a culturally active, economically viable space that respects its history and collective me-

mory. As a result of this approach, the project strategically articulates Pasto's urban and social nodes, aiming to create a historic center that remains vibrant and connected.

The construction of social fabric within a community arises from the spatial integration of artisans, students, merchants and residents, who reinforce this connection through the creation of spaces within the historic center that promote its revitalization. Such spaces should emerge as responses to the real needs and aspirations of the community involved. This urban participation approach not only implies community engagement in activities but also their involvement in the planning, design and management of the public spaces, fostering a sense of ownership and shared responsibility that leads to more sustainable and long-term solutions.

As Hardoy et al., (1992) affirm, Citizen participation must be understood as a process of collective construction that integrates social experiences, knowledge, and practices into urban development and recognizing the inhabitant as an active and transformative agent within the territory.

*Figure 28. Master plan proposal for the reconfiguration of Santiago's church square.
Author's own elaboration.*

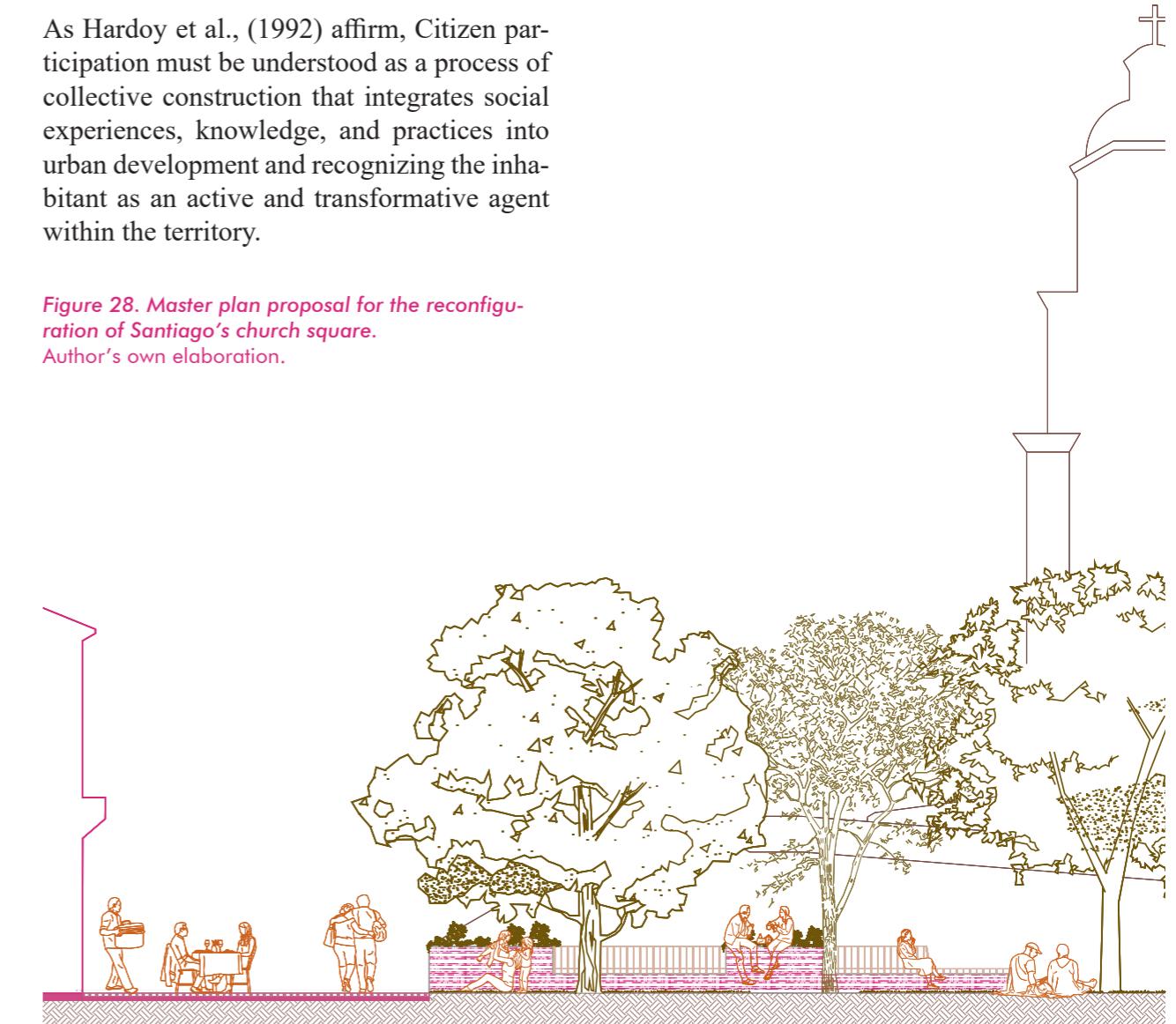


Image 37. Barniz piece made in Jesús Ceballos workshop. (Photograph by the author, 2023)

Citizen participation arises from the historical, social and cultural analysis of a community. Understanding a people's historical and cultural context allows to design more suitable intervention within the urban fabric, the Calle del Colorado, which is rich in history, culture and social dynamics, embodies the collective memory and historical values of the city of Pasto. The integration of its spatial, cultural and architectural nodes promotes multiple encounters, the exchange of knowledge and the realization of cultural activities that transform the historic center into a living, dynamic space recognized by the community as its own. Within this framework, citizen participation emerges as a strategic tool to strengthen urban identity and guarantee the social and cultural sustainability of the project.

Taking into account the role of the plaza as a fundamental node of the proposal, the design of the public space is inspired by a profound connection with the cultural heritage of the region. The geometry and orientation of the plaza are based on a reinterpretation of ancestral geometries and symbols representative of the Indigenous peoples of the area.

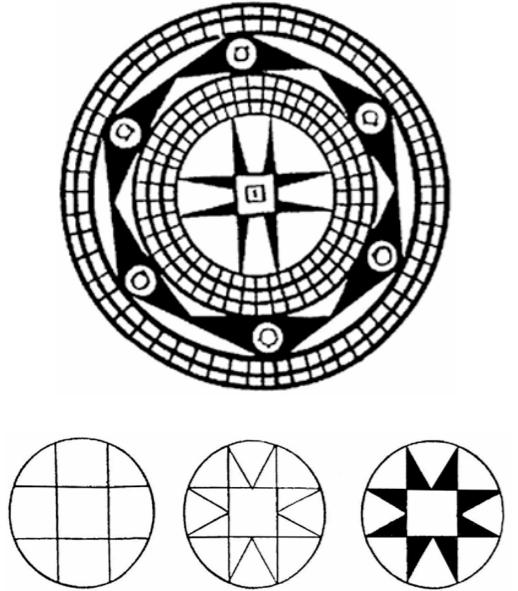


Image 38. *Sol de los Pastos*. Source: "Diseño precolombino" by Oswaldo Granda Paz

The "Sol de los pastos," represented as an eight-pointed star, is one of the oldest and most significant symbols of the worldview of the Indigenous peoples of Nariño (Image 38). Its geometry synthesizes the relationship between human beings, the territory, and the cosmos, alluding both to the cardinal points and to the solar cycles that govern agriculture. Building on this symbolism, the proposal draws from the constructive logic of the Sun of the Pastos. As illustrated in Figure 29, the design of the plaza originates from a central square from which a series of diagonals unfold, replicating the structural composition of the symbol. This approach is also reflected in the orientation of the plaza, which is shifted within the site to face north mirroring the Sun of the Pastos, which always points in this direction.

From this base geometry, new diagonals and mirrored lines extend to shape the final urban design.

This methodology seeks to establish a direct relationship with the typical geometries and aesthetic principles of the region's ancestral cultures.

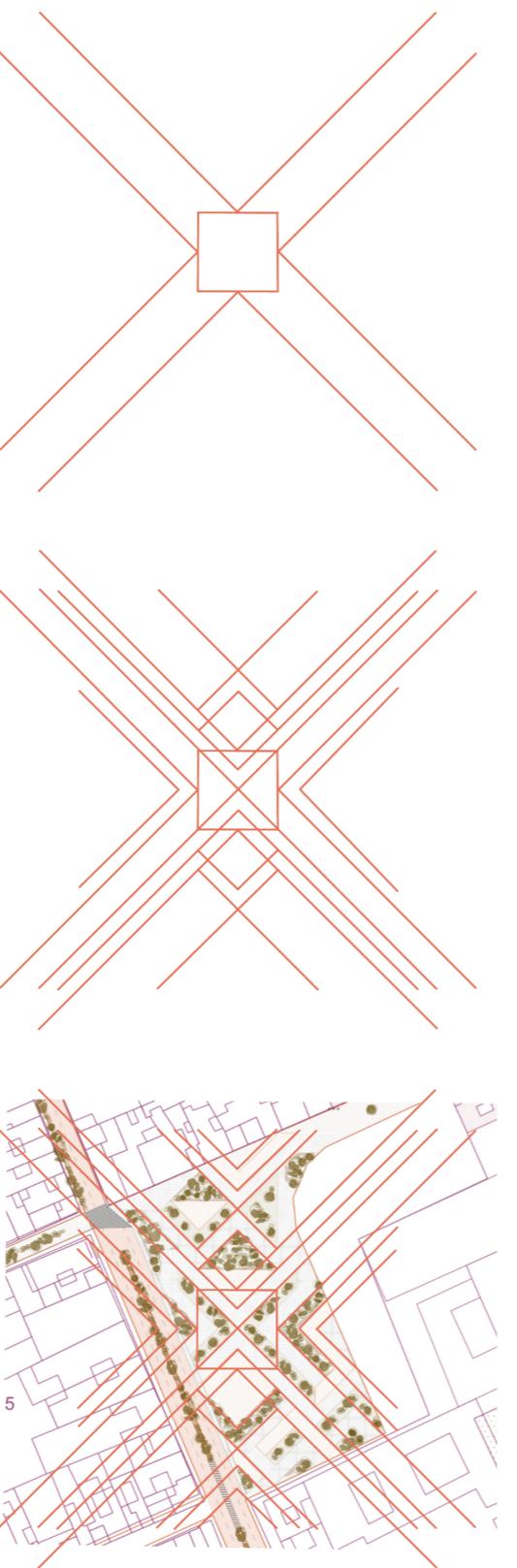


Figure 29. Geometric construction process diagram with guides for the urban proposal. Author's own elaboration.

Figure 30. Urban design plan: spatial configuration of Santiago's church square. Author's own elaboration.

0 5 10 50

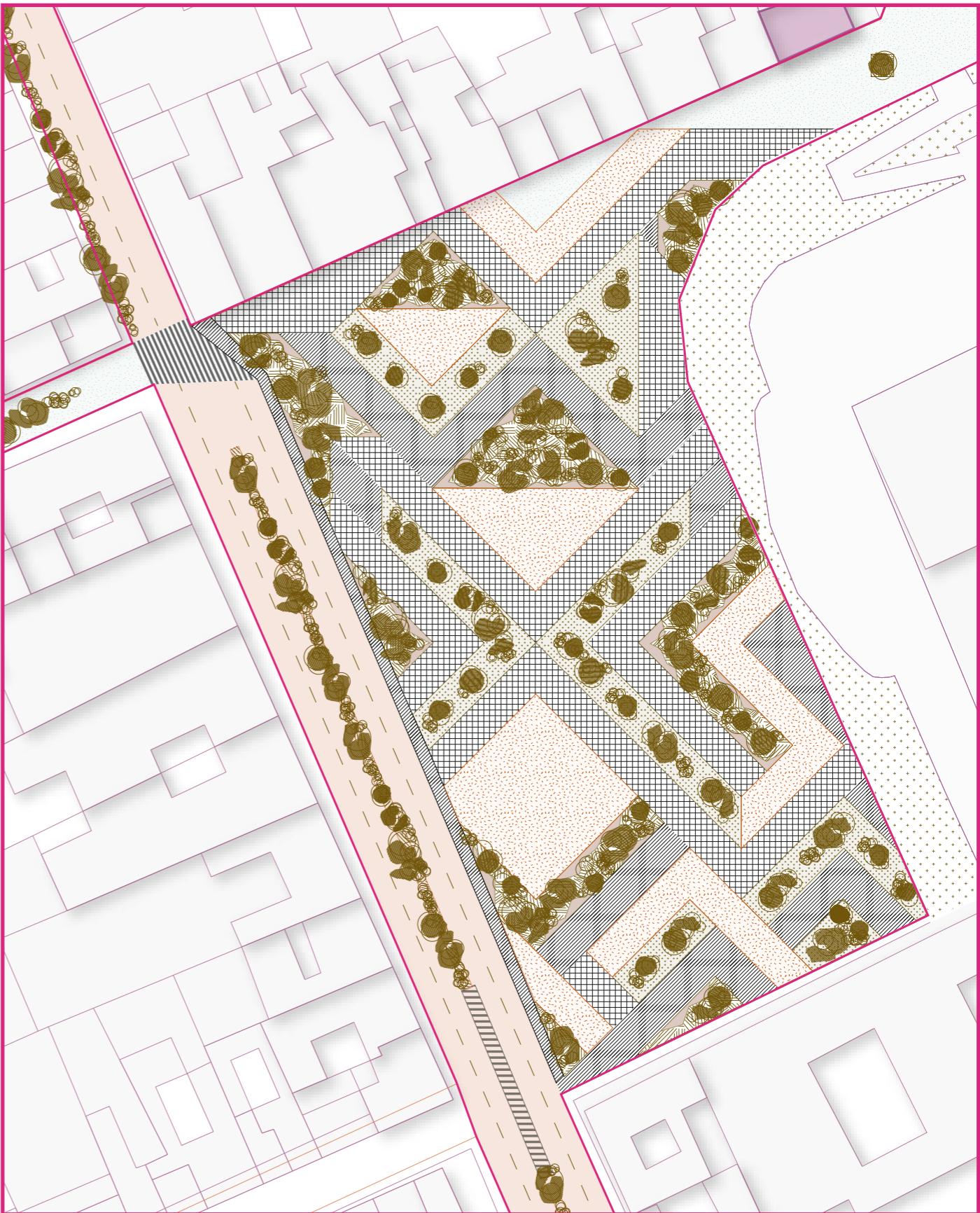


Figure 31 shows in detail one of the critical points of the proposal: the pedestrian connection that channels the flow from the Taminango Museum and guides visitors into Santiago Square. The design focused on managing the intersection between vehicular traffic and the pedestrian path through a distinctive change in pavement texture and a wide, highly visible crosswalk that operates as a clear statement of urban design: the vehicular road is traversed by a priority pedestrian axis, clearly communicating pedestrian priority and creating a visual “welcome” for those arriving on foot. Additionally, the crosswalk design opens in form into the interior of the plaza, guiding pedestrians seamlessly toward the new public space.

Figure 32 illustrates the strategy for spatial integration of the square with the surrounding urban fabric, as it focuses on incorporating the buildings around it blurring the boundaries between what's public and what's private. In this sense the pavement is strategically designed to delimitate areas that enhance existing uses of the sector, like shops and restaurants by providing a physical space that connects them with the context. At the same time, the new geometries generate a number of spaces for gathering and interaction, with various areas dedicated to different activities.



Figure 31. Detail of the pedestrian transition over 12th street towards the new Santiago Square. Author's own elaboration.

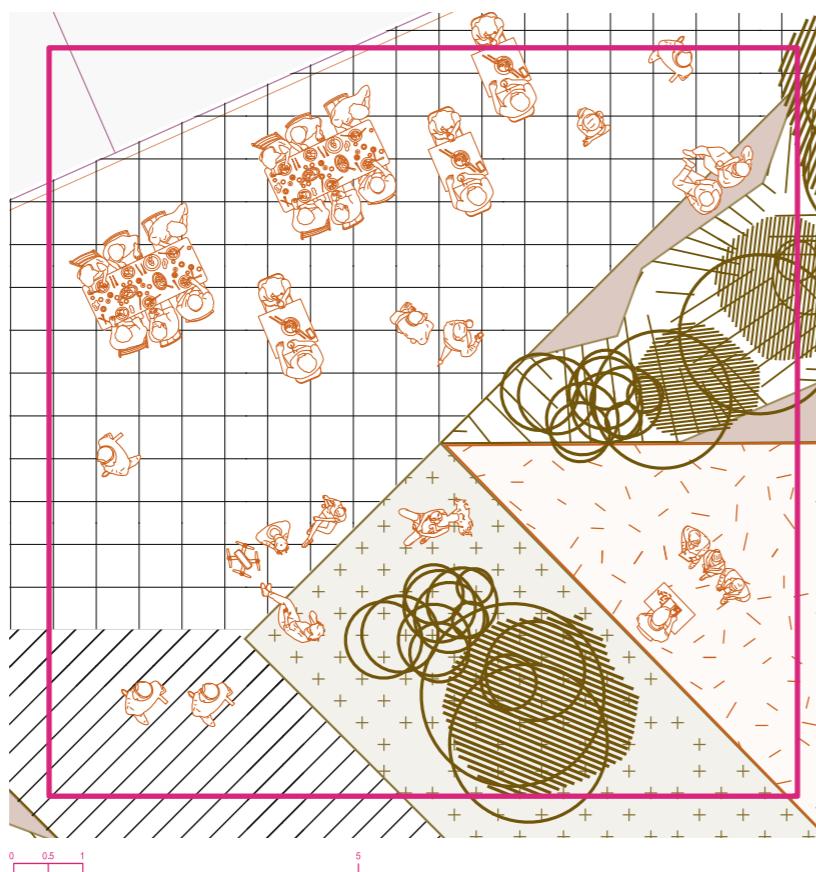


Figure 32. Detail of the Plaza's relationship with the urban fabric and integration of existing uses. Author's own elaboration.

Activity and Gathering Areas

For these zones that are focused on maximum flexibility to accommodate a wide range of recreational and cultural activities the chosen material was the safety rubber pavement (EPDM), because of its durability, impact-absorbing properties, and appealing appearance, that create a comfortable and inviting surface that encourages continuous use and prolonged stay.

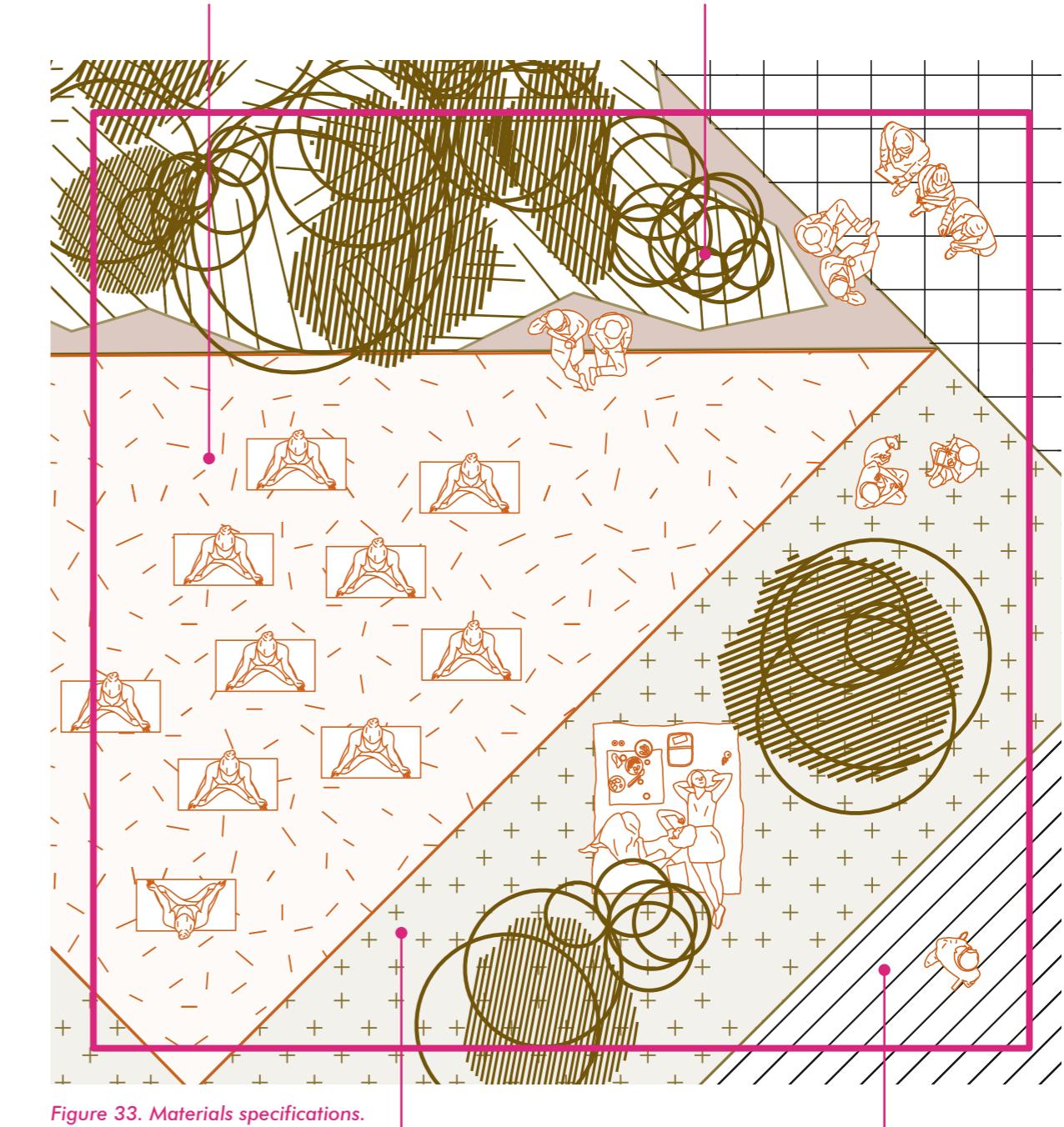


Figure 33. Materials specifications.

Green Rest Areas

Aimed at providing thermal comfort and passive rest spaces, these areas offer shade and a natural texture to the plaza. Natural soil and grass are used to contrast with the hard surfaces, enhancing the environmental quality of the square.

Planters

The planters are designed as elevated concrete elements that contain vegetation and incorporate wooden benches, offering comfortable seating areas. This design creates ideal spaces for social interaction within a more intimate and natural environment.

Circulation Axis

These areas, designed to accommodate pedestrian flow, differentiate from the surrounding spaces by the material chosen for them: clay pavers; that offer high durability and create a visual connection with the rest of the Calle del Colorado project.

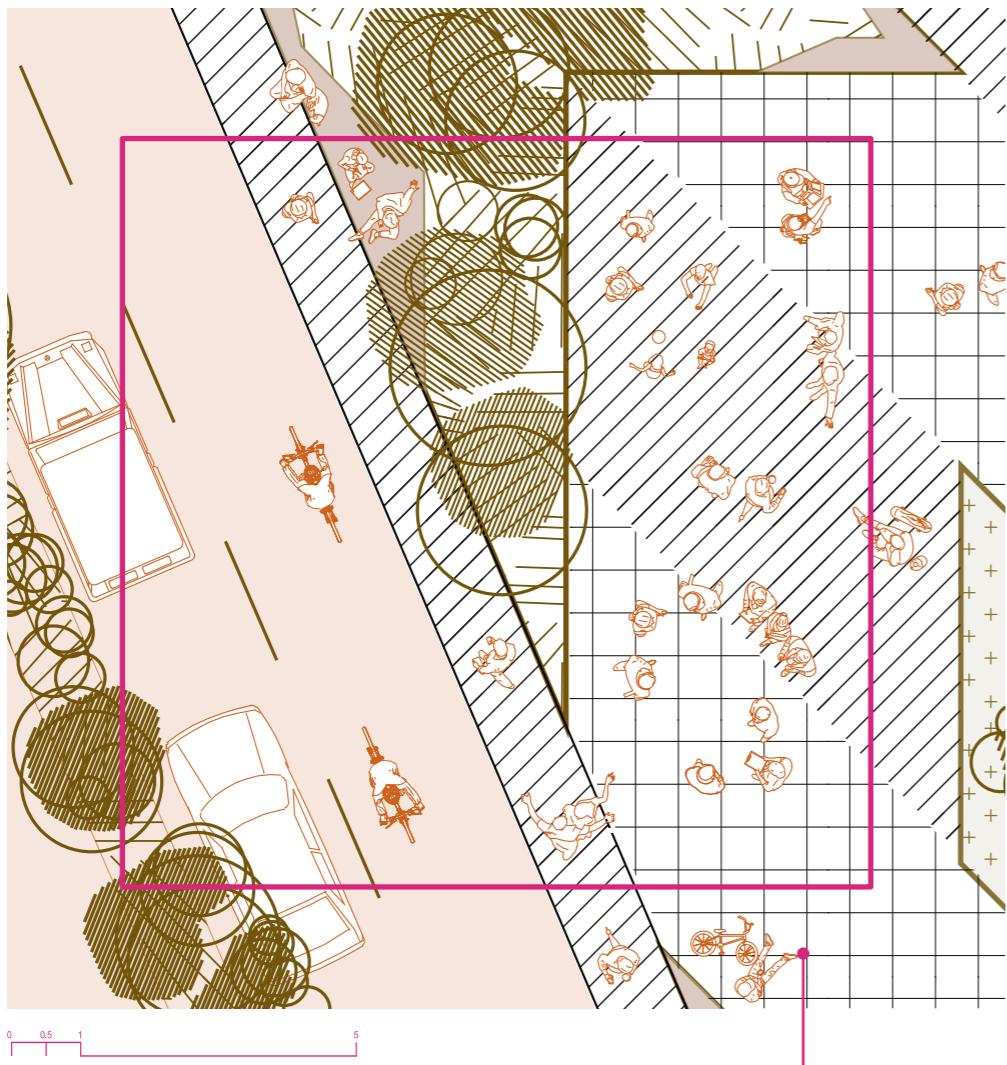


Figure 34. Detail of the Plaza – Avenida Boyacá interaction and street edge solution. Author's own elaboration.

Figure 34 focuses on the design of the plaza edge next to Avenida Boyacá, a busy street. The proposal responds by creating a strategic visual and physical barrier on the street side, aimed at protecting the plaza's areas for lingering and activity from traffic.

In the proposal the implementation of continuous planters serve as a natural barrier that shields people from the noise of the traffic but also structure the transition through this space; in addition to it a bike lane is located directly next to the plaza, functioning as a buffer between the street traffic and the pedestrian life of the square.

But despite the limit this represents to the road, the proposal keeps open to the public through wide access points ensuring that the space is perceived as accessible and safe, and that it integrates into the urban fabric and promotes social interaction and cultural activity.

The urban section shown in Figure 35 complements the plan view by illustrating the horizontal transitions that define the spatial proposal.

In it we can observe the sequence and transition of zones: from the crowded avenue, to the bike lane, the sidewalk, the barrier of planters and trees, and finally reaching the permanence areas and the activity spaces within the plaza. This demonstrates how the design supports a variety of uses and activities, from circulation to passive rest and social interaction in a user-friendly environment.

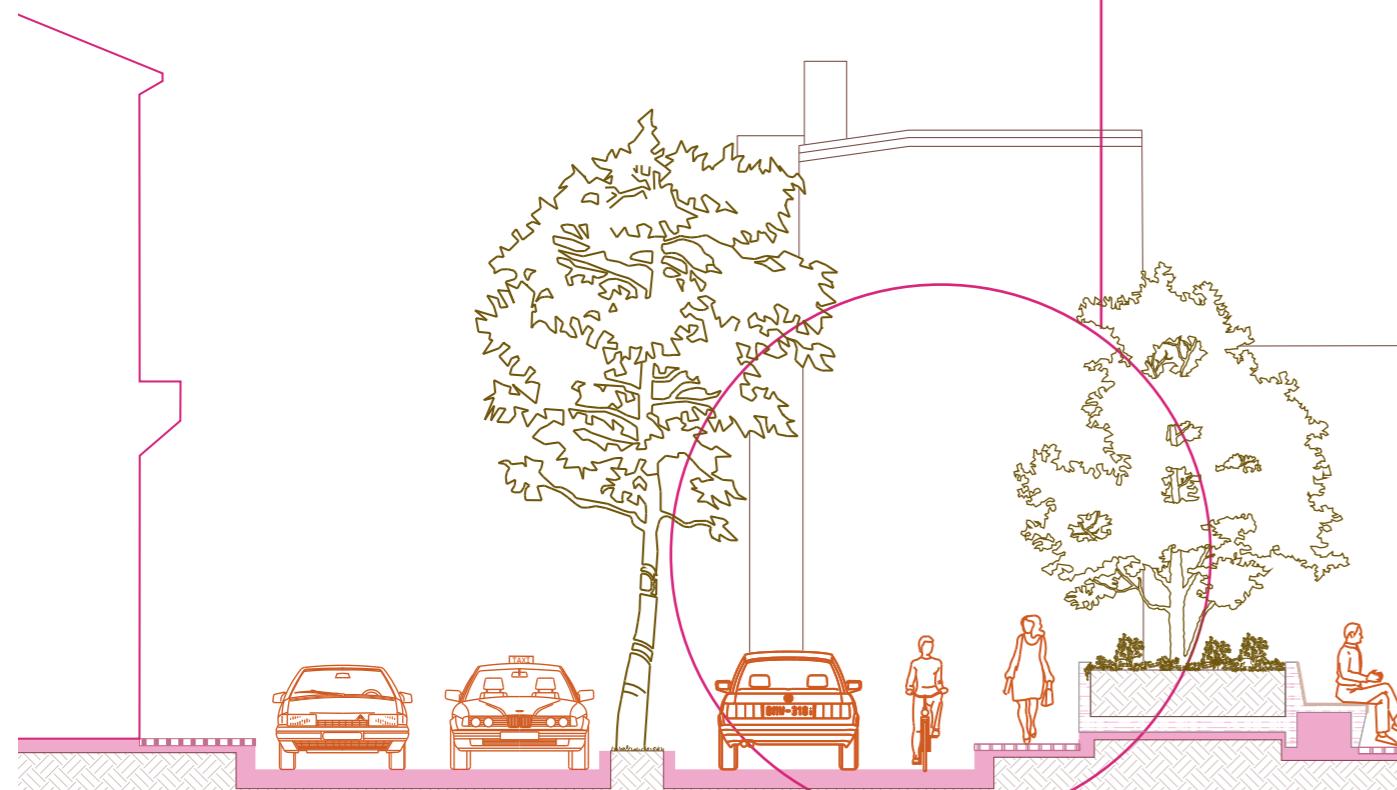


Figure 35. Urban profile A - A''. Author's own elaboration.

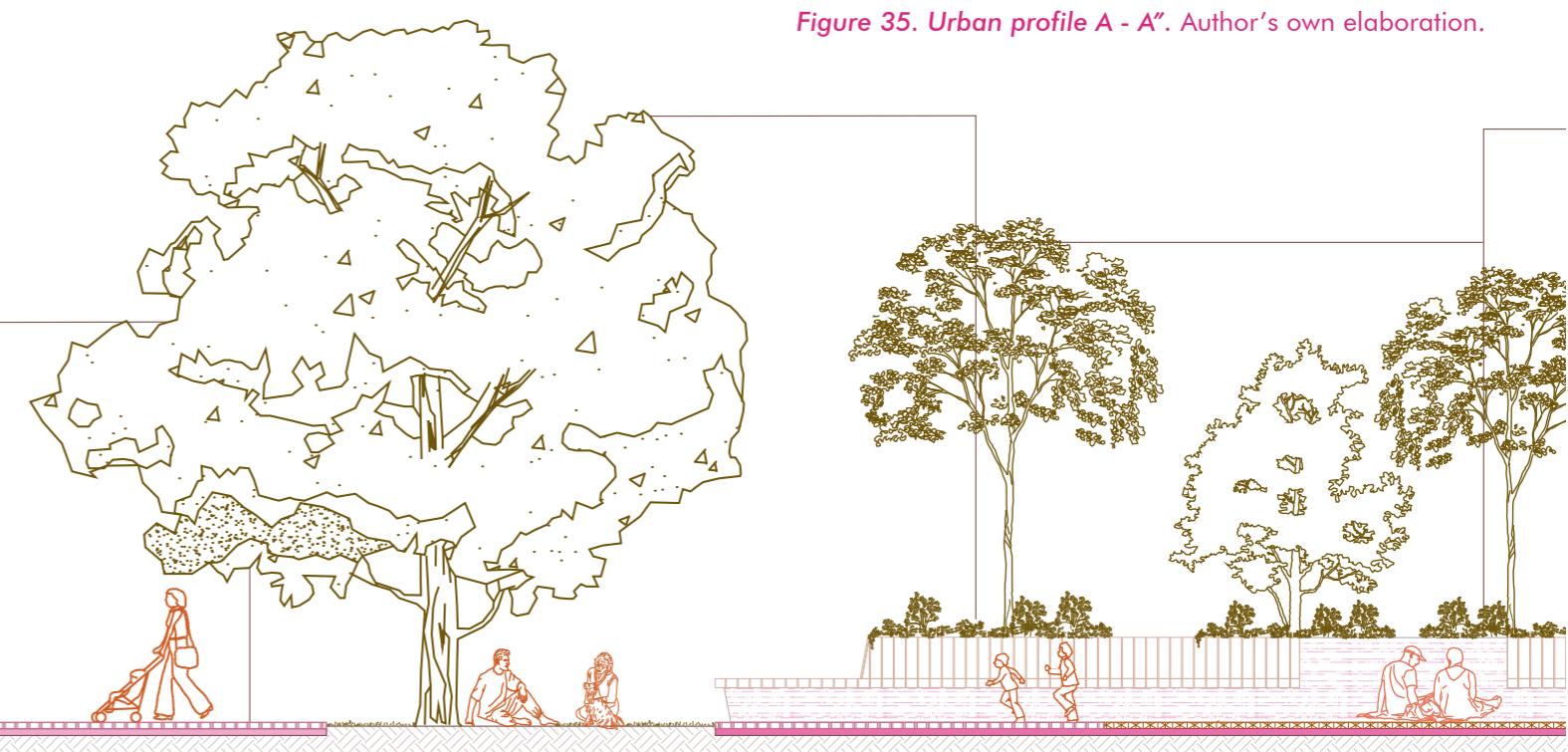




Image 39. Barniz piece made in Germán Obando's workshop. (Photograph by Mauricio Dueñas Castañeda. 2022) image trace

Architectural References: Reinterpreting Heritage through Contemporary Design

To propose a strong and meaningful approach a review was conducted of projects that have successfully integrated conservation and contemporary design intervention. The aim was to understand various strategies through which architecture can reinterpret and enhance tangible and intangible heritage, granting it new relevance within current urban and cultural dynamics.

1. The Textile museum of Oaxaca. Oaxaca, Mexico.

One of the main references for the development of this project is the Museo Textil de Oaxaca in Mexico. According to the project's description, "The textile Museum was born as a project focused on the recovery, restoration, and integration of contemporary architecture into an old building in the Historic Center of Oaxaca. The goal was to design a space for the preservation, research, education, and exhibition of textile art, not only from Oaxaca, but from all of Mexico and other countries as well" (Arquitectos Artesanos n.d.)

This case is particularly relevant to our proposal because it shares an approach centered on the restoration and appreciation of the existing heritage, while incorporating contemporary elements that dialogue with it and highlight their historical context. The balance achieved between intervention and original architecture, creating spaces that "meet current need using a contemporary language that avoid a false historicism", (Facdearq Magazine, 2008). which result in environments that themselves hold the key to the survival of the craft over time, by making it visible and relevant through direct spatial experience.

The textile Museum thus stands as a fundamental precedent to our project, sharing a strong awareness of the importance of architectural space as a platform for the dissemin-

nation, learning, and appreciation of traditional crafts. From this perspective, the reference reinforces the idea that preserving a technique involves not only safeguarding its objects or processes but also designing spaces where it can be practiced, taught, understood and celebrated; one of the central principles of our proposal (*Image 40*)

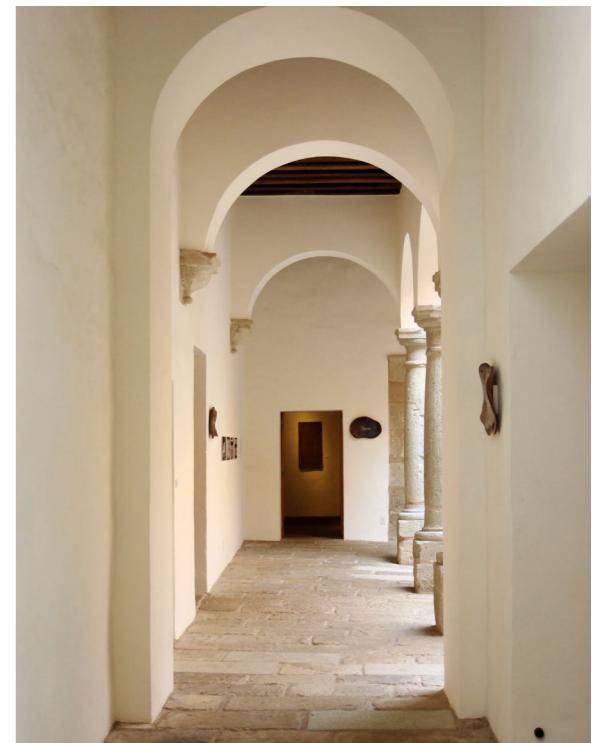


Image 40. Interior patio of the textile museum of Oaxaca, Oaxaca, Mexico. (Photograph by Arquitectos artesanos, 2007).

Moreover, the architectural expression of heritage forms an essential part of the museum's design, In its main courtyard, it features "a double height wall finished with fired red clay from Yatereni. It displays an arrangement of pieces placed on different planes, resembling a large woven fabric that pays tribute to the textiles exhibited in the galleries behind it, while also allowing natural light to filter through". (The Not So Innocent Sabroad, n.d.).

This intervention materializes and symbolizes the value of the craft it represents, integrating the artisanal technique into the architectural language itself.



Image 41. Interior patio of the textil museum of Oaxaca, Oaxaca, Mexico.
(Photograph by Wally Wright, 2022).

The way the wall pays homage to the textiles displayed behind it (*Image 41*) demonstrates how architecture can serve as a medium of expression capable of materializing the essence of a craft, thus strengthening its role in collective memory

2. Museo taller Felipe Pommerenke Santiago de Chile, Chile.

Our next case study is located in Santiago, Chile. Completed in 2016, the Museo Taller Felipe Pommerenke is “An old house that has been completely restored and adapted for its current function, respecting the materiality and architectural style of its 1929 construction” (ArchDaily, 2017). It serves as a clear example of a project’s ability to take a traditional craft in this case, carpentry and transform it into space for learning, participation, and the dissemination of artisanal techniques.



Image 42. Interior view of the main workshop at the Pommerenke museum.
(Photograph by Véronique Huyghe, 2017).

The museum includes a permanent exhibition hall, a special workshop for children, a recreation of a traditional carpentry workshop, an introductory audiovisual room from visitors, a small library and an outdoor courtyard. This structure is particularly relevant to our project, as it proposed spatial strategies similar to those envisioned for the Cultural Center Mopa-Mopa (Centro Cultural Mopa-Mopa), where practice, exhibition, and education are the main drivers.

The layout of the workshops conceived as large adaptable spaces capable of accommodating various activities also serves as inspiration for our proposal, by illustrating how such environments promote integration and learning while preserving the essence of craftsmanship. (*Image 42*)



Image 43. Interaction and craft: participation at the Pommerenke museum.
(Photograph by Véronique Huyghe, 2017).

Among the museum’s main characteristics is its pedagogical and experiential focus, which aims to “awaken and stimulate visitors creativity through the experience of learning by doing in a workshop environment”.

This approach demonstrates a deep understanding of how the transmission of such techniques and therefore their survival over time depends directly on the interaction between people and the craft itself. In this sense architecture becomes the physical medium through which the community engages not only with theoretical knowledge of the craft, but also with its practical application allowing them to experience living heritage firsthand.



Image 44. Barniz piece made in Granja workshop. (Photograph by Mauricio Dueñas Castañeda, 2022)

Responding to the lack of national recognition of Nariño's cultural heritage through spatial stimulation of workshops and exhibition spaces for the artisanal Barniz technique

In order to preserve and maintain a cultural tradition and elevate its value on a national level, it is necessary to understand the causes that have prevented this practice from standing out in the national context and that have hindered the development of the technique. Through spatial stimulation, it is essential to protect the values of cultural customs by exploring the relationship between space and object, implementing adaptable architecture with spatial flexibility in homes that also function as workshops, starting with the recovery and restoration of traditional housing in the city of Pasto. This approach will enable the spatial integration of the casa-taller (house-workshop), improving the working conditions and quality of life of artisans, which in turn stimulates the transmission of this tradition and preserves it within the culture.

Likewise, in order to elevate the status of Barniz, spaces will be provided that foster cultural appropriation, where both the final products and their creation processes can be exhibited, places where local and national communities can connect and immerse themselves in the dynamics involved in producing any item made with Barniz. These spaces will encourage community participation, aiming to achieve national recognition and cultural preservation of the tradition.

To give life to this vision and create a place that physically and symbolically supports the intangible heritage of varnish, the proposal focuses on the design of the Pasto lacquer mopa-mopa cultural center. Based on earlier analyses and theories of conservation techniques, the proposal recognizes the need to go beyond mere exhibition.

The museum is conceived as an ecosystem of learning and living production, where the visitor not only contemplates the final product but also immerses themselves in the artisanal process, thus ensuring the generational transmission of the varnish technique. This approach requires a spatially flexible and permeable architecture, capable of hosting both the exhibition and the dynamic activity of the workshop and the community gathering.

Figure 36 . Interior view of the Barniz Cultural Center - The courtyard and spaces around. Author's own elaboration.



The design of the Varnish Cultural Center is the focal point of the urban regeneration proposal. This axonometric view illustrates the volumetric insertion of the new building in the historic fabric of Calle del Colorado. The proposal respects the alignment and height of the historic façades, but deploys a

modern, permeable, and multi-level spatial system towards the interior, guided by the traditional distribution of republican houses with a side courtyard. The structure is organized around this central axis of light that connects and articulates all the spaces, becoming the heart of the museum.

Figure 37.
Axonometrical diagram, Barniz Cultural Center insertion in Calle del colorado.
Author's own elaboration.

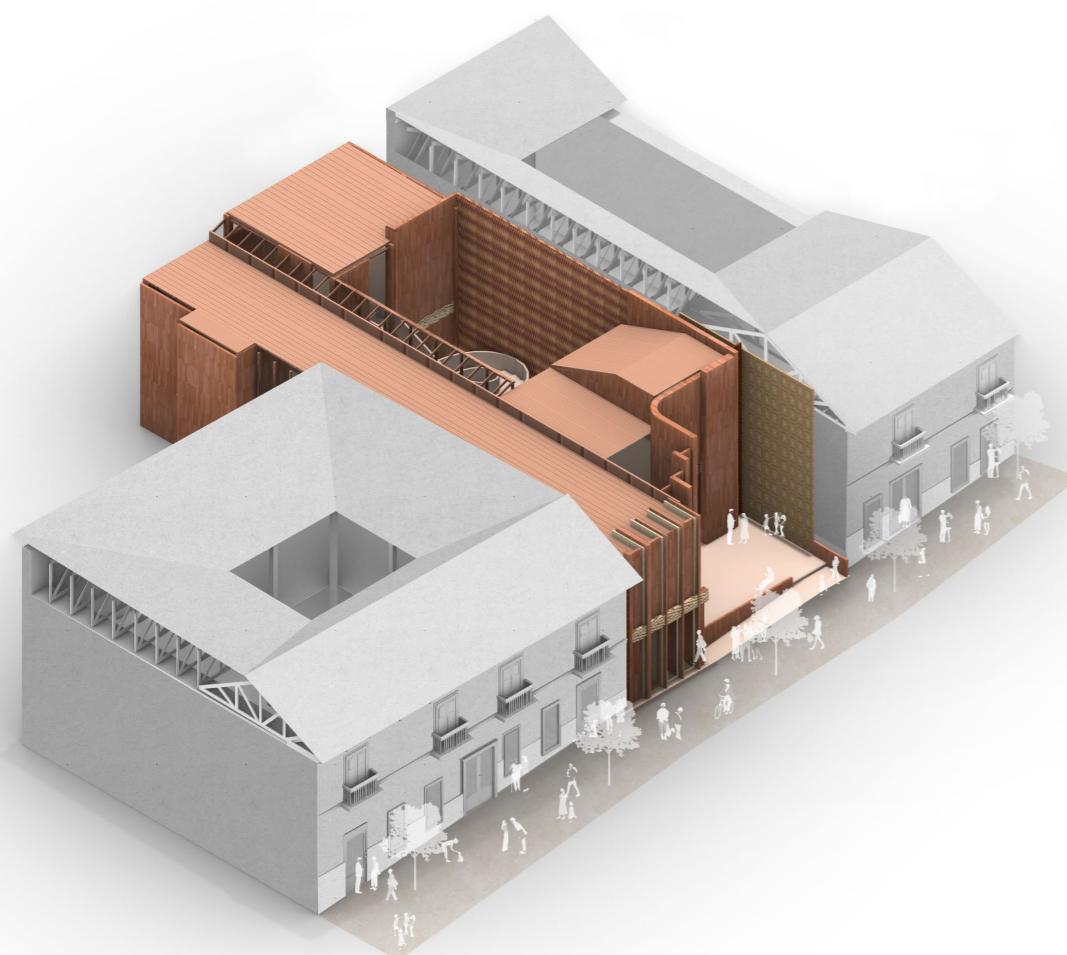
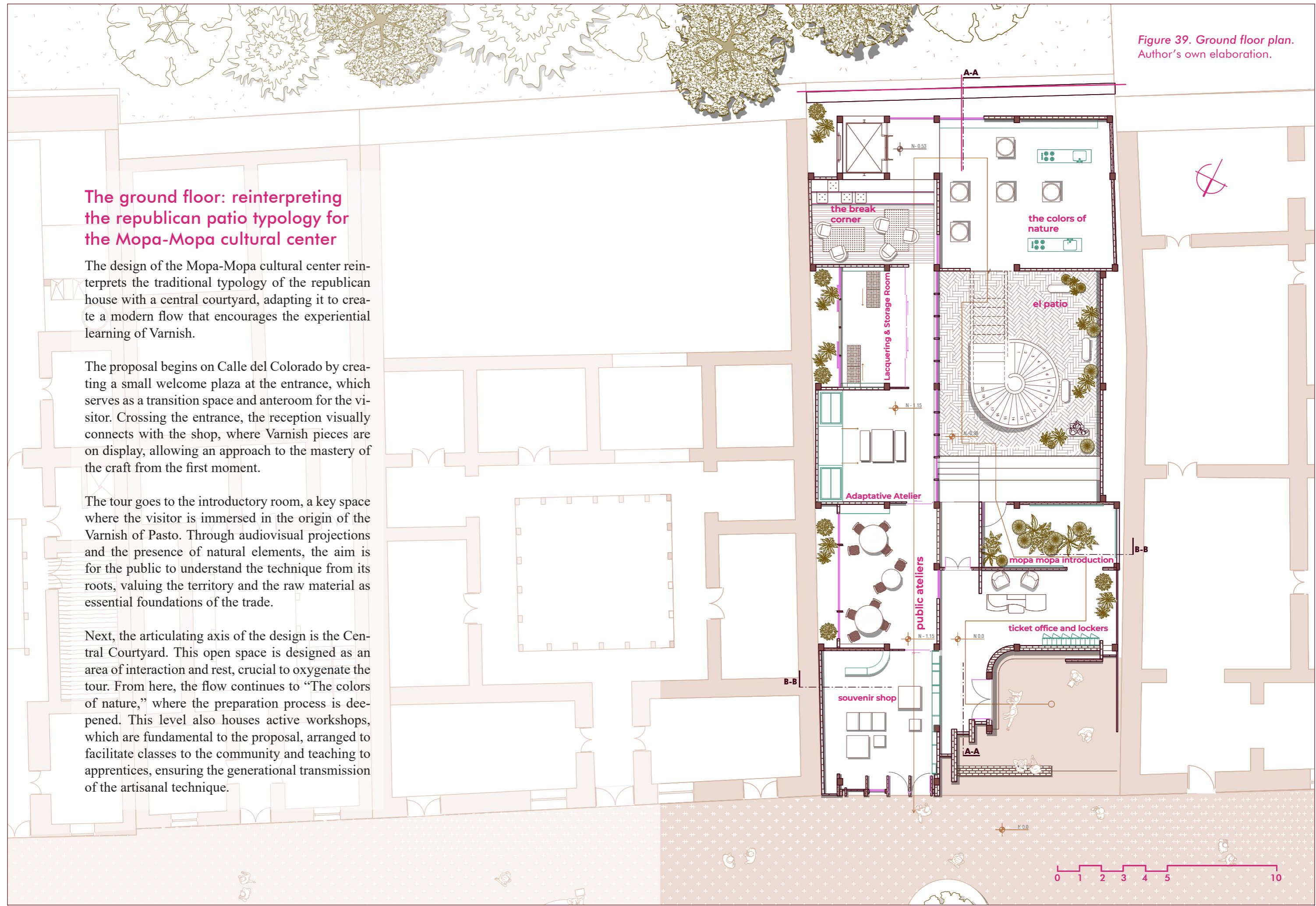


Figure 38 . Interior view of the Barniz Cultural Center - The courtyard and spaces around.
Author's own elaboration.





The stairs were conceived as a protagonist element in the central courtyard, with their shape opposed to the traditional staircase; they offer dynamic points of view to the entire building, and from where the varnish mural on the back wall of the courtyard can be appreciated.

The second level is dedicated to the most advanced and delicate phases of the trade. This is where “The unfolding room” is located, where the process of applying and molding the resin on the pieces is carried out. In addition, this floor includes private workshops and storage areas that guarantee the right conditions for the artisans and their materials, raising the status of their work.

To strengthen the cultural and economic link with the region, this level houses “The Threshold Coffee”. A space in which the gastronomic offer is limited to typical and characteristic products of Pasto and the region, ensuring an experience that is completely local.

Finally, “The Gathering Room” is designed with flexibility to be adapted for conferences, events, temporary exhibitions, or cultural gatherings. Its conception is always at the service of the community, consolidating the cultural center as an active cultural nucleus and a vital meeting point in the Historic Center.

Figure 40. Section A - A''. Author's own elaboration.

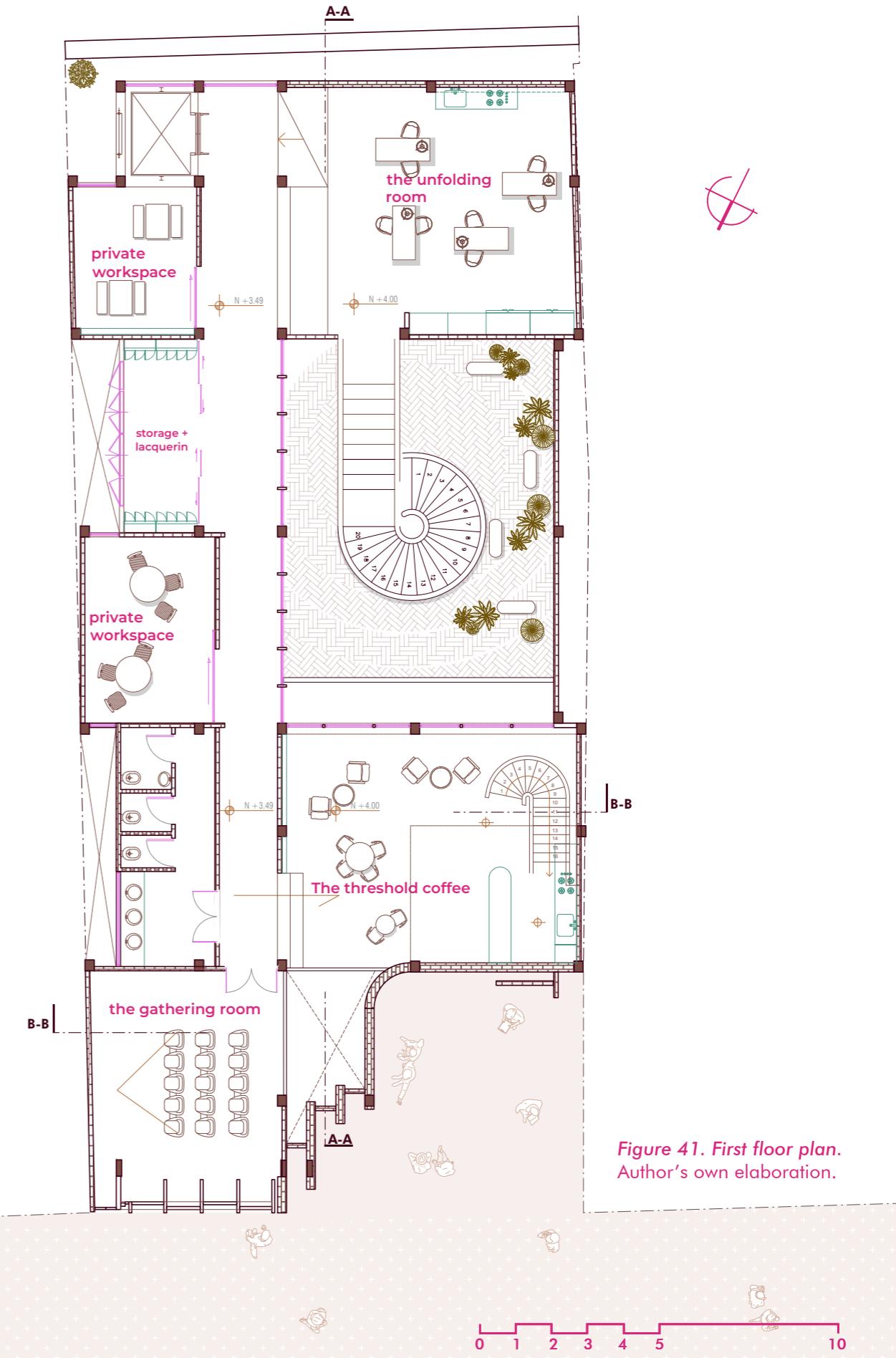


Figure 41. First floor plan. Author's own elaboration.

The project incorporates the “Sol de los Pastos” carved in wood as a symbolic and spatial connector between the existing buildings and the new cultural center. Its presence highlights the value of local wood carving, an artisanal tradition deeply rooted in Pasto. In parallel, the brick latticework used on the façade and throughout the interior reinforces the idea of the building as a woven construct. Together, these elements create a continuous fabric that integrates craft, territory, and architecture into a unified expression

Figure 42. Sol de los Pastos carving detail representation. Author's own elaboration.

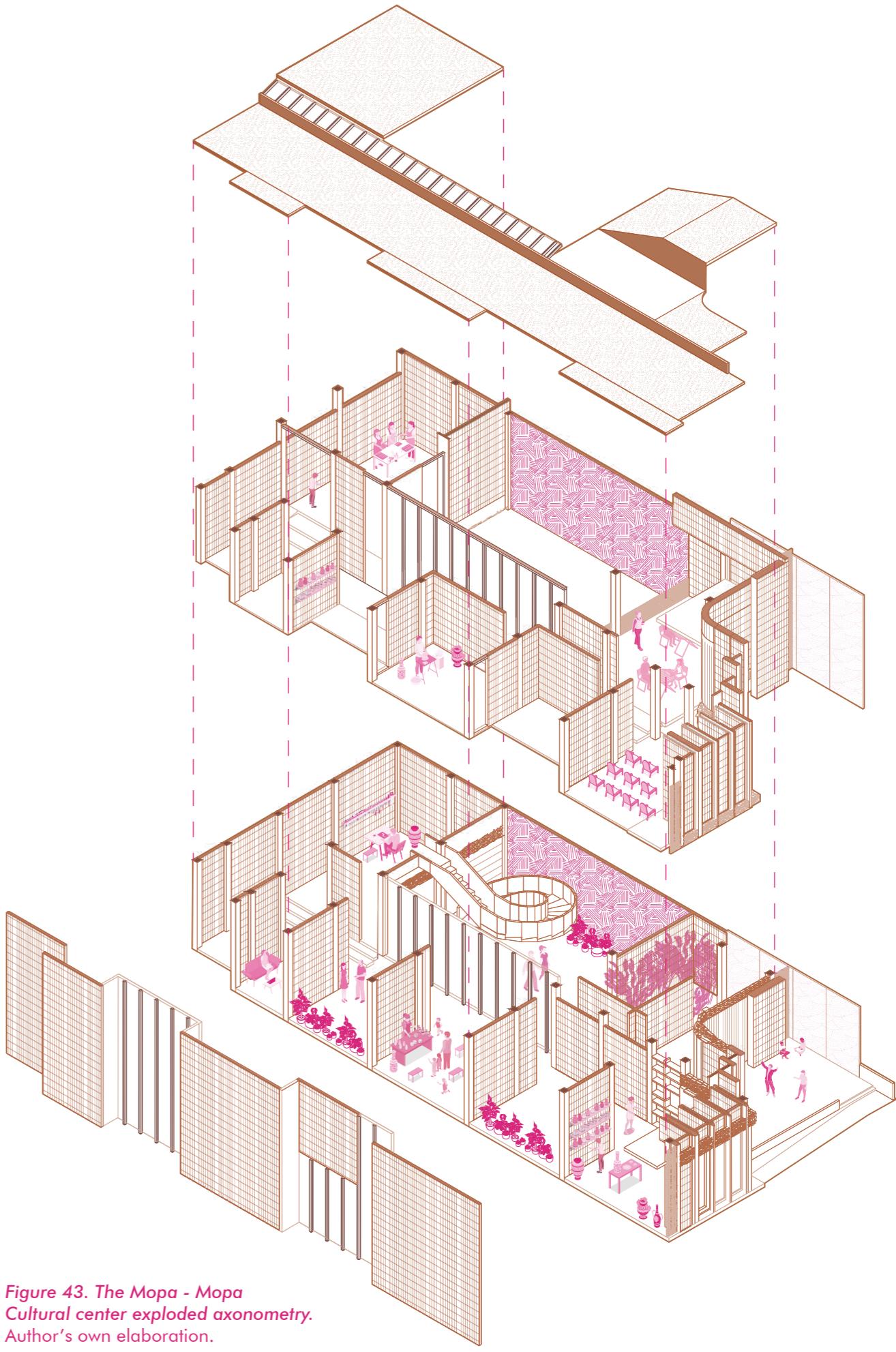
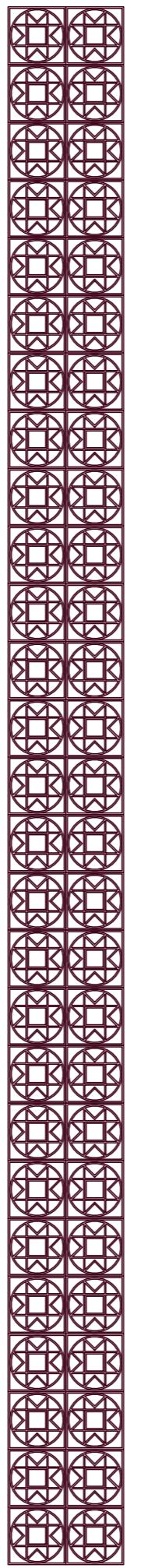
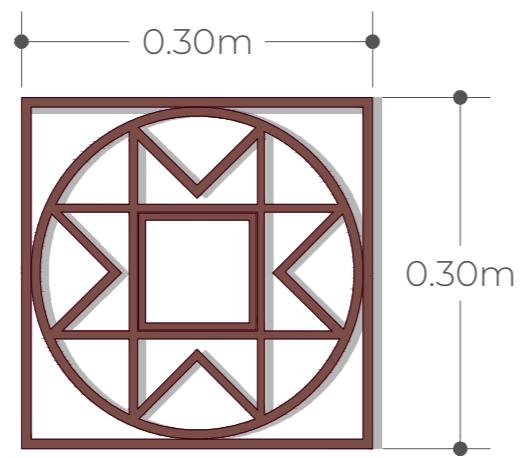


Figure 43. The Mopa - Mopa Cultural center exploded axonometry. Author's own elaboration.

*Figure 44. The barniz shop interior view.
Author's own elaboration.*

The decision to integrate a shop into the Varnish Cultural Center is a strategic component that directly attacks the economic devaluation of the trade. The museum promotes the integral appreciation of crafts, and the best way to achieve this is by allowing its fair and direct commercialization in the same place where it is produced and taught.

During the research phase, the artisans consistently expressed that the lack of appreciation of Varnish is not only one of cultural, but also of economic recognition. The current intermediation chain forces creators to sell their pieces to resellers at significantly lower prices, a dynamic that causes their income not to reflect the effort, time, and mastery invested in each work, with the resellers, and not the artisans, capturing the greatest value.

By locating the store in the heart of the Cultural Center, a transparent commercial circuit is established, which guarantees that the income from the sale of the pieces goes directly to the artisans, eliminating unfair intermediation. In this way, the store becomes an instrument of labor dignity, ensuring that the final price reflects the real value of the craftsmanship, supporting the economic sustainability of the trade, and promoting ethical and culturally conscious consumption.



Figure 45. The workshop interior view 1.
Author's own elaboration.



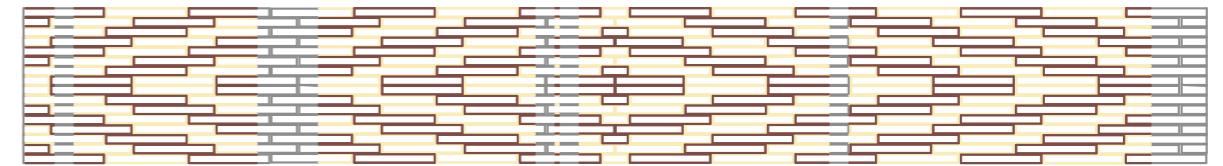
Figure 46. The workshop interior view 2.
Author's own elaboration.



The design of the workshops at the Cultural Center results from the detailed observation of the practices of the artisans, seeking to rescue and optimize the fundamental conditions of their work environment.

A key principle was to foster closeness and access to the essential tools for the craft, replicating the atmosphere of a traditional workshop. The spaces are designed so that artisans can have their pieces and work materials at hand, creating an atmosphere of active production that is visible to both apprentices and visitors.

Flexibility and adaptability were fundamental in the conception of the furniture and the layout. The worktables are adjustable and storable, easy to adapt to the different phases of the Varnishing process, to the different sizes of groups, and to the preferences of each user. The architecture of the workshop seeks to enhance the autonomy of the artisan, offering them a space where everyone can mold and configure their own work environment, ensuring that the design serves the creative process of the craft and not the other way around.



the brick

between tradition and contemporaneity

The use of brick was a fundamental decision in consolidating the project's architectural identity, serving as a powerful link between tradition and contemporaneity.

Through lattices, patterns, and ventilated brickwork, the material becomes a language that bridges tradition and contemporaneity. These brick fabrics address climatic and spatial needs while evoking the manual gesture of the artisan, integrating craftsmanship into the construction of the building itself. In this way, the architecture is conceived as a continuous weave in which material, light, and void interact to honor the artisanal practices the project seeks to preserve and make visible.

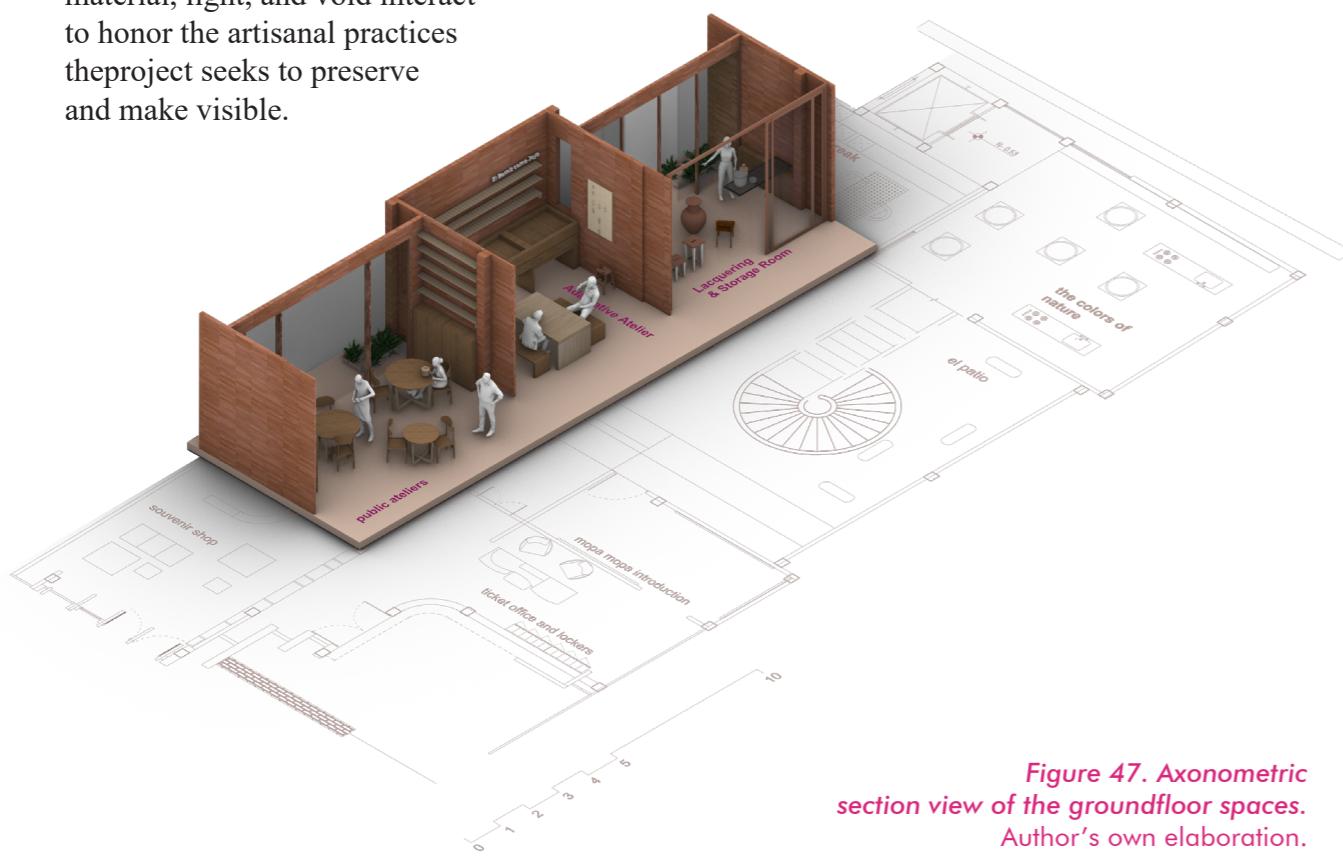
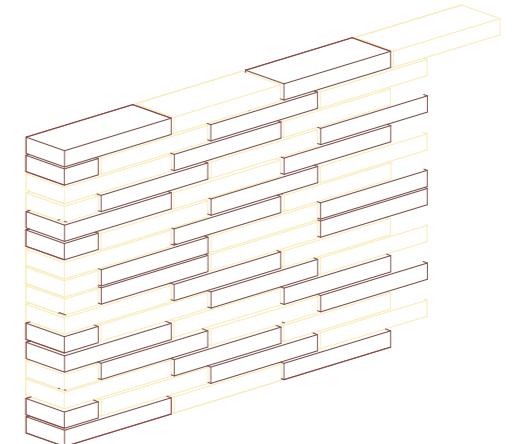


Figure 47. Axonometric section view of the groundfloor spaces.
Author's own elaboration.

Brick has long been one of the most meaningful materials in Colombian architecture. Its artisanal character, traditional production methods, and persistent presence in historic centers allow it to transcend mere construction and become a cultural symbol.

In the south of the country, brick not only shapes façades and structures, but also embodies inherited techniques and local craftsmanship. Its texture, color, and the possibility of arranging it manually in multiple patterns reveal a material deeply connected to the territory and to the artisanal practices that define it.

Figure 48. Brick - work details.
Author's own elaboration.

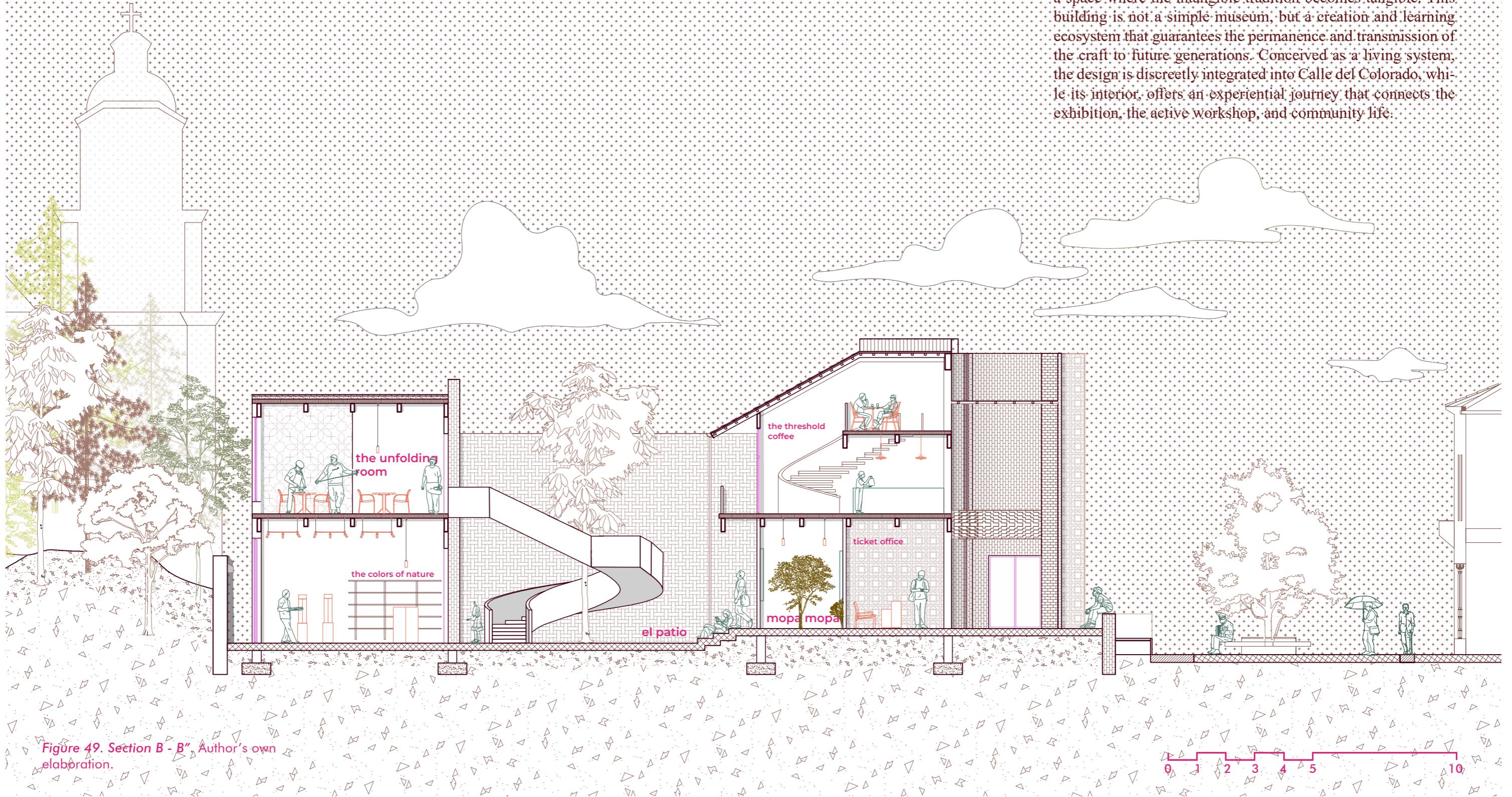


Brickwork pattern on the facade



The Mopa-Mopa barniz Cultural Center, Where tradition becomes tangible

The Mopa The Mopa-Mopa barniz Cultural Center is the architectural culmination of the regeneration proposal, offering a space where the intangible tradition becomes tangible. This building is not a simple museum, but a creation and learning ecosystem that guarantees the permanence and transmission of the craft to future generations. Conceived as a living system, the design is discreetly integrated into Calle del Colorado, while its interior, offers an experiential journey that connects the exhibition, the active workshop, and community life.



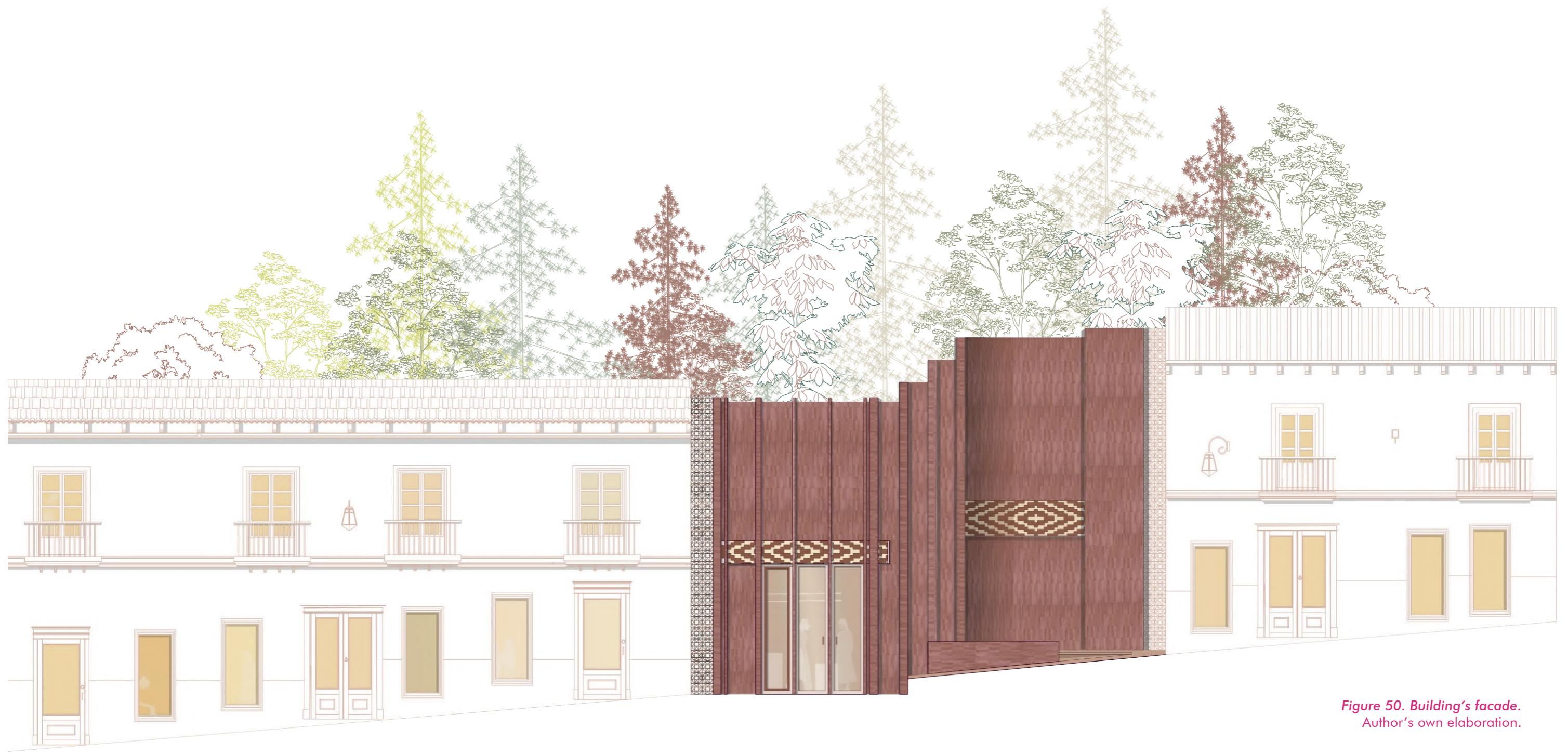


Figure 50. Building's facade.
Author's own elaboration.

chapter

05

Theoretical References

ÁLAVA, J., RIVERA, G. GOYES, S., & BASTIDAS, E. (2008). *El Mopa Mopa: Traditional craft and quality of life* [El Mopa Mopa. Tradición artesanal y calidad de vida]. Pasto, Colombia: CESMAG.

ALCALDÍA DE BOGOTÁ. (2022). *Urban Heritage Norms Handbook* [Cartilla de norma urbana patrimonial] (ISBN 978-958-53758-4-0). Equipo de Implementación PEMP-CHB (2021), Instituto Distrital de Patrimonio Cultural. Tejer y Equilibrar. Retrieved from https://drive.google.com/file/d/13z-jhDrwsEf_es9jiXhqwQ1ag4G6hGEXq/view

ÁLVAREZ, M. (2019). *Nature and Landscape* [Naturaleza y paisaje] (1st ed.). La Paz, Bolivia: Fundación Visión Cultural.

ARCHDAILY. (2017, July 23). *Museo Taller / Felipe Pommerenke* [Museo Taller / Felipe Pommerenke]. Santiago, Chile: ArchDaily. Retrieved from <https://www.archdaily.cl/876319/museo-taller-felipe-pommerenke>

ARÉVALO, J. M. (2004). Tradition, heritage, and identity [La tradición, el patrimonio y la identidad]. Revista de Estudios Extremeños, Badajoz, Spain: Diputación de Badajoz.

ARQUITECTOS ARTESANOS. (n.d.). *Textile Museum of Oaxaca* [Museo Textil de Oaxaca]. Retrieved from <https://www.arquitectosartesanos.com/museo-textil>

ARTESANÍAS DE COLOMBIA. (2019). *Lines of artisan production in Colombia* [Líneas de producción artesanal en Colombia]. Bogotá, Colombia: Artesanías de Colombia.

BOLAÑOS RUEDA, Á., MORALES UPEGUI, H., & ORTEGA ENRÍQUEZ, R. (2010). *The architecture of the republican period in Pasto, its influence in Nariño and its relationship with Colombia* [La arquitectura del periodo republicano en Pasto, su influencia en Nariño y su relación con Colombia]. Universidad de Nariño. Pasto, Colombia.

BUBNER, E. (1974). *Adaptable architecture*: Historical summary [Arquitectura adaptable. Resumen histórico]. In F. Otto et al. (Eds.), *Adaptable architecture: Seminar* [Arquitectura adaptable: seminario]. Barcelona, Spain: Editorial Gustavo Gili. ISBN.

CAMACHO CAICEDO, T. A. (2016, August 12). *Narino Biodiverse*. [Nariño biodiverso] Pasto, Colombia. Retrieved from https://nariño.gov.co/wp-content/uploads/2025/01/NARINO_BIODIVERSO-3.pdf

CARRIÓN, F. (Ed.). (2001). *Historic centers of Latin America and the Caribbean* [Centros históricos de América Latina y el Caribe]. Quito, Ecuador: FLACSO-Ecuador.

CARVAJAL, M., & EUDORO, M. (2005). *Research plan on Mopa-Mopa in the departments of Cauca, Putumayo and Nariño* [Plan de investigación del Mopa-Mopa en los departamentos de Cauca, Putumayo y Nariño]. Bogotá, Colombia: Artesanías de Colombia. Retrieved from <https://repositorio.artesanias-decolombia.com.co/handle/001/755>

COLMENAREZ, F. (2009). *Adaptable architecture: Flexibility of architectural spaces* [Arquitectura adaptable: Flexibilidad de espacios arquitectónicos]. Venezuela.

FACDEARQ MAGAZINE. (2008, June). *Restoration: Textile Museum of Oaxaca* [Restauración: Museo Textil de Oaxaca]. Retrieved from <https://facdearq.blogspot.com/2008/06/restauracin.html>

FERRO MEDINA, G. (2022). *Paths that lead to memory* [Caminos que conducen a la memoria]. Semana.com. Retrieved from <https://www.semana.com/caminos-conducen-memoria/73361-3/>

FONTUR. (2014). *Tourism product design for the municipality of Pasto and its townships* [Diseño de producto turístico para el municipio de Pasto y sus corregimientos]. Bogotá, Colombia: Fondo Nacional de Turismo: FONTUR.

FRÍES, A., SASTOQUE, S. Y RODRÍ-

GUEZ, C. (2020). Mopa Mopa Pasto. Design Notebook [Cuaderno de oficio según técnica Mopa-Mopa o Barniz de Pasto] Pasto, Colombia: Artesanías de Colombia. Retrieved from https://artesaniasdecolombia.com.co/Documentos/Contenido/29789_mopa_mopa_pasto.pdf

GOMEZJURADO GARZÓN, Á. J. (2014). The Barniz de Pasto: Testimony of cultural mestizaje in southwestern Colombia, 1542–1777 [El Barniz de Pasto: Testimonio del mestizaje cultural en el sur occidente colombiano, 1542–1777] Master's thesis, Medellín, Colombia: Universidad Nacional de. Retrieved from [https://repositorio.unal.edu.co/bitsstream/handle/unal/21830/98389537.2014.pdf?sequence=1&isAllowed="](https://repositorio.unal.edu.co/bitsstream/handle/unal/21830/98389537.2014.pdf?sequence=1&isAllowed=)

GRISALES V, A. (2017). The oblivion of everyday life: Craftsmanship, art, and territory [El olvido de la cotidianidad: Artesanía, arte y territorio]. Manizales, Colombia: Universidad de Caldas.

GUILLÉN, A., SÁENZ, K., BADI, M. H., & CASTILLO, J. (2009). Origin, space and levels of citizen participation [Origen, espacio y niveles de participación ciudadana]. Daena: International Journal of Good Conscience

HARDOY, J. E., GUTMÁN, M., & MUTAL, S. (1992). Impact of urbanization on historic centres in Latin America: Trends and perspectives [Impacto de la urbanización en los centros históricos de Iberoamérica: tendencias y perspectivas]. Madrid, Spain: MAPFRE

INSTITUTO DISTRITAL DE PATRIMONIO CULTURAL. (2021). Special Management and Protection Plan – P.E.M.P. for the Historic Center of Bogotá (P.E.M.P.-CHB) [Plan Especial de Manejo y Protección – P.E.M.P. del Centro Histórico de Bogotá (P.E.M.P.-CHB)]. Bogotá, Colombia: IDPC. Retrieved from <https://idpc.gov.co/pemp/plan-especial-de-manejo-y-proteccion-del-centro-historico-de-bogota/>

INSTITUTO DISTRITAL DE PATRIMONIO CULTURAL. (n.d.). Main Andean Road – Qhapaq Ñan [Sistema Vial Andino Qhapaq Ñan]. UNESCO World Heritage Centre. <https://whc.unesco.org/en/qhapaqnan/>

INSUASTY, G. (2020). Assessment of the cultural heritage associated with Barniz de Pasto Mopa-Mopa through citizen participation [Valoración del patrimonio cultural asociado con el Barniz de Pasto Mopa-Mopa, a partir de la participación ciudadana] Master's in Design for Social Innovation. Pasto, Colombia: Universidad de Nariño.

JUAN, J., & ULLOA, A. de. (1748). Historical account of the voyage to South America made by order of His Majesty to measure several degrees of the terrestrial meridian and thereby determine the true figure and magnitude of the Earth [Relación histórica del viaje a la América Meridional hecho de orden de S. M. para medir algunos grados del meridiano terrestre y venir por ellos en conocimiento de la verdadera figura y magnitud de la Tierra] (Vol. II, p. 470). Madrid, Spain: Antonio Marín.

KORANY, Y. (2011, August). Effective techniques for restoration of heritage masonry . International Journal of Materials and Structural Integrity, 5(2/3), 136–150. Retrieved from https://www.researchgate.net/publication/264437461_Effective_techniques_for_restoration_of_heritage_Masonry

LA RED CULTURAL DEL BANCO DE LA REPÚBLICA. (2017, October 13). UPAC and UVR – Encyclopedia [UPAC y UVR – Enciclopedia]. Enciclopedia – La Red Cultural del Banco de la República. https://encyclopedia.banrepultural.org/index.php?title=UPAC_y_UVR

LÓPEZ PÉREZ, M. del P. (2007). Quito, between the Pre-Hispanic and the Colonial: The Art of Barniz de Pasto [Quito, entre lo Prehispánico y lo colonial: El Arte del Barniz de Pasto]. Symposium on Quiteño Art Beyond Quito [Simposio Arte Quiteño más allá

de Quito], 16–17. Quito, Ecuador: Museo de la Ciudad.

MINISTRY OF CULTURE OF COLOMBIA. (2012). Special Management and Protection Plan (P.E.M.P.) for the Historic Center of San Juan de Pasto [Plan Especial de Manejo y Protección (PEMP) del Centro Histórico de San Juan de Pasto]. Bogotá, Colombia: Ministerio de Cultura. Retrieved from https://normograma.mincultura.gov.co/compilacion/docs/resolucion_mincultura_0452_2012.htm?utm

MINISTRY OF ECONOMIC DEVELOPMENT OF COLOMBIA & ARTESANÍAS DE COLOMBIA. (1998). Development of the artisan sector in Colombia: Production lines and market strategies [Desarrollo del sector artesanal en Colombia: Líneas de producción y estrategias de mercado]. Bogotá, Colombia: Ministerio de Desarrollo Económico / Artesanías de Colombia.

MONCAYO, J. H., & PALACIOS, J. J. (2013). Urban imaginaries around Nariño Square in the city of San Juan de Pasto [Imaginarios urbanos en torno a la plaza de Nariño de la ciudad de San Juan de Pasto]. Universidad de Nariño. Retrieved from <https://sired.udnar.edu.co/2456/1/89793.pdf>

MUÑOZ CORDERO, L. I. (2017). Manual of the history of Pasto (Vol. XV) [Manual de historia de Pasto (Tomo XV)]. Pasto, Colombia: Universidad de Nariño.

NARVÁEZ RAMIREZ, G. A. (2006). Elements for the economic history of the Department of Nariño (I). Tendencias. Journal of the Faculty of Economic and Administrative Sciences, 7(2), 7–28. Retrieved from https://www.researchgate.net/publication/242586274_ELEMENTOS_PARA_LA_HISTORIA_ECONOMICA_DEL_DEPARTAMENTO_DE_NARINO_I

NEWMAN, R., KAPLAN, E., & ÁLVAREZ-WHITE, M. C. (2023). The story of Elaeagia resin (Mopa-Mopa), so far. Heritage, 6(5), 4320–4344. Retrieved from <https://doi.org/10.3390/heritage6050229>

ORTIZ, M., LÓPEZ, R., & PAZ, B. (2015). Prefeasibility study for the structuring and implementation of the International Marketing Company for leatherworkers and artisans of Nariño [Estudio de viabilidad para la estructuración e implementación de la Sociedad de Comercialización Internacional de los marroquineros y artesanos de Nariño]. Proyecto SCIMAN, Vol. 1, p. 540. Pasto, Colombia: Universidad de Nariño.

PIARPUSAN PISMAC, E. (2012). Spatial dynamics of urban growth in the city of San Juan de Pasto – Nariño – Colombia [Dinámica espacial del crecimiento urbano en la ciudad de San Juan de Pasto – Nariño – Colombia]. Pasto, Colombia: Universidad de Nariño. Retrieved from <https://sired.udnar.edu.co/10380/1/85780.pdf>

POLITICAL CONSTITUTION OF COLOMBIA. (1991). Political Constitution of Colombia. Bogotá: National Constituent Assembly.

PRESIDENZA DEL CONSIGLIO DEI MINISTRI. (2004, January 22). Code of Cultural Heritage and Landscape [Codice dei beni culturali e del paesaggio, ai sensi dell'articolo 10 della legge 6 luglio 2002, n. 137] (Legislative Decree No. 42). Gazzetta Ufficiale della Repubblica Italiana, Serie Generale n. 45. Retrieved from <https://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:decreto.legislativo:2004:42&>

QUINTANAR, B. (2004). World Heritage Sites in Mexico [Sitios Patrimonio de la Humanidad en México]. Mexico City, Mexico: Editorial Impresiones Aéreas.

RAPOORT, A. (1972). Housing and culture [Vivienda y cultura]. Arquitectura y Crítica Collection. Barcelona, Spain: Editorial Gustavo Gili.

REGION OF WATERLOO. (n.d.). Masonry: Practical Conservation Guide for Heritage Properties ties [Guía práctica de conservación de mampostería para propiedades

patrimoniales]. Region of Waterloo. Retrieved from <https://www.regionofwaterloo.ca/en/exploring-the-region/resources/Documents/PracticalGuideMasonry-access.pdf>

RICCI, C., GAMBINO, F., NERVO, M., PICCIRILLO, A., SCARCELLA, A., DE STEFANIS, A., & POZO-ANTONIO, J. S. (2020). Anti-Graffiti Coatings on Stones for Historical Buildings in Turin (NW Italy). *Coatings*, 10(6), 582. Retrieved from <https://www.mdpi.com/2079-6412/10/6/582>

RODRÍGUEZ PEÑARANDA, M. L. (2011). Minorities, public action of unconstitutionality and deliberative democracy [Minorías, acción pública de inconstitucionalidad y democracia deliberativa]. Bogotá, Colombia: Universidad Externado de Colombia.

ROJAS, E. (2004). Back to the centre: The recovery of central urban areas [Volver al centro: La recuperación de áreas urbanas centrales]. Washington, D.C., USA: Inter-American Development Bank.

ROSERO, E. (2012). La carroza de Bolívar. Barcelona, Spain: Tusquets Editores.

SÁNCHEZ MONZÓN, L. (2020). The Barniz de Pasto: Historical and technical evolution, design study, and proposal for restoration and preventive conservation (El Barniz de Pasto: Evolución histórica-técnica, estudio del diseño y propuesta de restauración y conservación preventiva). Retrieved from https://www.researchgate.net/publication/344949571_EL_BARNIZ_DE_PASTO_Evolucion_histórica_-_técnica_estudio_del_diseño_y_propuesta_de_restauración_y Conservación preventiva

SANSON, L. (2012). The magic of color on the skin of the street that prepares for the carnival [La magia del color sobre la piel de la calle que se prepara al carnaval]. In Mirando el Arcoíris, Piel y Ciudad (No. 6, p. 32). Bogotá, Colombia: Fundación Cultural Vía Libre.

SEMANA, REDACCIÓN. (2021, July 26).

guardians of the Barniz de Pasto technique, Intangible Cultural Heritage of Humanity [Los guardianes de la técnica del barniz de Pasto, Patrimonio Cultural e Inmaterial de la Humanidad]. Semana.com – Últimas Noticias de Colombia y el Mundo. <https://www.semana.com/mejor-colombia/articulo/los-guardianes-de-la-tecnica-del-barniz-de-pasto-patrimonio-cultural-e-inmaterial-de-la-humanidad/202117/>

SILVA, R. A., OLIVEIRA, D. V., SCHUERMANS, L., LOURENCO, P. B., MIRANDA, T. (2014, May). Repair of rammed earth by injection of mud grouts: A case study from Portugal. *Proceedings of PROHITEC 2014*, Antalya, Turkey. Retrieved from https://www.researchgate.net/publication/262300513_Repair_of_rammed_earth_by_injection_of_mud_grouts_a_case_study_from_Portugal

THE NOT SO INNOCENT SABROAD. (n.d.). The Textile Museum of Oaxaca weaves its magic. Retrieved from <https://www.thenotsoinnocentsabroad.com/blog/the-textile-museum-of-oaxaca-weaves-its-magic>

TORRES Z., G. (2020). Aquixtla: Tangible and intangible cultural heritage [Aquiaxtla: Patrimonio cultural material e intangible]. Mexico City, Mexico: Plaza y Valdés.

TUBARCO. (2023, July 30). “La Calle del Colorado” in Pasto: why it is called that [“La Calle del Colorado” en Pasto: ¿por qué se le llama así?]. TuBarco Noticias. Retrieved from <https://www.facebook.com/share/v/1Hxtf1j-JYt/>

UNESCO. (n.d.). Traditional knowledge and techniques associated with Pasto Varnish (mopa-mopa) of Putumayo and Nariño [Conocimientos y técnicas tradicionales asociadas con el Barniz de Pasto mopa-mopa en Putumayo y Nariño]. Retrieved from <https://ich.unesco.org/es/USL/conocimientos-y-tecnicas-tradicionales-asociadas-con-el-barniz-de-pasto-mopa-mopa-en-putumayo-y-narino-01599?utm>

URIBE, M. V. (1978). Pre-Hispanic settle-

ments in the Altiplano of Ipiales, Colombia [Asentamientos prehispánicos en el Altiplano de Ipiales, Colombia]. *Revista Colombiana de Antropología*, 21, 57–195. Bogotá, Colombia: Instituto Colombiano de Antropología.

VELASCO, J. de. (1789). History of the Kingdom of Quito in South America [Historia del Reino de Quito en la América Meridional]. Quito, Ecuador: Imprenta de Gobierno.

WETHTHIMUNI, M. L., & LICCHELLI, M. (2023). Heritage conservation and restoration: Surface characterization, cleaning and treatments. *Coatings*, 13(2), 457 Retrieved from <https://www.mdpi.com/2079-6412/13/2/457>

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UNIVERSIDAD DE NARIÑO. (2019). Proyecto SCIMAN, Vol. 1. Pasto, Colombia: Universidad de Nariño.

TABLE 3 ARTESANÍAS DE COLOMBIA. (2019). Statistical report on artisan production in Colombia, 1998–2018 [Informe estadístico sobre la producción artesanal en Colombia, 1998–2018]. Bogotá, Colombia: Artesanías de Colombia.

MINISTRY OF ECONOMIC DEVELOPMENT OF COLOMBIA & ARTESANÍAS DE COLOMBIA. (1998). National artisan census of Colombia [Censo artesanal nacional de Colombia]. Bogotá, Colombia: Artesanías de Colombia.

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