

Machuca Tiles in the Philippine Cultural Landscape

An Undergraduate Thesis Presented to the Faculty of the

Department of Arts and Communication

College of Arts and Sciences

University of the Philippines Manila

In Partial Fulfillment for the Degree of Bachelor of Arts in Philippine Arts

Major in Arts Management and Cultural Heritage

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2020-46135

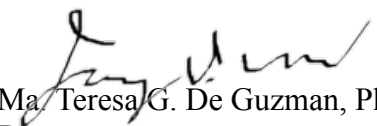
29 May 2025

APPROVAL SHEET

This undergraduate thesis, entitled *Machuca Tiles in the Philippine Cultural Landscape*, prepared and submitted by Carmela E. Danganan, in partial fulfillment of the requirements for the degree of Bachelor of Arts in Philippine Arts, is hereby accepted.


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Acknowledgements

Writing a thesis is undeniably one of the most challenging experiences a student must face, it tests not only one's skills but also resilience before finally leaving the university. That is why I would like to express my heartfelt gratitude to everyone who supported and guided me throughout this journey.

To my mom and my ate, thank you for constantly reminding me to eat, encouraging me to take short breaks between writing, and supporting me financially.

To my best friend Abegail, thank you for standing by me through every mental breakdown and for helping me recover each time.

To my thesis adviser, Prof. Honey Libertine Achanzar-Labor, thank you for your time, effort, and genuine enthusiasm for my research. Your guidance made this work possible.

To Sir Jaime and Ma'am Carli, thank you for warmly welcoming me and accommodating my request for an interview despite your busy schedules.

To Sir Domer and Sir Luis, I am grateful for the time and the stories, your insights were invaluable.

To Ma'am Maria Yra Dorotheo and Prof. Christine Penserga, thank you for being part of my thesis panel.

To the staff of the UP Manila Museum of a History of Ideas, especially ate Faye and kuya Vince, thank you for accommodating me and for helping me bring my thesis to a close. Your support meant a lot.

To God, thank you for listening to the same prayer I repeated in every church I visited. Your constant presence gives me strength.

To my beloved baby cat, thank you for being a big, heavy, talkative ball of stress relief...you kept me sane.

To LRT and my Beep card, my main mode of transportation, thank you for getting me where I needed to be. I truly wouldn't have survived without you.

And finally, to the University of the Philippines Manila, thank you for the past five years. I will carry everything you have taught me as I move forward in life, always reminding myself to serve the people.

Abstract

This pioneering study addresses a critical gap in Philippine heritage research and policy by focusing on the documentation, analysis, and recognition of traditional craftsmanship as Intangible Cultural Heritage (ICH). While practices such as handcrafted cement tile-making have persisted for over a century, they remain largely unrecognized and understudied in scholarly literature and unrecognized in national heritage registries.

The objective of the research is to investigate how Machuca Baldozas, Inc. (established in 1903), has sustained its traditional handcrafted cement tile-making while innovating to meet modern market demands, and to assess its role in Philippine heritage. The study hypothesizes that the company's longevity and cultural significance are shaped by its management approach, intergenerational knowledge transmission, symbolic role in heritage spaces, and innovation. The analysis is guided by a multidisciplinary conceptual framework encompassing heritage transmission (UNESCO, Smith, Salibay), sacred architecture and symbolism (McNamara, Rastelli, Lenik), brand identity and equity (Kapferer, Keller), and strategic management (RBV and VRIO frameworks).

The research methodology employs a qualitative descriptive design with a case study approach, combining archival research, field observations, and semi-structured interviews with artisans and the company owner. A nationwide mapping and visual analysis of 86 Roman Catholic heritage churches was

conducted, making this one of the first comprehensive documentations of Machuca tiles in Philippine ecclesiastical architecture.

The results show that the presence of Machuca tiles in 86 Philippine Roman Catholic heritage churches, demonstrates tangible contribution to religious and architectural heritage, while the company also sustains intangible heritage through manual production methods and artisan mentorship, alongside strategic innovations such as customization, branding, and sustainability practices.

The conclusion affirms that Machuca tile-making is eligible for ICH recognition under the Philippine Registry of Cultural Property (PRECUP) and offers a model for balancing tradition and innovation, contributing to broader discussions on sustainable creative industries and traditional craftsmanship preservation.

Table of Contents

Approval Sheet.....	i
ORI Attestation Form.....	ii
Acknowledgements.....	iv
Abstract.....	vi
Table of Contents.....	viii
Chapter 1: Introduction.....	1
A. Background of the Study.....	1
B. Statement of the Problem.....	4
C. Objectives of the Study.....	5
D. Review of Related Literature.....	6
1. Sacred Architecture and Symbolism.....	6
2. Cultural Significance of Tile Art.....	10
3. Intangible Cultural Heritage and Artisanal Knowledge Transmission.....	13
4. Heritage Branding and Market Positioning in the Creative Industries.....	15
5. Strategic Management in Artisanal Businesses.....	24
E. Scope and Limitation.....	26
F. Significance of the study.....	27
G. Methodology.....	29
1. Research design.....	29
2. Research setting and participants.....	29
3. Data collection methods.....	30
4. Data analysis methods.....	31
H. Organization of the Study.....	34
I. Ethical Considerations.....	35
J. Conceptual Framework.....	36
Chapter 2: Machuca in the World of tiles.....	40
A. Origins of Decorative tiles and the Global Evolution of Tile-Making.....	40
B. The Arrival of Cement tiles in the Philippines.....	46
C. The History and Rise of Machuca tiles.....	46
D. Tile-Making Techniques and the Craft of Machuca.....	47
1. Mold design.....	48
2. Pigment mixing.....	49
3. Tile making.....	50
4. Cement tile layering.....	51
5. Tile pressing.....	52
6. Tile curing.....	53
7. Quality inspection and packaging.....	54
E. Distinguishing Machuca in the Global and Local Markets.....	56
1. The international scene.....	56
2. The local scene.....	59

Chapter 3: Machuca Tile Business.....	63
A. Machuca as a Family-Owned Artisanal Manufacturing Business.....	63
B. Arts and Heritage Management Practices.....	67
C. Design, Customization, and Client Collaboration.....	71
D. Marketing, Visibility, and Customer Engagement.....	77
E. Sustainability Strategies and Business Innovation.....	82
1. Environmental sustainability.....	83
2. Client-driven product innovation.....	83
3. Sustaining through heritage.....	84
F. Challenges in Managing an Artisanal Manufacturing Business.....	84
1. Competition from imported imitations and mass production.....	84
2. Rising costs of materials and operational fragility.....	85
3. Succession and leadership continuity.....	85
G. Cultural and National Identity in Business.....	87
1. From Spanish influence to Filipino icon.....	88
2. A vessel of historical continuity.....	92
3. National recognition and the “Machuca tile”.....	95
Chapter 4: Machuca tiles in Philippine Heritage Churches.....	97
A. Mapping of Philippine Roman Catholic Heritage Churches.....	106
B. Iconographic Study of Machuca tiles in Select Roman Catholic Churches.....	107
1. Churches with archival photographs confirming original Machuca tile installations still in use.....	107
2. Churches with active conservation efforts.....	119
3. Churches with extensive use of Machuca tiles.....	127
4. Churches with custom-colored Machuca tiles.....	131
5. Churches with custom-patterned Machuca tiles.....	139
C. Contextual Study of Machuca tiles in Heritage Churches in Manila.....	150
1. Minor Basilica of San Sebastian and Archdiocesan Shrine of Our Lady of Mount Carmel.....	150
2. National Shrine of Our Lady of the Abandoned.....	152
3. Archdiocesan Shrine of Our Lady of Peñafrancia.....	153
4. Archdiocesan Shrine of Nuestra Señora de Guia.....	154
5. Benedictine Abbey of Our Lady of Montserrat.....	155
Chapter 5: Machuca tiles as Intangible Cultural Heritage.....	161
A. Machuca tile-making: Qualifiers for PRECUP Intangible Cultural Heritage Declaration.....	161
1. Intangible Skills and Embodied Knowledge.....	163
2. Cultural Identity and Community Recognition.....	163
3. Heritage Continuity through Intergenerational Transmission.....	164
4. Traditional Craftsmanship Domain.....	165

B. Alignment with PRECUP Documentation Requirements.....	167
1. Name and Domain of ICH.....	167
2. Cultural Bearers.....	168
3. Location and Range of Practice.....	168
4. Mode of Transmission.....	168
5. Photographic and Audio-Visual Documentation.....	168
6. Statement of Significance.....	169
7. Current Threats.....	169
C. What Makes Machuca Tile-Making Uniquely Filipino.....	172
1. Integration in Built Heritage.....	172
2. Crafted by Filipino Artisans.....	172
3. Made in the Philippines.....	172
4. Cultural Justification by Zialcita.....	172
Chapter 6: Discussion and Analysis.....	174
A. Heritage Transmission.....	174
B. Sacred Architecture and Symbolism.....	178
C. Brand Identity and Equity.....	181
D. Strategic Management and Business Adaptation.....	188
Chapter 7: Conclusions and Recommendations.....	196
A. Conclusion.....	196
B. Recommendations.....	199
C. Future Directions.....	200
Bibliography.....	202
Appendices.....	215
Appendix A.....	215
Appendix B.....	225
Appendix C.....	227
Appendix D.....	228
Appendix E.....	232
Appendix F.....	246
Appendix G.....	250
Appendix H.....	263
Appendix I.....	270
Appendix J.....	287

List of Figures and Table

Figure 1.	Conceptual Framework.....	39
Figure 2.a.	Traditional Tile Designs of the World.....	41
Figure 2.b.	Traditional Tile Designs of the World.....	42
Figure 2.c.	Traditional Tile Designs of the World.....	43
Figure 3.	Scanned Page from the Spanish Brochure (Appendix A).....	47
Figure 4.	Mold Design.....	48
Figure 5.	Pigment Mixing.....	49
Figure 6.	Tile Making.....	50
Figure 7.	Cement Tile Layering.....	51
Figure 8.	Tile Pressing.....	52
Figure 9.	Tile Curing.....	53
Figure 10.	Quality Inspection and Packaging.....	54
Figure 11.	Malaga tiles.....	60
Figure 12.	Kalayaan tiles.....	61
Figure 13.	Organizational Chart of Machuca Baldozas, Inc.....	64
Figure 14.	Workplace Family Connections Among Two Artisans.....	66
Figure 15.	1914 Catalog (Appendix B).....	70
Figure 16.	Tile Categories.....	72
Figure 17.	Tile Size Options.....	73
Figure 18.	Tile Prices per Piece.....	74
Figure 19.	Disenyo Lorenzo, Giyusepi, San Sebastian, Machuca tiles.....	77
Figure 20.	Facebook Stories of Trade Shows.....	80
Figure 21.	Banaan Museum with a Machuca tile as Logo.....	91
Figure 22.	Old Factory in Tanduary (Appendix C).....	93
Table 1.	Philippine Roman Catholic Heritage Churches with Machuca tiles..	99
Figure 23.	Map of Philippine Heritage Churches with Machuca tiles.....	105
Figure 24.	Parish church of Saint James the Greater in Ibaan, Batangas.....	108
Figure 25.	Church of Nuestra Señora de la Asunción in Santa Maria.....	110
Figure 26.	Saint Christopher Parish Church in Bangar, La Union.....	112
Figure 27.	Parish Church of Santa Catalina de Alejandria in Luna, La Union..	114
Figure 28.	Saint Catherine of Alexandria Parish Church in Santa, Ilocos Sur..	116
Figure 29.	Metropolitan Cathedral of San Sebastian in Lipa, Batangas.....	118
Figure 30.	Minor Basilica of San Sebastian in Quiapo, Manila.....	121
Figure 31.	Metropolitan Cathedral of the Conversion of St. Paul in Vigan.....	123
Figure 32.	Saint Bartholomew the Apostle Parish Church in Nagcarlan.....	125
Figure 33.	Parish church of San Vicente Ferrer in San Vicente, Ilocos Sur....	126
Figure 34.	Parish Church of San Matias in Tumauni, Isabela.....	128
Figure 35.	Archdiocesan Shrine St. Joseph the Patriarch parish church.....	130
Figure 36.	National Shrine and Parish of St. Anne in Hagonoy, Bulacan.....	132

Figure 37.	Diocesan Shrine and Parish of St. Clement in Angono, Rizal.....	133
Figure 38.	Parish Church of Saint Mark the Evangelist in Balian, Laguna.....	134
Figure 39.	Parish Church of Saint Vincent Ferrer in Calape, Bohol.....	136
Figure 40.	Archdiocesan Shrine of Nuestra Señora de Guia in Ermita.....	138
Figure 41.	San Agustin Church in Paoay, Ilocos Norte.....	140
Figure 42.	Parish Church of Nuestra Senora del Pilar in Morong, Bataan.....	142
Figure 43.	Parish Church of Saint John Marie Vianney in Silang, Cavite.....	143
Figure 44.	Machuca tile in National Museum Bohol.....	147
Figure 45.	Machuca Tile-making Workshop.....	148
Figure 46.	Minor Basilica of San Sebastian in Quiapo, Manila.....	151
Figure 47.	National Shrine of Our Lady of the Abandoned in Manila.....	152
Figure 48.	Archdiocesan Shrine of Our Lady of Peñafrancia in Pandacan.....	153
Figure 49.	Archdiocesan Shrine of Nuestra Señora de Guia in Ermita.....	154
Figure 50.	Benedictine Abbey of Our Lady of Montserrat in Manila.....	155
Table 2.	Qualification of Machuca Tile-Making as ICH.....	170

Chapter 1: Introduction

A. Background of the Study

The handicraft sector plays a vital role in the Philippine economy, not only through employment and income generation but also in cultural preservation. Among various forms of handicraft, handcrafted cement tiles stand out as both functional and artistic. In the Philippines, one name is synonymous with this tradition: Machuca Baldozas, Inc. Founded in 1903 by Spanish national José Machuca y Romeo, the company is the oldest and most renowned manufacturer of decorative cement tiles in the country and has remained family-owned and managed for four generations.

The company's roots trace back between the Spanish colonial period and the American period, when José Machuca y Romeo brought Mediterranean-inspired tile designs and the hydraulic cement tile-making technique to the Philippines. Drawing from Spain's mosaic and *azulejo* traditions, particularly those from Seville, Cordoba, and Granada, Machuca tiles became a hallmark of Filipino-Spanish architecture, adorning homes, churches, and ancestral estates. Early examples of Machuca tiles can be found in prominent historical structures, such as the Pamintuan Mansion in Pampanga and the Cabatuan Cemetery in Iloilo.

The process of creating Machuca tiles remains entirely artisanal. The tiles are made using custom-designed brass molds filled with a mixture of water, iron oxide pigments, and cement. Each segment of a pattern is filled individually, and

then the tile is hydraulically pressed and left to cure naturally, preserving its matte texture and environmental sustainability. Unlike mass-produced tiles, each Machuca Tile bears subtle imperfections that add to its unique, handcrafted charm. Despite being labor-intensive, this traditional process is still passed down from generation to generation, with artisans continuing to work with original patterns created in the early 20th century.

Machuca tiles are present in Filipino architecture, especially heritage churches, yet the historical and cultural significance of these tiles, as well as the business strategies that have sustained their production, remain largely undocumented in scholarly literature. While the company has maintained its prominence through economic shifts and competition from international manufacturers, the deeper cultural and business aspects of its operations have not been sufficiently explored.

Beyond its contribution to the built heritage, Machuca Baldozas, Inc. represents a rare case of intergenerational continuity in the Philippine craft sector. It is not just a business, it is an archive of patterns and techniques transmitted from generation to generation. Despite their continued importance to Filipino heritage, Machuca tiles have yet to be formally recognized as part of the country's Intangible Cultural Heritage (ICH). According to UNESCO Convention, Article 2 (2011):

Intangible Cultural Heritage (ICH) refers to the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize as part of their cultural heritage.

This definition acknowledges that individuals or families can be the bearers of ICH, especially when they play a crucial role in its preservation and transmission. Furthermore, according to UNESCO (2011):

Intangible Cultural Heritage, transmitted from generation to generation, is created and transformed continuously by them, depending on the environment and their interaction with nature and history.

It becomes part of **heritage**, when it is transmitted from generation to generation.

It acquires **cultural** relevance, as it provides communities a sense of identity and continuity, as culture does.

Intangible heritage lies essentially in the human spirit, is transmitted by imitation and immersion in a practice, and doesn't necessarily require a specific place or material objects.

Intangible Cultural Heritage exists only in the present. The expressions of the past that are no longer practised are part of cultural history, but are not Intangible Cultural Heritage as defined in the Convention for the Safeguarding of Intangible Cultural Heritage. Intangible Cultural Heritage is what communities today recognize as part of their cultural heritage. Therefore, it is often called "living heritage" (UNESCO Convention, 2011).

This lack of formal recognition is a significant gap, both in terms of scholarly documentation and in the acknowledgment of traditional craftsmanship. While Machuca Baldozas, Inc. has played an important role in preserving and promoting Filipino decorative tiles, the company's efforts have not been adequately captured or celebrated in the broader discourse on cultural preservation. As a result, the connection between the historical significance of the tiles, the cultural practices surrounding their creation, and the business strategies that have sustained the company remains underexplored. This study aims to examine how Machuca Baldozas, Inc. sustains its traditional craftsmanship while adapting to contemporary challenges, and to assess its role

as a contributor to Philippine cultural heritage through both tangible and intangible heritage. By analyzing the company's sustainability strategies, cultural significance, and continued presence in heritage churches, the study seeks to establish Machuca tile-making as a living heritage worthy of recognition as Intangible Cultural Heritage (ICH).

B. Statement of the Problem

Machuca tiles have long been a distinctive element in Philippine heritage spaces, particularly in Roman Catholic churches and ancestral homes. Despite their visual and architectural presence, their historical and cultural significance remains underexplored in scholarly literature. There is limited academic documentation on how these tiles contribute to the broader narrative of Philippine heritage.

At the same time, Machuca Baldozas, Inc., the company responsible for producing these iconic tiles, operates within a niche yet highly competitive industry. The company overcame challenges in sustaining traditional manufacturing methods and responded to modern market demands and shifting consumer preferences. However, little has been written about the specific marketing approaches and strategic management practices that have allowed the company to remain viable and relevant across generations in the creative industry.

Moreover, although the craftsmanship behind Machuca tiles represents a living tradition of artisanal heritage, it has not been formally recognized in national nor international registries of Intangible Cultural Heritage. This points to

a broader gap in the literature: the lack of attention given to traditional craft industries that are not only surviving but thriving commercially. The dynamic interplay between cultural preservation and business innovation in such contexts remains largely unexamined.

Taken together, these concerns reveal a critical research gap. While Machuca tiles are visible in Philippine built heritage, there is no comprehensive study that brings together their cultural significance, religious and historical relevance, and the business strategies sustaining their production. This research seeks to fill that gap by examining Machuca Baldozas, Inc. through an interdisciplinary lens that connects cultural heritage studies with strategic management. In doing so, the research offers a multidimensional perspective that bridges cultural heritage, marketing, and business sustainability.

C. Objectives of the Study

- To uncover the historical and cultural significance of Machuca tiles in the Philippines.
- To identify challenges faced by Machuca Baldozas, Inc. in marketing and competition.
- To analyze the role of Machuca tiles in heritage, particularly in Philippine Roman Catholic heritage churches.
- To explore the strategic management practices that have sustained the business.

The study sought to explore and find answers to the following:

1. What is the historical significance of Machuca tiles and their contribution to the cultural heritage of the Philippines?
2. What marketing strategies have been employed by Machuca Baldozas, Inc. to promote their products and reach their target audience?
3. What challenges do Machuca Baldozas, Inc. face in terms of competition within the tile industry?
4. What is the role of Machuca tiles in heritage, particularly in Philippine Roman Catholic heritage churches?
5. What strategic management practices have sustained Machuca Baldozas, Inc.?

D. Review of Related Literature

1. Sacred Architecture and Symbolism. Machuca tiles hold a unique place in the landscape of Philippine cultural heritage, functioning not only as decorative tiles but as components of architecture. Introduced in the early 20th century by José Machuca y Romero, Machuca tiles reflect Mediterranean influences derived from Spanish mosaic and *azulejo* traditions, particularly those originating from Seville, Cordoba, and Granada. These artisanal cement tiles, meticulously handcrafted using iron oxide pigments, cement, and fine sand, embody a hybrid aesthetic that merges colonial influence with Filipino cultural identity.

Their widespread presence in Philippine Roman Catholic heritage churches, ancestral homes, museums, and other heritage structures underscores their significance in both secular and sacred settings.

In particular, churches declared as National Cultural Treasures or UNESCO World Heritage Sites, such as the Nuestra Señora de la Asunción Church in Santa Maria, Saint Augustine Church in Paoay, and the Metropolitan Cathedral in Vigan, actively use Machuca tiles in their flooring, risers, and altars.

While no academic studies to date have explicitly analyzed Machuca tiles within the frameworks of sacred geometry or theological symbolism, their consistent use in religious architecture may imply an alignment with broader traditions of material significance in sacred design. As Lenik (2018) notes in the context of Latin American Jesuit missions, building materials like tiles can function as “vessels of cultural memory”, a concept that may be relevant in interpreting the role of Machuca tiles in Philippine heritage churches.

While there is no definitive research on the symbolic or religious significance of Machuca tiles in the Philippines, relevant insights may be drawn from broader discussions on religious symbolism in architecture. Plunkett Raysich (2021) emphasizes that “architecture that integrates references to faith is an art. It takes effort. We do it because it matters.” Religious symbolism embedded in sacred architecture enhances spiritual experience for multiple groups:

“Worshippers and Congregants” benefit from spaces that inspire devotion and contemplation; “Religious Leaders” use symbolism in architecture to enrich rituals and convey meaning; “Church Visitors” engage with these symbols as entry points to deeper understanding; and “Artists and Craftsmen” find purpose and expression in contributing to these sacred environments. Raysich also notes

that “providing opportunities for expression of their talent, and their faith, does us all good.” These observations may help frame further inquiry into whether and how Machuca tiles serve symbolic or religious functions in the Philippine context, particularly given their historical presence in ecclesiastical spaces.

Rastelli (2020) argues that in Gothic design:

Every animal, plant, human figure, object — there was more than meets the eye. Every single one of them was a symbol. An ‘icon’. They were there to tell a story, and for me it was like trying to read a book written in another language.

Further, he emphasizes that “those patterns and motifs were not just decorative: there was a clear intent (and meaning) attached to them: liturgic, theologic, pedagogic, even social.”

Similarly, although there is no definitive study yet, it is plausible that Machuca tiles carry deeper meanings beyond their visual appeal. Like Gothic motifs, the patterns on Machuca tiles may not have been designed solely for decoration but to communicate cultural, religious, or social narratives. The recurring motifs in these tiles may have symbolized important aspects of Filipino history, spirituality, and/or identity, much like how Gothic designs served liturgical, theological, and pedagogical purposes. These tiles may have been created with the intent of telling stories and reflecting the values and beliefs of the time, adding layers of meaning to the spaces they adorned.

The Church of England (n.d.) emphasizes that “the floor of a church building plays an important role in providing the background to its character,” contributing not only to aesthetics but to the overall historical and architectural significance of the space. It notes that “older floors... may have developed an

attractive patina that speaks of the age of the building and cannot be replicated,” and that such surfaces may hold value. While there is no definitive research yet on the symbolic or archaeological value of Machuca tiles, their age, craftsmanship, and continued presence in religious heritage sites suggest a similar kind of significance, where the tiles are not only functional surfaces but also bearers of memory, craftsmanship, and historical depth.

Dr. Denis McNamara (2016) emphasizes that church floors are not merely functional surfaces but symbolic landscapes that represent theological truths. He explains that walking on a church floor is akin to walking “sacramentally on the ‘streets’ of heaven,” referencing Revelation 21:21, where heaven is described as made of “pure gold, clear as crystal.” While no definitive study has yet explored these symbolic meanings may be applied in Philippine contexts. McNamara writes that meaningful floor design indicates “order, gem-like radiance, permanence and eschatological glory,” qualities possibly present in the Machuca tiles of heritage churches. Even if unintentionally, the presence of these tiles contributes to the ecclesiastical character of the space and subtly aligns with the idea that a church floor should help signify “the heavenly kingdom” and support the symbolic architecture of worship.

The influence of sacred geometry in religious architecture highlights how geometric design principles can shape both the form and experience of sacred spaces. Historically, these patterns were “not only aesthetically pleasing but also served a functional purpose,” such as enabling taller interiors or creating visual harmony through repeated forms. The source notes that “the use of sacred

geometry in church architecture can be traced back to ancient times," where it was believed to help "create spaces that would facilitate spiritual experiences (We Chronicle, n.d.)." While there is no study yet linking Machuca tiles to sacred geometry, their frequent use of repeated geometric patterns may reflect a broader architectural tradition where beauty and structure work hand in hand to elevate everyday spaces, especially in religious and heritage settings. In this way, Machuca tiles possibly carry forward design values rooted in historical architectural practices, even if unconsciously or intuitively.

2. Cultural Significance of Tile Art: Parallels Between Azulejos and Machuca tiles. The cultural significance of Machuca tiles in the Philippines can be meaningfully understood through a comparison with Portugal's traditional azulejos. Azulejos show how tile art serves not only as decoration but also as a keeper of heritage, identity, and memory, something that Machuca tiles may exhibit as well. Portuguese tile art is described in (Moments Log, 2024) as "not just beautiful; they also tell a story of regional identity and cultural heritage." According to the article, their continued presence in heritage homes, and churches mirrors the Portuguese use of tiles "to reflect the pride and craftsmanship of the Portuguese people." In a similar way, Machuca tiles capture this spirit.

Portuguese azulejos "create a sense of continuity and connection to the past, inviting you to pause and appreciate the craftsmanship involved (Moments Log, 2024)." While there is no definitive study yet on how Machuca tiles function in Filipino culture, they may evoke a similar experience. Entering a church lined

with Machuca tiles, many of which have remained intact for decades, often means stepping into a preserved fragment of the past. As the article notes, “each tile carries with it a piece of history, a reflection of cultural values, and a testament to the creativity of those who came before.” Tile art also makes culture visible in ordinary spaces. In Portugal, tiles appear in “buildings, churches, and public spaces,” and the article observes that “you can’t help but notice how these tiles tell stories of the past while simultaneously embracing the future (Moments Log, 2024).” Machuca tiles may serve a parallel role in Filipino architecture, from ancestral houses to modern establishments that possess the old patterns. The article also notes, such tiles are “not just decorative elements; they play a crucial role in the architectural identity of the country,” a statement that may well apply to the Philippines. According to the same article:

The motifs found in azulejos often draw inspiration from nature, religion, and daily life. Floral patterns are particularly prevalent, symbolizing growth, beauty, and the connection between humanity and the natural world... geometric patterns are a hallmark of *azulejo* art, representing order, harmony, and the universe’s mathematical beauty.

Although no formal analysis has yet categorized Machuca patterns in this way, their similar use of floral and geometric designs could suggest a shared visual expression. These motifs, inherited from colonial aesthetics, might reflect ideals of harmony and beauty, integrated into everyday Filipino spaces. As noted in the article, these patterns “beautify spaces but also serve as a reminder of the importance of nature” and the embedded meanings within design. Azulejos are described as “vibrant canvases, showcasing intricate patterns and scenes that capture the essence of Portuguese history and culture,” with “many tiles depict

[ing] religious themes, historical events, or pastoral scenes, serving as a visual narrative that connects the past with the present (Moments Log, 2024).” In this way, both Portuguese and Machuca tiles seem to act as “a bridge, allowing future generations to engage with their heritage in a tangible way” in these churches.

“In churches and chapels, these tiles create a sacred atmosphere, inviting worshippers to reflect on their faith,” and the article notes how this highlights “the intertwining of art and spirituality in Portuguese culture.” Though unstudied in existing literature, the presence of Machuca tiles in churches might suggest a similar spiritual function. Their aesthetic may support the sacred space, reinforcing the notion that “beauty is seen as a pathway to the divine.” “The choice of color not only enhances the aesthetic appeal but also adds layers of meaning to the artwork.” In the case of Machuca tiles, their warm hues achieved through pigmented cement complement the Philippine tropical setting. Just as azulejos are described as “a reflection of Portugal’s soul, capturing its history, spirituality, and social dynamics,” Machuca tiles may reflect the layered Filipino story shaped by colonial contact, Roman Catholic heritage, local creativity, and resilience. As the article puts it, they are “not just about aesthetics; it’s about connection.” Today, both traditions are being continued. In Portugal, “you’ll find local artists and craftsmen dedicated to preserving traditional techniques, ensuring that this art form continues to thrive (Moments Log, 2024).” Similarly, Machuca Baldozas, Inc. continues to operate as a family-run business, using century-old patterns and techniques from the past. These practices support “a living tradition that continues to evolve.”

3. Intangible Cultural Heritage and Artisanal Knowledge

Transmission. The production of Machuca tiles represents a form of living heritage that goes beyond preserving physical objects, it involves the continuation of traditional knowledge passed down across generations. Unlike mass-produced tiles, Machuca tiles are handcrafted using methods sustained within the same family for over a century, emphasizing values embedded in both process and product. According to the 2003 UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage, such heritage includes “practices, representations, knowledge, and skills transmitted across generations and recognized by communities as part of their identity.”

Laurajane Smith (2006), in *The Uses of Heritage*, reframes heritage not as a static collection of monuments or artifacts, but as an active cultural process. She argues that “heritage is not a thing, it is not a site, building or other material object with defined meaning and value,” but rather something that is “culturally and socially constructed.” If there are restorations of churches, ancestral homes, or public buildings that reuse Machuca tiles, these acts may not simply be efforts to preserve material authenticity. They could possibly be seen as forms of what Smith calls “heritage work”: a culturally embedded process through which people reconnect with history, reinforce place-based memory, and express collective identity through tangible forms.

The traditional techniques used by Machuca Baldozas, Inc. may be passed down through mentorship. As Salibay (2020) explains, “traditional knowledge systems rely heavily on person-to-person learning, where

craftsmanship is taught not only as a skill but as a value system.” In this way, the transfer of artisanal practices at Machuca is not just about maintaining technique but also about preserving the cultural values embedded in the work.

According to Miton (2022), “a wide variety of cultural practices have a ‘tacit’ dimension, whose principles are neither obvious to an observer, nor known explicitly by experts.” In the context of heritage transmission, this refers to the embedded know-how behind traditional craftsmanship, knowledge that is expressed through practice but unarticulated. This tacit knowledge can be evident in how seasoned artisans train new workers not through manuals or formal lessons, but by working side by side at their stations. This kind of skill that's intuitive and experiential illustrates how cultural knowledge lives within the act of doing, not simply in documentation. It also reinforces the need to view heritage transmission not only as the preservation of objects or patterns, but of practices and human relationships embedded in everyday work.

Meanwhile, implicit culture refers to the less tangible, more deeply ingrained elements of a culture, including beliefs, values, attitudes, assumptions, and perceptions (Anthroholc, 2023). These implicit frameworks shape how people understand roles, hierarchy, politeness, aesthetics, etc. Like how Machuca Baldozas, Inc. takes pride in their craft. Recognizing both tacit and implicit cultural dimensions ensures that conservation is not reduced to technical preservation alone, but instead honors the deeper, lived meanings embedded in heritage. This holistic approach supports not only the physical integrity of heritage objects and sites but also their cultural and historical authenticity.

4. Heritage Branding and Market Positioning in the Creative

Industries. In today's competitive and fast-evolving market, heritage brands face the challenge of maintaining cultural relevance while ensuring commercial viability. According to TVETipedia Glossary of UNESCO (n.d.), the creative industries are "those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property." There are thirteen sub-sectors under the term 'creative industries' and these are: advertising; architecture; the art and antiques market; crafts; design; designer fashion; film and video; interactive leisure software; music; the performing arts; publishing; software and computer games; and television and radio.

Within the Philippine creative industries, Machuca Baldozas, Inc. offers a case of how a heritage brand can navigate these through craftsmanship, cultural authenticity, and strategic marketing. Although no scholarly literature explicitly establishes Machuca as a textbook example, its branding approach aligns closely with key theories and models such as 5 Ps of Marketing/Marketing mix, STP framework, Kapferer's Brand Identity Prism, 4 Cs of Audience development, and Keller's Customer-Based Brand Equity (CBBE) model.

Marketing Mix. A key framework in strategic marketing is the Marketing Mix, commonly defined by the 5 P's: Product, Price, Promotion, Place, and People. These five elements represent variables within a business's control that can be adjusted to meet customer needs, create value, and establish a competitive advantage (Australian Government, n.d.). The product component

refers to the complete offering a business provides to its customers. This includes decisions related to functionality, appearance, quality, branding, packaging, warranty, and customer service (Australian Government, n.d.). Businesses must consider the key features and benefits of their products or services and align them with customer preferences. Central to the product strategy is the development of a unique selling proposition (USP), which defines how a business stands out in the market. According to the Business Development Bank of Canada (2023), “defining your unique selling proposition (USP) will help you differentiate your products and services so you can stand out from your competitors” (para. 1). A strong USP clearly communicates a specific value or benefit that competitors do not offer, such as superior raw materials, customer service, or exclusive production methods, and serves as a core component of brand identity and customer perception.

The price element involves setting a value for the product or service that reflects costs, target market expectations, and competitive positioning. Price considerations include not only the base price but also any discounts, sales, payment terms, or credit options (Australian Government, n.d.). Pricing must be aligned with the business’s overall market strategy. For instance, a brand positioned as a premium provider should reflect that in its premium pricing to reinforce perceived value.

Promotion encompasses all the methods used to communicate and deliver value to the target market. This includes advertising, public relations,

sales promotions, direct marketing, sponsorships, and digital marketing channels such as social media (Australian Government, n.d.).

The place component addresses how the product reaches the customer, through physical locations, online platforms, distributors, or a combination of channels. It includes considerations such as logistics, inventory, service delivery, and geographic coverage (Australian Government, n.d.). Growth strategies may involve opening new locations or entering new markets through franchising or partnerships.

The people element refers to all individuals involved in the business, including employees and customers. Understanding customer needs and ensuring a high level of service is essential for retention and satisfaction. This also involves employee training, setting service standards, and measuring performance to ensure alignment with customer expectations (Australian Government, n.d.). As businesses grow, the role of people becomes even more critical in maintaining brand experience and operational efficiency.

STP Framework. Another critical model for strategic marketing is the STP Framework, Segmentation, Targeting, and Positioning, which offers a structured approach to identifying, and effectively reaching a business's ideal customers. According to Oxford College of Marketing (2024), “With the STP model (Segmentation, Targeting and Positioning) we can take a large and diverse market, make sense of it, decide on the best customers to serve and then create a clear position in the market to stand out from competitors” (para. 1). The model

enables marketers to develop specific and actionable strategies by breaking down heterogeneous markets into defined, reachable, and profitable segments.

The segmentation stage involves dividing the market into distinct groups based on shared characteristics, needs, or behaviors. These segmentation variables are commonly categorized into six types: demographics (e.g., age, gender, ethnicity), geography (e.g., region, climate), psychographics (e.g., lifestyle, personality), values (e.g., political or religious beliefs), life stages (e.g., retirement, education status), and behaviors (e.g., purchase habits, browsing activity) (Oxford College of Marketing, 2024).

An example of a specific market segment is LOHAS, which stands for Lifestyles of Health and Sustainability. According to Cambridge.org (n.d.), the LOHAS segment includes consumers who prioritize healthy living and social and environmental responsibility. Typically, these individuals are well-educated and willing to pay a premium for ethical products. As supported by the SevenOne Mediabasic Study, this group often invests in products such as fair trade goods, organic food, electric vehicles, and energy-efficient electronics, products that align with their personal values and ethical standards.

Once segments are defined, the targeting process involves evaluating each group to determine which represent the most viable business opportunities. This includes assessing the size of the segment, its distinctiveness, and the financial feasibility of reaching it. The segment must be large enough to justify marketing efforts, distinct enough to craft tailored messages, and financially accessible in terms of expected returns versus marketing costs (Oxford College

of Marketing, 2024). Furthermore, the accessibility of the segment, whether marketing messages can effectively reach the group, is a crucial factor in targeting decisions. The insights derived from segmentation enable companies to refine their customer journey maps and develop more relevant and impactful marketing campaigns.

The final step in the STP process is positioning, defining how a product or brand is perceived in the minds of the target segment. Effective positioning addresses a specific unmet need, leveraging the insights gained through segmentation to craft compelling messages and unique selling propositions (USPs). Positioning strategies should clearly differentiate the brand and articulate its relevance and value to the targeted customer group. With accurate segmentation and targeting in place, positioning efforts become more focused and effective, allowing businesses to stand out in competitive marketplaces (Oxford College of Marketing, 2024).

Brand Identity Prism. A foundational model in the study of brand identity is Jean-Noël Kapferer's Brand Identity Prism, developed in 1996 to encapsulate the core elements that constitute a brand's identity. According to Kapferer, the six dimensions: Physique, Personality, Culture, Relationship, Self-image, and Reflection form an interconnected framework that enables brands to clearly define and communicate who they are. As Kapferer asserts, "Strong brands are capable of weaving all aspects [of the prism] into an effective whole in order to create a concise, clear, and appealing brand identity" (as cited in Lombard, 2018, para. 3). The Brand Identity Prism positions these elements across two axes,

internal versus external and sender versus receiver, providing a comprehensive map of brand perception and communication.

Physique refers to the tangible, physical characteristics of the brand, what it looks and feels like. This includes logos, colors, packaging, and other visual identifiers. Personality describes the brand's character as perceived by consumers. It answers the question: If the brand were a person, what would it be like? This can be conveyed through tone of voice, imagery, typography, or even attitude (Lombard, 2018).

Culture encompasses the core values and principles that guide a brand's behavior and messaging. It often draws from the cultural context of the brand's origin or from internally established philosophies. Self-image refers to how consumers see themselves in relation to a brand. It functions as a psychological mirror, reflecting the aspirational identity of the target audience (Lombard, 2018).

While related to self-image, Reflection focuses on how a brand depicts its typical user, often based on idealized or stereotypical images. These portrayals are prominently featured in advertisements to evoke identification and appeal.

The final component, Relationship, centers on the nature of the interaction between the brand and its consumers. This includes both emotional connections and tangible service experiences. The brand's desired relationship may range from exclusive and aspirational to dynamic and engaging (Lombard, 2018).

When applied cohesively, these six elements form a structured, unified brand identity that becomes the foundation for lasting brand recognition and loyalty.

Audience development. An approach that focuses on cultivating and maintaining long-term relationships with both existing and potential customers. As Theriault (2024) explains, it “encompasses a broad umbrella of tasks that help you grow and nurture your audience” by fostering direct, authentic interactions and improving brand perception (para. 1). Unlike traditional marketing, which emphasizes short-term conversions, audience development prioritizes sustained engagement and loyalty. This is achieved through various strategies including relationship-building, customer acquisition, and loyalty enhancement. Building strong relationships creates a personal connection with customers, while acquisition methods such as referrals, added value, and targeted ads help expand the audience base. To retain this audience, businesses focus on increasing loyalty by delivering consistent value and encouraging customers to promote the brand organically.

Theriault (2024) outlines four foundational concepts of audience development: community, connections, collaboration, and caring. Community can be cultivated either locally or through digital platforms where audiences share experiences and support the brand. Connections emerge from these interactions, strengthening the bond between brand and audience. Collaboration involves both internal teamwork across departments and external partnerships, including co-branded campaigns and user-generated content. Caring, the final element, emphasizes authentic appreciation and emotional intelligence in customer relations. As Theriault notes, “57% of consumers think that most brands create

inauthentic content, but 86% find authenticity valuable when supporting a brand” (para. 21), underscoring the importance of sincere engagement.

Furthermore, audience development provides qualitative insights that inform product development and marketing strategies. By analyzing consumer feedback, brands can identify what customers value, such as sustainability, unique features, or community involvement, and align future offerings accordingly. It also enhances engagement by increasing interaction across platforms and contributes to more effective omnichannel marketing. When businesses understand audience behavior, they can deliver more personalized, timely messages. Ultimately, audience development supports a cohesive, customer-centric brand experience that leads to stronger loyalty, greater reach, and deeper emotional resonance with the target audience (Theriault, 2024).

Customer-Based Brand Equity Model. The Customer-Based Brand Equity (CBBE) Model, is a foundational framework in marketing that explains how to build strong brands by shaping consumer perceptions through ideal brand experiences. The strength of a brand is directly related to how positively customers think and feel about it, and that brands must “create the right brand image, by constructing ideal brand encounters or experiences” (Hawker, 2019, para. 5). When a brand consistently delivers value, it cultivates brand equity, defined as the value derived from customer attitudes, beliefs, and emotional responses. In the digital era, this process is accelerated through social media, online advertising, and personalized customer experiences that deepen emotional connection and loyalty.

The model is structured as a pyramid, progressing through four hierarchical levels: brand identity, brand meaning, brand response, and brand resonance. Each level builds on the one below it, and all must be firmly established for a brand to reach the apex, resonance, where customers not only prefer the brand but become its advocates. The first level, brand identity, asks “Who are you?” and focuses on defining the brand's unique selling proposition and making it recognizable in the market. This stage emphasizes market research and brand awareness through targeted campaigns. The second level, brand meaning, explores “What are you?” and includes both rational (brand performance) and emotional (brand imagery) evaluations of the brand. Positive experiences with product reliability, service, and symbolic associations are critical at this stage.

The third level, brand response, assesses “What are the feelings for the brand?” and combines individual judgments with emotional responses. These feelings are shaped by actual experiences and perceived reputation, and may vary widely among consumers. It is crucial for brand managers to monitor feedback and address negative perceptions through surveys, social listening, and direct engagement. Finally, the top level, brand resonance, represents the strongest form of brand loyalty. Customers at this level consistently choose the brand, recommend it to others, and often participate in brand communities. Achieving this requires exceptional customer service, exclusive rewards, and continuous value enhancement. As the model emphasizes, brands must not

become complacent once loyalty is secured, they must maintain and evolve their relationship with their top-tier customers to preserve resonance.

Ultimately, Keller's CBBE pyramid offers a clear yet rigorous path for brands aiming to develop long-term customer loyalty and advocacy. While conceptually straightforward, the model demands sustained effort at every stage. Brands that succeed in climbing the pyramid effectively transform customers into ambassadors who are emotionally invested in the brand's success (Qualtrics, n.d.).

5. Strategic Management in Artisanal Businesses. In artisanal businesses, long-term sustainability depends not only on the preservation of practices but also on the ability to strategically manage and leverage unique internal resources. Machuca Baldozas, Inc., operating for over a century, exemplifies how traditional businesses can maintain relevance and its success can be explained using key theoretical models such as the Resource-Based View (RBV), the VRIO framework.

Resource-Based View (RBV) Framework: Leveraging Assets. The Resource Based View (RBV) is a strategic management theory that emphasizes a business' internal resources as the foundation for achieving and sustaining competitive advantage. Defined as a model that "sees resources as key to superior firm performance" (Barney, 1991, p. 99), RBV emerged in the 1980s and 1990s through the influential work of scholars such as Wernerfelt (1984), Prahalad and Hamel (1990), and Barney (1991). It challenged the traditional focus on external market forces by arguing that firms should instead analyze and

leverage their own resource endowments to gain advantage. These resources are broadly categorized as tangible (e.g., land, capital, machinery) and intangible (e.g., brand reputation, intellectual property, organizational culture), with the latter considered more likely to yield sustainable competitive edge due to their inimitability and firm-specific nature.

RBV is grounded in two critical assumptions: resource heterogeneity, which acknowledges that firms possess unique combinations of resources, and resource immobility, which posits that many strategic resources cannot be easily acquired or transferred across firms. These assumptions explain how organizations exposed to similar external conditions may still produce divergent outcomes.

VRIO Framework: Assessing Resources. To assess whether a resource can offer sustained advantage, Barney (1991) introduced the VRIO framework, which evaluates four key attributes: value, rarity, imitability, and organization. A resource must first be valuable, enhancing efficiency or enabling the firm to capitalize on opportunities. It must also be rare, not widely held among competitors, and costly to imitate, often due to factors like social complexity, historical uniqueness, or ambiguous causal relationships. Finally, the firm must be organized to effectively deploy the resource through appropriate structures, systems, and culture. Only resources that meet all four criteria can be considered true sources of sustained competitive advantage (Rothaermel, 2013).

In essence, the RBV and VRIO framework together provide a comprehensive internal lens for strategic analysis, shifting managerial focus

toward building, protecting, and strategically exploiting firm-specific resources that are difficult for competitors to replicate (Jurevicius, 2023).

E. Scope and Limitation

This study, *Machuca tiles in the Philippine Cultural Landscape*, examines the role of Machuca Baldozas, Inc. in Philippine heritage and business sustainability. As the pioneering manufacturer of handcrafted cement tiles in the country since 1903, Machuca Baldozas, Inc. has significantly influenced architectural aesthetics, cultural heritage, and traditional craftsmanship. The research explores how the company has maintained its legacy through effective strategic management strategies while adapting to market shifts.

In addition to Machuca Baldozas, Inc., the study focuses on the Philippine Roman Catholic Heritage Churches declared as National Cultural Treasure, UNESCO World Heritage Site, National Historical Landmark, or Important Cultural Property as well as other Marked and/or Classified Historic Structures listed under the Philippine Registry of Cultural Property (PRECUP) and National Historical Commission of the Philippines (NHCP) Database featuring patterned square tiles, borders, and risers from Machuca Baldozas, Inc., which are currently installed. These churches are a testament to how patterned cement tiles are used extensively in the Philippines and contribute to architectural heritage and culture. Through observations, interviews, and archival research, the study investigates the historical, artistic, and cultural significance of Machuca tiles in these sacred spaces.

However, the research has certain limitations. It does not provide a comprehensive architectural analysis of the churches beyond their use of Machuca tiles, as the primary focus remains on the tiles' role in heritage and business sustainability. Additionally, while handcrafted cement tiles are used globally, this study is limited to Machuca Baldozas, Inc. Furthermore, only patterned square tiles, borders and risers that are still installed are included in the mapping. Financial and sales data related to Machuca tiles may be restricted due to business confidentiality and therefore excluded. By defining these scope and limitations, this research ensures a focused exploration of Machuca Baldozas, Inc.'s contributions to cultural heritage, strategic management, and sustainable craftsmanship in the Philippines.

F. Significance of the study

This is the pioneering study focused specifically on Machuca tiles, shedding light on their cultural, historical, and economic relevance in the Philippines. By examining Machuca Baldozas, Inc. and its role in preserving the tradition of handcrafted tile-making, the research contributes valuable insights to the fields of cultural heritage, arts management, and business sustainability. It demonstrates how traditions can continue to thrive in today's evolving economy. It also highlights the importance of Machuca tiles in Philippine Roman Catholic heritage churches, where they contribute to the country's architectural and historical identity.

The study benefits various stakeholders, including cultural heritage institutions and historians, who can gain deeper insights into how Machuca tiles

have played a role in historical landmarks. Additionally, business owners and managers may learn from Machuca Baldozas, Inc.'s strategies in sustaining an artisanal manufacturing business while responding to modern demands. The research also encourages community awareness and engagement, encouraging local appreciation for the cultural value of Machuca tiles and promoting continued support for artisans.

This thesis is part of the requirements for the Bachelor of Arts in Philippine Arts, major in Cultural Heritage and Arts Management. It supports the goals of the program, which include promoting civic pride and strengthening national identity. The research brings together knowledge in Philippine art, history, culture, and management.

By doing so, this study demonstrates how the values and skills developed in the program can be applied to real-world heritage preservation. It contributes to the preservation of Filipino identity by reinforcing the importance of supporting local artisans and ensuring that traditional crafts like Machuca tiles remain vital parts of the Philippine cultural landscape for future generations.

G. Methodology

1. Research design. This study utilized a qualitative descriptive design using a case study approach to examine Machuca Baldozas, Inc. as a tradition bearer and business. By combining interviews, on-site visits, visual analysis, archival and digital resources the research explored how Machuca sustains its traditional tile-making craft while adapting to contemporary challenges. This design allowed for a detailed, contextualized account of how traditional craftsmanship evolves at the intersection of heritage and management.

2. Research setting and participants. The researcher conducted an on-site visit to the tile factory of Machuca Baldozas, Inc., located in Marian Park Road 1, San Martin de Porres, East Service Road, Bicutan, Parañaque City, Philippines. This location served as the research site for examining the company's operations, tile-making practices, and business strategies. The participants included members of the Machuca family namely, Mr. Jaime Machuca together with Mrs. Carli Machuca, as well as two artisans from Machuca Baldozas, Inc., Mr. Dominador Mayuyu and Mr. Luis Cabatbat.

The research also covered eighty-six Roman Catholic heritage churches with Machuca tiles currently installed nationwide, specifically those churches officially declared as UNESCO World Heritage Sites, National Cultural Treasures, National Historical Landmarks, Important Cultural Properties, and other marked and/or Classified Historic Structures listed under the PRECUP and/or NHCP databases.

3. Data collection methods. Data was collected through archival research, semi-structured interviews, field observation, visual inspections of tiles through on-site and online resources.

Archival Research such as primary sources from the company which includes documents, historical photographs, catalogs, and business records. Semi-Structured Interviews were conducted with company leaders and artisans to collect expert insights. Transcripts were validated by interviewees through transcript checking to ensure reliability.

Direct documentation of training sessions was not conducted but interviews with senior artisans confirmed that the tile-making skills are transmitted through hands-on mentorship and long-term employment. This aligns with UNESCO's definition of Intangible Cultural Heritage as a living tradition passed on within a community of practice.

Field Observation or on-site visits were conducted at the Machuca tile factory and at some heritage churches where Machuca tiles were installed. Visual inspections through on-site and online means were used to document tile placement, motifs and tile patterns, which were cross-referenced with the Machuca Tile catalog.

Digital resources such as each of the churches' official Facebook page and/or Google map photos, and institutional websites were used to compile church data and supplement the mapping of the 86 heritage churches. The church tiles were verified as Machuca tiles by cross-referencing with the Machuca tile catalog and matching the church tiles to specific tile numbers.

4. Data analysis methods. The data for this study were analyzed using the following approaches:

Descriptive Analysis. Information collected from the 86 heritage churches, including their architectural profiles, Machuca Tile patterns, placement, and commissioning context, was organized into tables and descriptive summaries. Descriptive methods were also used to explain tile-making processes, design characteristics, and production details of Machuca and other local cement tilemakers.

Archival Analysis. Archival records including historical photographs, the 1914 catalog, historical photographs and other primary documents from Machuca Baldozas, Inc., were reviewed to trace the company's history, original tile designs, and verify the presence of Machuca tiles in Philippine heritage churches. Cross-checking the church tile designs with the current Machuca Tile catalog posted on their website verified the authenticity of tiles in the heritage churches.

Interview Content Validation and Thematic Analysis. Semi-structured interview transcripts were reviewed and validated by interviewees (transcript checking) to ensure accuracy and reliability of insights regarding Machuca tiles, their cultural significance, and business practices. Interview data was analyzed thematically, organized based on recurring ideas and perspectives that emerged from the interviews, including intergenerational succession, artisanal continuity, heritage management, design customization, marketing strategies, and cultural identity.

These themes were then supported by triangulation with secondary sources, such as archival documents, media reports, and internal company materials. This layered analysis enabled a richer understanding of how Machuca Baldozas, Inc. operates as a culturally rooted yet strategically adaptive business.

Mapping and Classification. This study employed Mapping and Classification to illustrate the geographic distribution and heritage classifications of Philippine churches featuring Machuca tiles. Data was gathered from church visits, social media pages, and the National Historical Commission of the Philippines (NHCP) and the Philippine Registry of Cultural Property (PRECUP) databases.

A list of churches with documented Machuca Tile installations was created, and their locations were mapped to examine patterns in the tiles' geographical spread and their relation to different heritage classifications. This approach provided insights into the national significance of Machuca tiles, illustrating how these tiles are embedded within the broader context of Philippine heritage.

Comparative Analysis. To situate Machuca tiles within the global tile-making, the study traced the influence of Spanish design traditions on Machuca Baldozas, Inc.'s techniques and aesthetics. Machuca tiles were compared with foreign tilemakers from Colombia, Egypt, Guatemala, Panama, and Spain and local cement tilemakers such as Malaga and Kalayaan tiles, in order to distinguish Machuca tiles from both foreign and local tile manufacturers.

A comparative analysis of Machuca tiles in selected Roman Catholic churches, were also used aiming to analyze their role in the ecclesiastical heritage of the Philippines. A group of twenty (20) churches from various regions were profiled stating tile motifs, architectural placement, heritage status, symbolism, etc. The churches were grouped into five categories including: (6) churches with archival photographs confirming original Machuca tile installations still in use, (4) churches with active conservation efforts, (2) churches with extensive use of Machuca tiles, (5) churches with custom-colored Machuca tiles, and (3) churches with custom-patterned Machuca tiles. Through this categorization, the study identified patterns, revealing how the tiles contribute to the cultural heritage of the churches.

Additionally, five (5) heritage churches located in different districts of Manila were analyzed to provide contextual significance. This focused study examined shared tile patterns, possible parish networks, and the spread of Machuca tiles possibly through advertisements, visual influence and recommendations among clergy, church workers, and architects. Together, this comparative analysis directly addresses the objective of understanding the role of Machuca tiles in Philippine Roman Catholic heritage churches, offering insights into how these tiles contribute to both the visual and cultural landscape of church heritage.

H. Organization of the Study

The thesis is divided into seven chapters.

The first chapter presents the introduction of the study, including the background, research problem, objectives, significance, scope and limitations, methodology, and the review of related literature. It also introduces the conceptual framework that guides the analysis, combining perspectives from heritage studies and management.

The second chapter contextualizes Machuca Baldozas, Inc. within the global and local history of tile-making. It explores the evolution of hydraulic cement tiles, and traces the origins and legacy of Machuca as the Philippines' oldest handcrafted tile company. It includes their tile-making process and distinguishes Machuca Baldozas, Inc. from its competitors.

The third chapter focuses on management and business sustainability. It explores the organizational structure, management practices, marketing strategies, and client relations of Machuca Baldozas, Inc. The chapter examines how the company balances heritage preservation with modern business demands.

The fourth chapter documents the tangible presence of Machuca tiles in Philippine Roman Catholic heritage churches. It introduces a database of 86 churches and presents an iconographic and contextual study of select churches. This chapter shows how tile patterns reflect sacred symbolism, regional identity, parish networks, supplier influence, and shared taste.

The fifth chapter evaluates the eligibility of Machuca tile-making as Intangible Cultural Heritage. It considers UNESCO's and PRECUP's criteria and assesses whether Machuca tile-making qualifies for official recognition under the Intangible Cultural Heritage in traditional craftsmanship domain.

The sixth chapter presents the discussion and analysis of data using the study's conceptual framework: Heritage Transmission, Sacred Architecture and Symbolism, Brand Identity and Equity, and Strategic Management that utilized tradition as strategy. Each thematic section synthesizes findings from previous chapters and interprets how Machuca operates at the intersection of tradition, symbolism, and innovation.

The seventh chapter concludes the study by summarizing key insights and offering recommendations for Machuca Baldozas, and cultural institutions. It also outlines directions for further investigation in related fields such as management and cultural heritage studies.

I. Ethical Considerations

This study adheres to ethical research principles to ensure the rights and well-being of participants, and I do not have any significant conflict of interest in conducting the study. Informed consent will be obtained from all participants before data collection begins. Confidentiality will be maintained by anonymizing interview responses in line with the Data Privacy Act of 2012 or Republic Act 10173. However, if participants prefer to be recognized for their contributions to this research due credit will be given. No sensitive data will be collected.

Recruitment will be conducted through formal requests for participation, which

will include letters outlining the study's objectives, voluntary participation, confidentiality measures, and their right to withdraw at any time without consequences. Participants will receive a written informed consent form along with these letters, ensuring they have sufficient time to review the study details before deciding. Data will be securely stored, and only the researcher will have access to the raw data to prevent unauthorized use or disclosure. Agreeing to participate in this research and completing the informed consent form does not waive participants' rights, nor does it release the investigators, institution, or sponsors from their responsibilities. Thesis will be considered for journal submission and/or conference presentation. A summary may be published in heritage research forums.

J. Conceptual Framework

This conceptual framework positions Machuca Baldozas, Inc. at the center of four interrelated components: Heritage Transmission, Sacred Architecture & Symbolism, Brand Identity & Equity, and Strategic Management. These components explain how the company sustains its relevance as both a tradition bearer and a competitive business.

"Heritage Transmission", supported by UNESCO (2003), Laurajane Smith (2006), and Salibay (2020), refers to the passing down of artisanal knowledge and skills across generations. Smith (2006) reframes heritage not as a static object but as a dynamic cultural process shaped by social meaning and lived experiences. Salibay (2020) emphasizes that traditional knowledge systems are often transmitted through person-to-person learning, where craftsmanship is

imbued with both skill and value. In the case of Machuca Baldozas, this component represents the company's intergenerational transmission of century-old tile-making techniques and design patterns, an embodiment of their heritage.

This component directly shapes "Sacred Architecture & Symbolism", where artisanal practices are made tangible through the tiles in heritage churches. Scholars such as McNamara (2016), Rastelli (2020), and Lenik (2018) highlight how architectural elements like floors and tile patterns carry spiritual, theological, and cultural significance. McNamara, for instance, argues that walking on sacred floors is akin to entering "the streets of heaven," while Lenik refers to materials as "vessels of cultural memory." This relationship is captured in the diagram through the arrow labeled "Shapes Sacred Design", indicating how Machuca tiles is deeply embedded in Philippine sacred architecture.

From there, "Sacred Architecture & Symbolism" contributes to "Brand Identity & Equity" by "Elevating the Brand." The company's association with declared heritage sites and ecclesiastical aesthetics reinforces its authenticity and symbolic appeal. This is analyzed using Kapferer's Brand Identity Prism, which conceptualizes brand identity through dimensions such as personality, culture, relationship, reflection, self-image. Also, Keller's Customer-Based Brand Equity (CBBE) model, which explains how strong emotional and symbolic associations enhance consumer perception and loyalty despite Machuca tiles being priced at a premium. Machuca tiles' presence in heritage churches and ancestral homes fills the brand with values of continuity, spirituality, and prestige.

To differentiate, brand identity refers to the collection of visual, verbal, and sensory elements, such as logos, colors, typography, and messaging, that a company uses to present itself to the world, conveying its values, personality, and purpose. In contrast, brand equity is the intangible value and perception a brand holds in the minds of consumers, built over time through experiences, reputation, and marketing efforts. While brand identity is actively created and managed by the company, brand equity is earned based on how consumers perceive and respond to that identity. Essentially, brand identity is what a brand puts out, and brand equity is what it gets back in return.

The branding component, focused on shaping external perception and consumer connection, informs strategic management by providing insights on market positioning and audience resonance. The RBV theorize that businesses achieve sustained competitive advantage by leveraging internal resources that are intangible, heterogeneous, and immobile. In Machuca Baldozas, Inc's case, the intangible artisanal skill remains locked within the company, shaped by years of experience and artistry. In terms of the heterogeneity of their resources, competitors may sell decorative tiles, but few can offer the depth of tradition and intergenerational trust in Machuca tiles. Moreover, these resources are immobile: the brand identity, artisanal techniques, and customer relationships cannot be easily transferred or imitated by other businesses. The VRIO framework examines whether a firm's assets are Valuable, Rare, Inimitable, and Organized to capture value.

To differentiate, brand identity and equity emphasize symbols, meanings, and perceptions, expressing how the company should present and position itself externally. In contrast, strategic management is interpreted through frameworks like the Resource-Based View (RBV) and the VRIO operates at a broader, internal level. RBV and VRIO analyze the firm's internal capabilities holistically, with a primary concern for organizational performance, not consumer perception. These frameworks help determine what the company should leverage or protect to gain sustainable competitive advantage.

Finally, “Strategic Management” actively “Sustains Tradition” by enabling the continuity of craftsmanship or monetization. The cycle returns to “Heritage Transmission”, ensuring that traditional knowledge is preserved. This supports Machuca Baldozas, Inc. as both a tradition bearer and a thriving business.

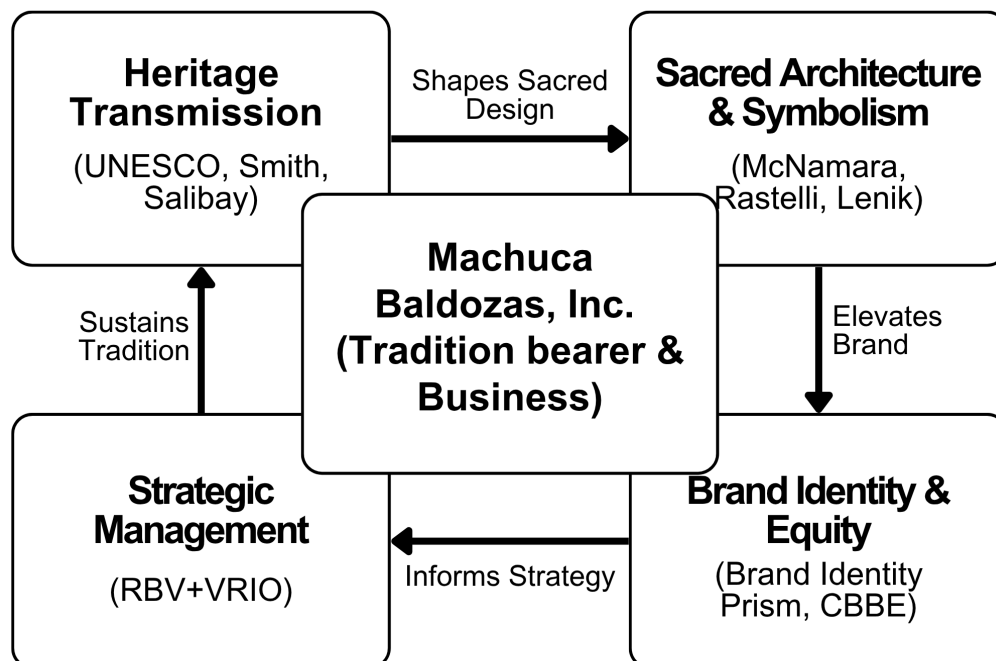


Figure 1. Conceptual Framework.

Chapter 2: Machuca in the World of Tiles

This chapter situates Machuca tiles within the broader history of decorative tile-making, tracing their global origins and their arrival in the Philippines. By examining how cement tiles evolved from Mediterranean traditions and how Machuca Baldozas, Inc. localized this craft, the chapter establishes the cultural and historical foundations necessary for understanding Machuca tile's heritage significance. It also differentiates Machuca tiles from other international/foreign and local tile producers.

A. Origins of Decorative Tiles and the Global Evolution of Tile-Making

Decorative tiles, which today are often seen as symbols of status and luxury, actually have a much older and richer history than most people realize. The technology behind decorative tile-making dates back centuries, with its roots in ancient civilizations around the Mediterranean.

As stated in the *History of Machuca Tile* (Appendix E), decorative tile-making began in the 7th and 8th centuries when Muslim communities from North Africa, known as Moors or Moros, settled in Spain and Portugal. They brought with them a new style of tile-making that would go on to influence European design. This style, often called the Mediterranean design, was shaped by the artistic exchanges that took place around the Mediterranean, much of which had once been part of the Roman Empire. The process they used to create these tiles was inspired by the Roman technique of mosaic-making, which involved piecing together small tiles, called *tesserae*, to create intricate designs.



Figure 2.a. Traditional Tile Designs of the World (edited). Original image by QS Supplies, licensed under CC BY-SA 4.0. Modifications made by Carmela Danganan.

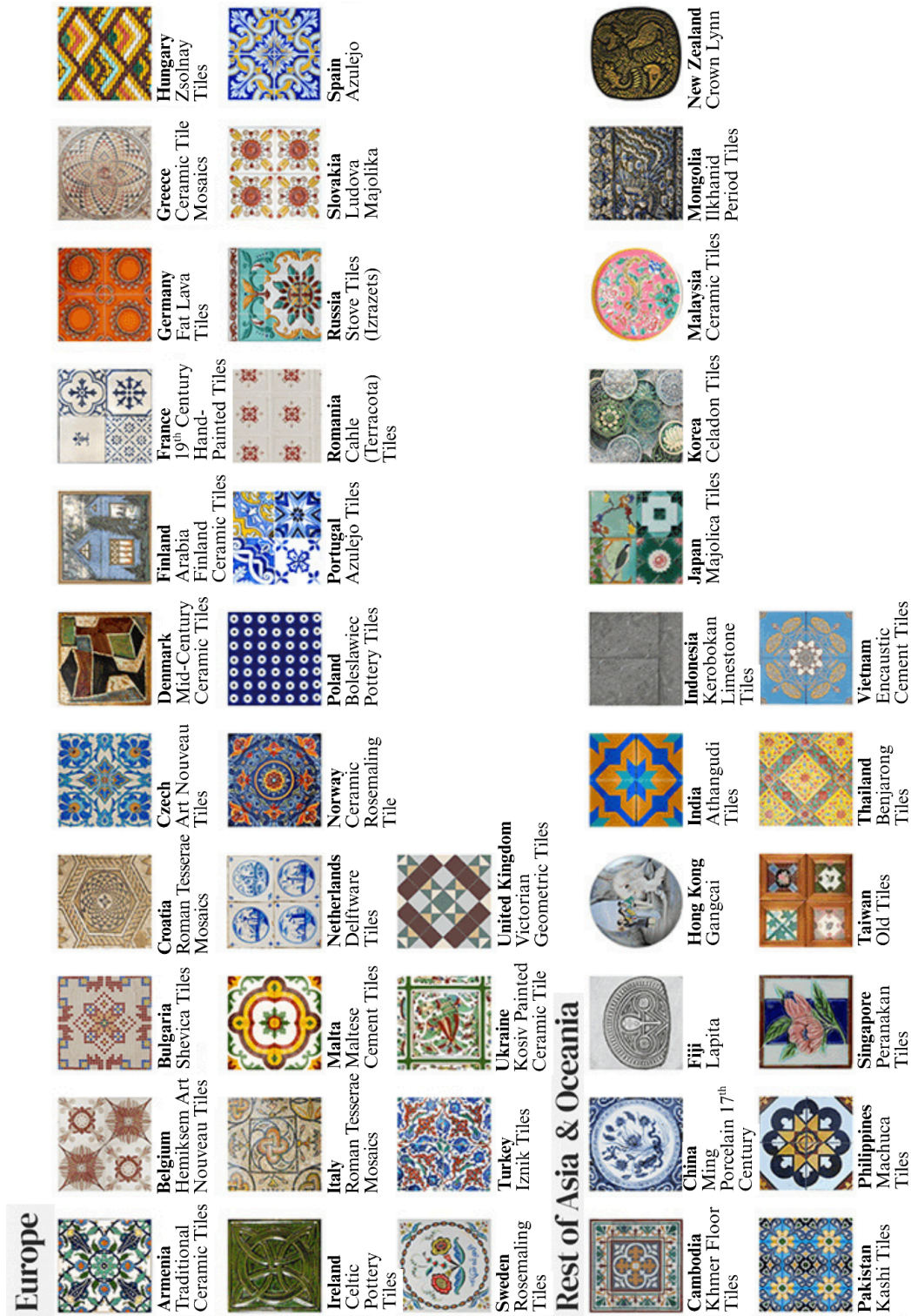


Figure 2.b. Traditional Tile Designs of the World (edited). Original image by QS Supplies, licensed under CC BY-SA 4.0. Modifications made by Carmela Danganan.

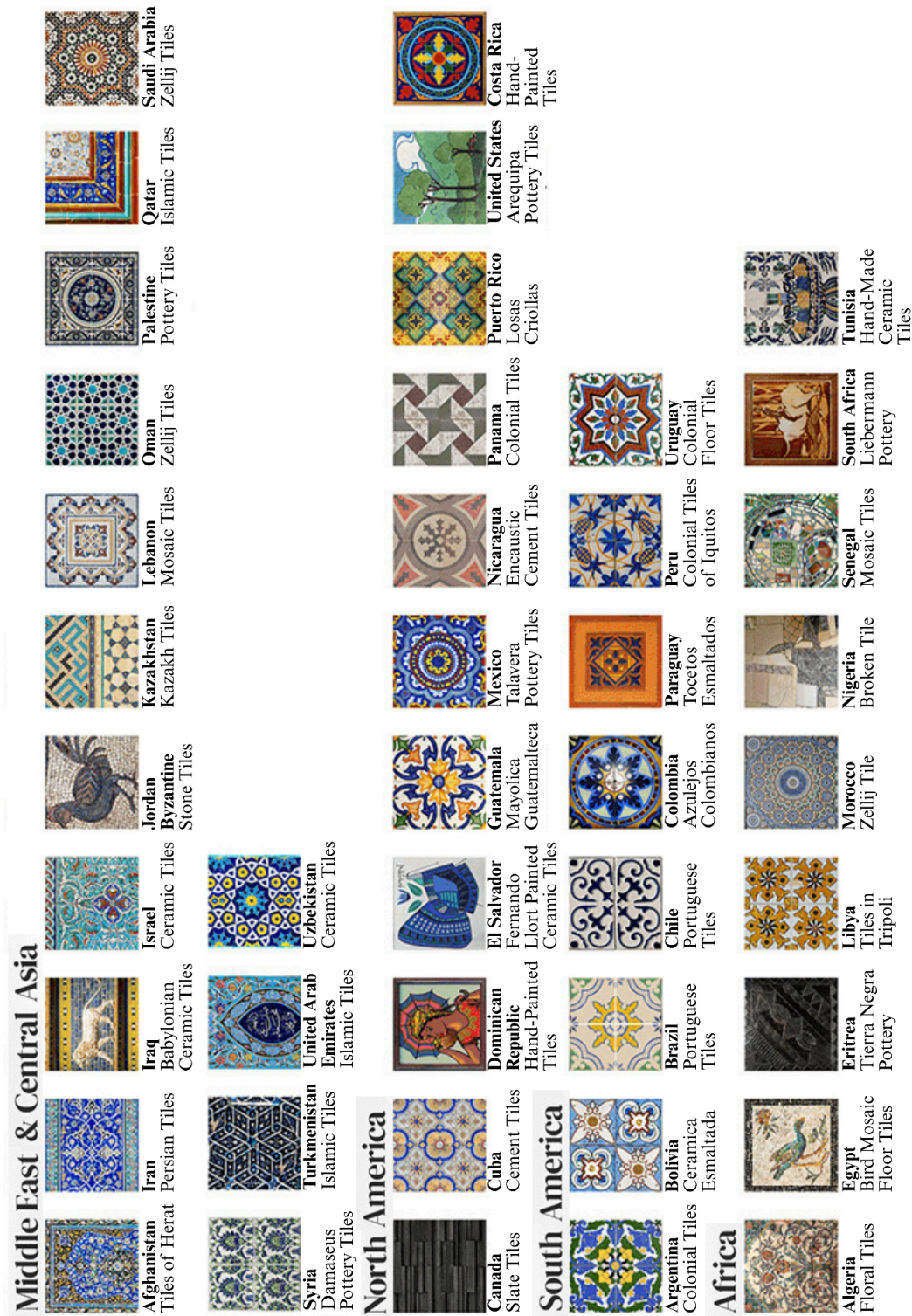


Figure 2.c. Traditional Tile Designs of the World (edited). Original image by QS Supplies, licensed under CC BY-SA 4.0. Modifications made by Carmela Danganan.

One of the most important techniques introduced by the Moors was called *zellige* (or *zellij*), which means "little stone" in Arabic. In this method, colored pieces of stone were set into a plaster base to form a pattern. What set *zellige* apart from earlier mosaics was the use of glazing. After the tiles were laid out, they were heated, which permanently set the colors and added a glossy finish. This glazing process influenced the development of the *azulejo*, a type of decorative tile that became a key feature in Spanish and Portuguese architecture. The term *azulejo* is derived from the Arabic word for "small stone" and is typically associated with blue tiles, although the designs can feature a wide range of colors.

By the 12th and 13th centuries, the Mediterranean style had spread widely across Europe. In Southern Spain, cities like Seville, Cordoba, and Granada became centers of tile production, and the use of *azulejos* in buildings such as churches, palaces, and schools became common. However, the popularity of these tiles began to fade during the Renaissance. Factors like the expulsion of the Moros from Spain in 1492, the decline of Spain's power following the defeat of the Spanish Armada in 1588, and economic hardships led to a reduction in tile production. While tile-making declined in Spain, the *zellige* technique continued to thrive in other parts of the Muslim world, especially in areas like the Ottoman Empire and Persia, where it evolved into a style known as *ghlami*.

The revival of decorative tiles came during the Industrial Revolution in the 19th century. As Europeans rediscovered the ancient mosaics in historical buildings, they also saw how similar tile-making techniques continued in other

parts of the world. This sparked a renewed interest in creating tiles like the *azulejo*. In Britain, for instance, the production of encaustic or inlaid tiles began in 1842, with early examples used in notable buildings like the Temple Church and the Palace of Westminster in London. These tiles, which used a glazing technique similar to that of earlier mosaics, were later exported to other countries, including the United States.

The biggest change came with the introduction of cement tiles. In 1857, the first cement tile was produced in Barcelona, Spain, and their popularity skyrocketed when they were showcased at the *Exposition Universelle* in Paris in 1867. This event, which attracted millions of visitors, helped cement the global recognition of cement tiles as a revolutionary new form of decorative tile. What makes cement tiles different from earlier tiles is their production process. Instead of using heat and glazing, cement tiles are made using a hydraulic press. Despite this innovation, the handcrafted nature of cement tiles remained unchanged. Each tile is made by hand, ensuring that no two tiles are exactly alike. Cement tiles were known by various names depending on the country (Figures 2.b. & 2.c.), including *mosaico hidráulico* and *baldosa hidráulica* in Spanish-speaking countries, and *carreaux de ciment* in France.

However, the term *azulejo* continued to be widely used for tiles with intricate designs, even though it was technically distinct from both encaustic and cement tiles. The blend of traditional techniques and Industrial Revolution-era manufacturing established them as versatile elements in architecture, valued today for their beauty, craftsmanship, and durability.

B. The Arrival of Cement Tiles in the Philippines

As stated in the *History of Machuca Tile*, tiles entered Philippine architecture alongside Spanish colonization. Early churches and civic buildings used bricks and glazed tiles introduced by Jesuit builders like Fr. Antonio Sedeño in the 16th century. However, cement tiles would not be locally produced until the late 19th century. Carl Fressel, a German entrepreneur, founded the Manila Tile Works in 1886, marking the beginning of Asian cement tile manufacturing. Though Fressel's company gained early prominence, producing up to 7,000 tiles daily, his legacy faded after his death in 1904. His role as the technical pioneer of cement tile manufacturing set the stage for what would become a tile icon: the Machuca Tile.

C. The History and Rise of Machuca Tiles

Though Carl Fressel laid the groundwork, it was Jose Machuca y Romeo, a Spanish lawyer and former magistrate, who established decorative handcrafted cement tiles in the Philippines. Born in Seville in 1858, Machuca was surrounded by the Moorish-inspired architecture of Andalusia. Arriving in the Philippines in 1875, he leveraged both his legal acumen and artisanal heritage to found *J. Machuca y Compañía* in the early 1900s. The true origins of the Machuca tile manufacturing business are complex. Early company names such as *Barretto*, *Machuca y Compania* suggest an initial partnership with Pio Barretto Sy Pioco, a Chinese-Filipino businessman. Documentary evidence places the business' operations as early as 1902, if not earlier. The pivotal 1914 Spanish brochure (Figure 3) produced by Machuca featured original designs, classification systems (fretworks, borders, corners), and revealed use of seven electric hydraulic presses. It warned against imitators and emphasized design originality. The

brochure established Machuca not just as a manufacturer, but a custodian of artisan identity.

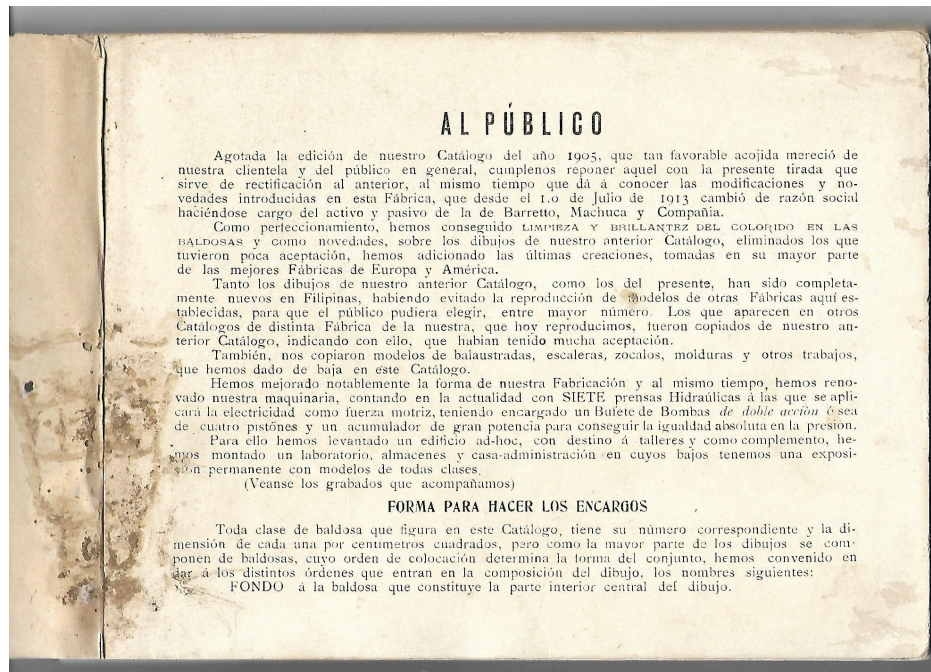


Figure 3. Scanned Page from the Spanish Brochure (Appendix A).
Note. From the Machuca Tile History.

Despite Fressel's precedence, it is Machuca's name that has become synonymous with decorative cement tiles in the Philippines. His legacy stems not only from business innovation but also from his successful branding and deep cultural integration.

D. Tile-Making Techniques and the Craft of Machuca

Machuca tiles are made using the same method developed in the early 20th century. The process remains largely unchanged:

1. Mold design. Brass molds are crafted to achieve precise patterns.

These molds are intricately constructed by hand, using generations-old techniques and modern materials. Each steel tile mold takes days to produce but lasts for decades at a time (Machuca Tile website, 2023).



Figure 4. Mold Design.

Note. Photo from Machuca Tile website.

2. Pigment mixing. The vibrant colors that make up the cement tiles are composed of high-quality iron oxide pigments. These durable and striking pigments are precisely weighed, ground, and sieved before being sent to our tile making stations (Machuca Tile website, 2023).



Figure 5. Pigment Mixing.
Note. Photo from *Machuca Tile* website.

3. Tile making. At the tile making station, water is added to a mixture of cement and the prepared pigments. The handcrafted steel patterned mold is then carefully placed inside the steel frame casing. The colorful liquid cement mixture is then hand-poured into the enclosed shapes of the brass mold to create the famous patterned cement tiles (Machuca Tile website, 2023).



Figure 6. Tile Making.
Note. Photo from *Machuca Tile* website.

4. Cement tile layering. Once all enclosed shapes of the steel tile mold have been filled, the tile mold is removed from the steel frame casing and further layers are added. The second layer is made up of dry fine sand, while the third layer (the base) is made up of high-quality Portland cement (Machuca Tile website, 2023).



Figure 7. Cement Tile Layering.
Note. Photo from Machuca Tile website.

5. Tile pressing. After the cement base layer is added, the steel frame casing is sealed. From here, the tile press machine compresses all of the raw materials encased inside the steel casing into one solid cement tile (Machuca Tile website, 2023).



Figure 8. Tile Pressing.
Note. Photo courtesy of Carmela Danganan.

6. Tile curing. The steel frame casing is removed and the tile is left to cure for approximately 7 days. The cement tile does not undergo firing or baking (Machuca Tile website, 2023).



Figure 9. Tile Curing.
Note. Photo from *Machuca Tile* website.

7. Quality inspection and packaging. After the tiles have been cured, they are washed and cleaned before being inspected for quality. Any cracks, chipping, discoloration, or erroneous production defects that do not pass our strict quality standards are separated and sent to the rejects stockpile. The tiles that pass are then either pre-waxed or pre-sealed before being packaged and released (Machuca Tile website, 2023).



Figure 10. Quality Inspection and Packaging.
Note. Photo from Machuca Tile website.

This artisanal production ensures each tile carries a unique imprint. By continuing to use these traditional techniques, Machuca gives its tiles an

authenticity and sense of history that mass-produced alternatives simply can't replicate. Through the years, the management has made efforts to better their tile quality and to make it easier to craft. In the interview, Mr. Jaime said:

We have different finishes now so different types of waxes. There's also new methods of pouring the liquid cement so this is actually through the manufacturing process. We try to make it easier for the tilemakers right so that results in a better quality tile (Appendix G).

They also used to dip the tiles in water but unfortunately it would sometimes result in alkaline marks hence the tiles have since been cured through air-drying at room temperature. They even returned to using hydraulic tile presses instead of the manual tile press called "*barra*" (from the Spanish word for rod). One of the artisans, Luis Cabatbat also noted the major technical change in the interview, "dati binibira yan... pinalitan ng hydraulic [press] para mas matibay ang tiles (Appendix H)." He also recounted the shift in standards over time, "noong araw...walang mga quality control. Basta pag natapos doon sa 'barra,' ibababad, tapos iinstall na. Di tulad ngayon na nirerebisa yan isa-isa (Appendix H)." Machuca Baldozas, Inc. also expanded their delivery options utilizing Transportify, Lalamove and 2GO Express.

E. Distinguishing Machuca in the Global and Local Markets

1. The international scene. Machuca Baldozas, Inc. exists within a broader global ecosystem of artisanal cement tile producers.

Colombia (*Azulejos Colombianos*). Colombian encaustic cement tiles are handcrafted using layered pigment techniques, featuring large modern designs, playful patterns, and intricate medallions (Granada Tile, 2017). In comparison to Machuca, Colombian tiles are stylistically expansive and contemporary, often catering to modern sensibilities and decorative experimentation. Machuca, however, adheres to both contemporary and century-old patterns, many of which are documented in archival catalogs (Appendix B), preserving Filipino-Spanish colonial motifs and artisanal discipline over trend.

Egypt (*Bird Mosaic Floor tiles*). Egyptian tilework is handmade using ancient stamping and glazing techniques, featuring repeating emblems, kaleidoscopic geometry, and stylized flora in rich tones like gold, red, and green. These tiles appeal to clients drawn to sacred geometry, Middle Eastern aesthetics, and legacy craftsmanship (Granada Tile, 2017). In comparison to Machuca, Egyptian tilework celebrates ancient geometric abstraction rooted in Islamic architecture. While both traditions are historical, Machuca tiles are directly tied to Mediterranean-Spanish influence, adapted through Philippine colonial architecture. Their irregularities and soft imperfections are intentional, reflecting a handcrafted ethos absent in Egypt's highly precise tile geometry.

Guatemala (*Mayolica Guatemalteca*). Guatemalan tiles are locally fired ceramic or cement tiles using hand-mixed glazes and traditional pressing methods, featuring brightly colored stars, floral bursts, and Latin folk patterns in bold primary tones. These tiles appeal to those seeking rich folkloric charm and high-contrast decorative elements (Granada Tile, 2017). In comparison to Machuca tile, Guatemalan tiles radiate folkloric vibrance and indigenous influence, while Machuca tile's designs derive from the Spanish and ecclesiastical architecture.

Panama (*Colonial tiles*). Panamanian colonial tiles are handmade cement or ceramic tiles influenced by colonial-era decorative arts, featuring repeating circular patterns in red, green, and blue (Granada Tile, 2017). In comparison, Panama's colonial tiles are decorative echoes of the Spanish legacy, much like Machuca tiles. However, Machuca tile distinguishes itself through documented continuity, its patterns can be traced back over a century, preserved from original catalogs.

Spain (*Azulejo tiles*). Spanish azulejos are traditionally tin-glazed on terracotta or ceramic, often painted by hand in artisan workshops, featuring Islamic-inspired geometry, baroque flourishes, and Art Nouveau intricacies from regions like Valencia and Barcelona. These tiles appeal to European heritage projects, art collectors, and ornamental design aficionados. In comparison to Machuca, Spanish azulejos heavily influenced Machuca tiles' early patterns, but Machuca adapted them to Filipino architectural needs.

According to NT Pavers (2025), cement tiles are generally handcrafted, organic-looking, and artistic, but need resealing every 1 to 2 years because of their high porosity, which can soak up water and stains and is prone to etching. In comparison, Machuca tiles require minimal maintenance, just mopping using dishwashing soap and occasional use of colorless wax depending on the traffic. Machuca tiles have a hard-wearing surface that can withstand heavy foot traffic, and they even recommend using Scotch Brite or fine sandpaper to remove grime. Unlike other cement tiles that can soak up water quickly, Machuca Baldozas, Inc. even has a blog about their tiles being excellent for bathroom floors, which constantly get wet. Their tiles also have insulation properties, wherein the tiles are cool in the summer due to their high thermal mass, making them perfect for the Philippine climate.

The reason for their tile longevity is not just the skilled artisans but also their use of high-quality materials. They use iron oxide pigments and do not use lead; they use high-quality Portland cement and fine sand. They also pre-seal their tiles before packaging. Additionally, their "green cement" uses 30% less carbon footprint, and rejected tiles are crushed into a sand-like consistency and recycled. These features collectively demonstrate that Machuca tiles are not only aesthetically pleasing but also practical for long-term use. Their low-maintenance requirements, durability, and eco-friendly production make them a superior choice compared to typical cement tiles, reflecting the thoughtful craftsmanship behind each tile.

2. The local scene. In the Philippine tile-making scene, Machuca tiles is both a pioneer and a benchmark. Since its founding in 1903, Machuca Baldozas, Inc. has brought handcrafted cement tiles into the heart of Filipino architecture. More than a century later, it remains the most recognized name in this craft. Still, despite its long-standing legacy, Machuca isn't alone, other local businesses continue to keep cement tile-making alive.

Smaller artisanal makers have also emerged, responding to a renewed appreciation for handcrafted materials and heritage-inspired design. Among them is Malaga tiles, a local business founded by Edwin Espiritu. Despite its relatively modest digital footprint, with 824 Facebook followers as of April 21, 2025, Malaga positions itself as a brand committed to reviving the traditional Spanish cement tile techniques that once flourished during the colonial era.

Their tiles are handcrafted by Filipino artisans and display a combination of geometric and organic designs, including religious motifs like the Holy Family, St. Joseph, Mama Mary, and the Twin Hearts. Their colors are less vibrant compared to Machuca tiles and they offer more of a pastel color palette such as the Fatima in light blue and St. Joseph in green and white (Figure 11). Some of their tiles have a three dimensional design and are more decorative than functional tiles with some even encased in a frame.



Figure 11. Malaga tiles.

Note. Photos from *Malaga tiles* Facebook page.

Malaga tiles also distinguishes itself by offering tile sizes that are increasingly hard to source. Their tile sizes as posted in their official Facebook page are 30x30cm format, along with standard 20x20cm and even more specialized 10x10cm, hexagonal, and border designs and their tile thickness is about 1.5 cm which may apply to all their tiles. The thickness is relatively thinner than that of Machuca tiles with at least 1.9 cm thickness and Machuca Baldozas, Inc. offer more size options (Figure 17). While their promotional materials emphasize traditional craftsmanship, there are few documented visuals of their

production process, suggesting a quieter, small-scale workshop focused on specialty commissions rather than high-volume manufacturing.

Another active name in the niche is Kalayaan tiles (Figure 12), a cement tile manufacturer with a growing presence online, boasting 2,700 Facebook followers and 2,800 likes as of April 2025. Despite this relatively larger audience compared to Malaga tiles, Kalayaan's public profile remains under-marketed, with no posted documentation of their production methods or behind-the-scenes artisan work. Their catalog, at least as shown on social media, features a focused range of designs, three large-format 40x40cm tiles and twelve standard 20x20cm tiles, reflecting a limited but curated offering.



Figure 12. Kalayaan tiles.

Note. Photo from *Kalayaan tiles* Facebook page.

While both Malaga and Kalayaan tiles contribute to the preservation and revival of cement tile-making in the Philippines, their scale and reach remain modest and geared toward homeowners and small businesses. In contrast, Machuca Baldozas, Inc. continues to define the upper tier of the industry, both in reputation and cultural significance, with a deeply rooted presence in heritage churches, ancestral homes, and institutional architecture across the Philippines.

In the interview, Jaime Machuca stated that their differentiators are:

We can customize, custom patterns, custom color scheme. Also, the handmade quality, that's the thing uh people generally don't like too much uniformity. Next is quality of product and quality of sales work, I think that makes us stand out. Branding also uh local manufacturing so that's another thing. Also, 'yung brand namin is a heritage brand so it lasted for a long time (Appendix G).

Where competitors offer variety and affordability for the domestic market, Machuca remains synonymous with heritage authenticity, offering handcrafted tiles that are as much an artistic signature as they are functional architectural elements. This balance of legacy, craftsmanship, and early cultural adaptation continues to secure Machuca Baldozas, Inc.'s place as the Philippines' definitive cement tile producer. Through this examination, it becomes clear that Machuca Baldozas, Inc. stands at the intersection of global influences and local adaptation. While rooted in Spanish-Mediterranean tile traditions, Machuca tiles have developed into uniquely Filipino products that are tailored to Filipino tastes. The following chapters will explore in greater depth how this tradition has been maintained, strategically managed, and culturally embedded in the Philippine heritage landscape.

Chapter 3: Machuca Tile Business

Machuca Baldozas, Inc. is a family-owned artisanal manufacturing business that has lasted for 122 years now. The chapter explores the company's internal management practices, sustainability strategies, client collaborations, and responses to business challenges. By analyzing how Machuca has balanced heritage preservation with strategic innovation, the study highlights the company's role in sustaining traditional craftsmanship within the modern creative industries. This business perspective is key to understanding their longevity and its potential as an ICH bearer.

A. Machuca as a Family-Owned Artisanal Manufacturing Business

Machuca Baldozas, Inc. is a rare example of sustained continuity in Philippine artisanal industries, having operated as a family-run business for over 120 years. Founded in the early 1900s by José Machuca y Romero as *Barretto, Machuca y Compañía*, the company introduced handcrafted cement tiles to the country using imported Spanish hydraulic presses and a meticulous technique still practiced today. Now known as Machuca Baldozas, Inc., it continues to preserve both its distinct heritage and the intergenerational craftsmanship that defines its legacy.

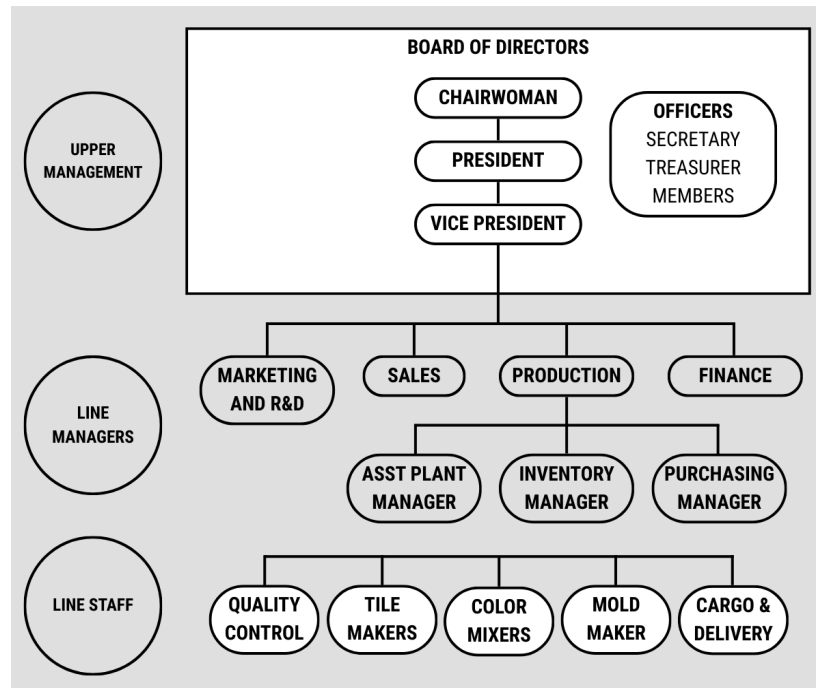


Figure 13. Organizational Chart of Machuca Baldozas, Inc.

Machuca Baldozas, Inc. is currently led by fourth-generation family members, with Luisito Machuca Jr. who has a background in architecture serving as President and Jaime Machuca who has a background in business management as Vice President. This leadership dynamic combines design prowess with business foresight, grounded in both their professional background. In the interview, Mr. Jaime stated that:

Everyone in the family, my mom, us boys and we're all part of the board. So technically everybody's part of the company. It's just that some of us are in managing roles so we manage the actual operations. Everybody has a thing to add, it's great that me and my siblings have different backgrounds, so we have an architect, an attorney, we have an accountant, and then we have me for business and that helps (Appendix G).

Machuca balances traditional family roles with formal organizational structures (Figure 13). Each family member brings a distinct professional background, law, architecture, accounting, and business, ensuring

complementary decision-making. The company's internal culture also reflects this blend of professionalism and familial trust, according to Mr. Jaime:

There's a lot of pros to being a family-run business. Some of the pros are that we are able to make quick decisions because we trust each other, so trust-based decisions. Other pros are we get to spend time with each other so there's a lot of trust there. To maintain the standards of professionalism, we have to have honest conversations with each other. Next, emotions can mix with work, what I mean by that is you need clear roles for each family member and you just have to trust that that person is going to do their best in their role. Lastly, sometimes work can be discussed too much in a family time setting so that's one of the cons. Sometimes we forget that it's supposed to be a family time thing so sometimes work can still be brought up but I think it's a small price to pay, all things considered (Appendix G).

This flexible, relational approach aligns closely with adaptive strategic management, which emphasizes adaptability.

Unlike many artisanal manufacturing businesses where succession is abrupt or rigidly hierarchical, the Machuca family emphasizes intergenerational cooperation and gradual leadership transitions. In the interview, Mr. Jaime shared that “it’s not always a strict handover... I think it’s super important to have overlap—both generations work together for a certain period of time (Appendix G).” This overlap allows key information to be retained while encouraging the younger generation to introduce necessary innovations. He also emphasized that succession is not forced, but earned through demonstrated interest and commitment.

The family's early exposure to the business also played a key role in shaping leadership continuity. Recalling their childhood, Mr. Jaime shared that he grew up literally playing inside their factory in an interview with Business Inquirer

(2017). This informal, immersive learning environment has reinforced a sense of responsibility that goes beyond operational roles.

In the interview, Mr. Jaime noted the presence of generational craftsmanship beyond the Machuca family, “within our factory... we have multi-generational employees... lots of fathers and sons get employed (Appendix G).”

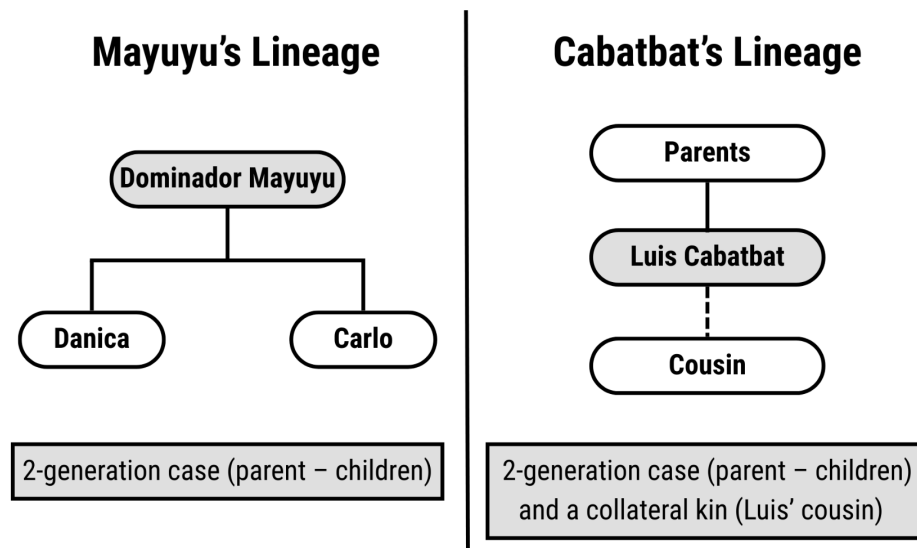


Figure 14. Workplace Family Connections Among Two Artisans.

According to Jaime Machuca, “usually it's only 2 generations max who continue working. I haven't yet come across 3 generations. Also it's less common to have parents->kids, it's usually cousins or uncles or in-laws.” In the interview, Luis Cabatbat also spoke of how tile-making remains a family affair, “halos lahat diyan [sa factory], mga magkakamag-anak 'yan 'yung gumagawa ng tiles (Appendix H).”

This dual track of familial and artisanal continuity (Figure 14) contributes to the company's resilience. Many have stayed for years, passing on their skills to

newcomers and helping keep the quality and character of Machuca tiles alive through generations. Ultimately, Machuca Baldozas, Inc. is a living example of what it means to be a heritage brand, where success isn't just about profit, but also about passing down values, skills, and identity. Leadership here isn't just about being in charge; it's about taking care of something worth preserving so that future generations can inherit it with pride.

While the company is known for employing multiple generations of artisans within the same families, particularly fathers and sons, there is no confirmed case of a completely direct three-generation artisan lineage currently on record. As Jaime Machuca clarified, "We haven't come across a 3-Generation lineage of tile makers yet. It's plausible that it has occurred... but unfortunately we cannot currently definitively say that it has happened". This highlights the limitations of internal documentation but there is a possibility that it has occurred.

B. Arts and Heritage Management Practices

At the heart of Machuca Baldozas, Inc. is a deep commitment to heritage, not just in how its tiles look, but in how they're made. While many have turned to machines and mass production, Machuca has stayed true to the manual methods it started with more than a century ago. Each tile is still made by hand, using a process brought to the Philippines in the early 1900s and carefully passed down through generations. Jaime Machuca describes this commitment as a deliberate choice, "we try not to make drastic changes so just gradual changes. There's no full automation, most steps remain manual... that's by

design... because it results in an imperfect but good quality handmade tile (Appendix G).”

The manufacturing process is both technical and ritualistic: colored cement is mixed with water and hand-poured into ornate brass molds that are also made in-house, these are then pressed and air-cured for seven days. There is no firing or mechanized finishing. This low-impact, energy-efficient method emphasizes slow production, sustainability, and the human touch. The tiles carry visible traces of handcraft, which Mr. Jaime proudly defends:

In a handmade tile, all of the tiles we manufacture, they all have imperfections... We think and a lot of our clients think that's what gives them variety... just the right amount of imperfection that it gives you a charm (Appendix G).

This perspective challenges conventional assumptions about manufacturing “flaws.” In Machuca’s perspective, irregularity is not an error, it is a marker of authenticity, an aesthetic rooted in its handcrafted nature and so they deliberately preserve the “imperfections” that come with it.

Indeed, artisans are not secondary to the process, they are its stewards. Many of their artisans have worked with the company for decades, and some families have had multiple generations within the workforce. In the interview, Jaime Machuca believes that to keep their traditional tile-making methods alive:

Key here is keeping good long term employees or keeping the good tilemakers in the company. Kasi they're the ones who make the tiles and they also keep the quality standards and then you hire based on their referrals or people they trust also and those newly hired—the experienced staff will then train that new person (Appendix G).

As artisan Dominador Mayuyu, who has worked at Machuca Baldozas, Inc. since 1995, explained, “puro disiplina lang hanggang palinis nang palinis ang

gawa... tiyaga lang tsaka sipag. Meron kasing mga tao na di masyado magaling pero matiyaga siya... makukuha niya 'yun sa katagalan (Appendix H).” Another artisan, Luis Cabatbat, who joined since the 1960s reflected on the impact of his long career, “dito ko lahat napagtapos ang mga anak ko (Appendix H).”

This shows that at Machuca Baldozas, Inc., passing down knowledge isn’t just about technique, it’s also about values like patience and dedication. The long-standing relationships among workers help ensure consistency and care in every tile. Improvements don’t come from big changes, but from small, thoughtful adjustments, shared by experienced hands with those still learning the craft. As Mr. Jaime puts it:

The actual process of handmade tile improves little by little over time...what we just try to do on the management side is we try to focus on eliminating steps or we try to eliminate bad steps that results in bad quality tiles, it's like a process of elimination that's how you improve the tile (Appendix G).

Their training or mentorship, rooted in repetition and peer-led instruction, closely aligns with UNESCO’s concept of safeguarding Intangible Cultural Heritage. This includes not only preserving crafts but also nurturing the communities that sustain them.

The factory in Parañaque, where most production occurs, is not just a site of labor, it has a layout that generations of tilemakers have come to know by heart. As highlighted by Jaime Machuca in an interview with Business Inquirer (2017):

This is what we really pride ourselves in—handcrafted cement tiles. It’s really slow, it takes 10 minutes to make just one piece, but ever since, it’s always been like this. We’ve never changed the process; maybe fine-tuned some parts but generally it’s the same. (Tayao-Juego, 2017)

These refinements such as new molds, hydraulic presses, and improved finishes are incorporated only when they support, rather than replace, the handcrafted nature of the tile.

The company's archive, including its 1905 (sometimes referenced as 1914) catalog (Figure 15), continues to guide their production. These historical templates are frequently referenced for restoration work in churches. By preserving and using these patterns, Machuca contributes to Filipino heritage.

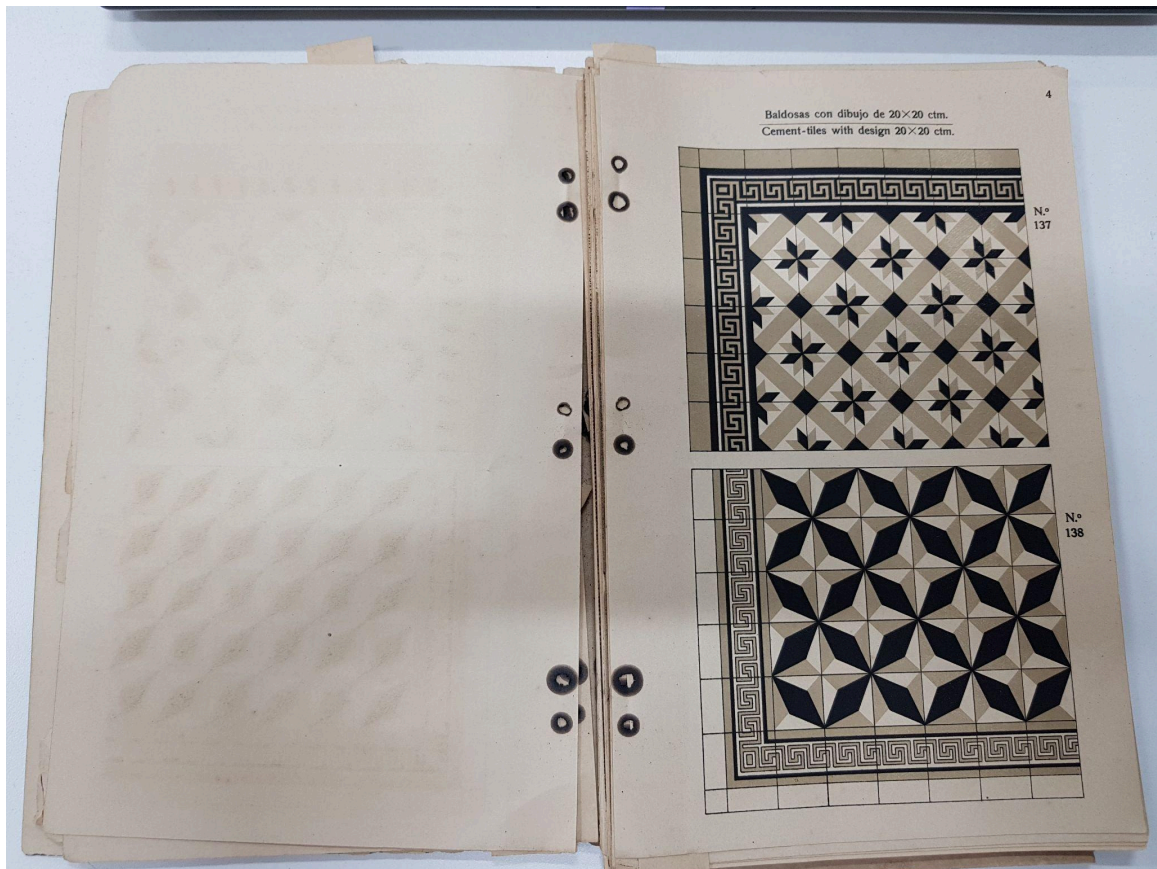


Figure 15. 1914 Catalog (Appendix B).
Note. From the Machuca Tile History.

Machuca Baldozas, Inc. embodies a layered approach to management:

- Manual integrity – preserving traditional, hands-on methods even amid technological advances.

- Artisan investment – nurturing generational craftsmanship and fostering long-term employee loyalty.
- Design fidelity – faithfully reviving historical tile patterns with precision and respect for tradition.
- Cultural custodianship – honoring historical legacy while adapting to contemporary demands.

This strategy shows how artisanal businesses can remain competitive in today's market by staying grounded in tradition while embracing evolution. In the interview, Jaime Machuca reflected on this balance:

We've grown a lot in terms of 'yung size ng company, in terms of the number of employees we have. We've evolved through having new products so we focus a lot on increasing the number of patterns we have, 'yung collections, 'yung size options. Also, we improve 'yung customer service and online presence. Of course also i-enhance 'yung product quality...during at least my time we switched from manual tile press to hydraulic tile press (Appendix G).

Through this blend of legacy and innovation, Machuca Baldozas continues to thrive.

C. Design, Customization, and Client Collaboration

Machuca Baldozas, Inc.'s design philosophy brings together heritage, personalization, and cultural meaning. With over a hundred years of history, the company doesn't just focus on how tiles look or work, instead they see design as a way to keep artistic traditions alive while still making room for modern creativity and custom ideas from clients.

The company has an extensive design catalog, which includes more than 250 patterns for patterned square tiles alone. They have ten tile categories (seen

in figure 16) with a starting price range of Php 50-160 per piece (see figure 18). They have what they call Jaspe Freehand Tiles “(pronounced HAHS-peh), where craftsmanship and creativity unite. Crafted without brass molds, each tile is a unique, free-hand creation. Resembling the natural beauty of jasper stone and the elegance of marble, these tiles feature subtle, marbled patterns that follow a general design yet remain distinctly individual (Machuca Tile website, n.d.).”

The tile sizes vary (see figure 17) with the biggest being a twelve-inch square tile which also happens to be the thickest being $\pm 25\text{mm}$.

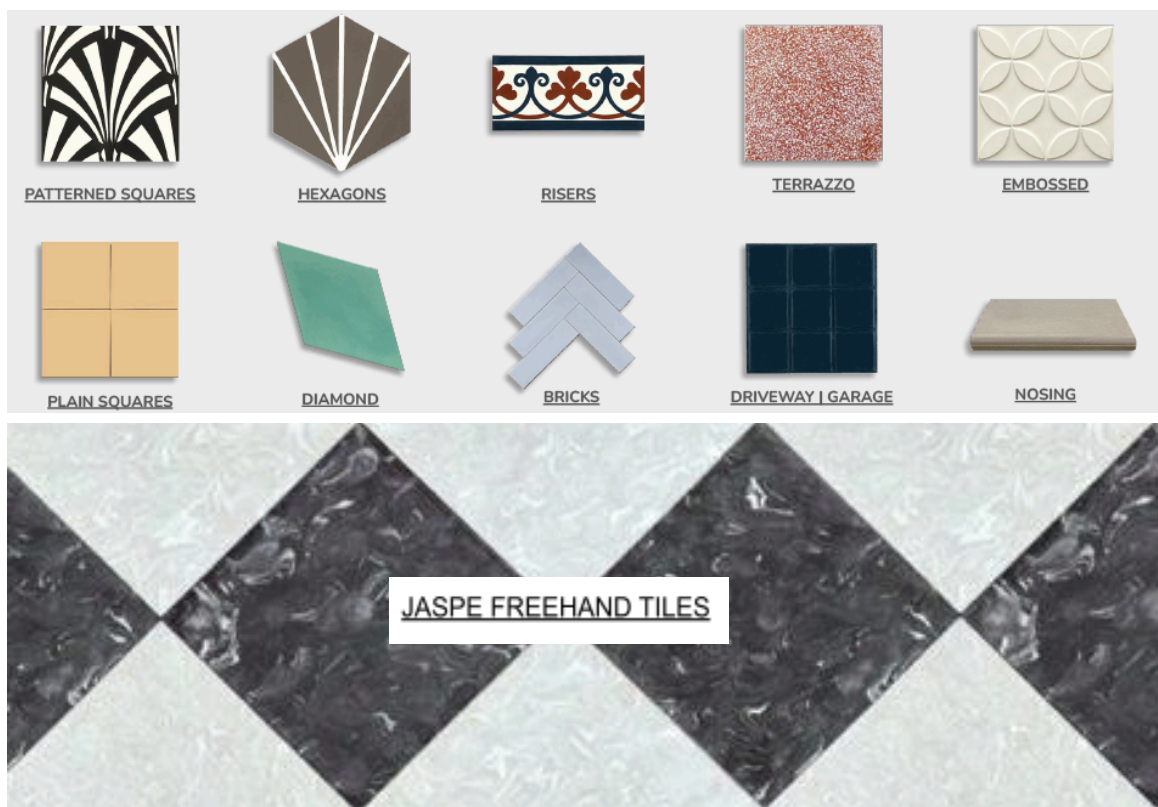


Figure 16. Tile Categories.

Note. Photo from *Guide to Shopping for Machuca tiles* (PDF document) and Machuca Tile website.









Size	Dimensions		Pieces per sqm	Thickness
	cm	inch		
 SQUARE	10 x 10	4 x 4	100	±19 mm
	15 x 15	6 x 6	45	±19 mm
	20 x 20	8 x 8	25	±19 mm
	30 x 30	12 x 12	12	±25 mm
 RISER 1	15 x 30	6 x 12	3.3 / LM	±19 mm
 BRICK	7 x 25	3 x 10	58	±19 mm
 HEXAGON	24 point to point	9.45 point to point	~30 to 35	±19 mm
 RISER 2	10 x 20	4 x 8	5 / LM	±19 mm
 DIAMOND 1	28.5 x 16.5 point to point	11.22 x 6.49 point to point	~43	±19 mm
 DIAMOND 2	19.8 x 11.5 point to point	7.8 x 4.53 point to point	~90	±19 mm
 NOSING	10 x 20	4 x 8	5 / LM	±19 mm

Figure 17. Tile Size Options.

Note. Photo from *Guide to Shopping for Machuca tiles* (PDF document).

TILE	PRICE
Patterned Square	starts at Php 110 / piece
Plain Square	starts at Php 100 / piece
Terrazzo	starts at Php 160 / piece
Riser	starts at Php 135 / piece
Nosing	starts at Php 100 / piece
Embossed	starts at Php 105 / piece
Hexagon	starts at Php 140 / piece
Diamond	starts at Php 50 / piece
Driveway	starts at Php 75 / piece
Brick	starts at Php 60 / piece

Figure 18. Tile Prices per Piece.

Note. Photo from *Guide to Shopping for Machuca tiles* (PDF document).

Among these, 83 are part of what they call “classic collection,” these are designs that can be traced back to the early 20th century. According to Jaime Machuca:

We even have a physical 1905 catalog book. The same patterns that were sold when the company started are still sold today. We call them our classic tiles or classic collection so they are Spanish or Mediterranean inspired patterns. And that's what we've become famous for or synonymous with (Appendix G).

These classic patterns include a wide array of floral, geometric, and ornamental motifs, many of which draw influence from Spanish Revival, Moorish, and Neoclassical architecture. Though they are inspired from European design, over time these motifs have become closely associated with Filipino built heritage. These patterned square tiles as well as the borders and risers are the focus of this study and the tile category utilized throughout Chapter Four. Additionally, Mr. Jaime explained that “there’s probably at least 70 patterns that are from the original catalog. Everything else is a new pattern within the last 20 years (Appendix G).” The Machucas’ ability to bridge legacy with modern aesthetic is evident in their modern tile collection which are mostly geometric.

Also, clients get the chance to co-design their tiles. Through consultations, they can select from the designs, customize color palettes, or even submit entirely new patterns. In the interview, Mr. Jaime explained that:

Clients, they choose from our in-house patterns or our in-house catalog... In addition to that you can change the color scheme in any of our patterned tiles... Aside from that we also accept custom patterns so if the client wants their own pattern they could send it to us and we can manufacture that (Appendix G).

Andrew Trinidad, an architect, also shared in a GMA Public Affairs feature (2023), “the good thing kasi with the baldoza is it’s flexible in terms of marami siyang design, it can be customized and over the years nag-ggrow yung kulay niya...nagkakaroon ng character.” This openness to collaboration makes Machuca Baldozas, Inc. a rare example of an artisanal manufacturing business that thrives through flexibility. Nowhere is this more visible than in the realm of restoration work. In such projects, Machuca recreates tiles for ancestral homes,

churches, or civic spaces using physical samples. Reproducing the exact hues and motifs requires technical skill. As Mr. Jaime said, “we just need one physical sample of an old tile just so we can recreate exactly the color... That’s probably the hardest part of that entire process, the color matching (Appendix G).”

This process of recovery is often highly emotional. Clients frequently approach Machuca with the intention of restoring a meaningful space from their grandparents’ house or ancestral home. Mr. Jaime recounted:

We hear this a lot... Sometimes we even purposely try to restore an old family house or ancestral house with the same tile so that’s like an extra layer of interesting kasi napapass ‘yung tiles through their own generations (Appendix G).”

In the context of heritage conservation, Machuca has partnered with architects and designers to contribute to nationally significant projects. A prime example is the collaboration for the 130th anniversary of the San Sebastian Basilica, where Machuca worked with Disenyo Lorenzo Interiors to create collectible trays and coasters featuring San Sebastian’s Machuca tile floors (Figure 19). According to Mr. Jaime, “we actually recommended Disenyo Lorenzo to San Sebastian because Ms. Macy Lorenzo is actually a client of ours... that’s why we collaborated with each other (Appendix G).”



Figure 19. Coasters, Trays and Prints by Disenyo Lorenzo, Giyusepi, San Sebastian, Machuca tiles.

Note. Photos from *San Sebastian Basilica Conservation and Development Foundation, Inc.* Facebook page.

D. Marketing, Visibility, and Customer Engagement

According to UNCTAD (United Nations Conference on Trade and Development), the creative industries are at the crossroads of the arts, culture, business, and technology. They are knowledge-based, labor-intensive, and have the potential for wealth and job creation through the generation and exploitation (monetization) of intellectual property. This supports Machuca Baldozas, Inc. as under the creative industries.

In the interview, Vice President Jaime Machuca described his role as “growing the business, whether through day-to-day strategies or long-term plans (Appendix G).” Over more than a century, Machuca Baldozas, Inc. has remained culturally visible and relevant by blending tradition-based branding with strategic modernization. While the company once relied on word-of-mouth, reputation, and its presence in heritage sites, more recent efforts which are led largely by the

fourth generation have focused on digital platforms and more interactive ways of connecting with customers.

Vice President Jaime Machuca, who leads sales, marketing, and operations, emphasized the importance of digital accessibility in reaching new audiences:

It's helped us so much it's been easier for people to search and find us through our website and access our gallery and products so people don't really need to visit us anymore in person, we deliver door to door. Searchability online is super important (Appendix G).

Central to this digital pivot is the Tile Simulator on the company website, an interactive tool that enables clients to visualize color combinations and patterns. As Mr. Jaime explained, “we have a tile simulator on our website. We intend to improve on it even more but right now it helps us a lot. That's where you can select the pattern and choose your color scheme (Appendix G).”

Social media platforms, particularly Facebook with 26K likes and 35K followers and Instagram with 36.5K followers, further strengthen the company's visibility. These channels serve as spaces for cross-promotion with architects, updates on installations, their media features from GMA Public Affairs and IJUANDer, and behind-the-scenes content. Mr. Jaime elaborated:

Cross promotion, with a lot of architects and interior designers, that helps us a lot with visibility. So anytime they post online about us, as much as possible we tend to reshare or we cross-post everything so that helps us with visibility (Appendix G).

With some architects including Gerard Lico and Roy de Guzman (church architect) sharing photos of their projects with Machuca as floor tiles and RDG Ecclesiastical Architecture even stated in a Facebook post (2020), “great

selection and recommended floor tile brand since 1900.” This visibility became especially important during the COVID-19 pandemic, which restricted physical visits and showroom access. Mr. Jaime shared on Pinoybuilder.ph (2021):

The Pandemic and the lockdowns affected the majority of non-essential businesses, including our own. A big challenge for us was the inability of the clients to check the tile designs in the showroom. Seeing it up-close makes a huge difference because you can only really see the quality of the tiles in person (Pinoy Builders, 2021).

In response, Machuca significantly enhanced its online presence, including website updates and streamlined communication channels. Mr. Jaime also shared on Pinoybuilder.ph (2021), “We pivoted heavily in online services. We redid and improved our website while simultaneously increasing the general quality of our digital presence (Pinoy Builders, 2021).” They also conducted their largest sale with 20% off for their in stock collection during COVID lockdown with free storage.

They utilized facebook stories and tradeshow with the booth showcasing the tile making process. They were in Manila FAME Tradeshow in Oct. 17-19 2024 at the World trade center. They were also in Interior Design Manila 2025 at the SMX Convention last March 6-8, 2025.

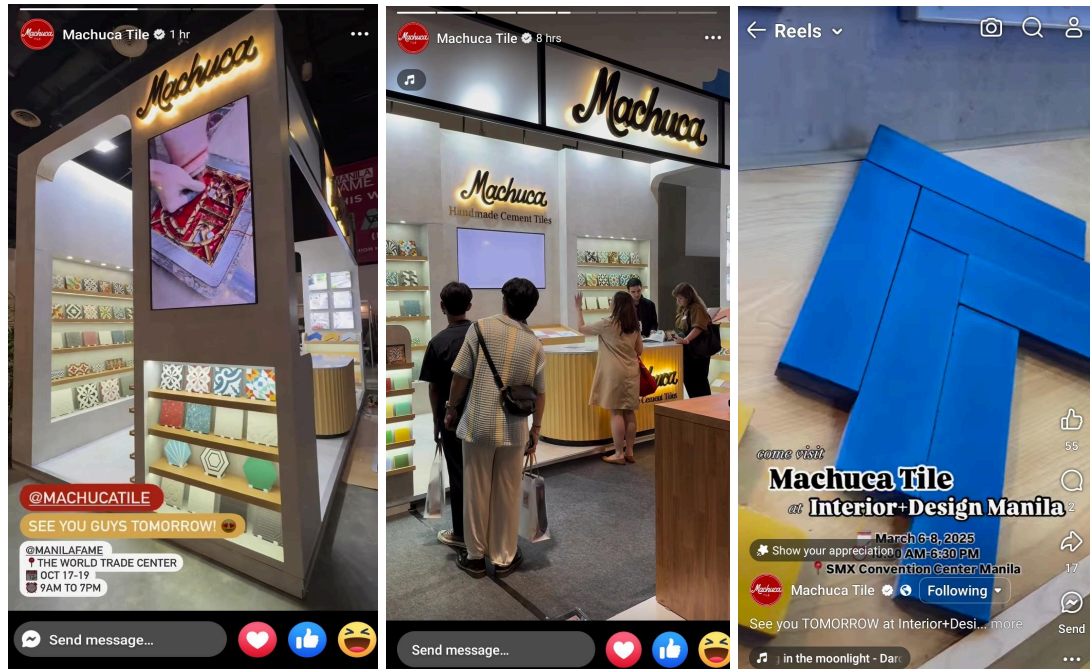


Figure 20. Facebook Stories of Trade Shows.
Note. Photos from Machuca Tile Facebook Stories.

In addition to its digital strategy, the company accommodates factory tours and live demonstrations for design students, heritage researchers, and select groups. Mr. Jaime confirmed, “we’re open to factory visits and demos really on a case to case basis but we’ve done it before whether it’s a group of interior designers or a group of students so ‘yun we’re open to the public (Appendix G).”

Their customer engagement also hinges on product exclusivity and craftsmanship. As Mr. Jaime shared in *Business Inquirer* (2017):

A lot of clients also like making custom-color combinations or patterns. And once we make a custom tile for someone, no one else can get it. We give them the pattern just to ensure to them that we won’t use it again. (Tayao-Juego, 2017)

This kind of personalization not only appeals to design-conscious clients but also reinforces the uniqueness of each tile, supporting the brand’s artisanal and heritage narrative. This relates to Product Strategy (5 Ps of Marketing)

wherein they offer handcrafted cement tiles using traditional Spanish and Filipino motifs. They have a Unique Selling Proposition (USP): Each tile is handcrafted using techniques unchanged since 1903, ensuring artistic quality and exclusivity. They also introduced customization for patterns and colors, even offering exclusive designs to individual clients.

Customer satisfaction remains a cornerstone of their public image. As one reviewer expressed, “the Machuca tiles we got for our Filipiniana home made all the difference in giving it the character it needed. Even more amazing was the service. Jaime was super accommodating and responsive.” (Facebook Review, 2021). Another is an exchange between TikTok users in a video of a customer showing his Machuca tiles wherein a user asked, “ano advantage ng machuca compare sa common porcelain or ceramic tiles?” and a user replied, “ung quality maganda tas para sa mga nkaka appreciate ng handcrafted things tsak ikaw masusunod sa design.”

In the interview, Jaime Machuca discussed the business strategies that helped them maintain market relevance:

Listen and adapt to market trends so there was a point in our company's life between the second and third generation Machuca where instead of handmade cement tiles they actually focused on terrazzo. There were a lot of government building projects that we've done before where we've done either terrazzo tile format or poured in place terrazzo meaning the terrazzo was poured onto the site itself so there was that time and then eventually the trend changed instead of terrazzo it came back to handmade cement tile. If you go back around 40 years ago in terms of handmade cement tiles there's also a time where the trend was plain tiles instead of patterned so plain tiles were very trendy and then eventually handmade tiles took over. That's what we're doing now. So adapting to market trends I think is the biggest key.

Next is strong brand identity and consistent quality. Last one is staying open even through adversity so my mom has a lot of stories where during the early 2000s where demand was not that great for the products we were manufacturing, thank God that she decided to keep the company open. There were even points where the company would only be open for three to four days a week just to keep it alive and it's good that she did that 'cause eventually the trend changes and it comes back. We owe it to her and the previous generations for keeping the company alive (Appendix G).

Machuca Baldozas, Inc. represents a hybrid marketing approach that bridges tradition and innovation. By combining digital platforms, and community engagement the company stays relevant as a living cultural brand. This strategy helps ensure that heritage isn't just preserved, but actively experienced and reimagined by new generations.

E. Sustainability Strategies and Business Innovation

Sustainability at Machuca Baldozas, Inc. goes beyond being eco-friendly, it's about keeping traditions alive while staying responsive to today's needs. For over four generations, the company has balanced cultural preservation with innovation, blending artisanal craftsmanship with thoughtful business strategies that adapt to changing times.

1. Environmental sustainability. Machuca tiles' ecological approach stems from its traditional tile-making process, which avoids the kiln-firing common in industrial ceramic tile production. Instead, their tiles are naturally cured, minimizing energy use and emissions. The company also emphasizes resource efficiency throughout production. As detailed on their website, tiles are made from "recycled rejects" with overruns and defective pieces crushed back into sand and reused in new batches. Other sustainable practices include

rainwater harvesting and partial solar power integration at their Parañaque factory.

This methodical process reflects an internal value system grounded in slow production and conservation. As noted by Luis Machuca in an interview with GMA Public Affairs (2023), “we did not veer off kung ano po yung original... we only enhanced it to make a better product. Hindi po namin tinatangal yung element ng handmade product.”

2. Client-driven product innovation. Machuca Baldozas, Inc.’s expansion strategy is notably guided by customer feedback rather than external market trends. One of the clearest examples is the addition of terrazzo tiles, developed in response to client requests. As Jaime Machuca explained:

What I think is number one is commitment to craftsmanship and quality. And also adapting to trends so we focus on whatever the market reacts to so uh if the market seems to want terrazzo that's what we try to focus on, we try to give them more options such as different sizes. If they want colorful or uh fun looking patterned tiles that's what we focus on naman we launch new collections based on that. So we just really listen to the market so that's adapting to market trends. I think those are the main ones in terms of commitment and adapting to trends (Appendix G).

The launch of tile sealing and cleaning services also stemmed from demand-driven consultations. Mr. Jaime affirmed, “usually when we create a new tile line or launch a service, it’s because someone asked for it. It really comes from listening to our clients, architects, and the people who restore heritage buildings (Appendix G).” Client preferences may also be influenced by factors such as religious symbolism, aesthetic appeal, or the desire to complement existing architecture, guiding the company’s tile design and service offerings.

3. Sustaining through heritage. Their innovations are never detached from its artisanal values. Changes are introduced incrementally and thoughtfully, as part of a long-term commitment to preserve what makes their product distinctive. Mr. Jaime explained that “most steps remain manual... we want it built that way because it results in an imperfect but good quality handmade tile (Appendix G),” emphasizing the company’s choice to retain manual processes to preserve the charm and uniqueness of their products.

F. Challenges in Managing an Artisanal Manufacturing Business

Machuca Baldozas, Inc. stands as a rare example of an artisanal manufacturing business that has persisted through colonial transitions, war, industrial modernization, and digital transformation. Yet beneath the success story lies a fragile ecosystem of craftsmanship, family stewardship, and labor, all of which are under continuous pressure from economic forces, shifting consumer behavior, and internal succession complexities. As a business deeply rooted in the manual, and the traditional, Machuca must constantly navigate the tensions between preservation and adaptation.

1. Competition from imported imitations and mass production. One of the most pressing challenges Machuca faces is the influx of cheaper, mass-produced cement tiles from abroad, especially from Southeast Asia and China. While these products mimic the aesthetic of Machuca tiles, they do not carry the same artisanal provenance or durability. Yet for many price-sensitive consumers, the distinction is not immediately visible. This was supported by Jaime Machuca, Business Inquirer (2017), “locally, we are the cheapest, and

there are only three manufacturers who make these kinds of tiles. In Southeast Asia, though, there are lots of big companies, [which are] very cheap. So [we're] trying to compete with them.” (Tayao-Juego, 2017)

He also noted that “coming up against imported products that try to mimic...pushes us to improve our quality, to just be better all around (Appendix G).” In a globalized market, businesses like Machuca must take on the responsibility of not only innovating but also educating clients, architects, and designers about the deeper value of these tiles, the craftsmanship, history, and process behind them, not just the aesthetic patterns.

2. Rising costs of materials and operational fragility. The traditional manufacturing process that Machuca adheres to is not just labor-intensive, it is also sensitive to fluctuations in supply chains and materials. The fine sand, portland cement, iron oxide pigments, and brass required for production have become increasingly expensive over the past decade.

Their refusal to cut corners or mechanize means that it must absorb these increases without significantly compromising quality. This creates a delicate balance: pricing must reflect the cost of production, but remain competitive. Tile-making is also slow, tiles need to cure for days so Machuca cannot produce in massive volumes, limiting their flexibility in fulfilling urgent or large-scale orders.

3. Succession and leadership continuity. As a fourth-generation artisanal manufacturing business, Machuca Baldozas, Inc. must also plan for leadership succession, not only in terms of administrative capability, but in

interest. Jaime Machuca emphasized the importance of genuine interest in the next generation:

There has to be inherent interest from younger generations kasi if there's no interest there I don't think this is gonna survive if the younger isn't really interested in what the company is about and what they're doing. Lastly, balancing respect for legacy with new ideas so that means as the new generation you shouldn't always make drastic changes, take a bit of time also to hear out what the older generation has to say so use their experience as leverage (Appendix G).

Succession, in the case of Machuca, is not automatic. It requires immersive exposure, commitment, and entrepreneurial skill. Mr. Jaime himself did not inherit the company by default; he worked his way up alongside the artisans, slowly integrating marketing, design, and operations. This issue is not unique to Machuca. Many family-run artisanal manufacturing businesses in the Philippines struggle to identify successors who are not only capable but passionate. In the absence of this, businesses either sell to external investors, risking dilution of vision or slowly fade into the picture. In the interview, Mr. Jaime advised:

Protect your brand legacy and I think — only because this was taught to me by our mom and previous generations is that the name is everything so your reputation is everything. It's super important to keep your clients happy because if they're happy sila mismo they're going to spread the word about your company and your products. In order for them to be happy though you have to make sure that the quality of the product and services is of good quality 'cause otherwise there's nothing to talk about. If they're not happy then no one's gonna reorder so it's important to focus on the quality of your product and your service. Don't be afraid to modernize slow, sometimes you make too many drastic changes too quickly you lose your identity and that's where lots of mistakes can happen (Appendix G).

G. Cultural and National Identity in Business

Machuca tiles are not merely floor coverings or decorative elements, they are cultural symbols embedded in the architectural memory of the Philippines. Through their presence in 86 Roman Catholic churches (see Table 1), ancestral homes, and civic buildings such as the Liliw Municipal Hall lobby, Museum of Philippine Economic History in Iloilo City, Paseo de Paoay of Ilocos Norte, their assortment of tiles laid at the entrance of the Center for Kapampangan Studies at Holy Angel University in Pampanga and many more across the country, Machuca tiles have come to represent a unique fusion of Spanish colonial aesthetics and Filipino craftsmanship. In doing so, they participate in the construction of national identity, acting as tangible expressions of Filipino heritage and visual culture. In the interview, Jaime Machuca shared:

We see ourselves as part of a movement that values handmade cultural identity. We see ourselves as a heritage company. Yeah I think we also pride ourselves in being a Filipino company and all of our artisans and all of our employees they are also Filipino in that sense we are able to support the Filipino community and their families. We actually encourage our clients to come visit our factory to see and it simply gives them appreciation of the effort that goes into creating each tile (Appendix G).

Artisan Dominador Mayuyu shared how proud he feels when seeing his work in heritage spaces, “sa totoo lang proud ako ‘pag nakikita ko na nasa simbahan gawa ko (Appendix H).” Luis Cabatbat, another artisan, said, “maganda! Sa tingin ko napakaganda... Proud ako, lalo na kapag nakikita yan ng mga nagsisimba (Appendix H).”

1. From Spanish influence to Filipino icon. Although originally inspired by Spanish-Mediterranean designs, the widespread adoption and reinterpretation of Machuca tile patterns in local settings transformed these tiles into something uniquely Filipino. As seen in archival materials, Machuca's early 20th-century designs included floral, geometric, and Moorish motifs. These patterns were adapted over time, especially in religious architecture, and became integral to Filipino visual identity.

The transformation of Machuca tiles from colonial import to national icon is reflected in their use across key cultural landmarks, most notably the San Sebastian Basilica in Manila, the *Nuestra Señora de la Asunción* Church in Ilocos Sur, and private heritage homes in cities like Vigan. In the interview, Jaime Machuca noted:

Actually 'yung Spanish-inspired patterns they almost become Filipino just because of how long they've been around and obviously since we manufacture and distribute here in the Philippines our patterned tiles have become synonymous with Filipino homes like they get installed in Filipino homes so even though they are Spanish-inspired I think overtime naadapt na rin siya as Filipino (Appendix G).

This phenomenon echoes what Fernando Zialcita argues in *Authentic Though Not Exotic*, a book he frames as “a defense of Philippine lowland Christian culture” against charges that it is merely “bastardized,” “mongrel,” or “derivative.” Zialcita identifies a central dilemma in Filipino cultural self-perception, asking:

Why do lowland Christian Filipinos experience unease when reflecting on their Hispanized heritage? How has this unease been fed by current ways of reading history and culture? What might be an alternative way to read history and culture? (Zialcita, 2005).

He contends that much of this discomfort stems from the realization that many Filipino cultural elements, including visual, architectural, and decorative traditions, “originate from someplace else, specifically, Spain.” This, he argues, is intensified by the “outside gaze” that questions the “Asian authenticity” of Filipino identity.

Zialcita rejects these reductionist and binary ways of interpreting culture, such as “colonial versus indigenous” or “Asian versus Western.” Instead, he champions the view that Filipino culture is inherently mestizo, a blended, fused tradition worthy of pride and scholarly attention:

[Zialcita] builds a strong argument that depicts Philippine lowland Christian culture as no less worthy of study and admiration as that of the Javanese, Balinese, Japanese, Mexican, or the French (Santamaria, 2007).

With this, we can establish a strong Filipino identity and not just rely on the paradox of ‘true’ Filipinos. Because the identity of Filipinos is not a mixture of conflicting influences from other cultures, rather a mixture of biological inherited traits (features) and the eclectic mix of borrowed, shared, and adapted Western and Southeast Asian cultures (Ceron, n.d.).

In this light, the evolution of Machuca tiles, foreign in origin but naturalized through time, use, and cultural adaptation, illustrates a broader pattern of Filipino identity formation. One that embraces hybridity without shame and asserts its authenticity without needing to be “exotic.”

An example would be the Banáan Pangasinan Provincial Museum which manifests a solid foundation of Pangasinan’s valuable cultural heritage. This museum serves as a doorway to the past that preserves the historical, cultural,

and artistic treasures that have shaped the identity of the people. It is housed in the historic Casa Real, located in Lingayen (See Pangasinan, 2023). The museum logo features a custom Machuca tile closely resembling tile no. 218 and has been installed in the Casa Real for decades. According to their Culture and Arts Officer III, Nathaniel Daroy:

Banaan is a Pangasinan word which means "meeting place" or place of convergence kasi the story that we would like to tell in our museum is that Pangasinan is a meeting place or a convergence of various cultures and influences...such as the Spanish colonial period...Kung makikita mo ito yung Machuca tiles. Ito yung mga original tiles na ginamit dito sa ating museum o dito sa Casa Real. These are century-old kaya ito rin 'yung naging inspiration ng ating museum logo...nung nirestore itong ating Casa Real iningatan po ito at tsaka ibinalik 'yung mga pwede pa...but since yung iba ay hindi na kayang sakupin or malagyan yung ibang rooms natin dito sa ground floor we had them reproduced (Regional News Group, 2023).

This shows that Machuca tiles are more than just decoration, they've become part of how we tell the story of being Filipino. Even though their designs are Spanish-inspired, the way they've been used, adapted, and preserved over time in churches, homes, and museums shows how Filipinos have made them their own. They reflect a culture that's shaped by many influences, but proudly and uniquely Filipino.



BANÁAN

Pangasinan Provincial Museum



Figure 21. Banaan Museum with a Machuca tile as Logo.
Note. Photo from See Pangasinan website.

2. A vessel of historical continuity. The story of Machuca tiles is about craft, legacy, and cultural resilience. For over a century, the company has maintained a continuity that's rare in design: producing handcrafted cement tiles using methods rooted in tradition yet responsive to change. Even in 1914, the company declared, “we have entirely avoided reproducing models of other local factories so that the public could choose among a wider range” (1914 Catalog, English Translation, Appendix A).

While proudly original, Machuca also welcomed global inspiration. The catalog noted they had “incorporated the latest creations taken mostly from the best factories in Europe and America” and emphasized that their designs remained “a complete novelty in the Philippines.”

At the time, the company had recently restructured, taking on the name *J. Machuca y Compañía* in 1913. Their facilities included a factory and showroom on Balmes Street in the Tanduay area of Quiapo, Manila which is now known as Nepomuceno street. This location was strategically situated near key cultural landmarks such as the San Sebastian Basilica, the only all-steel church in Asia; and the Bahay Nakpil-Bautista, a historic residence built in 1914 that housed prominent Filipino figures. The area was also accessible to a wide range of clientele, making it ideal for both commercial visibility and community engagement. The site housed their electric-powered hydraulic presses, a tile exhibit, and administrative offices.



Figure 22. Old Factory in Tanduay (Appendix C).
Note. Photo from the Machuca Tile History.

However, this original Tanduay factory and showroom would not survive indefinitely. During World War II, the area suffered from bombing and urban destruction, and the factory was either damaged or became increasingly impractical to operate from in the postwar years. Additionally, as demand for decorative and architectural tiles surged in the postwar reconstruction and modernization era, space constraints in Quiapo became a problem.

By the early 1960s, Machuca Tile made a strategic move: they constructed a much larger factory in Parañaque to accommodate growing production needs and newer machinery. This modern facility allowed the company to scale up operations without sacrificing the handcrafted quality of their tiles.

At the same time, their administrative offices and heritage showroom were relocated to General Solano Street in San Miguel, Manila, a neighborhood near Malacañang Palace. This shift not only marked a logistical upgrade, but also symbolized the company's heritage status. The Solano site became the public face of Machuca: a place where clients could view tile collections in a setting that reflected the company's Spanish-Filipino legacy.

The company's third-generation leader, Luis Machuca y Arrieta (1928–1999), oversaw this transition. Under his guidance, Machuca Tile expanded into producing artificial stone, fountains, mausoleums, and architectural ornamentation. Their client list grew to include elite families and government offices. The company's heritage was formally protected in 1982, when the Philippine Supreme Court ruled in favor of Machuca Tile, affirming its claim as the country's original mosaic tile maker.

Today, the fourth generation, Luis Machuca y Punzalan and Jaime Machuca, continues the work. The showroom remains in San Miguel; the factory, still in Parañaque. The two sites together tell a story of tradition and adaptation, of resilience through war, colonization, dictatorship, and democracy. Machuca tiles are not just surfaces; they're markers of history and memory. In a fast-changing world, they remain a quiet but powerful reminder of the beauty of continuity.

3. National recognition and the “Machuca Tile.” Interestingly, the term “Machuca tile” has entered the national lexicon that's used colloquially to describe any colorful patterned cement tile. This semiotic shift is significant. It suggests that “Machuca” is no longer just a brand, it is a cultural shorthand for heritage, craftsmanship, and Filipino-Spanish identity. In Jaime Machuca’s interview with Spot.ph (2022):

There's actually a common misconception that all patterned tiles are equivalent to Machuca tiles but in reality we're the only source and manufacturer of authentic Machuca tiles, our history and expertise in this field have made this one of the most reliable sources of patterned cement tiles since 1900 (Spot.ph. 2022).

There is evidence of this misconception in social media such as a post from Kalayaan Tiles with a Facebook user commenting, “Canvass po sana po ako kung magkano po ang 30 x 30cm machuca tiles po.” Others are selling patterned tiles which explicitly state that these are Machuca tiles and these stores are located in Meycauayan, Quezon city, Valenzuela, Bacoor, and Cebu. The tiles they sell are printed, ceramic, glossy, and don't match any tile patterns from Machuca Baldozas, Inc. These can't be custom designs either because custom patterns are not resold to other clients. This is supported by Mr. Jaime Machuca stating that:

We can manufacture custom patterns and custom colour schemes, each style is genuinely handmade piece by piece for every machuca tile order, you support our local artisans and help preserve this art form, you can be assured that each tile carries with it a rich history and is thoughtfully made just for you (Spot.ph, 2022).

Cement tiles, often seen as ordinary objects, are actually powerful symbols of aesthetics, history, and national pride in the case of Machuca tiles, crafted tile by tile, house by house, over generations.

At the same time, this reveals that Machuca Baldozas, Inc. has sustained its operations by successfully aligning its heritage with adaptive business strategies. Through customized product offerings, strategic branding, artisan mentorship, and client engagement, Machuca has navigated competition and operational challenges while reinforcing its status as a cultural icon. This combination of cultural preservation and business innovation makes Machuca a model for managing artisanal businesses.

Chapter 4: Machuca Tiles in Philippine Heritage Churches

This chapter presents data of Machuca tiles in eighty-six (86) Roman Catholic heritage churches across the Philippines. These tiles, which adorn sacred spaces ranging from UNESCO-listed Baroque churches to nationally and locally recognized ecclesiastical structures, reflect their significant role in Filipino religious and cultural identity. Through archival research, visual inspections, and iconographic study, the chapter explores how Machuca tiles have been integrated into these sacred spaces, reinforcing their importance in the country's religious and built heritage. This study deepens the understanding of Machuca tiles, not only as craft products but also as elements of cultural memory and identity within ecclesiastical heritage.

The data is organized into three components. First, a nationwide mapping and classification is used to create a visual and tabular database, documenting each church's geographic location, heritage status, tile patterns, motifs, color schemes, and placement within liturgical architecture (e.g., naves, altars, risers, cloisters). This approach allows for the geographic distribution of Machuca tiles to be clearly visualized across the country. By utilizing data from church visits, social media pages, and the NHCP and PRECUP databases, this mapping also situates the tiles within various heritage classifications, offering insight into their national significance.

Second, the chapter provides twenty (20) profiles of selected Roman Catholic churches. These profiles are examined for an iconographic study, which explores how Machuca tiles contribute to religious expression, the preservation

of cultural heritage, and the integration of handcrafted design in sacred architecture.

Lastly, the chapter focuses on five (5) heritage churches located in different districts of Manila, each with significant historical and architectural significance. These churches offer a focused study on Manila's ecclesiastical network, highlighting shared tile patterns and parish connections. The study illustrates how Machuca tiles acted as a visual and cultural link, connecting churches within the city's religious and architectural heritage.

By establishing the historical and cultural significance of Machuca tile usage, Chapter Four justifies the argument that Machuca tiles are deeply embedded in Philippine heritage through these heritage churches.

Table 1.

List of Philippine Roman Catholic Heritage Churches with Machuca tiles

Church Name	Location	Year ¹ Built/ Rebuilt	Architectural Style	Heritage Status	Tile Patterns ²	Tile Placement	Commissioning Party
National Shrine of Our Lady of the Abandoned	Santa Ana, Manila, NCR	1725	Baroque	National Cultural Treasure (2008), PRECUP Registered Property	098, 058 Border, 056 w/ Border & 091 w/ Border, Chinese Ming Dynasty Tiles	Central nave (1972 or earlier), Seating area, Camarin	
Minor Basilica of San Sebastian	Quiapo, Manila, NCR	1891	Neo-Gothic Revival	National Cultural Treasure (2011), National Historical Landmark (1973)	056 w/ Border	Central nave	
Archdiocesan Shrine of Our Lady of Peñafrancia	Pandacan, Manila, NCR	≈2000	Contemporary	Marked Structure, NHCP (1979); PRECUP Registered Property	091 w/ 096 border	Altar	FR. Herbert Camacho (2023)
Archdiocesan Shrine of Nuestra Señora de Guia	Ermita, Manila, NCR	1947	Post-war modernism with Art Deco influences	Marked Structure, NHCP (1971); PRECUP Registered Property	091, 096 Border	Central nave, altar	
Benedictine Abbey of Our Lady of Montserrat	San Miguel, Manila, NCR	1926	Neo-gothic exterior, Neo-baroque interior	Marked Structure, NHCP (1939)	067 w/ border, 068 w/ border, 059	Abbey Porter, Monk cloister	
Diocesan Shrine and Parish of Our Lady of the Abandoned	Marikina, NCR	1690	Baroque	Marked Structure, NHCP (1990)	067 w/ border, 097	Nave, Altar	Ast Industrial Services & General Merchandise (2023)
National Shrine of Our Lady of Lourdes	Quezon City, NCR	1951	Post-war Modernism with Romanesque influences	PRECUP Registered Property	072, 070 Border, 053, 056 Border	Nave	
San Bartolome Parish Church	Malabon, NCR	1861	Neo-Classical with Greco-Roman influences	Important Cultural Property (2015), PRECUP Registered Property	069 w/ border	Central nave	
Church of Nuestra Señora de la Asunción	Santa Maria, Ilocos Sur, Region I	1765	Baroque	UNESCO World Heritage Site (1993, Baroque Churches of the Philippines), National Cultural Treasure (2014)	055, 071, 052 w/ border	Nave, Altar (1987 or earlier)	
Metropolitan Cathedral of the Conversion of St. Paul the Apostle	Vigan, Ilocos Sur, Region I	1800	Baroque	UNESCO World Heritage Inscription: 1999 (Historic Town of Vigan), PRECUP Registered Property	059, 069 w/ border	Nave	

¹ years indicated are the latest year built/rebuilt or significantly renovated² includes Machuca Baldozas, Inc.'s patterned square tiles, borders and risers

Church Name	Location	Year Built/ Rebuilt	Architectural Style	Heritage Status	Tile Patterns	Tile Placement	Commissioning Party
San Agustin Church	Paoay, Ilocos Norte, Region I	1710	Baroque	UNESCO World Heritage Site (1993, Baroque Churches of the Philippines), National Cultural Treasure (1973)	Custom	Central nave, Narthex	
Parish Church of Saint Andrew the Apostle	Bacarra, Ilocos Norte, Region I	≈1850	Baroque	National Cultural Treasure (1973), National Historical Landmark	059 w/ border, 055	Nave	
Parish Church of Saint Anne	Piddig, Ilocos Norte, Region I	1770	Baroque	Classified Historic Structures (1991)	057 w/ border	Central nave, Altar	
Parish Church of San Vicente Ferrer	San Vicente, Ilocos Sur, Region I	1795	Baroque	Classified Historic Structures (1991)	Border 057 w/ border, 075, 067	Nave, Altar	
Parish Church of Santa Catalina	Santa Catalina, Ilocos Sur, Region I	1795	Baroque	Classified Historic Structures (1991), PRECUP Registered Property	007 Border, 078	Central nave	
Parish Church of Saint James the Greater	Santiago, Ilocos Sur, Region I	1883	Baroque with Neo-Classical	Classified Historic Structures (1991)	059, 105, Border 060	Nave	
Parish Church of Saint Augustine	Tagudin, Ilocos Sur, Region I	1832	Baroque	Classified Historic Structures (1991), PRECUP Registered Property	091 w/ border, 053	Altar	
Parish Church of Saints Peter and Paul	Bauang, La Union, Region I	1990	Neo-Classical	Classified Historic Structures (1991), PRECUP Registered Property	217	Central nave	
Parish Church of Santa Catalina de Alejandria, Shrine of Our Lady of Namacpacan	Luna, La Union, Region I	1872	Baroque	National Cultural Treasure (2001)	055 w/ border	Central nave (1987 or earlier)	
Parish Church of Saint Dominic de Guzman	San Carlos, Pangasinan, Region I	1890	Baroque	Marked Structure, NHI (1989)	075 w/ border	Central nave	
Saint Christopher Parish Church	Bangar, La Union, Region I	1727	Baroque	Classified Historic Structures (1991)	067 w/ border	Central nave (1987 or earlier)	
Saint Catherine of Alexandria Parish Church (Santa Catalina Virgen y Martir)	Santa, Ilocos Sur, Region I	post-1905	Baroque	Classified Historic Structures (1991)	053, 065 w/ border, 068 w/ border	Central nave, Altar (1987 or earlier)	
Parish Church of San Matias	Tumauini, Isabela, Region II	1805	Baroque	Tentative List of UNESCO World Heritage Sites, National Historical Landmark (1989), National Cultural Treasure (2001)	Riser 020, 084, 087, 086, 050 w/ border	Altar	
Parish Church of San Jose de Ivana	Ivana, Batanes, Region II	2001	Baroque	National Historical Landmark (2008)	087 w/ border	Central nave	
Saint Peter Metropolitan Cathedral	Tuguegarao, Cagayan, Region II	1767	Baroque	Marked Structure (1982)	Riser 011	Altar	
Cathedral of Saint Augustine	Iba, Zambales, Region III	1703	Baroque	Classified Historic Structures (1991)	054 w/ border, 051, 062 w/ border	Nave, Altar	
Parish Church of Our Lady of Mount Carmel of Barasoain	Malolos, Bulacan, Region III	1885	Neo-Classical	National Historical Landmark (1973), Marked Structure (1940)	163, 007 Border	Central nave, Altar	

Church Name	Location	Year Built/ Rebuilt	Architectural Style	Heritage Status	Tile Patterns	Tile Placement	Commissioning Party
National Shrine of Our Lady of the Immaculate Conception of Salambao	Obando, Bulacan, Region III	1947	Baroque	Marked Structure (1984)	051 w/ border	Central nave, Altar	Fr. Pros Espiritu (2022)
Cathedral Basilica of the Immaculate Conception	Malolos, Bulacan, Region III	1936	Baroque with Neo-Classical	Marked Structure NHI (1977), NHCP (2022)	051 w/ border	Adoration chapel: Central nave, Altar	Leimahn Devt. Corp. (2023)
St. Elizabeth of Hungary Parish	Santa Isabel, Bulacan, Region III	1865	Neo-gothic and Baroque	Classified Historic Structures (1991)	051 w/ border	Altar	
Diocesan Shrine and Parish of San Miguel Arcangel	San Miguel, Bulacan, Region III	1948	Baroque	Classified Historic Structures (1991); PRECUP Registered Property; Marked Structure, NHCP (2018)	067 w/ border	Seating area	
St. Francis of Assisi Parish Church	Meycauayan, Bulacan, Region III	1668	Baroque	PRECUP Registered Property; Marked Structure, NHCP (1939)	069, 067 w/ border	Central nave, Altar	
Parish of St. Lawrence, Deacon and Martyr Church	Balagtas, Bulacan, Region III	1898	Baroque	Classified Historic Structures (1991), PRECUP Registered Property	087 w/ border	Central nave, Narthex, Altar	
National Shrine & Parish of St. Anne	Hagonoy, Bulacan, Region III	1963	Baroque	PRECUP Registered Property; Marked Structure, NHCP (1981)	065 w/ border, 067 w/ border	Central nave, Transept (2021)	
Parish Church of San Juan Bautista	Calumpit, Bulacan, Region III	1829	Baroque	Classified Historic Structures (1991); PRECUP Registered Property; Marked Structure, NHCP (2019)	061 Border, 094, 085	Central nave, Altar	
Parish Church of San Isidro Labrador	Pulilan, Bulacan, Region III	1888	Baroque	Classified Historic Structures (1991); PRECUP Registered Property; Marked Structure, NHCP (2021)	087 w/ border, 097	Narthex, Nave	
Parish Church of Nuestra Senora del Pilar	Morong, Bataan, Region III	1607	Baroque	Classified Historic Structures (1991)	Custom	Central nave (2022)	
Diocesan Shrine and Parish of St. Mary Magdalene	Imatong, Pililla, Rizal, Region IV-A	1848	Baroque	Marked Structure NHI (1977)	067 w/ border	Central nave	
Diocesan Shrine and Parish of Our Lady of Light	San Andres, Cainta, Rizal, Region IV-A	1966	Baroque	Marked Structure, NHCP (2007); PRECUP Registered Property	035, 067 Border, Riser 020	Central nave, Altar (2017)	
Parish Church of Santa Ursula	Libid, Binangonan, Rizal, Region IV-A	1800	Baroque	Classified Historic Structures (1991); PRECUP Registered Property; Marked Structure, NHCP (2021)	068 w/ border	Central nave	
Diocesan Shrine and Parish of St. Clement	Angono, Rizal, Region IV-A	1937	Modern colonial revival	Classified Historic Structures (1991)	051 w/ border, 082, Riser 011	Aisles, Altar (2022)	

Church Name	Location	Year Built/ Rebuilt	Architectural Style	Heritage Status	Tile Patterns	Tile Placement	Commissioning Party
Church of St. Francis of Assisi, Shrine of Santo Cristo de Burgos	Sariaya, Quezon, Region IV-A	1748	Baroque	Marked Structure, NHCP (1938)	217	Nave, Narthex	
Parish Church of the Immaculate Conception	Catanauan, Quezon, Region IV-A	1855	Baroque	Classified Historic Structures (1991)	068	Central nave	
Saint Gregory the Great Parish Church	Majayjay, Laguna, Region IV-A	1912	Romanesque	National Cultural Treasure (2001), Marked Structure (1971 & 1993)	087 w/ border, Riser 025	Altar	
Diocesan Shrine & Parish of St. John the Baptist	Calamba, Laguna, Region IV-A	≈1950	Baroque	National Historical Landmark (1960)	053 w/ border	Central nave, Seating area	
Parish of St. John the Baptist of Longos	Kalayaan, Laguna, Region IV-A	1664	Baroque	Classified Historic Structures (1991)	051 w/ border	Central nave, Altar	Rev. Fr. Christian Abao (2024)
Saint Bartholomew the Apostle Parish Church	Nagcarlan, Laguna, Region IV-A	1845	Baroque	Marked Structure, NHCP (1937)	084 w/ border, 087 w/ border, Riser 021, 020	Nave, Altar (2016)	
Our Lady of the Pillar Parish Church	Alaminos, Laguna, Region IV-A	1960	Baroque exterior, Modern interior	Classified Historic Structures (1991), PRECUP Registered Property	060 w/ border	Central nave	
Parish Church of Saint Mark the Evangelist of Pangil	Balian, Laguna, Region IV-A	1751	Baroque	Classified Historic Structures (1991)	095, 068 Border	Nave	
Church of St. Augustine	Bay, Laguna, Region IV-A	1953	Baroque	Marked Structure, NHI (1985)	097, 067 w/ border	Central nave, Altar, Narthex	
Parish Church of Saint Polycarp Bishop and Martyr	Cabuyao, Laguna, Region IV-A	1972	Baroque	Classified Historic Structures (1991), PRECUP Registered Property	087, Riser 025	Altar	
Cathedral of Our Lady of the Pillar	Imus, Cavite, Region IV-A	1840	Baroque	Marked Structure, NHCP (2006); PRECUP Registered Property	068 w/ border	Central nave	Vitreartus Liturgical Arts (2023)
Diocesan Shrine of Saint Augustine and Parish of the Holy Cross	Tanza, Cavite, Region IV-A	1839	Baroque	National Historical Landmark (1980), Marked Structure (1940 & 1973)	069, Riser 026	Altar (2023)	
St. John Nepomucene Parish Church	Alfonso, Cavite, Region IV-A	1889	Neo-Gothic	Classified Historic Structures (1991)	067 w/ border	Central nave	
Church of St. Francis of Assisi	General Trias, Cavite, Region IV-A	1893	Baroque	Marked Structure (1992)	Riser 025, 035	Altar	
Parish Church of Saint Joseph of General Emilio Aguinaldo	Bailen, Cavite, Region IV-A	1858	Baroque	Classified Historic Structures (1991)	140, 055 Border	Altar	
Minor Basilica of the Immaculate Conception Archdiocesan Shrine of Santo Niño	Poblacion, Batangas, Region IV-A	1851	Neo-classical	Marked Structure, NHCP (1984); PRECUP Registered Property	217, 055	Nave	
Parish Church of Saint James the Greater	Ibaan, Batangas, Region IV-A	1869	Neo-classical	Marked Structure, NHCP (1941); PRECUP Registered Property	075 w/ Border, 059	Nave	Fr. Guido Coletti (1940s)

Church Name	Location	Year Built/ Rebuilt	Architectural Style	Heritage Status	Tile Patterns	Tile Placement	Commissioning Party
Archdiocesan Shrine St. Joseph the Patriarch Parish Church	San Jose, Batangas, Region IV-A	1812	Baroque with Neo-Classical	Marked Structure, NHCP (1939); PRECUP Registered Property	Riser 021, 055 w/ border, 082, 072 Border	Central nave, Altar	
Metropolitan Cathedral of San Sebastian	Lipa, Batangas, Region IV-A	1957	Neo-classical	Marked Structure, PHC (1939 & 2011)	105	Side aisles (1987 or earlier)	
Most Holy Rosary Parish Church	Padre Garcia, Batangas, Region IV-A	1948	Baroque	Local Cultural Property/Municipal Historical Landmark (Ord. No. 05-2019), Classified Historic Structures (1991), PRECUP Registered Property	055 w/ border, 082 w/ border	Central nave, Altar	TMCI Designs And Solutions (2024)
Parish Church of San Juan Nepomuceno	San Juan, Batangas, Region IV-A	1894	Baroque	Marked Structure, NHCP (1990); PRECUP Registered Property	105	Central nave, Narthex	
Parish Church of Saint John the Baptist	Tabaco, Albay, Region V	1750	Baroque-Rococo	National Cultural Treasure, National Museum (by virtue of Museum Declaration 2-2001); National Historical Landmark, NHCP (1978); PRECUP Registered Property	068, 052 Border	Nave	
Parish Church of Saint Peter the Apostle	Vinzons, Camarines Norte, Region V	1611	Baroque	Marked Structure, NHCP (1980); Local Cultural Property - Provincial Cultural Treasure; PRECUP Registered Property	077 w/ border	Central nave	
Parish Church of Saint Clare of Assisi	Tigaon, Camarines Sur, Region V	1794	Neo-classical	Classified Historic Structures (1991)	075 w/ border, Riser 021	Central nave, Altar	
Parish Church of Saint John the Baptist	Bato, Catanduanes, Region V	1883	Baroque	Classified Historic Structures (1991); Marked Structure, NHCP (2022); PRECUP Registered Property	052 w/ Border	Central nave, Altar	
Parish Church of Saint Joseph	Barcelona, Sorsogon, Region V	1874	Neo-classical	Classified Historic Structures (1991); Marked Structure, NHCP (2020)	131, 007 Border	Aisles, Altar	
Parish Church of Nuestra Senora de la Paz y Buen Viaje	La Paz, Iloilo, Region VI	1895	Neo-classical	Classified Historic Structures (1991), PRECUP Registered Property	079 w/ border	Central nave	
Parish Church of Our Lady of Guadalupe	Valladolid, Negros Occidental, Region VI	1852	Neo-classical	Classified Historic Structures (1991), PRECUP Registered Property	084 w/ border	Central nave	

Church Name	Location	Year Built/ Rebuilt	Architectural Style	Heritage Status	Tile Patterns	Tile Placement	Commissioning Party
Cathedral of San Sebastian	Bacolod, Negros Occidental, Region VI	1882	Romanesque	Marked Structure, NHCP (1952); PRECUP Registered Property	084 w/ border	Aisles, Altar	Glemend Stained Glass (2024)
Archdiocesan Shrine and Parish of St. Catherine of Alexandria	Mambusao, Capiz, Region VI	1606	Baroque	Classified Historic Structures (1991)	Riser 010, 080, 017	Central nave, Altar	
Parish Church of Our Lady of the Village	Corella, Bohol, Region VII	1924	Neo-Renaissance	Classified Historic Structures (1991)	058, 057 Border	Central nave	
Our Lady of Light Church	Loon, Bohol, Region VII	1864	Baroque	National Historical Landmark (2021), National Cultural Treasure (2010)	064 w/ border	Central nave	
Parish Church of Our Lady of the Assumption	Dauis, Bohol, Region VII	1923	Neo-classical	National Historical Landmark (2009), National Cultural Treasure (2011)	089	Altar	
St. Joseph the Worker Cathedral Shrine	Tagbilaran, Bohol, Region VII	1855	Neo-Romanesque	Marked Structure, PHC (1953)	217	Nave	
St. Augustine Parish Church	Panglao, Bohol, Region VII	1886	Neo-Romanesque	Important Cultural Property (2011)	075	Central nave	
Parish Church of Saint Michael the Archangel	Jagna, Bohol, Region VII	1867	Eclectic	Marked Structure, NHCP (2015); Classified Historic Structures (1991)	056 w/ border	Central nave	
Parish Church of Our Lady of Mount Carmel	Balilihan, Bohol, Region VII	1846	Eclectic	Classified Historic Structures (1991)	217	Central nave, Altar	
Parish Church of Saint Vincent Ferrer	Calape, Bohol, Region VII	1954	Neo-Gothic	Classified Historic Structures (1991), National Cultural Treasure (2023)	057	Nave	
Parish Church of Saint Paul the Apostle	Inabanga, Bohol, Region VII	1940	Neo-Gothic	Marked Structure, NHCP (2015); Classified Historic Structures (1991)	051 w/ border	Central nave	
Parish Church of Santo Niño	Cortes, Bohol, Region VII	1737	Baroque	National Cultural Treasure (2013)	035, 059	Central nave, Altar	
Parish Church of Saint Gregory the Great	Ginatilan, Cebu, Region VII	1866	Baroque	Classified Historic Structures (1991)	217, 057 Border	Altar, Transept (2022)	
Parish of San Roque de Montpellier	Asturias, Cebu, Region VII	1885	Baroque	Classified Historic Structures (1991)	059	Side aisles	
Parish Church of Saints Peter and Paul	Bantayan, Cebu, Region VII	1863	Baroque	Classified Historic Structures (1991); Marked Structure, NHI (1980)	091 Border, 067	Nave	
Cathedral of the Nativity of the Blessed Virgin Mary	Borongan, Eastern Samar, Region VIII	1962	Baroque	Marked Structure, NHI (1998)	067	Nave	
San Salvador del Mundo Parish	Caraga, Davao Oriental, Region XI	1884	Baroque	Marked Structure, NHCP (2012)	065 w/ border	Central nave, Side aisles, Narthex	

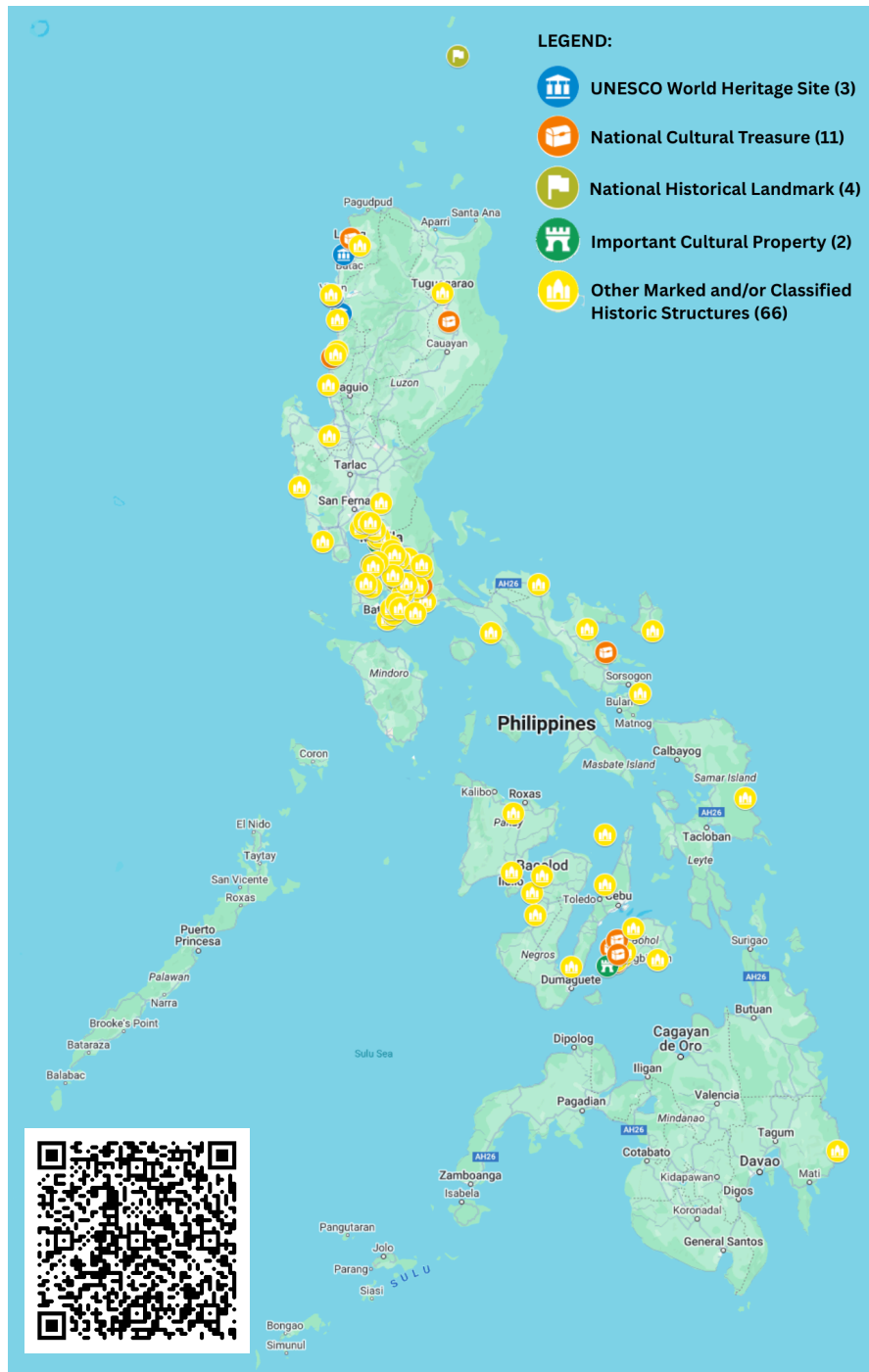


Figure 23. Map of Philippine Heritage Churches with Machuca tiles.

Note. Some sites hold multiple heritage declarations. Only the highest ranking declaration was used to assign the site's category. The numbers represent the number of churches under each category with a total of 86 churches overall.

A. Mapping of Philippine Roman Catholic Heritage Churches

The researcher listed Roman Catholic churches under the PRECUP and NHCP Database that features patterned square tiles, borders, and risers from Machuca Baldozas, Inc., and are currently installed. The tiles are verified to be Machuca tiles using the Machuca tile catalog available through the Machuca tile website. The images of tiles used as a basis from the heritage churches are from the official facebook pages of the churches. There are 86 heritage churches in total throughout the Philippines that have Machuca tiles' patterned square tiles, borders, and risers. Three of these heritage churches are UNESCO World heritage sites, eleven are National Cultural Treasures and four are National Historical Landmarks which all fall under the Grade I Level cultural properties and then two are Important Cultural Properties and the rest are Marked and/or Classified Historic Structures under Grade II Level cultural properties. Those declared as UNESCO World Heritage Sites all have Machuca tiles throughout their entire nave and/or altar as well. The most frequent tile pattern installed in these 86 heritage churches (Table 1) is Tile number 067 which appears 13 times. Then there's a 5-way tie for the second most frequent pattern: tile numbers 051, 055, 059, 068, and 087 each appear 7 times. These are included in the Classic collection or the 1903 tile catalog wherein there are 83 tile patterns and these are the patterns that helped shape Machuca Tile into the company that it is today.

Additionally, records state that Fr. Guido Coletti introduced the Machuca floor tiles sometime in the 1940s (Torres, J., 2024) in the Church of St. James the Greater, Ibaan which is the oldest documented commission as seen in Table 1. In

terms of reach, Machuca tiles are present in the Parish Church of San Jose de Ivana in Batanes and in San Salvador del Mundo Parish of Caraga, Davao Oriental which is one of the few catholic churches there and is even Mindanao's oldest Roman Catholic church.

B. Iconographic Study of Machuca Tiles in Select Roman Catholic Churches

Twenty churches selected for in-depth profiling in this chapter are grouped into five categories. The chapter offers a structured presentation of data that highlights how Machuca tiles relate to existing religious symbolism, heritage preservation, and the integration of handcrafted design within Philippine sacred architecture. This classification builds upon the broader mapping, allowing for a closer examination of patterns and distinctions among the selected churches.

1. Churches with archival photographs confirming original Machuca tile installations still in use. This first group includes churches where early photographs or physical evidence verify the presence of Machuca tiles dating back to at least the mid-20th century. The group allows for analysis of historical continuity, resilience of material culture, and the persistence of original design schemes in long-standing ecclesiastical settings. With material culture defined by Detaro (2024), as “physical objects, resources, architecture and art representing a community's crafts, aesthetics and livelihoods.”

Parish church of Saint James the Greater. Located in Ibaan, Batangas, Region IV-A, was built in 1869 and stands as a testament to Neo-classical architectural style. Recognized as a Marked Structure by the National Historical

Commission of the Philippines (NHCP) in 1941 and registered in the PRECUP. The tilework found within the nave includes patterns 075 with border and 059, featuring geometric sun icons and floral design motifs in their default color scheme. These tiles were already there in 1987, as verified by historical photographs, with Fr. Guido Coletti having commissioned it in the 1940s.

The sunburst patterns in the central nave and floral motifs along the sides may symbolize the spiritual journey and enlightenment central to the Christian faith. The radiating sunburst represents divine light guiding the faithful, while the floral designs evoke renewal and spiritual growth. Together, they invite reflection on God's presence and the soul's path toward understanding and enlightenment.

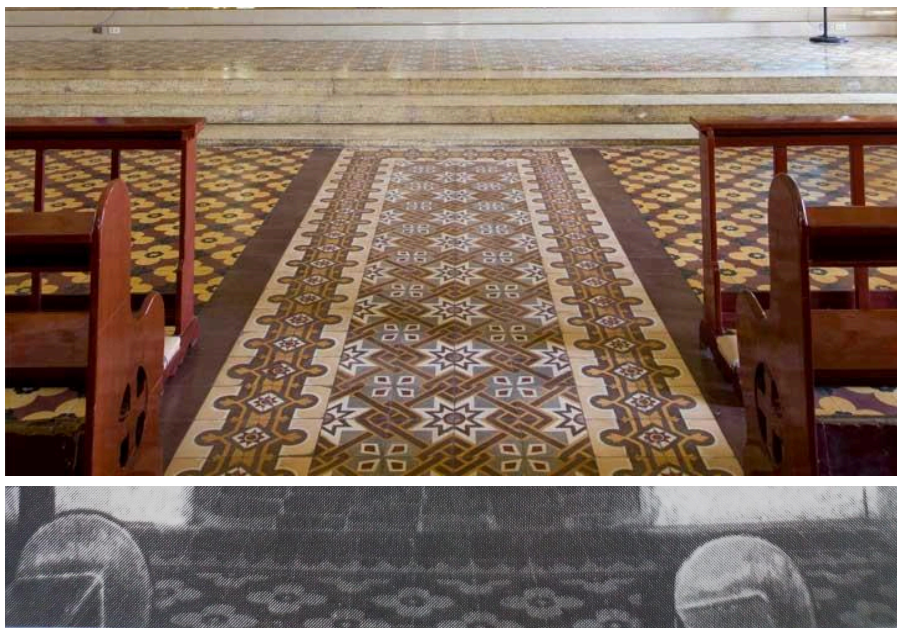


Figure 24. Parish church of Saint James the Greater in Ibaan, Batangas.

Note. Colored photo from the official Facebook page of Archdiocesan Shrine & Parish of St. James the Greater, Archival photo from *Angels in Stone: Architecture of Augustinian Churches in the Philippines* by Galende, P.G. (1987).

Church of Nuestra Señora de la Asunción. Located in Santa Maria, Ilocos Sur, Region I, was built in 1765 and stands as a testament to Baroque architectural style. Recognized as a UNESCO World Heritage Site in 1993 under the Baroque Churches of the Philippines. The tilework found within the entire nave and altar are in pristine condition and includes patterns 055, 071, and 052 with border, featuring geometric and floral design motifs in their default color scheme. These tiles were already there in 1987, as verified by historical photographs.

The fusion of geometric repetition in the nave and floral and cross motifs in the altar may reflect both the robust, fortress-like structure of the Baroque church and its softer Marian dedication. Baroque architecture, known for its dramatic and intricate details, is mirrored in the tile designs, which combine bold geometric patterns in the nave with delicate floral and cross-like shapes at the altar. These designs create a visual drama that complements the church's Baroque grandeur, evoking both the complexity and the warmth of Mediterranean aesthetics influenced by Spanish and French traditions.

The floor tiles can function not just as decoration but as liturgical ground, guiding movement toward the altar. Surrounded by a garden-like aesthetic, the floral and cross motifs may invite reflection on the sacredness of the space. Their presence in a UNESCO-designated site highlights that such artisanal flooring contributes not only to the church's beauty but also to its heritage value, maintaining its role as a space of ongoing devotion and historical continuity.



Figure 25. Church of Nuestra Señora de la Asunción in Santa Maria, Ilocos Sur.
Note. Colored photo from the official Facebook page of Santuario de Nuestra Senora de la Asuncion Church,
Archival photo from *Angels in Stone: Architecture of Augustinian Churches in the Philippines* by Galende, P.G. (1987).

Saint Christopher Parish Church. Located in Bangar, La Union, Region I, was built in 1727 and stands as a testament to Baroque architectural style. Recognized as a Classified Historic Structure in 1991. The tilework found within the central nave includes pattern 067 with border, featuring floral, sun, and cross-like center design motifs in their default color scheme. These tiles were already there in 1987, as verified by historical photographs.

The floral and sun forms with cross-like centers may evoke both cosmological and Christian symbolism, suggesting themes of growth, divine light, and sacrifice. As a church dedicated to Saint Christopher, traditionally seen as the bearer of Christ and protector of travelers, the flooring can be seen as a metaphor for a spiritual journey, guiding people along their path of faith. The intricate patterns help direct the faithful through the space, inviting reflection and connection. This tile design is actually the most commonly used among all 86 heritage churches with Machuca tiles (see Table 1), showing how widely it resonates. The fact that these patterns have been preserved highlights their role in shaping sacred space, combining theological meaning with historical significance and continuing to play an important part in the church's spiritual life.



Figure 26. Saint Christopher Parish Church in Bangar, La Union.
Note. Colored photo from the official Facebook page of Parish Youth Ministry - St. Christopher-Bangar,
 Archival photo from *Angels in Stone: Architecture of Augustinian Churches in the Philippines* by Galende, P.G. (1987).

Parish Church of Santa Catalina de Alejandria (Namacpacan Church).

Located in Luna, La Union, Region I, was built in 1872 and stands as a testament to Baroque architectural style. Recognized as a National Cultural Treasure in 2001. The tilework found within the central nave includes pattern 055 with border, featuring geometric star design motifs in their default color scheme. These tiles were already there in 1987, as verified by historical photographs.

Located in Luna, a name that evokes the moon and light, the church's tile design may emphasize themes of illumination with the geometric star motif as a symbol of enlightenment and divine guidance. This resonates with the church's patroness, St. Catherine of Alexandria, revered for her wisdom and martyrdom. The repeated star pattern across the nave floor serves both a symbolic and spatial function, creating a contemplative atmosphere.

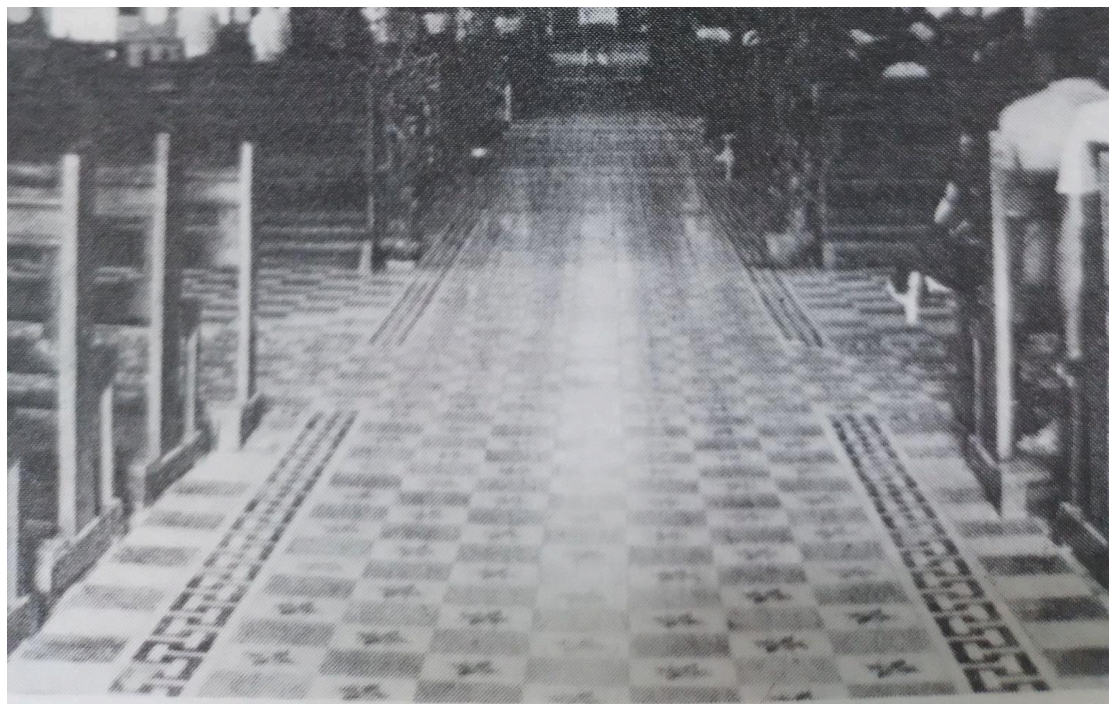


Figure 27. Parish Church of Santa Catalina de Alejandria in Luna, La Union.
Note. Colored photo from the official Facebook page of The Shrine of Our Lady of Namacpacan,
 Archival photo from *Angels in Stone: Architecture of Augustinian Churches in the Philippines* by Galende, P.G. (1987).

Saint Catherine of Alexandria Parish Church. Located in Santa, Ilocos Sur, Region I, was rebuilt after 1905 and stands as a testament to Baroque architectural style. Recognized as a Classified Historic Structure in 1991. The tilework found within the central nave and altar includes patterns 053, 065 with border, and 068 with border, featuring leafy and wood-like design motifs in their default color scheme. These tiles were already there in 1987, as verified by historical photographs.

The wood-like motifs in the altar and the leafy patterns in the central nave may evoke natural and earthy symbolism. For a church dedicated to Saint Catherine of Alexandria, a scholar-saint known for her strength, wisdom, and martyrdom, these organic designs may subtly reflect themes of resilience, knowledge, and divine creation. The wood motifs at the altar, symbolizing strength, may connect the sacred space with the idea of stability and growth. Meanwhile, the leafy patterns in the central nave, which may represent nature and renewal, invite reflection on the cycles of life and faith. Together, these designs create a visual experience that links the earthly and the spiritual, grounding worship in the natural world while pointing toward the divine.



Figure 28. Saint Catherine of Alexandria Parish Church in Santa, Ilocos Sur.
Note. Colored photo from the Facebook page of Altar Servers of St. Catherine de Alexandria Parish Santa, Ilocos Sur,
 Archival photo from *Angels in Stone: Architecture of Augustinian Churches in the Philippines* by Galende, P.G. (1987).

Metropolitan Cathedral of San Sebastian. Located in Lipa, Batangas, Region IV-A, was rebuilt in 1957 and stands as a testament to Neo-classical architectural style. Recognized as a Marked Structure by the Philippine Historical Committee (PHC) in 1939 and again in 2011. The tilework found within the side aisles includes pattern 105, featuring geometric wood-like design motifs in their default color scheme. These tiles were already there in 1987, as verified by historical photographs.

In San Sebastian Cathedral in Lipa, the grand architecture, with its towering columns and domed nave may be softened by the wood-like tile motifs found in the side aisles. These spaces, often used for quiet prayer and personal devotion, are subtly enriched by the symbolic presence of wood, which in Christian iconography is closely tied to Saint Sebastian's martyrdom. Tradition holds that he was bound to a tree and shot with arrows for his faith, making the wood motif a possible reference to his suffering and steadfastness. This design choice may connect the physical space to the spiritual story of the church's patron, inviting worshipers to reflect on themes of sacrifice, and quiet strength in their own acts of devotion.

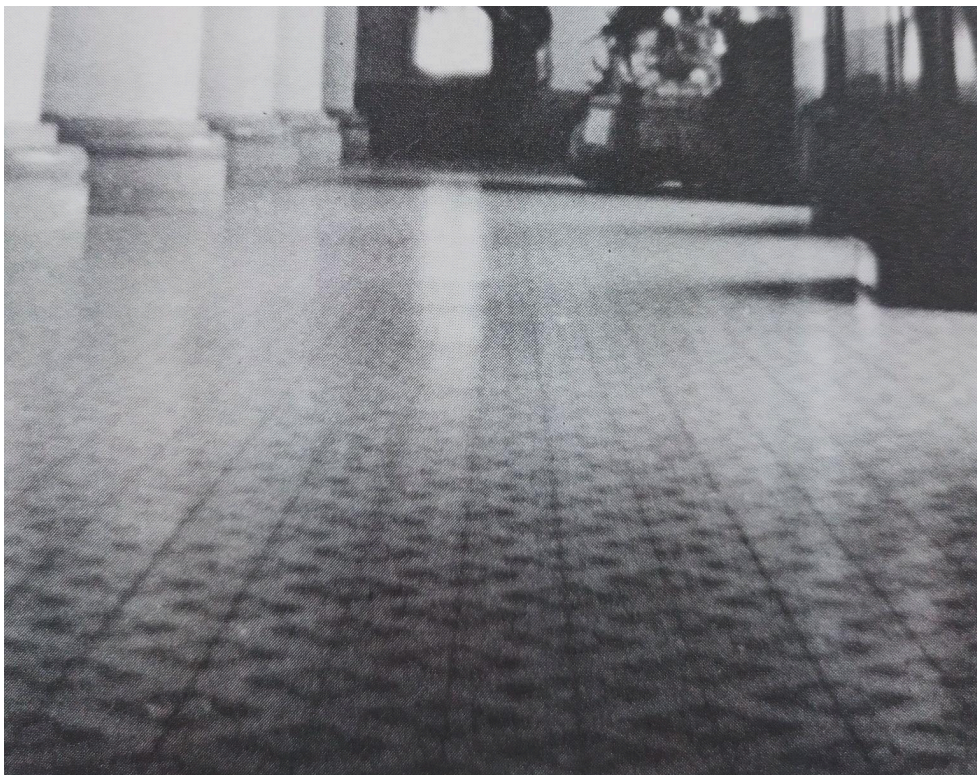


Figure 29. Metropolitan Cathedral of San Sebastian in Lipa, Batangas.

Note. Colored photo from the official Facebook page of Metropolitan Cathedral of San Sebastian - Archdiocese of Lipa, Archival photo from *Angels in Stone: Architecture of Augustinian Churches in the Philippines* by Galende, P.G. (1987).

2. Churches with active conservation efforts. This set includes heritage churches where Machuca tiles are actively conserved as part of larger architectural preservation programs. The group illustrates the role of heritage management and institutional partnerships in maintaining the material and spiritual integrity of sacred spaces.

Minor Basilica of San Sebastian and Archdiocesan Shrine of Our Lady of Mount Carmel. Located in Quiapo, Manila, NCR, was built in 1891 and stands as a testament to Neo-Gothic Revival architectural style. Recognized as a National Cultural Treasure in 2011 and designated as a National Historical Landmark. The tilework found within the central nave includes pattern 056 with border, featuring geometric design motifs in their default color scheme.

San Sebastian Basilica is a rare example of how European Neo-Gothic design can harmonize with Filipino religious traditions. As the only all-steel church in Asia, its very structure already tells an extraordinary story, but it is the care taken in its conservation that brings this legacy into the present. Among its most striking interior features are the original patterned cement tiles by Machuca, which compliments the steel vaults with rhythm, and visual symbolism. The geometric designs may reflect the spiritual order and symmetry associated with Gothic liturgy, guiding the faithful through space in alignment with sacred ritual. These patterns are not purely decorative. The octagrams, or eight-pointed star patterns, can be read as symbolic, representing new beginnings. In the history of San Sebastian, where the original and successive structures were destroyed by fire and earthquakes, these patterns reflect the community's spirit of rebuilding, grounding worship in both beauty and meaning.

The church's restoration has also set an important example in heritage conservation. As part of its preservation work, the San Sebastian Basilica Conservation and Development Foundation, Inc. partnered with Kärcher, a German company known for supporting cultural projects, to clean the church's surfaces using specialized, non-invasive equipment. This was not simply about improving appearance. The cleaning removed pollutants and biological growth that were damaging the steel structure and decorative finishes, especially the delicate surfaces of metal and tile.

Using gentle methods like low-pressure steam and fine misting, the team avoided harsh techniques that might harm historic materials. Every step of the process was based on careful testing and professional oversight, following international conservation standards. This thoughtful approach shows how modern tools, when used with care and cultural understanding, can help preserve not just the appearance but the meaning of heritage sites. In the case of San Sebastian, the cleaning of the patterned tiles became part of a larger act of stewardship, allowing these surfaces to continue shaping the sacred atmosphere of the church.

Ultimately, the Basilica's approach to conservation shows that church flooring is not just a backdrop to worship but a vital part of the religious experience. The tiles, rich in pattern and symbolism, serve as a visual representation of faith.

A post from the official Facebook page of *San Sebastian Basilica Conservation and Development Foundation, Inc.* on February 11, 2023 stating efforts to clean the Machuca tiles:

“LOOK: Karcher Philippines (Kärcher Philippines' cleaning specialists and experts) visited this week for another round of cleaning in San Sebastian Basilica. They visited us previously to clean the original stone flooring of the exterior of the church. In their most recent visit, they graciously gave us their time, expertise, and technology for the cleaning of the interior flooring that includes original Machuca tiles. The team also climbed the scaffolding to reach the dome to test the effectivity of their cleaning methods on our stained glass windows.”



Figure 30. Minor Basilica of San Sebastian and Archdiocesan Shrine of Our Lady of Mount Carmel in Quiapo, Manila.
Note. Photo from the official Facebook page of San Sebastian Basilica Conservation and Development Foundation, Inc.

Metropolitan Cathedral of the Conversion of St. Paul the Apostle.

Located in Vigan, Ilocos Sur, Region I, was rebuilt in 1800 and stands as a testament to Baroque architectural style. Recognized under the UNESCO World Heritage inscription in 1999 as part of the Historic City of Vigan. The tilework found within the nave includes patterns 059 and 069 with border, featuring floral and sun icon design motifs in their default color scheme.

In a city known around the world for its well-preserved colonial heritage, the cathedral's use of Machuca tiles may support UNESCO's goal of safeguarding cultural traditions through time. The floral and sun motifs can be seen as expressions of both the Spanish Baroque style and the Ilocano appreciation for botanical symbols. These tiles, which mark liturgical paths, help create a sense of sacred movement. Their ongoing care suggests a deeper commitment to keeping the cathedral not only as a historical site, but also as a living space where faith, memory, and local identity continue to thrive.



Figure 31. Metropolitan Cathedral of the Conversion of St. Paul the Apostle in Vigan, Ilocos Sur.

Note. Photo from Luke Inspired (2019).

Saint Bartholomew the Apostle Parish Church. Located in Nagcarlan, Laguna, Region IV-A, was built in 1845 and stands as a testament to Baroque architectural style. Recognized as a Marked Structure by the National Historical Commission of the Philippines (NHCP) in 1937. The tilework found within the nave and altar includes patterns 084 with border, 087 with border, and riser patterns 021 and 020, featuring floral and cross-like leaf design motifs in their default color scheme.

Nagcarlan Church may be seen as a layered cultural tapestry, where Machuca tile motifs coexist with remnants of imported *azulejos*. The floral and cross-like leaf designs may evoke rebirth through natural imagery and reflect Christian themes of sacrifice and resurrection. The use of riser tiles and intricately patterned borders shows careful attention to how sacred space is experienced, not just across the floor but also through changes in level and direction. These details may guide both the eye and the body in a symbolic journey toward the divine. Rather than simply preserving fragments of the past, the church may be actively shaping its sacred identity through a thoughtful layering of history, devotion, and design.



Figure 32. Saint Bartholomew the Apostle Parish Church in Nagcarlan, Laguna.

Note. Photo from the official Facebook page of Parokya ni San Bartolome Apostol - Nagcarlan, Laguna.

Parish church of San Vicente Ferrer. Located in San Vicente, Ilocos Sur, Region I, was built in 1795 and stands as a testament to Baroque architectural style. Recognized as a Classified Historic Structure in 1991. The tilework found within the nave and altar includes patterns 057 with border, 075, and 067, featuring geometric star, sunburst, and cross-like design motifs in their default color scheme.

The Parish Church of San Vicente Ferrer uses a mix of geometric star, sunburst, and cross-like tile motifs that give the space both beauty and meaning. The star shapes may remind visitors of guidance and clarity, while the sunburst patterns can suggest light, truth, and the warmth of faith. These symbols seem to quietly reflect the life of San Vicente Ferrer, who was known for his passionate

preaching and ability to bring people back to the Church. The cross-like designs tie everything back to core Christian themes of sacrifice and salvation.



Figure 33. Parish church of San Vicente Ferrer in San Vicente, Ilocos Sur.
Note. Photo from the official Facebook page of San Vicente Ferrer Parish.

These churches reflect not just the artistic value of Machuca tiles, but also their integral role in the conservation of sacred atmospheres. They demonstrate that tilework in heritage spaces is not static, rather, it participates in the ongoing reinterpretation of tradition through strategic preservation and adaptive use. The attention to maintaining antique finishes affirms the belief that authenticity is not merely historical accuracy but the perpetuation of lived beauty in devotional contexts.

3. Churches with extensive use of Machuca tiles. These churches display a high degree of tile coverage across multiple liturgical zones and use a variety of Machuca patterns. The group emphasizes how flooring can function as a theological and spatial unifier, reflecting themes of sanctity, processional logic, and local identity.

Parish Church of San Matias. Located in Tumauni, Isabela, Region II, was built in 1805 and stands as a testament to Baroque architectural style. Recognized as a Tentative List of UNESCO World Heritage Sites and designated as a National Historical Landmark in 1989 and a National Cultural Treasure in 2001. The tilework found within the altar includes riser patterns 020, and patterns 084, 087, 086, and 050 with border, all featuring floral design motifs in their default color scheme.

San Matias Church in Tumauni is famous for its unique brick ornaments and cylindrical belfry, making it a rare example of late Spanish colonial Baroque in northern Luzon. The church's extensive use of floral Machuca tile patterns, both on the risers and the flooring, introduces a dynamic interplay of intricate designs that create a visually rich and layered atmosphere. The repetition of curved, petal-like motifs across both horizontal and vertical surfaces fills the space with ornamental abundance. These complex patterns may symbolize themes of growth, renewal, and transformation, echoing the patronage of St. Matthias, the apostle chosen to replace Judas. St. Matthias is often associated with faith, restoration, and the rebuilding of the Christian community and the

overwhelming floral motifs may be seen as symbols of spiritual rebirth and divine grace.



Figure 34. Parish Church of San Matias in Tumauni, Isabela.
Note. Photo from the official Facebook page of Saint Matthias Parish Tumauni Official.

Archdiocesan Shrine St. Joseph the Patriarch parish church. Located in San Jose, Batangas, Region IV-A, was built in 1812 and stands as a testament to a fusion of Baroque and Neo-Classical architectural styles. Recognized as a Marked Structure by the National Historical Commission of the Philippines (NHCP) in 1939 and registered as a property in the PRECUP. The tilework found within the central nave and altar includes riser pattern 021, and patterns 055 with border, 082, and 072 border, featuring leafy and geometric star design motifs in their default color scheme.

The Archdiocesan Shrine of St. Joseph the Patriarch Parish Church features a combination of leafy and geometric star tile motifs that create both contrast and harmony in the space. The leafy designs may symbolize growth, humility, and care, qualities closely associated with St. Joseph, who is often seen as a quiet yet strong protector of the Holy Family. The geometric star patterns, on the other hand, may reflect guidance and divine purpose, calling to mind the Star of Bethlehem that led the Magi to Christ.



Figure 35. Archdiocesan Shrine St. Joseph the Patriarch parish church in San Jose, Batangas.
Note. Photo from the official Facebook page of Archdiocesan Shrine & Parish of St Joseph the Patriarch.

The wide and varied use of Machuca tiles in these churches shows just how much care and thought went into treating the floor as more than just a surface, it becomes a meaningful part of the space's identity and heritage. In contrast to churches where tiles are used sparingly, these places embrace patterned tiles as key elements in telling sacred stories. The repeating designs aren't just there for decoration; they carry spiritual meaning, helping to connect the past with the present and guiding worshippers through a shared sense of faith and tradition.

4. Churches with custom-colored Machuca tiles. This group includes churches that use Machuca tiles in colors specially chosen to reflect the traits of their patron saints. These custom color choices turn the floor into more than just a backdrop, they become a way to express the values, stories, and identity of each community through color and design.

National Shrine and Parish of St. Anne. Located in Hagonoy, Bulacan, Region III, was rebuilt in 1963 and stands as a testament to Baroque architectural style. Recognized as a PRECUP Registered Property and designated as a Marked Structure by the National Historical Commission of the Philippines (NHCP) in 1981. The tilework found within the central nave and transept includes patterns 065 with border and 067 with border, featuring leafy, floral, sun, and cross-like center design motifs. These tiles are rendered in a custom color scheme of yellow, red, blue, and white, and were installed in 2021.

St. Anne, traditionally venerated as the mother of the Virgin Mary, is a matriarchal figure representing instruction, lineage, and intercession. The use of vibrant yellow (wisdom), red (maternal sacrifice), blue (Marian purity), and white (sanctity) in the floor design seems to echo this theological narrative. The floral and sun motifs may affirm her nurturing role and connection to divine enlightenment.



Figure 36. National Shrine and Parish of St. Anne in Hagonoy, Bulacan.
Note. Photo from the official Facebook page of National Shrine and Parish of St. Anne - Social Communication.

Diocesan Shrine and Parish of St. Clement. Located in Angono, Rizal, Region IV-A, was built in 1937 and stands as a testament to Modern Colonial Revival architectural style. Recognized as a Classified Historic Structure in 1991. The tilework found within the aisles and altar includes patterns 051 with border, 082, and riser pattern 011, featuring cross-like design motifs. These tiles are rendered in a custom color scheme of red, yellow, white, and blue, and were installed in 2022.

St. Clement, one of the early popes and a martyr, can be associated with the colors red for his martyrdom, blue for his role as an apostle, and gold or yellow for divine wisdom. The cross-like tile designs in the church, brought to life with these colors, do more than decorate the space, they honor Clement's spiritual legacy while connecting it to the rich artistic traditions of Angono, a town known for both folk and religious art. Here, the floor becomes part of the

storytelling, using color and pattern to reflect the saint's life and mission in a way that speaks to both faith and local identity.

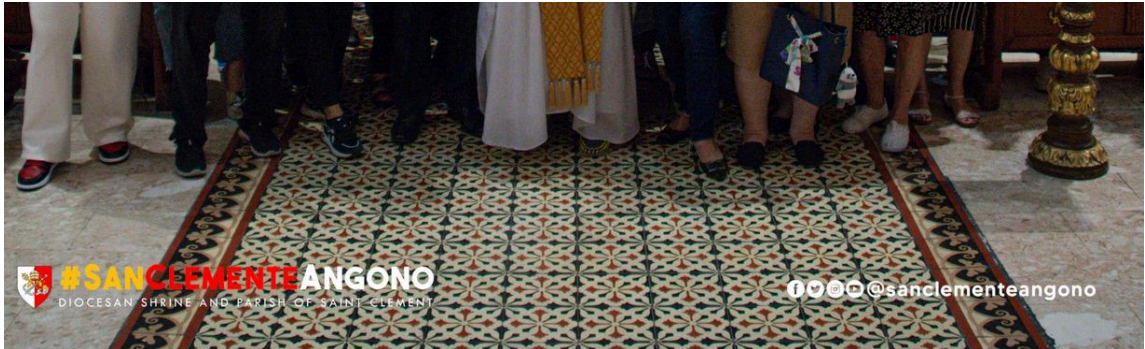


Figure 37. Diocesan Shrine and Parish of St. Clement in Angono, Rizal.
Note. Photo from the official Facebook page of Diocesan Shrine and Parish of Saint Clement.

Parish Church of Saint Mark the Evangelist. Located in Balian, Laguna, Region IV-A, was built in 1751 and stands as a testament to Baroque architectural style. Recognized as a Classified Historic Structure in 1991. The tilework found within the nave includes patterns 095 and 068 with border, featuring cross-like arrow design motifs. These tiles are rendered in a custom color scheme of red and black.

St. Mark is traditionally symbolized by a lion and is closely tied to the Passion story in the Bible. He's often represented with the colors red, symbolizing his fiery devotion and martyrdom, and black, which can suggest mystery, reflection, and spiritual depth. The bold contrast of these colors in the church's floor tiles seems to echo the spirit of his Gospel: serious, intense, and courageous. It's as if the floor itself invites reflection while also encouraging a bold and fearless faith, much like the message St. Mark shared.

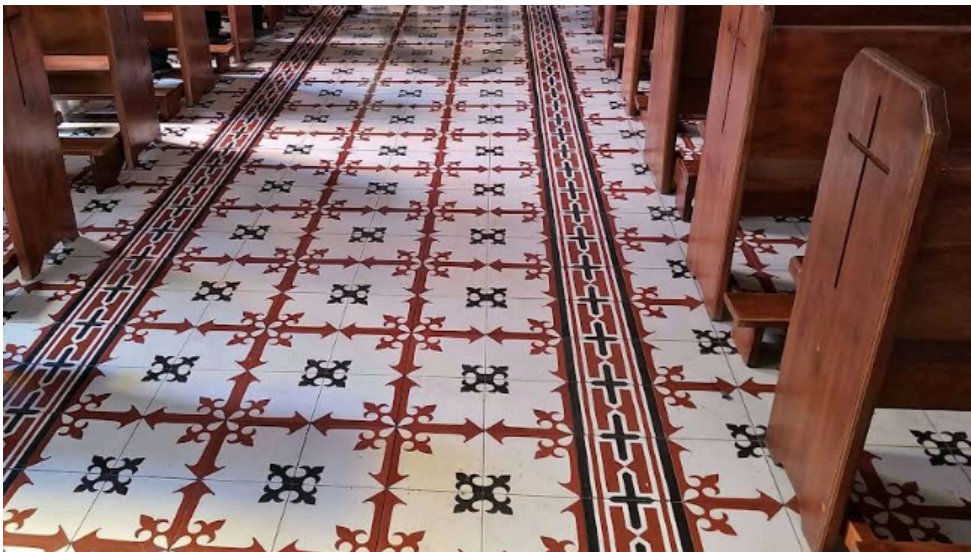


Figure 38. Parish Church of Saint Mark the Evangelist in Balian, Laguna.

Note. Photo from the official Facebook page of The Parish of Saint Mark the Evangelist.

Parish Church of Saint Vincent Ferrer. Located in Calape, Bohol, Region VII, was rebuilt in 1954 and stands as a testament to Neo-Gothic architectural style. Recognized as a Classified Historic Structure in 1991 and designated as a National Cultural Treasure in 2023. The tilework found within the nave includes pattern 057, featuring geometric star design motifs. These tiles are rendered in a custom color scheme of yellow and black.

St. Vincent Ferrer, a Dominican preacher known for his powerful sermons on judgment and salvation, is often shown wearing the black and white robes of his order. The church floor's yellow and black star tiles seem to echo the heart of his message. Yellow brings to mind light, hope, and salvation, while black speaks of penance, endings, and the seriousness of our spiritual journey. Together, these colors reflect the balance in Ferrer's teachings, not meant to frighten, but to awaken people to the urgency of grace and the beauty of divine truth, right there underfoot in the sacred space.



Figure 39. Parish Church of Saint Vincent Ferrer in Calape, Bohol.
Note. Photo from the official Facebook page of Saint Vincent Ferrer Parish - Calape, Bohol.

Archdiocesan Shrine of Nuestra Señora de Guia. Located in Ermita, Manila, NCR, was rebuilt in 1947 and stands as a representation of Post-war Modernism with Art Deco influences. Recognized as a Marked Structure by the National Historical Commission of the Philippines (NHCP) in 1971 and registered as a property in the PRECUP. The tilework found within the central nave and altar includes patterns 091 and 096 border, rendered in a custom color scheme of yellow, white, and navy blue, echoing the church's interior palette of gold and navy blue.

The use of yellow and navy blue in the tilework may reflect themes of divine illumination and solemnity. Yellow, matching the gold accents of the church and is often associated with light, glory, and sanctity, can symbolize the divine presence and guidance. Navy blue, matching the backdrop of the altar and traditionally linked with Marian devotion, conveys a sense of serenity, depth, and reverence. The combination of these colors within the geometric stylization of the tiles may express the harmony between the sacred and the contemporary, reinforcing the spiritual atmosphere of the shrine and aligning with its Art Deco influences that emphasize stylized elegance and symmetry in the expression of faith.



Figure 40. Archdiocesan Shrine of Nuestra Señora de Guia in Ermita, Manila.
Note. Photo courtesy of Carmela Danganan.

Each church in this group uses color not just for decoration, but as a quiet form of storytelling, connecting the tile designs to the life, virtues, and spiritual meaning of its patron saint. These thoughtful color choices turn the floors into more than just surfaces to walk on. They become teaching tools, inviting worshippers to reflect on these sacred stories.

5. Churches with custom-patterned Machuca tiles. The last group features churches with completely custom Machuca tile patterns, created specifically for that space and different from the standard catalog patterns. These unique designs are often inspired by theological themes or local traditions, highlighting the role of Machuca Baldozas, Inc. as a partner in telling the church's spiritual story.

San Agustin Church. Located in Paoay, Ilocos Norte, Region I, was built in 1710 and stands as a prominent example of Baroque architectural style. Recognized as a UNESCO World Heritage Site in 1993 as part of the Baroque Churches of the Philippines and designated as a National Cultural Treasure in 1973. The tilework found within the central nave and narthex features custom patterns that include eight-pointed stars, floral motifs, sun symbols, and eight human-like figures. These designs are rendered in a color scheme of black, golden-yellow and orange/red, and white.

San Agustin Church in Paoay, Ilocos Norte, features a rich blend of design motifs and colors in its Machuca tile work, creating a floor that is both visually captivating and potentially full of symbolic meaning. The tiles include eight-pointed stars, floral patterns, sun motifs, and eight human-like figures, each of which may carry deeper theological or local cultural significance.

The eight-pointed star, often associated with rebirth or resurrection, adds a layer of spiritual meaning, symbolizing the renewal of life and the hope of resurrection. The sun motifs might reflect the light of Christ or divine radiance, while the floral patterns could signify growth and renewal in the faith. The eight

human-like figures might represent key figures in the church's history or local community, linking the sacred space to the lived experiences of the people.

The bold color scheme of black, golden-yellow, orange/red, and white, further enhances the design. Black may suggest mystery or contemplation, while the golden-yellow and red hues can symbolize divine light, warmth, and salvation. White likely represents purity and clarity, tying the entire visual together in a harmonious and meaningful way. This combination of symbols and colors transforms the floor into more than just a decorative element; it becomes a testament to the church's spiritual and cultural heritage.



Figure 41. San Agustin Church in Paoay, Ilocos Norte.
Note. Photo from Flickr by Melissa Enderle.

Parish Church of Nuestra Senora del Pilar. Located in Morong, Bataan, Region III, was built in 1607 and stands as a testament to Baroque architectural style. Recognized as a Classified Historic Structure in 1991. The tilework found within the central nave, installed in 2022, features custom patterns with floral motifs and a sword-like shape in the center. These designs are rendered in a color scheme of blue, gray, black, and white.

The Parish Church of *Nuestra Señora del Pilar* uses tiles that speak through both shape and color. At the center of the design is a sword-like shape, which might remind people of Mary's role as a protector, fitting for her title, "Our Lady of the Pillar." Around it are soft floral patterns that bring a feeling of life and gentleness.

These tiles are placed along the central nave, leading people toward the altar. The colors, blue, gray, black, and white, create a calm and quiet mood. Blue is often linked with Mary, while the darker shades add depth and seriousness. Together, the colors and patterns turn the floor into a space that reflects faith and devotion, helping the community feel closer to Mary every time they enter the church.



Figure 42. Parish Church of Nuestra Senora del Pilar in Morong, Bataan.
Note. Photo from the official Facebook page of Our Lady of the Pillar Parish Morong, Bataan.

Parish Church of Saint John Marie Vianney. Located in Silang, Cavite, Region IV-A, was built in 2015 and represents a Contemporary architectural style. Although it currently holds no official heritage status, the church features notable custom tilework within the central nave, commissioned by Fr. Christian Borabo in 2023. The tile patterns include design motifs of four-leaf clovers at the corners, crosses, and a bishop's mitre, rendered in a color scheme of brown, black, and white.

The Parish Church of Saint John Marie Vianney features a tile design that reflects the spirit of its patron saint. The four-leaf clover at the corners may symbolize the virtues of hope, faith, love, and charity, qualities that Saint John

Vianney deeply embodied in his life. The crosses throughout the design represent Jesus Christ's sacrifice and death on the cross, while the mitre connects to Saint John Marie Vianney's identity as a devout priest. The IHS inscription, a Christogram representing the holy name "Jesus," underscores the central role of Christ. The color palette of brown, black, and white complements these motifs: brown evokes humility, black symbolizes the depth of faith, and white signifies purity and divine light.



Figure 43. Parish Church of Saint John Marie Vianney in Silang, Cavite.

Note. Photo courtesy of Carmela Danganan.

The focused examination of twenty Roman Catholic churches across the Philippines reveals how Machuca tiles are used not merely for aesthetic cohesion, but to express deeper layers of spiritual meaning, regional identity, and architectural intention. While all twenty sites incorporate Machuca tiles to some degree, the ways they do so differ in response to style, geography, history, and patronage. These differences reveal not only patterns of material use, but also how sacred space is interpreted and adapted through design choices on the ground.

Architecture and aesthetic alignment. One of the clearest patterns to emerge is the relationship between architectural style and tile design. In churches with strong Baroque features such as Santa Maria, Tumauni, and Nagcarlan, the tile motifs tend to echo the expressive richness of the overall building, favoring floral, sunburst, or star patterns that complement the dense ornamentation and movement typical of the style. Art Nouveau flourished as style in the years between 1890 and 1914 (The Collector, 2018) which may explain the floral and leafy tile motifs.

By contrast, churches with Neo-classical or Neo-Gothic characteristics, such as the Lipa Cathedral or San Sebastian Basilica, tend to choose more orderly, geometric, or wood-grained tiles. These patterns work in tandem with the symmetrical, and vertical emphasis of these styles. In each case, the tilework seems to be carefully chosen to align with the church's architectural vocabulary, allowing the floor to serve not just a practical role, but a visual and symbolic one as well.

Regional signatures and symbolic tendencies. Regional identity plays a strong role in how tiles are selected and interpreted. In the Ilocos region, churches frequently use starburst, floral, and sun motifs in standard color schemes. These recurring motifs as seen in churches such as Santa, San Vicente, and Vigan resonate with Marian traditions, colonial heritage, and the longstanding influence of Baroque design in the region. These patterns reinforce ideas of grace, purity, and spiritual light, which are central to both Marian devotion and northern Philippine Catholic culture.

In contrast, churches in CALABARZON, particularly in Batangas, Laguna, and Cavite, tend to be more experimental in their tile choices. Several feature custom colors or entirely bespoke designs, often tied directly to the identity of the church's patron saint. Silang's unique mitre-and-clover pattern, Balian's red and black floor, and San Jose's leafy/star hybrid designs all point to a desire to ground the sacred environment in locally meaningful theological narratives.

Meanwhile, churches in the Visayas, particularly in Bohol, often incorporate newer tiles as part of post-earthquake restorations. Calape's striking black and yellow tiles serve not only as a tribute to its patron saint but as a visual assertion of resilience, renewal, and continued spiritual relevance in the face of physical damage.

Theological expression through tile customization. Many of the profiled churches use tiles to do more than decorate, they use them to teach. Tile patterns and color palettes frequently reflect the virtues, stories, and symbolism

of the church's patron saint. These choices are especially evident in sites with custom-designed or custom-colored tiles.

In Calape, the yellow-and-black star tiles visually express St. Vincent Ferrer's dual emphasis on judgment and grace. In Balian, red and black represent St. Mark's association with martyrdom and intensity. Silang's floor incorporates priestly symbols such as crosses, mitres, and clovers that point directly to the life of St. John Marie Vianney. Even in cases where default catalog patterns are used, such as at Hagonoy or Angono, colors are chosen intentionally to mirror themes of maternal sacrifice, wisdom, or apostolic identity. According to Jaime:

We think that our handmade tiles add character, they add warmth, identity to a church, even down to sacred feeling I think. I think it's very inviting as opposed to other types of material. The handmade imperfections brings soul to religious sites (Appendix G).

These instances suggest that tilework in these churches is not only about visual harmony, it is a form of theological storytelling. In these settings, the floor becomes an interpretive surface where faith is made visible, narrative is materialized, and sacred meaning is embedded into the very fabric of the space.

Heritage designation and conservation practice. Another factor shaping tile use is heritage status. Churches with formal recognition, either as National Cultural Treasures, Historical Landmarks, or UNESCO-inscribed properties, tend to invest more in the preservation and intentional use of Machuca tiles. In places like San Sebastian Basilica, Tumauni, and Santa Maria, tiles are treated as heritage assets: maintained, cleaned using non-invasive methods, and, where needed, restored with historical accuracy.

These conservation efforts are often supported by institutional partnerships, donors, or expert consultations. The result is not just visual preservation, but a deeper sense of continuity, an acknowledgment that these tiles hold not only decorative value, but historical and cultural significance. Additionally, the National Museum of Bohol's *Pagbanhaw* gallery features their National Heritage Restoration And Reconstruction Program In The Visayas Machuca tiles as part of their exhibit (Figure 44). In contrast, churches without heritage designation still use tiles with care, but often show more selective coverage or default catalog usage, reflecting different levels of funding, expertise, and access to heritage networks.



Figure 44. Machuca tile in National Museum Bohol.
Note. Photo from National Museum Bohol website.

There was also the 2013 earthquake which struck Bohol and according to Mr. Jaime:

It was after the Bohol earthquake which must have been like 2016 or 2017 around that time where unfortunately a lot of churches in Bohol got destroyed so there was an effort to restore them and that included restoring the tiles. I think we worked with a heritage government agency that does all of that work.

That agency is apparently Escuela Taller Bohol wherein a Facebook post by the Holy Cross Parish in October 26, 2017 has the caption, “Escuela Taller Students learn to make Machuca tile.”



Figure 45. Machuca Tile-making Workshop.

Note. Photo from the official Facebook page of Holy Cross Parish -Diocesan Shrine of St. Vincent Ferrer in Maribojoc, Bohol.

Scale and scope reflect resource capacity and liturgical priorities. Finally, the scale of tile installations across the churches appears to reflect both economic capacity and liturgical emphasis. Some churches tile only the central aisle or the altar zone, while others tile risers, transepts, and even side aisles

with multiple coordinated patterns. These choices often depend on financial support where declared churches under RA 10066, Section 7, all cultural properties declared as national cultural treasures and national historical landmarks, sites or monuments shall be entitled to the privilege of priority government funding for protection, conservation and restoration. However, their choices can also reflect theological values, emphasizing the altar as a site of sacrifice and transformation, or the nave as a path toward spiritual reflection.

In Tumauini, for example, five distinct tile patterns are used to articulate sacred hierarchy and visual richness. In San Jose and Nagcarlan, different motifs distinguish between liturgical spaces and prayer zones. Even when budgets are limited, the care with which tiles are chosen and placed shows that their symbolic potential is well understood.

Together, these twenty churches offer a nuanced picture of how Machuca tiles have been integrated into Philippine Roman Catholic heritage. Far from being uniform or incidental, their use reflects a series of careful decisions that are rooted in architecture, region, patronage, and faith. Whether preserved as historical material or customized for contemporary expression, these tiles serve as both material culture and visual theology. They are walked on, knelt upon, and prayed over but they also speak. They tell stories of saints, echo architectural styles, and reflect communities' values. In this way, the patterned floors of these churches become statements of continuity, of devotion, and of identity, quietly anchoring sacred space in color, form, and tradition.

C. Contextual Study of Machuca Tiles in Heritage Churches in Manila

This section profiles five heritage churches located in different districts of Manila, each of which has significant historical and architectural value. Despite their distinct styles and periods of construction, all five churches share the use of Machuca tiles, a notable feature in their interiors. These churches, from the Neo-Gothic Minor Basilica of San Sebastian to the contemporary Archdiocesan Shrine of Our Lady of Peñafrancia, offer a focused study on Manila's ecclesiastical network, highlighting shared tile patterns and parish connections. This illustrates how Machuca tiles acted as a visual and cultural link, connecting churches within the city's religious and architectural heritage.

1. Minor Basilica of San Sebastian and Archdiocesan Shrine of Our Lady of Mount Carmel. Located in Quiapo, Manila, NCR, was built in 1891 and stands as a prominent example of Neo-Gothic Revival architectural style. Recognized as a National Cultural Treasure in 2011 and designated as a National Historical Landmark. The tilework found within the central nave features pattern 056 with border in its default color scheme.



Figure 46. Minor Basilica of San Sebastian and Archdiocesan Shrine of Our Lady of Mount Carmel in Quiapo, Manila.
Note. Photo courtesy of Carmela Danganan.

2. National Shrine of Our Lady of the Abandoned. Located in Santa Ana, Manila, NCR, was built in 1725 and stands as a significant example of Baroque architectural style. Recognized as a National Cultural Treasure in 2008 and registered in the PRECUP. The tilework found within the central nave, installed in 1972 or earlier, as well as in the seating area and chapel, features patterns 098, 058 (border), 056 with border, and 091 with border, all rendered in their default color schemes.



Figure 47. National Shrine of Our Lady of the Abandoned in Sta. Ana, Manila.

Note. Photo courtesy of Carmela Danganan.

3. Archdiocesan Shrine of Our Lady of Peñafrancia. Located in Pandacan, Manila, NCR, was rebuilt around 2000 and represents a Contemporary architectural style. Recognized as a Marked Structure by the National Historical Commission of the Philippines (NHCP) in 1979 and registered in the PRECUP, this shrine holds significant historical and cultural value. The tilework found within the altar includes pattern 091 with a 096 border, rendered in the default color scheme. The tiles were commissioned by Fr. Herbert Camacho in 2023.



Figure 48. Archdiocesan Shrine of Our Lady of Peñafrancia in Pandacan, Manila.

Note. Photo courtesy of Carmela Danganan.

4. Archdiocesan Shrine of Nuestra Señora de Guia. Located in Ermita, Manila, NCR, was rebuilt in 1947 and features a Post-war Modernism style with Art Deco influences. Recognized as a Marked Structure by the National Historical Commission of the Philippines (NHCP) in 1971 and registered as a property in the PRECUP, this shrine holds historical and cultural significance. The tilework found within the central nave and altar includes patterns 091 and 096 border, rendered in the default color scheme.



Figure 49. Archdiocesan Shrine of Nuestra Señora de Guia in Ermita, Manila.

Note. Photo courtesy of Carmela Danganan.

5. Benedictine Abbey of Our Lady of Montserrat. Located in San Miguel, Manila, NCR, was built in 1926 and features a Neo-Gothic exterior with a Neo-Baroque interior. Recognized as a Marked Structure by the National Historical Commission of the Philippines (NHCP) in 1939, this abbey holds significant historical and cultural value. The tiles found within the Abbey Porter and Monk cloister include patterns 067 with border, 068 with border, and 059, rendered in the default color scheme.



Figure 50. Benedictine Abbey of Our Lady of Montserrat in San Miguel, Manila.

Note. Colored photo courtesy of Carmela Danganan, Black & white photo from the official Facebook page of The Benedictine Abbey of Our Lady of Montserrat Manila.

A closer look at the five Manila churches reveals a quiet but interesting pattern in the use of Machuca tiles, especially in how they were placed, which designs were chosen, and how decisions may have spread from one parish to another. While each church has its own history and style, the repeated use of certain tile patterns and similar installation choices suggests that they were part of an informal network of influence. These shared details hint at active parish connections, and popular tastes that likely circulated through church communities during renovation periods in the mid to late 20th century.

Tile patterns as a shared design feature. Two tile patterns, Pattern 056 and Pattern 091, stand out as key designs that link these churches together. San Sebastian Basilica, built in 1891 and known for its striking Neo-Gothic design, features Pattern 056 with a strong geometric motif in its central nave. These tiles were probably added several decades later, during a time of restoration or interior improvement, bringing a fresh sense of order and decoration to the grand steel structure.

At the same time, Our Lady of the Abandoned in Santa Ana, which dates back to 1725, also used Pattern 056, along with Patterns 098 and 091. Records show that these tiles were already in place by 1972 or earlier, making Santa Ana one of the earlier churches to adopt them. The fact that both Santa Ana and San Sebastian chose the same pattern for their central nave suggests that one parish may have influenced the other, or that both selected from the same tile catalog circulating among Manila churches at the time.

Pattern 091 appears even more widely, found in three churches: Santa Ana, Nuestra Señora de Guia in Ermita, and Our Lady of Peñafrancia in Pandacan. These churches were built or renovated at different times, yet they share this common design, placed in altar areas and main aisles. The spread of this pattern across multiple parishes suggests that design choices were not made in isolation but likely traveled through church networks, visits, and supplier recommendations. Peñafrancia's decision to use it in 2023 shows that this pattern continues to carry meaning, linking present-day projects with earlier church projects.

Parish Networks and the Spread of Machuca tiles. Given that all these churches are located within Manila, it is quite possible that priests, church workers, and architects shared ideas, visited each other's churches, and recommended tile suppliers based on what they had seen elsewhere. The National Shrine of Our Lady of the Abandoned in Sta. Ana, may have been the first to install Machuca tiles among all the selected five churches and may have encouraged other parishes to install Machuca tiles as well. Based on the photo of the Machuca tiles in Sta. Ana church (Figure 47), there are a reasonable amount of imperfections such as varying line thickness and details being visibly asymmetrical in size and shape suggesting a faulty mold and absence of quality control before. There are also signs of tile replacement due to the difference in tile color with some whiter than the rest. At the same time, Machuca, as a local tile manufacturer, may have played an active role in promoting its products to churches, as records show that the company has several old advertisements

(Appendix D). This combination of parish connections and supplier marketing likely explains why a small set of patterns appeared repeatedly across different churches.

The repeated use of Patterns 056 and 091 among several Manila parishes points to a subtle chain of influence and imitation. These choices seem to stem not only from the tile durability but from a shared visual culture, one shaped by word-of-mouth, familiarity, and a sense of collective identity. This is further supported by Jaime:

Most of them are already familiar with the tile or they see it in different churches, some spread really through word of mouth. And also because it lasts so long and I think it speaks for itself. Most parish priests like our tiles and they come here to our showroom or our factory to choose (Appendix G).

This shared design helped connect the churches, showing they were not only tiles but also part of a common cultural and historical identity.

A note on divergence: the Benedictine Abbey. One church that stands apart is the Benedictine Abbey of Our Lady of Montserrat. While it also used Machuca tiles, they were placed in more private areas like the Abbey Porter and monk cloisters, rather than in the main worship space. Using Patterns 067, 068, and 059, the abbey's choice reflects a quieter, more inward-looking approach that fits its monastic life. While parish churches focused on enhancing their public interiors, the abbey used tiles in areas meant for the daily monastic community, showing a different but equally meaningful way of using these tiles.

The use of Machuca tiles across these Manila churches shows that their choices were not isolated but part of a larger story shaped by parish networks,

supplier influence, and shared ideas. The repeated selection of Patterns 056 and 091, and their placement in central naves and altar zones, points to a pattern of consistency and shared taste across parishes. Whether through word-of-mouth, supplier advice, or visual examples set by prominent churches, these choices formed an informal network of influence. In this way, the tiles became more than decoration, they served as quiet signs of connection, memory, and sacred meaning that tie together Manila's church landscape in subtle but lasting ways.

Despite their cultural significance and physical integration into recognized heritage sites, Machuca tiles and their tile-making remain excluded from formal cultural property listings such as the Philippine Registry of Cultural Property (PRECUP) list. Section 2 of Republic Act 10066, also known as the National Cultural Heritage Act of 2009 states:

The law prescribes that the National Commission for Culture and the Arts (NCCA) together with various cultural agencies and local government units to create and maintain the Philippine Registry of Cultural Property (PRECUP). Section 14 of the same Act states that PRECUP is the registry of all cultural property of the country deemed of significant importance to our cultural heritage...the Registry is an important tool and serves as a prerequisite to vigorously pursue the identification, preservation, protection, conservation, safeguarding, and retrieval of Filipino historical and cultural heritage and resources, and as a repository of people's dynamic culture, to aid in its development, promotion, and dissemination.

The data in this chapter asserts that Machuca tiles are deeply embedded in the Philippine heritage landscape, particularly in sacred architecture where they shape both the aesthetic and symbolic character of churches. Their sustained presence in National Cultural Treasures, UNESCO sites, and active religious spaces underscores their role as vessels of cultural memory and continuity. The data presented here shows that Machuca tile-making meets

UNESCO's ICH criteria: it is transmitted across generations, embedded in community use, and recognized by the Machuca Baldozas, Inc. as part of their identity.

This chapter's findings, therefore, strengthen the case for formally recognizing patterned cement tile-making by Machuca Baldozas, Inc. as part of the Philippines' Intangible Cultural Heritage, a case that the next chapter will build on by examining how their traditional practices align with ICH criteria.

Chapter 5: Machuca Tiles as Intangible Cultural Heritage

This chapter examines how Machuca tile-making aligns with established definitions and criteria for Intangible Cultural Heritage (ICH) as outlined by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the Philippine Registry of Cultural Property (PRECUP) under the National Commission for Culture and the Arts (NCCA).

A. Machuca tile-making: Qualifiers for PRECUP Intangible Cultural Heritage Declaration

While many crafts are preserved through cultural programs or formal institutions, others continue to survive because they are part of daily life and work. Machuca Baldozas, Inc.'s tile-making does more than produce tiles. It carries with it over a century of knowledge, values, and heritage responsibility. In doing so, it fits the description of a “Living Heritage.”

This term as stated in UNESCO Chair in Living Heritage & Sustainable Livelihoods: Living heritage is composed of numerous elements of culture, many of which are intangible. These Intangible Cultural Heritage elements include traditions or living expressions inherited from our ancestors and passed on to our descendants. ICH is an essential ingredient for healthy communities and families, and for sustainable livelihoods.

UNESCO's 2003 convention characterizes Intangible Cultural Heritage as “the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artifacts and cultural spaces associated therewith – that

communities, groups and, in some cases, individuals recognize as part of their cultural heritage.” (2003 UNESCO Convention on ICH).

UNESCO proposes five broad domains through which Intangible Cultural Heritage is manifested: Oral traditions and expressions, including language as a vehicle of the Intangible Cultural Heritage; Performing arts; Social practices, rituals and festive events; Knowledge and practices concerning nature and the universe; Traditional craftsmanship. Machuca tile-making falls on the Traditional craftsmanship domain.

In the Philippines, the National Commission for Culture and the Arts (NCCA) keeps a record called *Talapamana ng pilipinas* or the Philippine Registry of Cultural Property (PRECUP) is the repository of all information pertaining to cultural properties in the Philippines deemed significant to our cultural heritage. It was established by virtue of Article V of Section 14 of Republic Act 10066, as amended by RA 11961 otherwise known as the National Heritage Act of 2009. This registry lists both physical and Intangible Cultural Heritage, that is, traditions, crafts, or practices passed on from one generation to the next that are considered valuable to Filipino identity.

Machuca tile-making, as demonstrated in this study, fulfills the criteria for recognition as Intangible Cultural Heritage under the Philippine Registry of Cultural Property (PRECUP). For a practice to be formally recognized, it must meet the following qualifications:

- Be Intangible, actively practiced today
- Be Cultural, recognized by its community

- Be Heritage, transmitted across generations
- Fall within a recognized domain, such as Traditional Craftsmanship

Machuca tile-making meets these qualifications by:

1. Intangible Skills and Embodied Knowledge. Although the cement tiles produced by Machuca Baldozas, Inc. are tangible objects, the artisanal knowledge involved in their creation is intangible. This knowledge encompasses techniques such as brass mold crafting, pigment mixing, tile layering, and natural curing. These practices are learned not through formal education but through direct, hands-on experience within the workshop. New artisans observe senior artisans at work, gradually internalizing the steps and nuances of the craft. This form of knowledge transmission, based on demonstration and imitation, exemplifies the intangible nature of traditional craftsmanship. It continues to be practiced in Machuca Baldozas, Inc.'s Parañaque factory, where handcrafted tiles are produced daily.

2. Cultural Identity and Community Recognition. Machuca tile-making is recognized by both practitioners and the broader community as a culturally valuable tradition. Within the company, artisans and family members take pride in their role as stewards of a historic craft that dates back to 1903. The practice has endured across four generations, becoming a symbol of continuity amidst changing socio-economic conditions. More broadly, the widespread presence of Machuca tiles in Filipino heritage churches and historical homes reflects public appreciation for the aesthetic and cultural significance of these handcrafted tiles. As such, the craft is both locally rooted and nationally meaningful.

3. Heritage Continuity through Intergenerational Transmission. The survival of Machuca tile-making over more than 120 years is largely due to sustained intergenerational transmission, where artisans gradually learn through immersive, hands-on exposure. This mentorship-based model reflects the oral and embodied nature of Intangible Cultural Heritage, in which skills and values are embedded in daily practice rather than formal instruction. The company fosters a strong internal culture that passes down not only techniques but also a deep respect for quality, patience, and tradition. As Jaime Machuca shared, “We have multi-generational employees... lots of fathers and sons get employed” (Appendix G), emphasizing the familial and community-centered continuity of the craft.

Moreover, the company deliberately preserves the manual nature of its production process; as Machuca explained, “There’s no full automation... that’s by design” (Appendix G), reinforcing its commitment to authenticity and artisanal integrity. This philosophy is echoed in the brand’s own words: “For over a century, we have used the gifts of our heritage and expertise to provide unmarred beauty and timeless elegance to homes and establishments across the country (Machuca tile Website)”, positioning its tiles not just as products but as expressions of living heritage.

4. Traditional Craftsmanship Domain. The practice falls under the ICH domain of "Traditional Craftsmanship" as defined by UNESCO and PRECUP. The artisanal process, from mold design to tile finishing, relies on manual labor, inherited techniques, and designs that have been used and preserved since the early 20th century. Unlike industrial tile production, Machuca tiles are handcrafted, with each piece bearing slight variations that testify to its handcrafted origin. These features underscore the craft's alignment with the values of authenticity, artistry, and cultural continuity that define this heritage domain.

In meeting these four qualifications, Machuca tile-making exemplifies the values of living heritage upheld by both UNESCO and the NCCA. Despite clearly fulfilling the criteria for Intangible Cultural Heritage, Machuca Baldozas, Inc. remains unrecognized by any official heritage registry in the Philippines including the Philippine Registry of Cultural Property (PRECUP), nor is the tile-making tradition acknowledged as a Living Heritage by cultural agencies. This absence reveals a larger issue within heritage recognition such as a tendency to overlook intangible heritage when it exists within thriving business settings.

One possible reason for this omission is the misunderstanding that heritage must be non-commercial to be authentic. In reality, many traditional crafts around the world survive precisely because they remain viable as sources of income. An example would be the Lahij copper craft tradition in Azerbaijan, inscribed by UNESCO in 2015, has been maintained by specific families, notably the Aliyev family, since the 18th century. This craft involves intricate copper work,

with skills passed down through generations within families from father to son. Numerous families in Azerbaijan come to buy copperware in Lahij and use it in their daily lives believing it improves the health benefits of food. For artisans, the tradition represents a major source of living and provides a strong sense of identity and community pride. Copper craftsmanship also reinforces family relationships within the Lahij community and is perceived as a clear marker of Lahij identity (UNESCO, 2015). Machuca Baldozas, Inc.'s case is highly similar, the company has not significantly changed its methods for mass-market appeal. Instead, it has made careful decisions that preserve cultural meaning while ensuring sustainability. The fact that the business remains profitable should not disqualify it, longevity should even strengthen its case.

Current Philippine heritage policies tend to prioritize monuments, sites, and festivals, while overlooking some artisanal processes and family-run traditions. This creates a blind spot, as seen in this study, Machuca tiles are present in 86 declared heritage churches, including those classified as UNESCO World Heritage Sites, National Cultural Treasures, and Important Cultural Properties. These sites are protected, but the traditional craft embedded in their architecture is not. The following cases stand as testaments that Machuca tile-making, even though it's a family tradition, can indeed be recognized as an ICH even on a national level.

In his seaside workshop on the Greek island of Lesbos, Dimitris Kouvdīs uses ancient techniques to create pottery pieces that have recently been honoured with inclusion in UNESCO's National Inventory of Intangible Cultural

Heritage. Kouvdis, 70, and his family have kept an old traditional pottery-making technique alive. According to Kouvdis in a video posted by Marcou, E. (2024):

What I learned from my father, I have continued. What my father learned from his father, I learned from my father. The same technique, the same way of preparing the clay, the same method of decorating, the same way of firing the pottery.

A local example is the piña weaving from Aklan as documented by ICHCAP and the NCCA, piña weaving involves a complex, collaborative process, and knowledge transmission within families. Like Machuca tile-making, the piña weaving tradition carries national and local identity, fosters pride, and strengthens social bonds across generations. While piña weaving is primarily practiced in non-commercial community settings, Machuca tile-making shows that traditional craftsmanship embedded in a family-owned business can still meet ICH criteria, particularly when the practice prioritizes handcrafted tradition over mass production.

B. Alignment with PRECUP Documentation Requirements

This section outlines how Machuca tile-making satisfies the official documentation and registration requirements set by the Philippine Registry of Cultural Property (PRECUP), administered by the National Commission for Culture and the Arts (NCCA).

1. Name and Domain of ICH. The practice is referred to as "Handcrafted Cement Tile-Making" and falls under the domain of "Traditional Craftsmanship."

2. Cultural Bearers. The primary cultural bearers are the Machuca family and the artisans employed by Machuca Baldozas, Inc. in Paranaque. The continuity of the practice across four generations affirms the cultural embeddedness of the craft.

3. Location and Range of Practice. The tile-making process is centered in the Machuca tile factory in Paranaque, but its cultural reach extends nationwide through installations in 86 Roman Catholic heritage churches and various heritage homes.

4. Mode of Transmission. The craft involves a multistep manual process: handcrafted mold fabrication, pigment mixing, liquid cement pouring, hydraulic pressing, and natural curing. Transmission occurs through mentorship, with senior artisans mentoring new entrants through hands-on immersion.

5. Photographic and Audio-Visual Documentation. Ample visual documentation exists, including photographs and videos of the production process, 1903 archival catalogs, and images of Machuca tiles in heritage sites. Audio interviews with artisans further capture the intangible aspects of the knowledge system. Some aspects of Machuca's artisanal history remain undocumented and possible reasoning can only be speculated, highlighting the informal and evolving nature of Intangible Cultural Heritage. For instance, the 1914 Spanish brochure mentions the use of “*siete prensas hidráulicas*” (seven hydraulic presses) during the early 20th century. However, at some point, the company transitioned to using manual “*barra*” presses, before eventually returning to hydraulic presses today. As Jaime Machuca shared, “Honestly, that’s

something that puzzles us also... Maybe they got damaged and couldn't get replaced? Maybe electricity/power was an issue... The old manual barras did not run on electricity and were very low maintenance." Although the reasons remain speculative, the return to hydraulic presses has had a positive impact on production without compromising the brand's handcrafted integrity. Hydraulic presses offer greater consistency, durability, and ergonomic ease, making the process more sustainable for artisans while preserving manual involvement at every step. Despite the mechanical aid, tiles remain handcrafted, each mold is manually made by hand and filled with pigment. The shift represents not a departure from tradition, but a thoughtful evolution that upholds artisanal standards while addressing practical needs. In this way, they demonstrate how artisanal businesses can integrate appropriate technologies to support longevity and craftsmanship, reinforcing that "handcrafted" lies not in the absence of tools, but in the presence of human skill, control, and intent.

6. Statement of Significance. Machuca tile-making holds historical, artistic, economic, and spiritual significance. It is embedded in sacred architecture, sustains local livelihood, and symbolizes Filipino resilience and design heritage. Its relevance to Philippine history and identity affirms its eligibility for inclusion in the PRECUP.

7. Current Threats. The practice faces threats from mass-produced imitations, urbanization pressures, and the absence of formal heritage recognition. Documenting and safeguarding this tradition is thus essential to its survival.

By meeting all these requirements, Machuca tile-making is eligible for inclusion in the Philippine Registry of Cultural Property as a living intangible heritage element.

Table 2. Qualification of Machuca Tile-Making as Intangible Cultural Heritage.

UNESCO/ PRECUP Criterion	Requirement	Evidence from Machuca Tile-Making
Intangibility	Practice involves non-material skills or knowledge	Handcraft techniques like pigment mixing, mold-making, and hand pouring passed via mentorship
Cultural Recognition	Recognized by community as part of its identity	4 generations of family stewardship; public presence in 86 heritage churches
Heritage Transmission	Passed from generation to generation in traditional ways	Learning through workshop immersion and intergenerational artisan mentorship
ICH Domain	1. Oral traditions and expressions 2. Performing arts 3. Social Practices, Rituals, Culinary Traditions, and festive events 4. Knowledge and practices concerning nature and the universe 5. Traditional craftsmanship	Matches “Traditional Craftsmanship” domain.
Community of Cultural Bearers	Name of a group of people and/or individuals who practice such vital wisdom or Intangible Cultural Heritage (ICH).	Machuca family and artisans (e.g., Luis Cabatbat, Dominador Mayuyu).
Geographic Location &	Indicate the exact	Machuca Tile Factory in

Range	location of the ICH.	Marian Road, San Martin de Porres, East Service Road, Paranaque
Significance	Historical Significance, Social Significance, Political Significance, Economic Significance, Spiritual Significance, Scientific Significance, Aesthetic or Artistic Significance.	Historical continuity, economic viability, sacred use, Filipino artistic legacy.
Threats and Needs	Describe the viability of the element including the frequency and extent of its practice. Identify and describe the severity of those threats. The description must be specific, not generic factors that could be applicable to any ICH. Measure/s done to protect the ICH.	The craft faces threats from mass-produced alternatives, difficulty sourcing materials, and lack of formal recognition. Machuca addresses this by training new artisans, preserving manual techniques, and leveraging those against competitors. Recognition and support are needed to ensure long-term viability.
Tangible Cultural Links	List of Significant Tangible-Immovable Cultural Property Associated with the ICH being Registered. List of Significant Movable Cultural Property Associated with the ICH being Registered.	Installed in 86 declared Roman Catholic heritage sites.

C. What Makes Machuca Tile-Making Uniquely Filipino

Beyond meeting the universal criteria for intangible heritage, Machuca tile-making possesses distinctive qualities that root it deeply in Filipino cultural identity:

1. Integration in Built Heritage. Machuca tiles are prominently used in Roman Catholic heritage churches throughout the Philippines, including San Sebastian Basilica, San Beda Abbey, and Vigan Cathedral. These sacred architectural spaces embody the fusion of faith, colonial history, and Filipino creativity. The tiles are not merely decorative, they are integral to the sacred and aesthetic fabric of Filipino religious life.

2. Crafted by Filipino Artisans. All artisans involved in the production process are Filipino. The transfer of tile-making knowledge has been localized and indigenized through practice, reflecting Filipino skill, creativity, and adaptation.

3. Made in the Philippines. Every tile is designed, mixed, poured, and pressed in the Philippines. The materials, molds, and techniques are embedded in the local craftsmanship, affirming the practice as a homegrown tradition.

4. Cultural Justification by Zialcita. Cultural anthropologist Fernando N. Zialcita argues that Filipino identity does not emerge from rejecting colonial forms, but from creatively adapting them. Heritage churches are among the Philippines' most important public art forms, where Spanish architectural styles have been localized by incorporating native customs and materials which then led to a Filipino architectural identity. Machuca tiles, prominently installed

in these sacred spaces, embody this. While their designs trace Mediterranean roots, their execution, through Filipino labor, innovation, and reinterpretation, has transformed them into culturally rooted expressions of identity. The craft reflects a broader Filipino capacity to adapt external influences into something distinctly local. These factors collectively anchor Machuca tile-making in the Filipino cultural landscape, not just as an inherited craft, but as an actively lived and reimagined tradition that reflects the nation's layered identity.

Formal recognition would not only affirm the value of Machuca tile-making, it would also offer protection against decline, visibility, and access to support networks. This would affirm their role as tradition bearers which includes eligibility for participation in government programs, and inclusion in national and international heritage discourse. It would also send a broader message that intangible heritage can exist in living and working environments.

Recognizing Machuca Baldozas, Inc. means recognizing the value of the tradition, community behind it, and the skills that have contributed to architectural beauty and spiritual experience for over 120 years. It is time to widen the definition to include artisanal manufacturing businesses that carry history, teach tradition, and contribute to the country's cultural landscape in visible and lasting ways. The following chapter will analyze these findings and discuss interpretations in accordance with the study's objectives and conceptual framework.

Chapter 6: Discussion and Analysis

This chapter interprets the findings of the study through the lens of the conceptual framework presented in Chapter 1. It is divided into four sections, each corresponding to the major thematic domains of the study: heritage transmission, sacred architecture & symbolism, brand identity & equity and strategic management. While these domains are analytically distinct, together they illustrate how Machuca Baldozas, Inc. operates as a business, culturally, and economically.

A. Heritage Transmission

The findings suggest that Machuca Baldozas, Inc.'s longevity is rooted in a well established way of heritage transmission, where traditional knowledge, skills, and values are passed across generations, not only within the founding family but also among the artisans who make up its long-term workforce. This intergenerational transmission of knowledge aligns with UNESCO's definition of Intangible Cultural Heritage as "the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize as part of their cultural heritage." Furthermore, UNESCO (2011) emphasizes that "this Intangible Cultural Heritage, transmitted from generation to generation, is created and transformed continuously by them, depending on the environment and their interaction with nature and history." These statements directly apply to Machuca Baldozas, Inc.'s operations, where

artisanal techniques brought by José Machuca y Romeo in the early 20th century continue to evolve in response to new design needs, technical improvements, and market shifts, without losing their original essence.

Laurajane Smith's (2006) assertion that "heritage is not a thing, it is not a site, building or other material object with defined meaning and value," but rather "something that is culturally and socially constructed" provides a critical lens for understanding Machuca tile-making's value as a living heritage. In this view, the significance of Machuca tiles does not rest solely in their material presence in heritage churches or old homes, but in the community that sustains their production. The craft's survival is tied to relationships, discipline, and mentorship. As Smith argues, heritage work is a social process, and at Machuca, this is evident in how employees, some of whom have worked for the company for decades, train newcomers not just in technique, but in ethos. This mentorship system is described by Salibay (2020) as a model where craftsmanship is passed not only as a skill, but as value. Artisan Dominador Mayuyu shared, "puro disiplina lang hanggang palinis nang palinis ang gawa... tiyaga lang tsaka sipag. Meron kasing mga tao na di masyado magaling pero matiyaga siya... makukuha niya 'yun sa katagalan." His reflection exemplifies how character traits such as perseverance, patience, and pride are cultivated alongside skill, reinforcing Smith's idea that heritage is culturally and socially constructed.

New artisans are not trained through manuals alone, but through immersion in daily work alongside seasoned tilemakers, many of whom are relatives or long-time colleagues. This creates a learning environment based on

observation, repetition, and shared labor. In an interview, Jaime Machuca emphasized, “key here is keeping good long-term employees... they're the ones who make the tiles and they also keep the quality standards... the experienced staff will then train that new person.” This highlights how continuity is intentionally sustained not through mechanization, but through human transmission of knowledge and work ethic.

This system also allows traditional techniques to adapt over time. Luis Cabatbat, an artisan who began working at Machuca in the 1960s, recounted how much the standards have evolved, “noong araw... walang mga quality control. Basta pag natapos doon sa ‘barra,’ ibababad, tapos iinstall na. Di tulad ngayon na nirerebisa yan isa-isa.” His comment shows that tradition at Machuca is not static, it is subject to internal critique and continuous refinement. These changes align with UNESCO’s view of heritage as “living,” adaptable, and practiced in the present.

According to Miton (2022), “a wide variety of cultural practices have a ‘tacit’ dimension, whose principles are neither obvious to an observer, nor known explicitly by experts.” In Machuca tile-making, this tacit knowledge manifests in how artisans instinctively adjust pigment mixtures, align brass molds by feel, or replicate designs by eye. These are not taught as formal steps but passed through the rhythm of daily practice. This kind of skill that's intuitive and experiential illustrates how cultural knowledge lives within the act of doing, not simply in documentation.

Closely tied to this is what Anthroholio (2023) calls implicit culture, the deeper, often unspoken values and assumptions embedded in a community. At Machuca, shared attitudes toward patience, imperfection, and artisanal pride shape how workers approach their roles. Jaime Machuca explained that the company deliberately keeps most steps of the production manual because “it results in an imperfect but good quality handmade tile.” Artisans and clients alike share this appreciation for the uniqueness of each piece.

Their workforce also reflects continuity. He also shared that “within our factory... we have multi-generational employees... lots of fathers and sons get employed.” While not every artisan’s child follows the same path, there is a discernible pattern of familial referral and kinship among workers. This community structure contributes to the conservation of tile-making standards and values. Even more, the continuity within the Machuca family itself, spanning four generations, reinforces this. Leadership transitions are gradual and collaborative. As Mr. Jaime emphasized, “it’s super important to have overlap, both generations work together for a certain period of time.” This not only prevents the loss of institutional memory but also invites innovation that remains grounded in tradition.

A notable example of transmission occurred when artisans from Escuela Taller collaborated with Machuca Baldozas, Inc. after the 2013 Bohol earthquake. As part of a restoration program for damaged churches, students were taught how to recreate Machuca tiles using traditional techniques. A post by Holy Cross Parish (2017) noted: “Escuela Taller Students learn to make Machuca tile.” Jaime

Machuca confirmed, “it was after the Bohol earthquake... a lot of churches in Bohol got destroyed... that included restoring the tiles. I think we worked with a heritage government agency that does all of that work.” This partnership demonstrates how heritage transmission can extend beyond family or workshop-based learning, entering formal education and conservation programs, thus reinforcing its recognition as a living, community-based practice.

Machuca Baldozas, Inc. shows a rare and valuable way of keeping history alive through its work. Instead of treating heritage as something that should stay frozen in time, the company sees it as a living tradition that grows and changes through people and their relationships. The company’s artisans and leaders are not merely replicating a legacy; they are actively performing, adapting, and renewing it, day by day, tile by tile. This active heritage work, consistent with the frameworks of UNESCO, Smith, and Salibay, proves Machuca Baldozas, Inc.’s position as a potential bearer of Intangible Cultural Heritage in the Philippines.

B. Sacred Architecture and Symbolism

Machuca tiles do more than serve as flooring in Philippine churches; they function as theological surfaces, visual expressions of doctrine, memory, and sacred space. As Dr. Denis McNamara (2016) explains, “church floors are not merely functional surfaces but symbolic landscapes that represent theological truths.” He further writes that walking on these surfaces is akin to walking “sacramentally on the ‘streets’ of heaven,” referencing Revelation 21:21. In this context, Machuca tiles serve as expressions of the sacred, shaping church interiors into spaces that evoke devotion.

Their presence in over 86 Roman Catholic churches, including National Cultural Treasures and sites on the UNESCO World Heritage List, underscores their role as liturgical anchors in the country's sacred architecture. This sacred role is evident in the contextual study of five key Manila churches that feature Machuca tile installations: the Minor Basilica of San Sebastian and Archdiocesan Shrine of Our Lady of Mount Carmel, the National Shrine of Our Lady of the Abandoned in Sta. Ana, the Archdiocesan Shrine of Our Lady of Peñafrancia, the Archdiocesan Shrine of Nuestra Señora de Guia, and the Benedictine Abbey of Our Lady of Montserrat. These sites incorporate tile motifs that visually express theological identity. For instance, Our Lady of the Abandoned and Peñafrancia use sunburst forms like Pattern 067 in their sanctuaries, which reinforce Marian associations with light, guidance, and spiritual intercession. Meanwhile, the Benedictine Abbey's symmetrical floral and quatrefoil designs reflect the order and harmony central to Benedictine spirituality.

Such motifs function not merely as decoration but as part of a larger liturgical expression. The eight-pointed star, for example, used repeatedly in San Sebastian, has long been associated in Christian art with regeneration, baptism, and resurrection, reinforcing theological themes through geometry. Even if unintentionally, the presence of these tiles contributes to the ecclesiastical character of the space and aligns with the idea that church floors signify 'the heavenly kingdom' and support the symbolic architecture of worship.

The symbolic power of these patterns echoes Rastelli's (2020) assertion that in sacred and Gothic art, "every animal, plant, human figure, object , there

was more than meets the eye. Every single one of them was a symbol. An ‘icon’... with liturgic, theologic, pedagogic, even social” meanings. Machuca tiles serve as such icons, components of worship environments that operate across of beauty, memory, and belief. At the Archdiocesan Shrine of Nuestra Señora de Guia, earthy floral motifs in Marian blues visually echo the shrine’s devotional focus and maternal symbolism. In these contexts, tilework becomes a shared spiritual expression, read not only by clergy and architects but also by parishioners who tread on them during rites of passage and everyday prayer.

Beyond Manila, regional churches also encode spiritual themes through tile motifs. The Parish Church of Saint James the Greater in Ibaan, Batangas uses geometric sunburst and floral tiles to symbolize the journey of the soul and divine enlightenment. In Saint Christopher Parish Church in La Union, cross-like and solar motifs reinforce the church’s patronal themes of protection and sacrifice. Similarly, in Our Lady of the Pillar Church in Bataan, sword-like shapes paired with floral curls may allude to Mary’s role as spiritual guardian. These local expressions of sacred symbolism, often realized through Machuca tile’s historic patterns, demonstrate how theology and identity are embedded in regional visual culture. Saint John Marie Vianney Church in Silang, Cavite presents another example: its tiles incorporate motifs such as four-leaf clovers (hope, faith, love, charity), a bishop’s mitre, and IHS christograms, forming a layered visual theology of the saint’s virtues and role as patron of priests.

As McNamara writes, sacred floors “indicate order, gem-like radiance, permanence and eschatological glory.” In Machuca tiles, particularly those placed

in altars and naves, the repeated use of Patterns 056 and 091 points to a pattern of consistency and shared taste across parishes and reflects how tiles became more than decoration, they served as quiet signs of parroquial connection, memory, and sacred meaning that tie together Manila's church landscape.

Moreover, these tiles function as vessels of memory. Lenik (2018) argues that building materials can “preserve the memory of cultural encounters, colonial dynamics, and spiritual transformation.” Machuca tiles, rooted in Spanish hydraulic traditions but reinterpreted locally, carry this memory forward. Their continued use across periods, from colonial to postwar to contemporary restoration, testifies to their symbolic resilience. Even when churches are renovated, original Machuca tiles are often preserved or reproduced, affirming their liturgical and cultural value.

Machuca tiles are not simply ornamental surfaces but sacred elements that embody theological meaning, historical continuity, and local identity. Their motifs are not simply patterns but are symbols, silent guides in spaces of prayer, and communal faith.

C. Brand Identity and Equity

Machuca Baldozas, Inc. offers a compelling example of how a business can strategically shape its identity and cultivate lasting brand equity. This section examines their branding through two interrelated frameworks: Kapferer's Brand Identity Prism, which explains how a brand projects itself externally, and Keller's Customer-Based Brand Equity (CBBE) Model, which describes how customer perceptions evolve into brand loyalty. Supporting insights from the Marketing Mix,

the STP (Segmentation, Targeting, Positioning), and audience development practices help contextualize how Machuca balances cultural legacy with market relevance.

According to Kapferer's Brand Identity Prism, brand identity consists of six interconnected dimensions: Physique, Personality, Culture, Relationship, Reflection, and Self-Image. In terms of physique, Machuca Baldozas, Inc.'s physical identity or physique is embodied in its handcrafted cement tiles, which feature vibrant patterns, custom designs, and are rooted in a legacy dating back to its 1903 catalog. Each tile is meticulously produced by artisans using mineral pigments and brass molds, resulting in subtle imperfections that enhance their charm. As stated on the Machuca tile website, "each tile we manufacture is hand-made and carefully crafted... Each and every tile is unique." This handcrafted uniqueness, preserved over a century, sets Machuca tiles apart in both local and global markets. The brand's logo is in deep red a color often associated with passion and the word "Machuca" is in a script-style font which captures the artistry and handcrafted quality of their tiles while the word "TILE" is in clean sans-serif reflecting professionalism, further reinforcing its commitment to artisanal mastery.

Their brand personality is best likened to a master artisan, someone who pays attention to fine details, takes time to do things properly, and lets their work speak for itself. The company stays true to traditional methods, often embracing the imperfections in its products as part of their beauty. As Jaime Machuca explains, "we purposely want to keep the imperfections... it gives you a charm."

This trait reflects a philosophy of patience and respect for process that resonates with clients who value authenticity over uniformity, and who view tile-making as a form of artistic continuity, not just manufacturing. It's a brand that invites appreciation, confident in its timeless identity.

At the core of their brand culture is a deep commitment to Filipino heritage and craftsmanship. The company operates as a multi-generational family business, passing on tile-making knowledge through hands-on mentorship. According to Jaime Machuca, "we see ourselves as part of a movement that values handmade cultural identity." Their tiles are produced using 100% natural and recyclable materials, aligning the brand with sustainable practices. The company's dedication to preserving traditional tile-making techniques and using natural, recyclable materials reflects a deep respect for cultural identity and environmental responsibility.

Machuca Baldozas, Inc. maintains emotionally resonant, trust-based relationships with its customers, many of whom seek to restore ancestral homes or churches. Some of these projects are intergenerational, tapping into nostalgia and cultural memory. As Jaime Machuca shared:

A lot of our clients, they come in and say that these tiles were in our grandparents' house or 'yung ancestral home nila so we get that all the time...sometimes we even purposely try to restore an old family house or ancestral house with the same tile so that's like an extra layer of interesting kasi napapass 'yung tiles through their own generations.

Through tools like the tile simulator and custom design services, the brand fosters collaborative and personalized experiences. Customers are not treated as buyers alone but as partners in heritage preservation, often visiting the factory to

witness the craftsmanship firsthand. This emotional investment strengthens loyalty and transforms each transaction into a shared cultural act.

The company reflects clients who are discerning, design-conscious, and culturally aware. They include architects, homeowners, priests, and cultural institutions, all seeking products that hold historical meaning and aesthetic value. The brand appeals especially to those seeking a mix of Spanish and Filipino aesthetics and those restoring religious or ancestral spaces, reinforcing a sense of cultural continuity. This is supported by Jaime Machuca's statement, "most parish priests like our tiles and they come here to our showroom or our factory to choose." The ideal customer sees themselves as a cultural steward, not just a consumer.

Customers of Machuca Baldozas see themselves as patrons of Filipino craftsmanship. By choosing Machuca tiles, they align with values of national pride, design sophistication, and support for local artisanship. Buying from Machuca means supporting local artisans and being part of history. Clients often report a deeper appreciation after visiting the factory and witnessing the work behind each tile, reinforcing their self-image as mindful and elevated consumers, those who value meaning in materiality, and who contribute to the continuity of Filipino cultural identity.

This is also evident in institutional adoption. At the Banáan Pangasinan Provincial Museum, a historic Machuca tile pattern (Tile No. 218) was adapted as the basis for the museum's official logo. As Culture and Arts Officer Nathaniel Daroy explained:

Kung makikita mo ito 'yung Machuca tiles... These are century-old kaya ito rin 'yung naging inspiration ng ating museum logo... since yung iba ay hindi na kayang sakupin or malagyan yung ibang rooms natin... we had them reproduced.

The act of adapting Machuca's original designs for both physical and symbolic use reflects the depth of the brand's cultural equity where even public institutions turn to Machuca for authentic visual markers of heritage and identity.

These identity facets are supported by Machuca Baldozas, Inc.'s marketing strategy, particularly through the Marketing Mix. As a product, Machuca tiles are both customizable and historically rooted. Clients can modify patterns or request faithful reproductions, reinforcing the brand's unique selling proposition. In terms of price, the tiles are positioned at a premium level but cost is justified by craft and story. Regarding place, Machuca operates from a showroom in San Miguel (capital city of Manila) and the factory in Paranaque (connection to the south) while offering a user-friendly website with a tile simulator to reach distant clients. Promotion strategies include social media campaigns, design expos, and partnerships with creatives like Disenyo Lorenzo. People remain central: the family-run structure, artisans, and responsive staff ensure that everything reflects the brand's heritage ethos.

The STP framework clarifies how Machuca Baldozas, Inc. identifies and reaches its market. Through segmentation, it appeals to LOHAS (Lifestyles of Health and Sustainability) consumers, heritage architects, designers, and restoration clients. Its targeting strategy focuses on those willing to invest in quality and cultural value. The brand's positioning, "The Philippines' Original Handmade Tile Company Since 1903", encapsulates its dual emphasis on legacy

and adaptability. By positioning itself as a bespoke heritage brand, Machuca follows a "more-for-more" value strategy: clients pay a premium for authenticity, design flexibility, and deep cultural meaning.

Brand equity can be assessed using Keller's Customer-Based Brand Equity (CBBE) Model, which traces four stages: Brand Identity, Brand Meaning, Brand Response, and Brand Resonance. At the first level, Brand Identity ("Who are you?"), Machuca is instantly recognizable. The name "Machuca tile" is now often used to refer to similar tiles in general, which shows that many people recognize and are familiar with the brand. Its participation in conservation projects discourse further reinforces awareness.

Brand Meaning ("What are you?") is defined by the dual perception of Machuca as both technically excellent and culturally rich. Clients see themselves purchasing not just a tile, but a piece of history. This deepened meaning supports Brand Response ("What about you?"), where emotional feedback, ranging from nostalgia to reverence, is a frequent part of client testimonials. Many describe restoring homes or churches with Machuca tiles as an act of preservation and pride. Service interactions also reinforce this emotional resonance; clients often praise the company for its sincerity and responsiveness.

At the highest level, Brand Resonance ("What about you and me?"), Machuca achieves strong customer loyalty. Clients in return, recommend the brand, and co-create designs, indicating not just satisfaction but advocacy. The brand's emotional resonance is further underscored through direct testimonials and designer engagement. A Facebook review shares: "The Machuca tiles we

got for our Filipiniana home made all the difference... Even more amazing was the service. Jaime was super accommodating and responsive.” On TikTok, a user remarked: “Ung quality maganda tas para sa mga nkaka appreciate ng handcrafted things tsaka ikaw masusunod sa design.” Architect Andrew Trinidad (GMA Public Affairs, 2023) endorsed their timeless appeal, “the good thing kasi with the baldoza is it's flexible in terms of marami siyang design, it can be customized and over the years nag-ggrow yung kulay niya... nagkakaroon ng character.” These reflections illustrate how Machuca tile’s value transcends functionality, entering the realm of identity, heritage pride, and long-term emotional investment.

Audience development strategies support this resonance. Rather than appeal to mass markets, Machuca nurtures a focused community of heritage advocates, design professionals, and restoration clients. The company builds connections through consistent online updates, collaborative partnerships, and hands-on customization. Its social media presence, features in media such as GMA, and involvement in restoration efforts deepen its audience’s sense of participation. Each interaction becomes not just a transaction, but a relationship built on shared cultural vision.

Machuca Baldozas, Inc. is not merely a tile company, it is a cultural brand. Through deliberate identity building and equity development, it occupies a unique space in the Philippine creative industry: a heritage enterprise that sustains value not just through design, but through meaning. Its brand becomes a narrative tool,

communicating tradition, enabling personalization, and turning every client into a collaborator in heritage preservation.

D. Strategic Management and Business Adaptation

Machuca Baldozas, Inc.'s longevity in a competitive and shifting construction and design market is a testament to how strategic management, rooted in internal strengths, can ensure long-term viability. This approach aligns closely with the Resource-Based View (RBV), which argues that sustainable competitive advantage arises from leveraging internal resources that are valuable, rare, inimitable, and organizationally embedded. Throughout the four generations, Machuca has cultivated a unique mix of both tangible and intangible assets, many of which meet the criteria of the VRIO framework, enabling the business to distinguish itself in the market.

Among Machuca Baldozas, Inc.'s most strategic assets is its design and cultural capital, embedded in its artisanal workforce and history. The company continues to use original tile patterns from 1903, hydraulic presses, and high quality materials. These tools not only serve functional purposes but symbolize the company's legacy. Their legitimacy is reinforced by generational lineage, documentation, and institutional reputation, giving these resources their strategic rarity. The company's comprehensive pattern archive, some continuously in use for over a century, constitutes a design resource few competitors can match. These assets are valuable for enhancing credibility, rare due to their lineage, and inimitable because they are deeply tied to non-transferable knowledge systems and brand narrative.

Their human capital further reinforces its RBV advantage. Many artisans remain with the company for decades, gaining deep, tacit knowledge passed down informally through mentorship and observation. Unlike standardized training, this artisanal expertise is experiential and embodied. It cannot be easily taught or scaled by competitors. Employees like Dominador Mayuyu and Luis Cabatbat, who have worked at Machuca for decades, exemplify this. This kind of long-term workforce continuity contributes not only to product consistency but to an organizational culture defined by trust, discipline, and craftsmanship.

The company's family-led management structure is another internal strength. As described in interviews, the Machuca family draws on each member's legal, architectural, business, and accounting expertise to manage the company. This integration of professional specialization within a kinship model allows for strategic alignment without sacrificing cultural cohesion. According to the VRIO framework, such alignment is key to ensuring that valuable resources are effectively deployed and protected.

Their strategic response to market shifts has also been shaped by measured, adaptive decision-making rather than reactive expansion. For example, when demand for decorative tiles declined in the early 2000s, the company chose to scale back operations instead of closing. This decision preserved its workforce and equipment, preventing knowledge loss and allowing for rapid reactivation when demand resurged. Unlike competitors that exited the market entirely, Machuca Baldozas, Inc.'s commitment to resilience over rapid growth positioned it to regain momentum without rebuilding from scratch.

From an RBV perspective, such decisions illustrate the business's recognition of the fragility and irreplaceability of its core assets. The company prioritizes protecting what makes it distinct: its people, processes, and history. These elements are not just legacy features, they are operational advantages. By organizing its resources to reinforce continuity and strategic focus, Machuca satisfies all components of the VRIO framework and secures a sustained competitive edge. In addition to these intangible assets, their production choices and material sourcing also contribute significantly to its long-term strategic positioning. A significant source of their sustained competitive advantage lies in the physical quality and durability of its products, which are outcomes of both artisanal skill and deliberate material choices. While cement tiles from other manufacturers, such as those described by NT Pavers (2025), are often praised for their handcrafted and artistic appeal, they typically require resealing every one to two years due to high porosity. This makes them prone to absorbing stains and water, resulting in etching and faster deterioration.

In contrast, Machuca tiles are engineered for longevity and everyday usability. Their surface is dense and hard-wearing, requiring only basic cleaning with dishwashing soap and occasional application of colorless wax, depending on usage. They can withstand heavy foot traffic and even abrasive cleaning with Scotch Brite or fine sandpaper. The company openly markets their suitability for bathrooms and wet environments, citing moisture resistance as a distinguishing feature. Furthermore, the tiles possess thermal insulation properties that help

regulate indoor temperature, a highly valued trait in tropical climates like the Philippines.

These performance benefits stem not only from the skill of their artisans but from the company's resource-level decisions: the use of premium Portland cement, fine sand, and lead-free iron oxide pigments. Every tile is pre-sealed before packaging, reducing post-installation maintenance. In addition, Machuca incorporates sustainable practices into its operations, including the use of "green cement" with a 30% lower carbon footprint and the recycling of rejected tiles into sand-like material. These combined practices, difficult to replicate without equivalent institutional knowledge, artisanal discipline, and material access, reinforce the company's VRIO standing, particularly in terms of value, rarity, and inimitability.

Their strategic capacity to adapt is further evident in how it embraced digital pivoting during the COVID-19 pandemic. As Jaime Machuca shared in an interview, "we pivoted heavily in online services. We redid and improved our website... it's been easier for people to search and find us" (Pinoybuilder.ph, 2021). This forward-looking investment preserved visibility, improved user experience, and allowed remote client servicing, all without compromising artisanal integrity. Social media collaborations with architecture firms such as RDG Ecclesiastical Architecture further reinforced the brand's credibility. As they posted, "great selection and recommended floor tile brand since 1900." This kind of endorsement reflects how Machuca leverages tradition not just as heritage, but as strategic capital.

Machuca has also embraced innovation. As previously discussed, the shift from the “barra” manual pressing system to hydraulic tile presses made it easier for the artisans without compromising its handcrafted character. The adoption of air-curing techniques in place of water-dipping has minimized alkaline marks, improving product quality. These changes reflect a strategy of continuous refinement aligned with core identity.

In response to evolving market demands, Machuca has diversified its offerings by adding cleaning services, the upcoming installation services, and digital tools such as a tile simulator. It has also partnered with delivery services like Transportify and 2GO to modernize logistics. These innovations extend service reach and improve customer experience.

The symbolic value of the Machuca name itself is another intangible asset. “Machuca tile” is often used generically to refer to patterned cement tiles in the Philippines, a testament to the brand’s symbolic dominance. This level of name recognition, built over generations, cannot be acquired overnight. It is reinforced by the company’s strategic media presence, including features on programs like GMA’s Dapat Alam Mo! and platforms such as Spot.ph and iJUANder. These appearances do more than promote aesthetic appeal, they communicate the human stories behind the brand, deepening cultural relevance and market trust.

Their strategic management practices reveal a business that treats tradition as a core resource rather than a constraint. The company invests in continuity, mastery, and long-term relationships, demonstrating that heritage, when strategically managed, becomes a forward-looking asset. In this way,

Machuca exemplifies the Resource-Based View of competitive advantage: a business whose strength lies not just in what it owns, but in how it lives its legacy.

1. Tradition as Strategy. This part focuses on how tradition itself becomes a driver of innovation. Here, innovation is not treated as a business tool alone, but as a cultural strategy, reflected in design flexibility, artisan mentorship, sustainable practices, and digital engagement. The discussion centers on how Machuca Baldozas, Inc.'s identity as a heritage brand enables it to introduce changes that are both market-relevant and culturally faithful.

Innovation. Their innovations are grounded in cultural coherence. As a fourth-generation, family-run enterprise, the company demonstrates how preservation and innovation can reinforce each other. Previously discussed upgrades, such as the shift to hydraulic presses and air-drying techniques, are not just technical improvements but examples of how fidelity to tradition guides refinement.

New services, like installations and cleaning which was offered due to demand, the integration of digital platforms, such as a website tile simulator and social media pages, expand access and engagement without compromising core values. These innovations reflect a long-view strategy: evolve where it counts, but never stray from identity.

Customization. This is central to their strategy, offering clients co-creative power rarely seen in the tile industry. Clients can select from over 250 historical patterns or commission entirely new designs, often tied to familial, institutional, or religious identity. As mentioned earlier, churches and ancestral homeowners

frequently engage in this process to preserve or replicate historically significant motifs.

This personalization doesn't just serve aesthetic needs, it builds emotional investment and brand loyalty. Each tile becomes a unique artifact of memory and meaning. While previously detailed in the brand identity section, customization at Machuca functions as both creative flexibility and cultural stewardship. These differentiators solidify their position as the gold standard in Philippine patterned tile-making.

Sustainability. Their sustainability efforts span both environmental and cultural dimensions. Cement tiles are air-cured rather than kiln-fired, significantly reducing energy consumption. The factory employs solar power, rainwater harvesting, and tile recycling to promote circular production. These practices are not marketing embellishments, they are rooted in the company's ethos of resource-conscious craftsmanship.

Equally vital is cultural sustainability. As highlighted in the heritage section, long-term artisans like Dominador Mayuyu and Luis Cabatbat continue to mentor new workers, ensuring that craftsmanship is continued, a living tradition. They treat human expertise not as a cost but as an irreplaceable asset.

Innovation at Machuca is not about abandoning the past, but intentionally reinterpreting it. The company introduces new services, technologies, and strategies in ways that amplify rather than compromise its core identity. By centering customization, refining technical processes, tracking design shifts without compromising heritage, embracing sustainable practices, and fostering a

stable workforce, Machuca Baldozas, Inc. presents a model of innovation deeply rooted in legacy. In heritage enterprises, tradition is not the opposite of progress, it can be its most powerful guide. These findings suggest that companies like Machuca Baldozas, Inc. are not only preserving traditional craft, but actively shaping how Filipino identity, memory, and aesthetics are curated, commodified, and passed on.

Chapter 7: Conclusion, Recommendations, and Future Directions

A. Conclusion

This study explored the cultural significance, strategic management, and business sustainability of Machuca Baldozas, Inc., positioning the company as both a heritage bearer and a living enterprise. Through the lenses of heritage transmission, sacred architecture & symbolism, brand identity & equity, and strategic management, the research demonstrated how Machuca tiles have transcended mere functionality to become embedded in the cultural and spiritual fabric of Philippine built heritage, particularly in Roman Catholic heritage churches.

The research problem explored how Machuca Baldozas, Inc.'s cultural significance and the business strategies sustaining their continued production remain underexplored. This research addresses that gap by examining Machuca Baldozas, Inc. through an interdisciplinary lens that connects cultural heritage, strategic management, and business sustainability. Guided by theories from UNESCO's Intangible Cultural Heritage (ICH), Smith (2006), Salibay (2020); sacred architecture & symbolism from McNamara (2016), Rastelli (2020), Lenik (2018), Kapferer's Brand Identity Prism, Keller's Customer-Based Brand Equity (CBBE), and the Resource-Based View (RBV) and VRIO of strategic management.

This research confirmed that the Machuca tile-making tradition is an example of living heritage, practiced and transmitted across four generations of owners. Tacit knowledge, human relationships, and mentorship, rather than

mechanized production, form the backbone of its operations. This system of transmission aligns with both UNESCO's definition of ICH and Salibay's (2020) view of craftsmanship as a values-based system. Its workforce, composed of multi-generational artisans, reflects a living system of cultural transmission that satisfies UNESCO's criteria for ICH recognition. Partnerships such as the post-earthquake restoration project in Bohol with Escuela Taller further illustrate how heritage transmission can extend into formal education and national conservation programs.

Symbolically, Machuca tiles function as theological surfaces embedded in the architecture of 86 documented Philippine Roman Catholic heritage churches. These tiles carry sacred meaning, visually articulating themes of Marian devotion, resurrection, divine light, and other Christian saint iconography. Whether in the altar or nave aisles, their presence creates a visual expression of faith. These interpretations were guided by theological scholarship from McNamara (2016), Rastelli (2020), and Lenik (2018), who view sacred architecture as both symbolic and pedagogical.

Through frameworks like Kapferer's Brand Identity Prism and Keller's CBBE Model, Machuca was shown to possess a strong, coherent, and emotionally resonant brand wherein it is perceived as authentic, artisanal, and culturally Filipino which appeals to heritage-minded consumers, designers, and institutions. Its collaboration with museums, architects, and restoration projects further reinforces its appeal such as in the use of a Machuca tile as the Banáan Museum's logo, this further reflects the company's symbolic influence.

Strategically, the company's longevity can be attributed to the effective use of internal, inimitable assets, such as the artisans, traditional techniques and a design archive dating back to 1903, alongside slow but calculated innovation. Through RBV and VRIO analysis, the company's sustained competitive advantage by protecting its core assets. Its long-lasting, moisture-resistant tiles, produced with premium materials and sustainable practices, exemplify how deliberate resource choices and artisanal skill translate into high quality tiles. The Machuca family also draws on each member's legal, architectural, business, and accounting expertise to manage the company.

This research makes a unique contribution to the fields of management and cultural heritage studies by featuring a local business as a form of living heritage. It challenges the prevailing assumption that cultural heritage is best preserved in formal institutions by demonstrating how private, family-owned businesses can serve as long-term stewards of craft knowledge, identity across generations and community values such as pride in their heritage and respect for tradition while continuously innovating to remain relevant.

For practitioners, the case of Machuca offers a replicable model of heritage-based entrepreneurship by demonstrating how tradition can serve not only as a cultural asset, with historical, aesthetic, and symbolic value, but also as a strategic framework that informs branding, product or service development, and long-term business planning aimed at achieving sustained competitive advantage.

This study of Machuca Baldozas, Inc. is a reminder that tradition is not the opposite of innovation, it is often the source of it. In a time of rapid change, the longevity of Machuca Baldozas, Inc. offers a compelling argument for why cultural heritage, when nurtured, valued, and adapted can become one of the most strategic and sustainable assets. This study affirms that heritage is not only what is inherited, it is what's chosen to be sustained, practiced, and passed on.

While the depth of this case study provides rich insights, the research is limited by interviews conducted primarily with key informants from the Machuca family and artisans, and findings are rooted in qualitative analysis. Financial data weren't explored due to possible business confidentiality. Additionally, while Roman Catholic heritage church sites were mapped nationwide, deeper contextual analysis focused only on select churches in Manila.

B. Recommendations

1. For Machuca Baldozas, Inc.

- Seek formal recognition under PRECUP and/or UNESCO's ICH listings to protect its craft and enhance brand equity.

- Invest in digital documentation of custom patterns for educational and research purposes.

2. For Cultural Institutions (NCCA, NHCP, LGUs)

- Recognize and support them as active partners in safeguarding tangible and intangible heritage through inclusive policies and visibility.

According to section 4.3 of the Resolution No. 2017-330, Guidelines Governing The Philippine Registry of Cultural Property:

Local government units shall also document traditional and contemporary arts and crafts, including their processes and makers, and sustain the sources of their raw materials within their jurisdiction. Further, the LGUs shall encourage and sustain traditional arts and crafts as active and viable sources of income for the community within their jurisdiction. An annual inventory of these documentations shall be submitted to the Commission along with the submission of local cultural databases to the Registry.

Likewise, RA 10066, Section 19 mandates:

National Inventory of Intangible Cultural Heritage. – The appropriate cultural agency shall closely collaborate with the UNESCO National Commission of the Philippines in safeguarding intangible cultural heritage in the Philippines. The Philippine Intangible Cultural Heritage Committee established by the UNESCO National Commission of the Philippines shall continue to take the lead role in implementing the provisions of the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage, with particular attention to Articles 11 to 15 of the said Convention.

- Collaborate with Machuca on cultural mapping projects that document tile installations and its stories in heritage structures nationwide.

- Integrate Machuca tiles into architectural conservation guidelines.

Heritage conservation bodies should develop specific protocols and partnerships with Machuca Baldozas, Inc. for the preservation, restoration, and maintenance of Machuca tiles in heritage churches and ancestral houses.

C. Future Directions

Building on this study, future research may explore:

1. Ancestral houses with Machuca tiles and how it contributes to emotional attachment, memory formation and historical narratives. This could involve interviewing homeowners and mapping its history as well as emotional responses to patterns, colors, and spaces.

2. A quantitative design and inclusion of other similar artisanal businesses which would enhance the generalizability of the insights. Compare how intergenerational succession is managed, how values shift or persist, and how heritage intersects with entrepreneurship.

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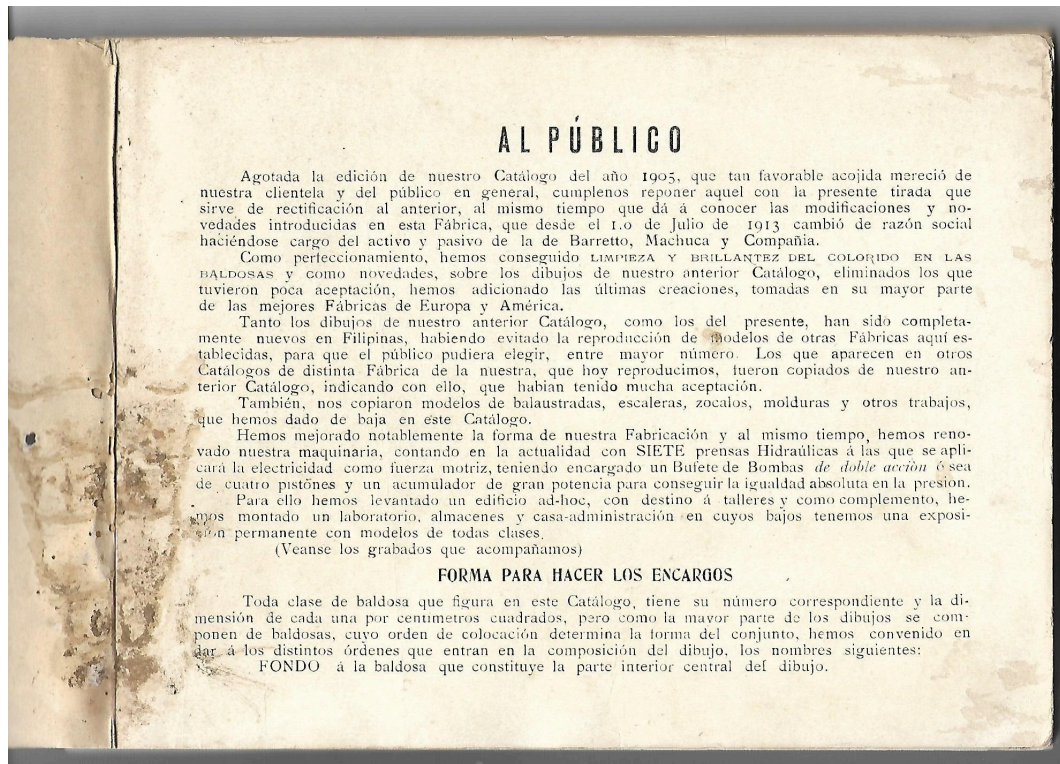
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Appendices

Appendix A

Spanish Brochure





AL PÚBLICO

Agotada la edición de nuestro Catálogo del año 1905, que tan favorable acogida mereció de nuestra clientela y del público en general, cumplenos reponer aquel con la presente tirada que sirve de rectificación al anterior, al mismo tiempo que da á conocer las modificaciones y novedades introducidas en esta Fábrica, que desde el 1.º de Julio de 1913 cambió de razón social haciéndose cargo del activo y pasivo de la de Barretto, Machuca y Compañía.

Como perfeccionamiento, hemos conseguido LIMPIEZA Y BRILLANTEZ DEL COLORIDO EN LAS BALDOSAS y como novedades, sobre los dibujos de nuestro anterior Catálogo, eliminados los que tuvieron poca aceptación, hemos adicionado las últimas creaciones, tomadas en su mayor parte de las mejores Fábricas de Europa y América.

Tanto los dibujos de nuestro anterior Catálogo, como los del presente, han sido completamente nuevos en Filipinas, habiendo evitado la reproducción de modelos de otras Fábricas aquí establecidas, para que el público pudiera elegir, entre mayor número. Los que aparecen en otros Catálogos de distinta Fábrica de la nuestra, que hoy reproducimos, fueron copiados de nuestro anterior Catálogo, indicando con ello, que habían tenido mucha aceptación.

También, nos copiaron modelos de balastradas, escaleras, zocalos, molduras y otros trabajos, que hemos dado de baja en este Catálogo.

Hemos mejorado notablemente la forma de nuestra Fabricación y al mismo tiempo, hemos renovado nuestra maquinaria, contando en la actualidad con SIETE prensas Hidráulicas á las que se aplicará la electricidad como fuerza motriz, teniendo encargado un Bute de Bombas de doble acción é sea de cuatro pistones y un acumulador de gran potencia para conseguir la igualdad absoluta en la presión.

Para ello hemos levantado un edificio ad-hoc, con destino á talleres y como complemento, hemos montado un laboratorio, almacenes y casa-administración en cuyos bajos tenemos una exposición permanente con modelos de todas clases.

(Véanse los grabados que acompañamos)

FORMA PARA HACER LOS ENCARGOS

Toda clase de baldosa que figura en este Catálogo, tiene su número correspondiente y la dimensión de cada una por centímetros cuadrados, pero como la mayor parte de los dibujos se componen de baldosas, cuyo orden de colocación determina la forma del conjunto, hemos convenido en dar á los distintos órdenes que entran en la composición del dibujo, los nombres siguientes:

FONDO á la baldosa que constituye la parte interior central del dibujo.

GRECA 1.A la que se halla en contacto inmediato con el fondo.
GRECA 2.A cuando el dibujo tiene dos grecas que entre ambas forman el dibujo, se nombran greca 1.a a la que está en contacto con el fondo y 2.a la que está en contacto con la 1.a.
CANTONERA las que forman los ángulos que como las grecas, pueden ser dobles, distinguiéndose en 1.a y 2.a.

CENEFA son las baldosas de un solo color que forman el contorno exterior de los dibujos, debiendo de formarse con una ó dos baldosas, según las dimensiones de la habitación.

Con estas instrucciones pueden hacerse los encargos sin error alguno.

A mayor abundamiento en nuestra Nota de Precios que publicaremos para este Catálogo, determinaremos el número de baldosas de cada clase que entran en un metro cuadrado, así como el peso, con lo cual se facilitarán los cálculos para la confección de planos y presupuestos.

GRANITO DE MARMOL & PIEDRA ARTIFICIAL

El empleo de este material, es de gran utilidad en las modernas construcciones, pues facilita la ornamentación y decoración con columnas, capiteles, mensulas, ventanales, balaustradas, jarrones, escalinatas etc. etc.

Aún cuando los contratistas, con presencia del plano y bajo la dirección de Ingeniero ó Arquitecto, pudieran hacer una gran parte de esos trabajos, es indudable que les resultaría mucho más costoso que acudiendo á la Fábrica, pues habrían de emplear personal inteligente para obra determinada, mientras que nosotros disponemos con carácter permanente, de ese personal y de directores.

Un ejemplo tenemos con las columnas, capiteles y mensulas de la *Universidad de Filipinas*, obras ejecutadas por esta Fábrica, para la que los contratistas, dieron precios más del doble que nosotros.

Damos una ligera idea de las diversas aplicaciones del granito de marmol y piedra artificial, con los dibujos correspondientes. Además de los objetos que figuran en este Catálogo podemos fabricar cualquiera otro, bajo dibujo que nos envíen.

MARMOL ARTIFICIAL

Hasta hace poco tiempo este artículo era desconocido en Filipinas pues las Fábricas con inclusión de la nuestra, confundieron indistintamente el granito de marmol con el marmol artificial.

El marmol artificial, es la imitación de vetas y aguas que presenta el marmol natural, bien en dos ó más colores y nosotros hemos conseguido su fabricación, aplicándolo á la baldosa, mesas y otros objetos, con resultado satisfactorio.

TUBERIAS CLOACAS Y ALCANTARILLADO

Nuestras tuberías, propias para conducciones de aguas potables y para el riego y caída de aguas nocibles y pluviales de los edificios, tiene sobre las demás, las siguientes ventajas: su mayor baratura, su mayor duración, que es indefinida, en no criar en su interior excrecencias, ni materias orgánicas.

Iguales ventajas tienen en las cloacas y alcantarillas reuniendo además, la de su insignificante coste de colocación, y la de estar partidas en dos mitades las de 60x90, para evitar obstrucciones y facilitar cualquiera reparación.

ESTATUARIA

Esta casa admite la fabricación de estatuas, bustos, Santos y monumentos, teniendo elementos bastantes para toda clase de obras y personal competente.

CONSTRUCCIONES

La Fábrica admite encargos de construcción de obras referentes á nuestra industria y con especialidad, chalet ó casas de bloques, Panteones, Mausoleos, monumentos, etc. etc.

Por separado de este Catálogo publicaremos otro que ha de comprender solamente Panteones, Mausoleos, sarcófagos, lápidas y todo lo referente á pompas fúnebres.

ADVERTENCIA IMPORTANTE

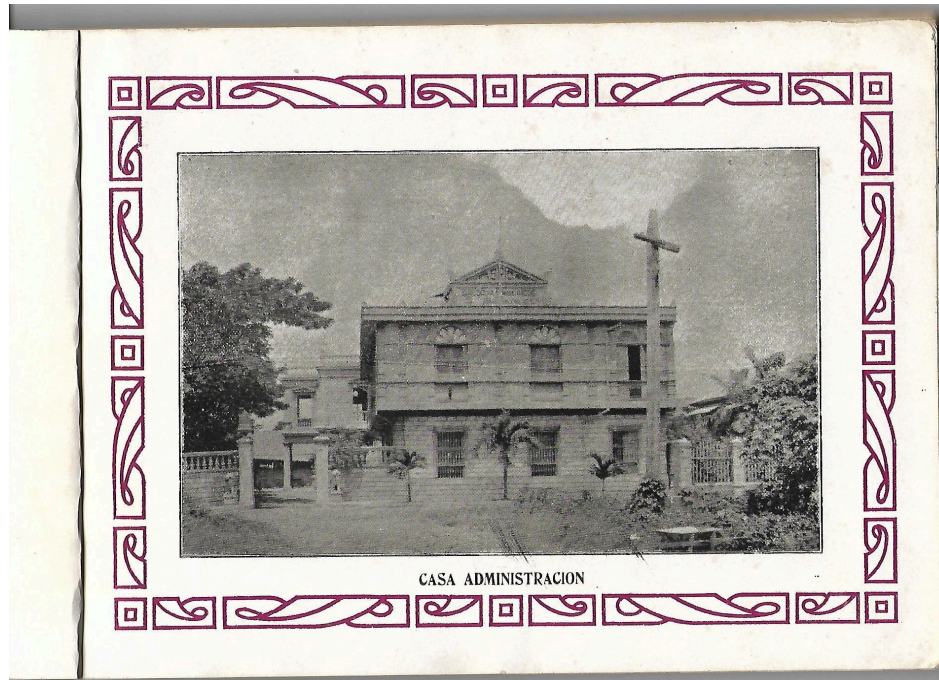
Esta Fábrica no tiene relación alguna con otra que se anuncia bajo el nombre de "J. MARTIN MACHUCA" y que aparece en el Directorio de Teléfonos con el nombre de MACHUCA (J. MARTIN) con la sana intención de aprovechar nuestro crédito, prevaleciéndose de la identidad del apellido.

También llamamos la atención del público en cuanto á la necesidad que hemos tenido de imprimir en el dorso de cada hoja de este Catálogo nuestra razón social en forma de que, aún arrancando la cubierta como ocurrió con el anterior Catálogo, no pueda presentarse como propio, lo que es una usurpación.

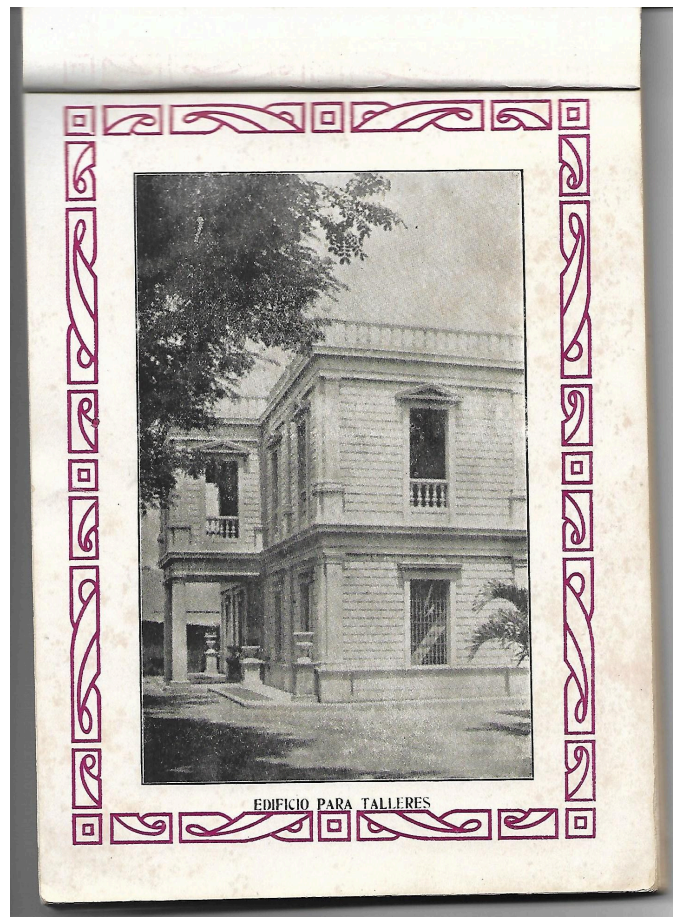
El presente Catálogo anula el anterior.

Manila, 31 de Agosto de 1914.

J. Machuca & Compañía



CASA ADMINISTRACION



EDIFICIO PARA TALLERES

English Translation of Brochure

FOR THE GENERAL PUBLIC

Our catalog's 1905 edition, which was warmly welcomed by both our customers and the general public, has been handed out completely. We feel obliged to reprint a new edition that will rectify some aspects of the previous one and disclose the changes and the introduction of new features in this factory, which has changed its corporate name and taken over the assets and liabilities of "Barretto, Machuca y Compañía" since July 1, 1913.

As improvements, we have achieved a TILE COLOR THAT IS MORE PRISTINE AND BRIGHT, and as new features, we have eliminated drawings that were not wholly accepted by the public from our previous catalog, as well as incorporated the latest creations taken mostly from the best factories in Europe and America.

Both the drawings of our previous catalog and the new one have been and are a complete novelty in the Philippines because we have entirely avoided reproducing models of other local factories so that the public could choose among a wider range. Those included in our new catalog, also appearing in other catalogs from different factories, were copied by rival manufacturers from our previous catalog, indicating that the public widely accepted them.

They also copied some of our models of balustrades, stairs, plinths, moldings, and other crafts, which we have removed from this catalog.

We have significantly improved our manufacturing and renewed our machinery, which currently has SEVEN hydraulic presses

using electricity as a driving force, having a *double-action* pump module (i.e., four pistons and a high power accumulator) to apply absolute pressure equally.

To this effect, we have built an ad-hoc facility for workshops. As a supplement, we have set up a laboratory, warehouses, and an administration office that will serve as a home to permanent exhibitions with all kinds of models.

(Please refer to the prints that we have enclosed.)

PROCEDURE TO PLACE ORDERS

Any kind of tiles that appear in this catalog include their relevant number and size in square centimeters. However, because most of the drawings consist of tiles whose placement order determines the set's shape, we have decided to give the following names to the different orders involved in the drawing composition:

BACKGROUND is the tile making up the central interior part of the drawing.

FRETWORK 1.A is the one placed immediately in contact with the background.

FRETWORK 2.A appears when two fretworks form the drawing; namely, fretwork 1.a, the one in contact with the background, and fretwork 2.a, which is in contact with fretwork 1.a, respectively.

CORNER PIECE is any of those placed in the corners; likewise, to the fretworks, there can be two sets of them: corner piece 1.a and corner piece 2.a.

BORDER is considered tiles of a single color that make up the outer contour of the drawings, which will consist of either one or two tiles depending on the dimensions of the room.

Following these instructions, orders can be made without making mistakes.

In addition to our pricing list that we will publish for this catalog, we will provide information on the number of tiles of each kind that fit into a square meter and on their weight to ease calculations for the implementation of plans and budgets.

MARBLE GRANITE & ARTIFICIAL STONE

This material is very useful in modern buildings, as it eases the use of ornamentation and decoration with columns, capitals, corbels, large windows, balustrades, vases, staircases, etc.

Despite the fact that the contractors could carry out a large amount of these works by following their plan under the direction of an engineer or an

architect, it is unquestionable that such works would be much more expensive than ordering it from this factory because they would have to allocate highly skilled personnel to do such specific work while we have this kind of staff and managers permanently.

An example of this are the columns, capitals, and corbels of the *University of the Philippines*, whose works were executed by this factory and for which other contractors offered prices higher than twofold of ours.

We give ideas of the several applications of marble granite and artificial stone with their relevant drawings. In addition to the products featured in this catalog, we are capable of manufacturing any other by following a drawing sent to us.

ARTIFICIAL MARBLE

Until recently, this material was unknown in the Philippines because factories, including ours, did not differentiate between marble granite and artificial marble.

Artificial marble is the imitation of veins and water present in natural marble in either two or more colors, and we have achieved its manufacture and applied it to tiles, tables, and other objects satisfactorily.

PIPES, DRAINS, AND SEWERAGE

Our pipelines, suitable for potable water pipes, irrigation, and the evacuation of harmful and pluvial water from buildings, have the following advantages over tiles manufactured by other companies: they are cheaper, last longer, indefinitely, and do not harbor internal excrescences or organic matter.

Drains and sewers add the insignificant cost of installation with the same advantages and being split into two (60×90) halves to avoid obstructions and make possible reparations easier.

STATUES AND THE LIKE

This company is capable of manufacturing statues, busts, saints, and monuments, as we have competent staff and no shortage of components for all kinds of works.

BUILDINGS

Our factory accepts orders regarding building development and especially those involving detached or blockhouses, pantheons, mausoleums, monuments, etc.

Aside from this catalog, we will publish another that covers only pantheons, mausoleums, sarcophagi, tombstones, and everything related to funeral ceremonies.

IMPORTANT NOTICE

This factory is in no way related to any other that is advertised with the name “J. MARTIN MACHUCA,” and that appears in the phone directory with the name “MACHUCA (J. MARTIN)” to take advantage of our renown through the use of the same surname.

We would also like the public to know that we have had to resort to print our business name on the back of each page of this catalog to ensure that, even if the cover were to be taken off as with what happened with our previous catalog, it might not be distributed as their own by other persons or companies incurring in a misappropriation.

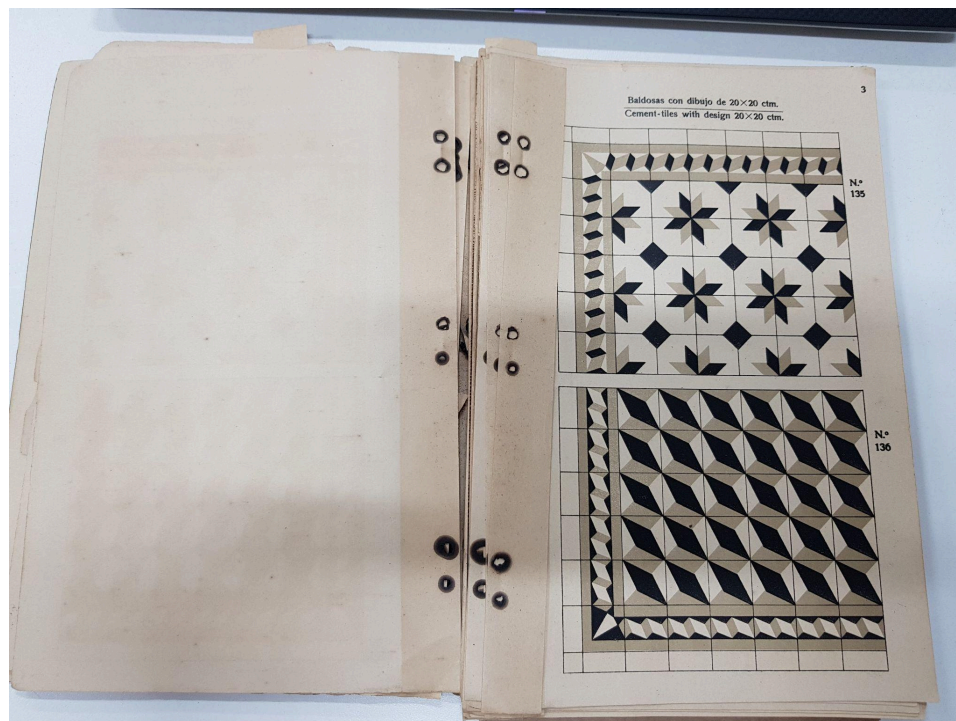
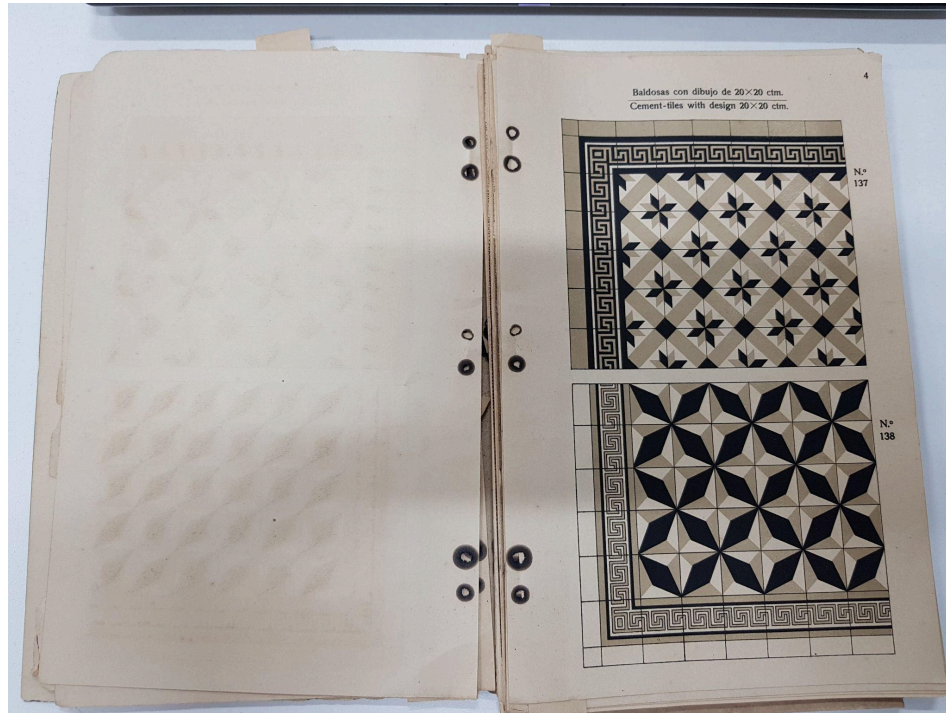
This catalog overrides the previous one.

In Manila, on August 31, 1914.

J. Machuca & Compañía

Appendix B

Photos of tile patterns from the 1914 Catalog





Appendix C


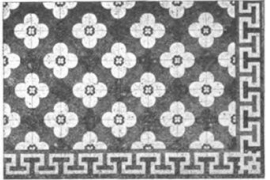

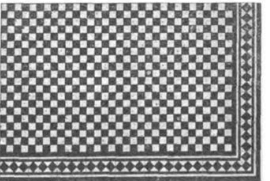
Photos of Original Machuca Tile Factory



Appendix D

Old Advertisements and Publications



	BARRETTO, MACHUCA & CO. NO. 3 CALLE BALMES, TANDUAY MANILA, P. I. PHONE 394 P. O. BOX 136	
Artificial Stone—Artificial Granite or Compressed Marble		Tiles in Designs and Colors Plain Tiles
MOSAIC	FACTORY	Tiles made to Order in any Color and Design
Tubes of Compressed Cement Sewer and Drain Pipes, etc.	OFFICE: 97 CALLE NUEVA, BINONDO PHONE 13 Baths, Sinks, Doorsteps, Fonts, Tables, Garden Benches, Fountains, Jars, etc.	

Fabrica de Baldozas

DE
Jose Machuca & Co.

de colores inalterables y fijos y de diseño o dibujo sencillo y
legante se venden a precios sin competencia en la casa del
SR. MARCELO REGNER calle Sanciango No. 87.

Para detalles y mas pormenores acuda al

SR. M. REGNER.

Oficina Sanciango No. 87, Cebu.

Fábrica de Baldosas Mosaicos

Teléfono núm. 637.

de

Apartado núm. 136.

Barretto Machuca y C.a

CAPITAL FILIPINO.

BALDOSAS lisas y con dibujos en todos colores.

TUBOS de cemento, **PIEDRA** y **Granito** artificial.

BLOQUES huecos de cemento en competencia con el ladrillo.

BALDOSAS de relieve para revestimiento de fachadas y vestíbulos.

SIN COMPETENCIA EN CALIDAD Y PRECIOS.

Oficina: Calle Nueva de Binondo núm. 97.—Fábrica, Balmes, 3, Tandunay.

Pídanse catálogos y notas de precios.—MANILA.—Nuevos modelos todos
los años.

Carnicería española

DE JOSÉ FLAMENÓ.

KIOSKO EN EL MERCADO DE LA QUINTA.

Expende carnes, mantes, embutidos y aves, toda fresca y a precios arreglados. Servicio a domicilio. Contratos de venta al por mayor. Ventas de ganado vacuno procedente de Shanghai y otras partes carabacas, caballos chinos, cerdos, cerdos, patos y pavos.

OFICINAS

Paseo de Azcarraga

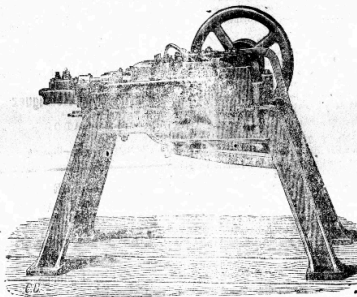
No. 302

TELÉFONO 132.

Central Mercantile Purveying Co. Ltd.

PEDREÑO Y C.

CALLE DE JOLO 209-BRONDO



Máquinas para trasejar en maderas

DE IMPORTANCIA

para todas las mujeres

Imposible será jugar de segundo las cosas que están pasando en Filipinas. En la actualidad, la mujer filipina, que hasta ahora ha sido considerada como una mujer que se dedica a la casa, se ve obligada a salir a trabajar. Esto se debe a la necesidad de dinero para sostener a su familia. La mujer filipina debe ser educada para poder trabajar y ser independiente. Esto es lo que se necesita en Filipinas.



De la misma manera, la mujer filipina debe ser educada para poder trabajar y ser independiente. Esto es lo que se necesita en Filipinas.

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Si necesitan dinero

pasen por la casa americana de empeños no 15 al 19, Paseo de Perce. Se dan los mejores precios de la Ciudad a los

Relojes, Diamantes y Alhajas

TIPOS MUY BAJOS DE INTERES. PRUEBEN.

Papeletas de empeño en español.

Prentitud en el despacho.

FINNICK HERMANOS. PROPIETARIOS.

Abierto desde las 7 mañana a 9 noche y los domingos media día.

"LA ROSARIO"

GRAN FABRICA DE ALCOHOLIS.—Calle San Sebastian nos 210 y 218. Venta de Alcoholicos, rectificados, Anisados, Ginebra y Carabanchel.

Este caso ha sido terminado en la Exposición de Manila y Repres de Filipinas el año 1904.

Ginebra de tres Campanas, marca Patrio Ubeda, no olviden Ubeda Patrio Ubeda. La Botas de las Ginebras de Filipinas. F. con Patrio Ubeda. Han salido muchas imitaciones pero lo peor del caso es que después de tanto los francos los sustituya el líquido aprovechando la equivocación de tres Campanas, Patrio Ubeda. Destruido cuando sea bebido.

Para Ginebra tres campanas, Ponche Venus, Anis del poroso, Cognac Adebey y Co., Moncal delosagrar, liquisimo Vermont, Jerez oro, Jerez añejo tuloso. Bui crida, Licor Chartrous crema de menta, Crema de café Benedictine Quisao, Marrasquino y otros varios la marca Patrio Ubeda.

Para Baco pipas medias pipas cuarterolas de vino blanco tiato seco y dulce a pñ 5 arrobas.

De venta en los ALMACENES EUROPEOS Y CHINOS DE FILIPINAS. También vendemos en Hong-kong, Shanghai y Japón.

Riquisima Ginebra tres Campanas, Patrio Ubeda, ganó primer premio en la Exposición de Haudí el cual desde Septiembre lo lleve estampado en el frasco para no confundirlos con las otras imitaciones.

De moda el Ponche Venus. La necesidad La Ginebra tres Campanas.

"LA ROSARIO"

Ladrillos de todas clases

—+—+—+—

Vende LA OLIMPIA.

FABRICA DE LADRILOS

TUASON ARRIANO Y CA

Oficina "Glebe de Oro 102 Quiapo.

CERVESAS

"San Miguel"

Las favoritas del Publico,

las sin rival por su pureza, desprovistas de toda sustancia quimico segun repetidas analisis del Board of Health Chemical de Manila y del Verein, Versuchs-und Lehranstalt fuer Banerei in Berlin.

Dirección telegráfica "ROXAS-MANILA"

Apartado de Correos no. 55

FABRICA—MALACANANG, 154.

Ramon Arevalo, DENTISTA—Villalobos, 49-Quiepo.

Compania General

DE TABACOS DE FILIPINAS

REMIADAS CON DIPLOMAS DE HONOR Y MEDALLA DE ORO EN LAS ULTIMAS EXPOSICIONES CELEBRADAS EN MANILA, AMSTERDAM, AMERES, MADRID, MADRID, BARCELONA, GOURN Y PARIS

Esta Compania en su fabrica FLOR DE LA SABELA que como fabrica particular es la mayor del Mundo y en la que trabajan diariamente más de cuatro mil operarios de ambos sexos elabora con toda perfección y enmero todas las clases conocidas de cigarros, cigarrillos y puros no empleando en su producción más que el mejor tabaco rama de Isabela. Precios baratísimos como puede verse en las vitrinas que se entregan a quien los desea. Para pedidos dirigirse al Sr. Administrador general de la Compania.

ISLA ROMERO No. 1,

Lavanderia

de ELADIO DE LA CRUZ Y C.

Gusaw 18-Quiepo-Manila.

A precios económicos, se reciben lavados en repas por pedacos ó por ciento. Se recoge a domicilio.

Greissamer Hermanos
ALHAJAS, OBIJETOS DE FANTASIA
Culcos importadores de las más grandes vidras
marca **LONGINES**
JOYERIA-RELOJERIA, SUIZA
ESCRITOJA 24 y 26 MANILA

Desde \$ 17.50
Vendemos
Granitones del mejor cuero americano para caballos del país
De calidad superior
GRANDS existencias en el Oriente.
34, Echague-PICKET & ROBERTS.
Fabrica de baldosas
ALHAJAS DE CEMENTO COLIFRIMIDO
LABORATORIO MANCHA CA
Baldosas para PAVIMENTOS, pisos y con dibujos de varias clases y dimensiones.
AZULEJOS DE ESPANA calidad superior y precios económicos.
FITRICAL
Baldosadas, marmolas, jarrones, columnas, esculturas, figuras, molduras, etc.
CRISTAL ARTISTICO
TUBERIAS DE CEMENTO para conduccion de agua y gas.
BALDOSAS para PAVIMENTOS, pisos y con dibujos de varias clases y dimensiones.

Machuca & Co., J.—Importers and Exporters—
Tile Manufacturers—P. O. Box 136—Tele-
phone 633—Cable Address: "Machuca"—21
Balmes, Tanduay.

Jose Machuca Romeo, Manager.

J. Machuca Sanchez, signs p. p.

Antonio Machuca, signs p. p.

Macario Martinez.

Luis Pauli.

Tomas Rualo.

Ernesto Moral.

MACHUCA TILE COMPANY, INC.

Head Office: 21 Balmes, Quiapo, Manila—*Re-
gistered:* November 6, 1936—*Term:* 25 years—*Busi-
ness:* Manufacture and sale of Tiles, Pipes made of
Cement, Artificial Granite, etc.—*Nationality:* Fili-
pino—*Capital Stock:* Pesos 75,000.00 divided into
500 ordinary shares of the par value of Pesos 100.00
each and 50 preferred shares of the par value of
Pesos 500.00 each—*Subscribed and Paid-in Capital:*
Pesos 62,600.00; *Cash:* Pesos 400.00; *Property:*
Pesos 62,200.00—*Incorporators and Directors:* Jose
Barbaza Pagtalo, Jose Machuca Sanchez, Pedro
Cantero Enriquez, Jose O. Maffiotte and Jose Ma.
de Marcaida—*Treasurer:* Jose O. Maffiotte, 11 Bal-
mes, Quiapo, Manila.

JOSE MACHUCA ROMEO

MERCHANT

Born October 21st, 1858 in Estepa, Seville, Spain. Son of Jose Machuca Sobrevilla and Carmen Romeo Pla. Educated in Colegio de Cabra, Cordova, Spain, receiving the degree of A. B., 1870; Law Course in Granada, graduating in 1874. Came to the Philippine Islands, 1875 from Spain. During the Spanish Regime, Recorder of the Supreme Court, Judge of the Court of First Instance of Bataan, Albay and Cebu. Auxiliary Provincial Attorney of Cebu. Present Manager of Barretto, Machuca & Co. and J. Machuca & Co. Married, to Ampara Sanchez in Madrid. Residence, 21 Balmes, Tanduay, Manila, P. I.

Appendix E

History of Machuca Tile

A Tile Centuries in the Making

These days, having decorative tiles in properties tend to portray the owner as someone of higher status in society. However, contrary to popular belief, tile technology has been around for centuries, and not a relatively new phenomenon. When Muslims from North Africa began to settle in Spain and Portugal, among other European countries, during the 7th and 8th centuries, wherein they came to be known as Moors or Moros to the Spanish, they brought with them what is now called the Mediterranean design. Called rightly so, the Mediterranean design in tile making suggests that it originated from the areas surrounding the Mediterranean Sea, most of which were once under Roman rule. As the colors increased over time, so did the possible designs and patterns that can be created. This style, which was greatly inspired by the Greek and Roman mosaic methodology, created the mosaic tile or *baldosa mosaico* that features myriads of designs handcrafted and assembled piece by piece (each piece being called *tessera* in Latin). The Moro technique, known as *zellige* or *zellij* (meaning “little stone” in Arabic), resembled much of the Roman, wherein they set the colored pieces on a plaster base to create the design or pattern. However, the difference is glazing, wherein the material was subjected to heat in order to make permanent the colors making up the design. From there, the colored material would be cut into several pieces. The Spanish derived from this the *azulejo* (meaning “blue tile” in Spanish), a localized term for *zellige*, which also made extensive use of glazing. By the 12th and 13th centuries, the Mediterranean style has spread across Europe, wherein Southern Spain became a major center of production (particularly Seville, Cordoba, and Granada), so much so that it has become known as the “Spanish tile” despite its Islamic influences. It was said that almost every important building, such as churches, schools, and palaces, among others, would have these tiles laid in them. However, it fell out of fashion during the Renaissance. One of the major contributors to its fading popularity include political movements such as the expulsion of Moros from mainland Europe in 1492, and the waning of Spain as a world power due to its armada’s defeat in 1588, and the aftereffects of the Dutch war for independence from 1568 to 1648, as well as economic repercussions which accompanied these issues. Spanish economic output dropped, and along with it, the country’s iconic tile production which took the medieval world by storm. Meanwhile, the *zellige* continued to flourish in predominantly Muslim areas such as those under Ottoman rule, as well as in Persia, wherein the technique became known as *ghlami*.

Cement Tile Revolution

A revival for the Mediterranean style decorative tile comes along with the Industrial Revolution in the 19th century. When Europeans rediscovered the mosaic tiles left behind in their historical edifices, and witnessed how the tradition of making them continued elsewhere, they figured to recreate the *azulejos*. For example, in Britain, the

popularization of decorative tiles began in 1842, when the first batch of production using encaustic or inlaid tile making was laid in London, notably at the Temple Church and at the Palace of Westminster. Later on, these encaustic tiles were exported to other countries, including the United States. The method used appeared greatly similar to that of its predecessors due to the use of the kiln for glazing, albeit the marked difference would have been the use of a steel mold in the process. Nonetheless, a primary driver in this revival was the introduction of the cement tile. In 1857, the first cement tile was produced in Barcelona, Spain. Thereafter, they made their big break at the 1867 Paris International Exposition (Exposition universelle d'art et d'industrie), an event which drew some 15 million visitors and cemented the global cement tile revolution in the people's imagination ever since. What makes the cement tile different from preceding decorative tiles is that the production process does not involve heating the tile. Instead, the designs are done by embedding natural color palettes through steel molds and the hydraulic press. However, what the Industrial Revolution did not replace is the property of tiles being handmade. This tradition in tile making remains intact to this day, which gives the finished product not only its strength and durability, but also a definitive display of its value, distinctiveness, and deepness of character since no one tile can be considered "perfect" in its creation. Meanwhile, the use of the hydraulic press earned the cement tile a few more monikers, namely *mosaico hidraulico*, *baldosa hidraulica*, and for the French who began cement tile production at around the same time as the Spanish, *carreaux de ciment*. However, since the *azulejo* was the primary inspiration for the development of the cement tile, it was a common misconception during the 19th century to confuse encaustic tiles, which are glazed, with cement tiles, which are not. This is not only within Spain, but also in other tile producing countries such as Britain and the United States. So long as the tiles have intricate designs and colorful patterns, the public are quite satisfied with seeing both of them as *azulejos*.

Tile making in the Philippines

tiles made their entry into Filipino architecture at the same time the Spanish began its colonization process. In 1581, Fr. Antonio Sedeño led the commencement of the Jesuit mission in the Philippines. Along with his expertise in religion and construction, as exhibited by his works in Intramuros, Sedeño brought in the use of bricks and tiles in structures for the first time. Before Sedeño, most buildings in Manila were made of wood. This vulnerability was used to devastating effect by invaders, such as the incursion of Chinese pirate Limahong (Lim Hong) in 1574. In hopes of not repeating such unfortunate experiences, these technologies are introduced. Since mosaic tiles were not popular by this time, they did not figure with Sedeño's reforms. However, cement tile production in the Philippines would not begin until the 19th century. In 1886, the Santa Mesa Cement Tile and Pipe Factory, later known as the Manila Tile Works, was founded by German businessman Carl Fressel. This made Fressel's company, which later set office at Binondo, as the first factory in Asia to be involved in such production. At one time, it can produce up to 7,000 tiles a day. Due to its merits, it was awarded a gold medal at the Philippine Regional Exposition (Exposicion Regional Filipina) in 1895, an honor also garnered by emerging companies such as San Miguel Corporation. Interestingly, it was

at Fressel's company where Andres Bonifacio worked as a warehouseman and sales agent, a connection which soured Fressel's relations with the Spanish government when the Philippine Revolution broke out in 1896. His German provenance already made him highly suspect because of Germany's designs in colonizing the Pacific, as it had done so with the Carolinas, then a Spanish territory, in 1885. Also, there were more German firms than Spanish in the Philippines then, which meant their prosperity might not be good for the Spanish business. Nonetheless, as the colonial government shifted to American hands, Fressel would continue operating the factory until his death in 1904, when he passed the reins to the company manager, G. Ludewig.

Introducing the Machuca Tile

However, provided that it was Fressel who first produced cement tiles in the Philippines, how come his name was not the one engraved in Filipino minds when it comes to cement tiles? To this day, when people see decorative cement tiles, whether it was a church in Vigan, an office in Cebu, or a house in Zamboanga, the most likely connection would go to Jose Machuca y Romeo (incorrectly written as Romero by some), the founder of Machuca and Company, and the namesake of the "Machuca tile", the name Filipinos have historically attributed to decorative tiles. This popular attribution merits a proper chronology. Born on October 21, 1858 at Seville in Spain, Jose Machuca was the son of Jose Machuca Sobrevilla and Carmen Romeo Pla. In 1870, he obtained his bachelor of arts (bachiller en artes) degree at the Colegio de Cabra in Cordoba. This is probably the Instituto de Educacion Secundaria Luis de Aguilar y Eslava, which was founded in 1692 as the Real Colegio de la Purisima Concepcion de Cabra (Royal College of the Immaculate Conception of Cabra). The other prominent college in Cabra, the Colegio de San Jose (Saint Joseph's College), was established in 1891, which likely meant Machuca may have not entered it. Four years later, in 1874, he finished law in Granada. He arrived in the Philippines in 1875 at a relatively young age of 17. In practicing law, Machuca first became a recorder (relatores or court reporter) in the Real Audiencia (Royal Audience or Supreme Court) of Manila, before being assigned as a Judge of the Court of First Instance (Regional Trial Court) in Bataan, Albay, and Cebu. He also served as assistant fiscal (auxiliary provincial attorney) of the Audiencia Territorial of Cebu, and later as president (chief magistrate) of the Real Audiencia of Manila. Unlike in Spain, the Real Audiencia in the colonies possess both executive and legislative powers in addition to its judicial functions. The Real Audiencia of Manila, founded in 1583, is facilitated by one president, four judges (oidores), and a fiscal (Crown attorney). Meanwhile, the Audiencia Territorial of Cebu, created in 1886, has one president, four judges, a fiscal (provincial attorney), and an assistant fiscal (auxiliary provincial attorney). In the provinces, such as in Bataan and Albay, the Judge of the Court of First Instance serves as the court's chief magistrate, supported by a fiscal and attorneys at law. As the means of the Crown to check and balance the colonial government, the Real Audiencia's ruling usually stands, except in times when the Crown itself overturns the decision. However, in 1861, the Real Audiencia was limited by decree to administering judicial functions.

In retrospect, beyond his law background, Machuca's foray into the tile business may have been within the family after all. The surname Machuca traces its origins since at least the 15th century. Among the first to bear the surname was Pedro Machuca (1490-1550), an architect known to be related with Michelangelo. He was the designer of the Palace of Holy Roman Emperor Charles V and painter of the Royal Chapel of Granada. It appears to have come from the Spanish word *machar*, which means "to grind", "to hammer", or "to pound." This suggests that the family must have been originally characterized as artisans, likely as metalsmiths or stonecutters. Both industries were evidently vital for the tile industry. In addition, Machuca's hometown of Seville, as well as the sites of his education (Cordoba and Granada), were all known for producing mosaic tiles. It is not difficult to imagine how the young Machuca may have been inspired by the surviving relics of *azulejos*, and the reemerging Spanish tile industry during his time. Then again, the issue lies on when Machuca actually began the tile business. Initially, the original name of his company was always thought to be *Mosaicos Machuca* or *Mosaicos de Machuca*, which was founded in 1900, as attested by some who have studied on the matter such as local historian Paquito de la Cruz, and the subsequent generations down Machuca's patrilineal descent. However, available documents show that company has first been known as Barretto, Machuca and Company (*Barretto, Machuca y Compania*), and it appears that the 1900 date was more of an estimated year of establishment than an exact date. Which is which? Without a certain date of establishment, Machuca's claim to fame may be put into serious consideration.

Machuca starts the tile business

In 1882, a general partnership between Telesforo Chuidian, Raymunda Chuidian, Candelaria Chuidian, and Mariano Buenaventura was created primarily as a grantor of loans for crop businesses, notably that of sugar, coffee, and tobacco. With the capital fixed at 160,000 pesos, the amount was added by advances from a previous partnership aggregating 665,000 pesos. In today's (2019) values, this starting aggregate amount is equivalent to some 50 million pesos. This is not surprising since Buenaventura and the Chuidians have been known to be among Manila's top businesspeople. For instance, Telesforo Chuidian, a Chinese businessman, was known as one of the founding stockholders of San Miguel Corporation in 1890, the first president of Club Filipino, and was conferred the Order of Isabella the Catholic for his economic contributions to the Philippines. Two years later, the partnership took on Jose Gervasio Garcia in lieu of Raymunda's Chuidian's retirement. Even when Buenaventura's shares in the partnership increased over time, it appears that the shares of Garcia and the Chuidians continued to form the bulk of the partnership's assets. In 1894, Buenaventura died, and in accordance to his will, Garcia as co-owner can act on his own with his shares in the partnership, as well as receiving 25 percent of Buenaventura's own credit when the partnership has undergone liquidation. Machuca's fortune changes at this point. Four years later, when the will was executed, Garcia assigned his assets due him in the partnership to Machuca. Meanwhile, the 25 percent from Buenaventura's share was added to Machuca in 1903, when Telesforo Chuidian died. This provides at least two possible dates for Machuca to start his tile business: in 1898 when he receives the larger amount being

Garcia's shares as co-owner, and in 1903 when he receives the smaller amount being 25 percent of Buenaventura's shares.

The 1914 Catalog featuring Machuca's tiles can provide some light in this issue. More than being an inventory of his products, Machuca mentions in the catalog how much they have improved since they released the 1905 Catalog. This suggests that at least by 1904, Machuca's tile company must have been an established business, because the catalog has the pattern of being finished its tile collection a year prior to its publication and dissemination. However, what pushes back this date was the 1902 lease of land by a tile company called *Barretto, Machuca y Compania*, wherein Machuca's partner was said to be a certain Pio de la Guardia Barretto Sy Pioco. Sy Pioco, who took the name of his godfather Pio Barretto to assume a Spanish name, appears to be a prominent Chinese businessman who at one time ran for gobernadorcillo or town mayor during the Spanish era. Thus, the existing evidence disqualifies the 1903 date, but this still does not resolve whether or not Barretto was Machuca's original partner in the company. However, it does resolve why in the 1914 Catalog, Machuca assumes sole proprietorship of the tile company which by this time was known as Machuca and Company (*J. Machuca y Compania*). Barretto died in 1905, and there is evidence that Machuca at this time did not immediately replace him in their partnership. This is reinforced by the 1914 Catalog informing the public that it no longer goes by the name *Barretto, Machuca y Compania*, and warning about a certain J. Martin who uses the Machuca surname to represent the company, but is actually not its duly authorized representative. Besides, Machuca's direct relative, his nephew Miguel Martin y Machuca, does not have a name starting with letter J. At the least, it can be established that Machuca had the means to establish his company in 1898. Otherwise, Garcia and Buenaventura would have no strong reason to bequeath large sums to someone who does not plan to take care of the money and engage in any business. However, what if Machuca began making tiles before even incorporating the company that holds his name? In Jose Rizal's widely acclaimed novel, *Noli Me Tangere*, he describes Captain Tiago's house to be as follows: "*Una ancha escalera de verdes balaustres y alfombrada a trechos conduce desde el zaguan o portal, enlosado de azulejos, al piso principal, entre macetas y tiestos de flores sobre pedestals de losa china de abigarrados colores y fantasticos dibujos.*" It can be translated as: "A wide stairway with green balustrades and carpeted steps leads to the house from an entrance hall paved with *azulejos*, amidst potted green plants and baskets of flowers atop porcelain pedestals of motley colors and fantastic designs." Rizal's vivid description of architecture continues to mesmerize observers and readers to this day, and rightly so, because it was apparently based on a real life example that has been quite unique. Recall Telesforo Chuidian. According to Rizal's friend and colleague, Jose Alejandrino (1870-1951), the description fits well Chuidian's house in Manila. He can be certain of it because the house was where his wife was born in 1878. This also corresponds with the time of Rizal's education in Manila, which spans some ten years from 1872 to 1882. Did Chuidian had the house redecorated when he acquired it during this time? If so, the question arises on where Chuidian acquired his *azulejos* or decorated tiles. Fressel's company was not yet

existent then, but the connection between Chuidian and Machuca has been fairly established. Given that at least by 1878, Chuidian had decorative tiles installed in his house, and Machuca was his supplier, then Machuca is most likely to have been involved in the tile business long before 1898. Regardless of whether Rizal maintained the confusion between glazed and cement tiles or not, his conscious choice of using the term *azulejos* to describe Chuidian's tiles reveals that it was something notable at the time. Future translators have almost always made the error of simply translating them as "tiles," whereas Rizal also uses the term *baldosas* later on to refer to plain tiles. In addition, it would be sensible if Machuca began making them through the glazing process pre-industrial *azulejos* are made. This does not discredit Fressel's claim to be the first cement tile factory in the Philippines and in Asia. In the same manner, this can explain how the Machuca name was solidified into mosaic tiles or *baldosas mosaicos* in the Philippines. His clientele must have not been exclusively limited to the Chuidians, who themselves were already prominent. Therefore, the logical explanation would be that he made and popularized decorative tiles before Fressel, albeit it would have been originally encaustic tiles instead of cement tiles. The lesser viable alternative option would have been the Spanish bias. Since Machuca was Spanish, the argument states that it would do the Spanish colonizers better to promote his tiles than that of the German Fressel. However, this only applies if the assumption is that Machuca did not begin in the tile business before Fressel, and that his fellow Spanish actually possess a strong motive in promoting his craft through some aggressive advertising. As history goes, it appears Machuca's early business deals are done more successfully with Chinese merchants than with Spanish, and as a government official with years of service behind him, Machuca appears to be popular enough within public circles on his own. Consequently, it gravely ignores the linguistic fact that it was Machuca's name which was ingrained in public memory, an art which lost its luster even before the Spanish colonization began in the Philippines.

Machuca as Trendsetter of tiles in the Philippines

One may wonder then what Machuca might have been undertaking during this supposed two- decade gap. Historical evidence shows that Machuca was still one of the five recorders of the Real Audiencia of Manila in 1876, which means he must have held the position ever since he arrived in the Philippines, at least until he was designated as a judge thereafter. As a recorder, he is by no means bound by restrictions given to judges and fiscals in terms of engaging in business and similar commercial activities. This provides him leeway to begin the tile business as early as 1875, possibly as a way to further augment his income and/or to introduce the yet non-existent *azulejo* tradition in the Philippines, wherein he originally partners with Chinese businessman Pio Barretto. Later on, when he is assigned as a Judge of First Instance, as Assistant Fiscal, and as President of the Real Audiencia, Barretto officially manages the company in his stead. In this case, the original company must have been *Barretto, Machuca y Compania*, not a sole proprietorship. He develops the idea of shifting to cement tiles, and gets married with Amparo Sanchez (born 1863), when he returns to Spain some time between 1876 and 1888. Thereafter, he receives a visit from his brother- in-law, Miguel Martin y

Gonzalez, who once served as mayor of Estepa, Spain in 1886. Martin was married to Machuca's sister Dolores. Meanwhile, Estepa was a town near Machuca's home city of Seville. Martin and his sons stayed with Machuca until 1904, when he went back to Spain. While it does not appear that Martin became an official partner in Machuca's business at the time, since the company name remained *Barretto, Machuca y Compania* until Barretto's death, Martin must have had effected some impact somehow. One of Martin's sons, Miguel Martin y Machuca, was married later to Leoncia Trapaga (born 1898) , member of the musically inclined Trapaga family. Also of Spanish provenance, the Trapagas are known for their relations with the Aguinaldo and Zobel families, both of which have significantly expanded their holdings since the 19th century. A calculated move to expand the "business empire" that was originally Machuca's? After all, Martin's sons also carry the Machuca name. At any rate, the cement tile factory comes much later, at least in 1898, when Machuca had a more favorable financial standing due to Garcia's grant, and when he is no longer bound by his legal duties in court because of American rule replacing Spanish institutions. In addition, Machuca's yet another ace in the hole must have been the acquisition of electric powered hydraulic presses. Electricity comes to Manila only by 1894, which means Fressel must have been operating with steam powered presses, which has been around since the 1830s. In so doing, Machuca waited for the golden opportunity to procure better technology. This makes sense of at least three certain manifestations: Chuidian's trendy interior in 1878, the spread of the "Machuca tile" elsewhere in the Philippines even before 1900, such as those in the Pamintuan Mansion in Pampanga (built 1890) , and the Cabatuan Cemetery in Iloilo (built 1894) , and the cement tile alternative which Fressel attempted to establish in 1886.

Tile Companies Galore

By establishing that Machuca's venture started well before 1886, the Philippines enters the 20th century with only two local tile companies, Machuca's company and Fressel's Manila Tile Works. For around a quarter of a century, this remains so, albeit the major difference would be the entry of American companies such as Portland Cement and Pomona Tile in the scene. In response, Machuca's expertise expands from installing tiles into production and laying of artificial stones, e.g., granite and marble, as well as cement sewers and pipes. Machuca even entered constructing fountains and mausoleums, such as the Limjap Mausoleum in Manila (1918) , and the Arroyo Fountain in Iloilo (1927) . As Machuca attests in the 1914 Catalog, they have expanded operations in their acquisition of seven hydraulic presses, all of which are run by electricity. Nonetheless, pipes did not begin to inherit the Machuca name. Ever since, it has been "Machuca tile," which goes to show how iconic the Mediterranean style mosaic tiles have become in the Filipino context. Consulting American records, it is evident that the two companies dominated the tile industry through the 1920s, despite the death of Fressel in 1904 and of Barretto in 1905. The last entry of Fressel's Manila Tile Works appears in 1926. After this, Machuca's main competition becomes Manila Hume Pipe and Tile Works. However, as the decorative tile business faced a decline globally in the 1930s, it did not seem to affect the Philippines yet. In fact, the industry further expanded. At the advent of the Commonwealth Period in 1935, the number of tile companies increased

exponentially, responding to the growing demand of Commonwealth-era structures for decorative tiles. Added to this roster were General Mercantile Corporation, and Ciriaco Tuazon and Sons (Tuazon, C. e Hijos) in Manila, as well as Parañaque Lime Factory and Tile Works, Philippine Spuncrete, Henry M. Tile Factory, and Serrano's Tile Factory in Rizal. This was the situation of the tile industry when in 1936, Machuca's sons Jose Machuca y Sanchez (1892-1963) and Antonio Machuca y Sanchez partnered with Jose Barbaza y Pagtalo, Pedro Cantero y Enriquez, Dr. Jose Ma. De Marcaida y Rosales, and Jose Perez de Tagle Maffiotte to form the Machuca Tile Company. Consulting the Securities and Exchange Commission (SEC) record, the company retained this name thereafter, emphasizing the focus on tiles. Among Machuca's better known projects during the 1930s include tiling President Jose P. Laurel's Manila residence at Paco. While many of the aforementioned tile companies which were founded in the 1930s remain in operation to this day, it can be said that Machuca's business can rightly claim the title of being the longest standing mosaic tile company in the Philippines. In fact, a landmark 1982 Supreme Court case initiated by a certain Conrado G. De Leon, who tried to prove that he invented mosaic tiles in 1960, upheld that it was indeed Machuca who first introduced mosaic tile making in the country.

Machuca Tile Lives On

For most of its early years, Machuca Tile has been located in Balmes Street, Tanduay. This is part of Quiapo district. However, documentary evidence reveals that it has not been always the only office Machuca Tile had. At least when it was still *Barretto, Machuca y Compania*, the office was located in Calle Nueva (now Yuchengco Street) in Binondo, which suggests that the Balmes location was more of a factory and showroom then. Meanwhile, the 1902 land lease involved a space in Tondo, which appears to be Barretto's pet project. After the Second World War, a larger factory was erected in Parañaque (at around 1962-1964), while the office moved to General Solano Street, San Miguel, transforming it into one of Manila's heritage spots since the company has lasted for so long. During this time, Jose Machuca y Sanchez was succeeded by his son, Luis Machuca y Arrieta (1928-1999). The Arrieta family was connected to the Ayala and Zobel families due to their Basque ancestry (Basque being a territory in Northern Spain). Jacobo Zobel (1842- 1896), the founder of the Zobel de Ayala conglomerate, was the son of Ana Maria Zangroniz y Arrieta (1818-1848). Today, the company is being managed by Machuca's fourth generation, Luis Machuca y Punzalan, who just like the Machuca of the distant past is an architect by profession. As the mosaic tile continually develops to produce a possibly infinite amount of combinations, so does Machuca Tile forging on to uphold the quality that had been and will be renowned for years.

Photo documentation

Paper Boxes	
Legaspi Press, 1673 Gral. Luna	Santos, Apolonio, 739 G. Tuason
Velasco Press, 139 Manrique	
Packing Cases	
Chon Tieng, 534 Gandara	Lim Kui, 545 Elcano
Chua Chaco, 547 Nueva	Lim No, 697 Ylaya
Chua Kiang, 224 Chica	San Sing, 482 Dasmariñas
Chua Li, 831 Lavezares	Tam Lim, 124 Hormiga
Hi Tiong, 132 Hormiga	Tan Lim, 421 Poblete
Ho Kun, 306 Claveria	Tan Sioc Wan, 340 San Vicente
Lee Yeng, 517 Nueva	Wing Hing, 419 Poblete
BREWERIES	
San Miguel Brewery, 132 Aviles	
BRICK AND TILE FACTORIES	
Machuca & Co., 21 Balmes	Manila Tile Works, Inc., Bacood Street
BUTTON FACTORIES	
Manila Button Factory, Beata Street	Philippine Button Corporation, 828 Misericordia

Machuca Tile and Fressel's Manila Tile Works were the only local tile companies as of 1926. Both have been active participants in the annual Manila Carnival (1909-1939), the largest exhibit of premier corporations from all industries in the Philippines. At its peak, the Manila Carnival attracts more than 700,000 visitors.



Eduardo Martin y Machuca, son of Miguel Martin y Gonzalez and Dolores Martin y Machuca, poses for a photo with his wife, Dolores Martin y Gimenez.



Miguel Martín y Machuca, son of Miguel Martín y Gonzalez and Dolores Martín y Machuca, was photographed by professional Spanish photographer Francisco Pertierra in 1900.





A Gathering of Family and Friends (L-R): Pilar Crespo y Mouri, Maria Antonia Carrero y Machuca, Isabel Ortiz y Rivas, Clara Cornejo y Martin, Dolores Juarez y Machuca, Pilar Martin y Machuca, Natalia Machuca y Juarez de Negrón, Asuncion Crespo y Juarez, Josefa Martin y Machuca, Celesina Crespo y Mouri, Presentada Garcia, Isabel Carrero y Machuca, Maria Machuca y Mouri, Maria Juarez y Machuca, Carmen Martin y Carrero, Dolores Martin y Machuca, Josefina Machuca y Juarez de Negrón
Ten of seventeen women in the photo have Machuca either as middle name or surname.



Dolores Machuca y Romeo, sister of Jose Machuca y Romeo, and wife of Miguel Martin y Gonzalez, photographed by professional Spanish photographer Eduardo Lopez Cembrano.



Josefa Martin y Machuca and Dolores Martin y Machuca in 1883.



Barretto, Machuca y Compania once had an office at No. 97 Calle Nueva in Binondo.



Juan Luna's rendition of Captain Tiago's house, which was largely inspired by Telesforo Chuidian's residence. Chuidian acquired the house in 1872. Note the shining *azulejos* or "painted tiles" which were laid on the floors.

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Appendix F

Interview Questions

For Vice President Jaime Machuca

Notice: The interview will be conducted in the language most comfortable for the interviewee. You are welcome to switch between English and Filipino to ensure clarity and ease of communication.

A. Legacy & History

1. How has Machuca Tiles evolved in your time? Can you share any milestones or transitions you've witnessed or been a part of?
2. What do you believe has sustained Machuca's reputation and legacy over the years? Consider the following factors:
 - Important collaborations
 - Family leadership
 - Key product innovations
 - Long-term relationships with architects, designers, and institutions
 - Involvement in heritage projects
 - Adaptation to modern trends
 - Commitment to craftsmanship and quality

Which of these do you think has played the most significant role, or would you say they are all equally significant?

3. Have you heard any memorable stories from clients whose homes or buildings have had Machuca tiles for generations?

B. Craftsmanship & Customization

1. How do you keep your traditional tile-making methods alive? Is it through training artisans/family members in traditional techniques, documenting the process, or other methods?
2. Have there been any innovations or changes in the tile-making process, and how have they affected the craftsmanship? How do you balance tradition with growth?
3. How do you ensure the quality of your tiles?

4. Could you describe the typical design process, especially for heritage or church projects? How much room is there for customization in colors, patterns or motifs?
5. Have you created tiles featuring religious or symbolic designs, such as crosses, floral emblems, or Filipino iconography, for particular churches? What is the design process like when designing custom tile patterns or motifs, and/or what are the factors that influence these designs (e.g., religious symbolism, architectural style, client preferences)?

C. Church Installations & Conservation

1. Are there records of your tile installations in various Philippine churches? Would it be possible to access them?
2. When working on church tile installations, is it usually architects, heritage professionals, or clergy that you collaborate with?
3. Have you worked on tile restoration projects for churches or other heritage sites? Can you name some churches? What are the biggest challenges when working on these, if any?
4. Do you think Machuca tiles enhance the cultural or spiritual atmosphere in religious spaces?

D. Business Model, Management & Strategy

1. What business strategies have helped Machuca Tiles maintain market relevance for over a century?
2. How has the company adapted to changing market demands and evolving customer preferences? Did the company change its marketing strategies, product offerings or designs to appeal to clients?
3. What are the biggest challenges you currently face in the handmade tile industry?
4. What was the transition like between generations of leadership? How do you prepare younger members to take on the legacy?
5. How does being a family-run business influence decision-making? What's your approach to maintaining professionalism across generations?
6. What advice would you give to those managing or inheriting family-owned heritage businesses in the Philippines?

E. Marketing & Innovation

1. How does Machuca Tiles differentiate itself in the market, particularly when competing with other local and imported tiles such as Seville Tiles/ Azulejos Sevilla of Spain?
2. Has digital marketing, such as social media or your website, helped you reach new audiences?
3. Have you explored innovations like virtual showrooms, augmented reality, or 3D visualization to help clients design with your tiles?
4. Are there collaborations or partnerships that have helped boost your visibility? Can you share how the collaboration between Disenyo Lorenzo Interiors and Machuca Tiles for San Sebastian Basilica's 130th year came to be?
5. What are your revenue streams today, and how are you planning to grow them sustainably?

F. Community Engagement

1. Is Machuca Baldozas, Inc. open to engaging with the public through factory visits, live demonstrations, or artisan training programs?
2. Do you see Machuca Tiles as part of a broader movement to revive Filipino craftsmanship and support cultural heritage?

Interview Questions for Machuca Baldozas, Inc. Artisans (*Beterano*)

A. Pagsasanay at Karanasan

1. Gaano ka na katagal nagtatrabaho bilang artisan sa Machuca Baldozas?
2. Paano ka nagsimula sa trabahong ito? May nagturo ba sa iyo?
3. Ano ang pinakamahirap na bahagi ng pag-master ng craft? Gaano katagal bago maging bihasa sa paggawa ng tiles?
4. Mayroon ka bang paboritong disenyo o proyekto na ginawa mo? Bakit ito?

B. Proseso ng Paggawa ng Machuca Tiles

1. Ano ang pinakamahirap o pinaka-matagal gawin na disenyo?
2. May mga lumang teknik ba na ginagamit pa rin hanggang ngayon? May nabago ba sa paraan ng paggawa mula noong nagsimula ka?
3. May pagkakataon ba na makapag-suggest kayo ng bagong disenyo o pagbabago sa tiles?
4. Naranasan mo na bang mag-restore o mag-ayos ng lumang Machuca tiles? Ano ang pinakamahirap na bahagi ng restoration?

C. Kultura at Pamana ng Gawang-Kamay

1. Ano ang pakiramdam na ang gawa ninyo ay ginagamit sa mga lumang simbahan at makasaysayang bahay?
2. Sa kabila ng modernong mass production, bakit sa tingin mo ay pinapahalagahan pa rin ang handcrafted Machuca tiles?

D. Kinabukasan ng Sining na Ito

1. Sa tingin mo, interesado pa ba ang kabataan na matutunan ang tradisyunal na craft na ito?
2. Ano ang masasabi mo sa mga gustong maging artisan? Ano ang payo mo sa kanila?

Appendix G

Transcript of Interview with Jaime Machuca

Note. The Transcript has been checked for correctness by interviewee Jaime Machuca.

Interviewee: Jaime Machuca

Interviewer: Carmela Danganan

Date: Apr 11, 2025

Time: 11:03 - 11:59 AM

Location: Machuca Baldozas, Inc. Parañaque Showroom

Interviewer: Ilan po kayong siblings po?

Jaime Machuca: We're five siblings, dalawa kaming nagma-manage. 'Yung mom ko actually nandyan, siya 'yung chairwoman namin kaso busy eh.

Interviewer: Does the company still go by *Mosaicos de Machuca* or is it Machuca Baldozas na po?

Jaime Machuca: Yeah so nagiiba 'yung company name niya throughout the years. Actually that's not even the first one e, ito 'yung current— Machuca Baldozas Inc, 'yung previous Machuca Tile Company, 'yung previous was *Mosaicos* and then the fourth... actually may isa pa na before that hindi ko alam kasi second gen. na yun eh. And then 'yung pinaka una was *Barreto y Machuca* 'yun 'yung first. Actually we're hiring uh ano eh historian eh to check kung may mas nauna pa dun.

Interviewer: Meron po ba kayong organizational structure?

Jaime Machuca: Org chart? Very outdated org chart but I can send it through email.

Interviewer: Bale po chairwoman po and then...

Jaime Machuca: Yeah chairwoman and then president and then me— vice president then after uh middle managers and then department heads then HR and the staff.

Interviewer: Ano po kaya 'yung job niyo po?

Jaime Machuca: My specific job as a vice president uh mainly to uh do whatever the board members tell me to do uh in terms of growing the business whether through day to day strategies or long term strategies.

Interviewer: When did you start getting involved po professionally sa company?

Jaime Machuca: Since I graduated 2015. As soon as I graduated my mom offered me a position sa sales.

Interviewer: Ano pong course niyo po?

Jaime Machuca: I took business management in La Salle uh DLSU Manila batch 2011.

Interviewer: How has Machuca tiles evolved in your time? Can you share any milestones or transitions you've witnessed or been a part of?

Jaime Machuca: We've grown a lot in terms of uh 'yung size ng company, in terms of the number of employees we have. We've evolved through having new products so we focus a lot on increasing the number of patterns we have, 'yung collections, 'yung size options. Also, we improve 'yung customer service and online presence. Of course also i-enhance 'yung product quality. Uh any milestones uh well during at least my time we switched from manual tile press to hydraulic tile press.

Interviewer: Which of these do you think has played the most significant role, or would you say they are all equally significant?

Jaime Machuca: Right so uh I tried to list it down what I think is number one is commitment to craftsmanship and quality. And also adapting to trends so we focus on whatever the market reacts to so uh if the market seems to want terrazzo that's what we try to focus on, we try to give them more options such as different sizes. If they want colorful or uh fun looking patterned tiles that's what we focus on naman we launch new collections based on that. So we just really listen to the market so that's adapting to market trends. I think those are the main ones in terms of commitment and adapting to trends. Uh next in line I think is strong family leadership, previous generations have done so much on that uh in passing down key information or how to manage the business. And lastly, 'yung...actually that's it the rest aren't as important for me uh they just come and go.

Interviewer: Have you heard any memorable stories from clients whose homes or buildings have had Machuca tiles for generations po?

Jaime Machuca: Yeah so uh we hear this a lot uh a lot of our clients they come in and say that these tiles were in our grandparents' house or 'yung ancestral home nila so we get that all the time. Literally at least once every two or three months so it's very nice to hear that the longevity and continuity uh sometimes we even purposely try to restore an old family house or ancestral house with the same tile so that's like an extra layer of interesting kasi napapass 'yung tiles through their own generations so yeah that's my favorite stories about multi-generational homes with Machuca tiles.

Interviewer: And then questions about craftsmanship naman po, how do you keep your traditional tile-making methods alive? Is it through training artisans or family members in traditional techniques, documenting the process, or other methods?

Jaime Machuca: Okay so what I think is key here is keeping good long term employees or keeping the good tilemakers in the company. Kasi they're the ones who make the tiles and they also keep the quality standards and then you hire based on their referrals or people they trust also and those newly hired—the experienced staff will then train that new person. So the actual process of handmade tile improves little by little overtime, we try not to make drastic changes so just gradual changes. There's no full automation, most steps remain manual uh we keep that...that's by design noh on our end we want it built that way because it results in an imperfect but good quality handmade tile so what we just try to do on the management side is we try to focus on eliminating steps or we try to eliminate bad steps that results in bad quality tiles, it's like a process of elimination that's how you improve the tile.

Interviewer: Meron po kayong mga innovations or changes na pinropose sa tile making process?

Jaime Machuca: Um yeah so a lot noh overtime whether its ordering new types of molds so that results in a better quality tile so that we get straighter edges. Also, through changing our tile press from manual to hydraulic uh the pressure is more consistent uh more compact tile so it'll last longer. Also, we have different finishes now so different types of waxes. There's also new methods of pouring the liquid cement so this is actually through the manufacturing process. We try to make it easier for the tilemakers right so that results in a better quality tile so that's most of it.

Interviewer: Nabanggit niyo po 'yung sa pag maintain sa mga artisans, mga ilang taon na po kaya 'yung oldest artisan niyo po?

Jaime Machuca: That's something we're very proud of because a lot of our employees have been with us for a very long time. Some of them have been with us since they were of working ages or early 20s. They've been with us all throughout until they retire so lots of them have been more than 40 or 50 years

with us. We appreciate that there are employees that are loyal and we try to reciprocate that by of course treating them well.

Interviewer: So around mga generation pa po ng father niyo po?

Jaime Machuca: That's correct actually within...uh it's good that you said that, within our factory even they have multi-generation...parang may multi-generational employees din kami so a lot of them are related to each other so lots of fathers and sons get employed.

Interviewer: And then how do you ensure the quality of your tiles po?

Jaime Machuca: So we have a manual quality control process for each production stage. So for example in the mixing stage alone where we mix our raw materials that already gets manually checked to ensure it's a good quality mix. And then those raw materials are then transferred to the tile making area, the tile makers themselves are in charge of making sure that they're making good quality tile so automatic if he thinks that the tile he made was not good quality siya na mismo 'yung magrereject nung tile na iyon. And then after a days work, the next day 'yung quality control team naman namin sila naman 'yung in charge of sorting tiles so they'll look for any visible defects, cracks or stuff like that. They're in charge of rejecting and making sure it doesn't reach the client so every stage of manufacturing has a quality control stage. So that's how we ensure. Also, there's standardized processes in each step so clear quality standards and setting expectations, that's how we ensure quality.

Interviewer: But you still keep like minor mistakes?

Jaime Machuca: Uh so we don't see that as mistakes noh, we see them as imperfections. So in a handmade tile, all of the tiles we manufacture, they all have imperfections, if you look closely enough there is an imperfection. We think and a lot of our clients think that's what gives them variety, what we don't want is a perfect tile. Kasi if you have a perfect tile it looks too uniform, it doesn't give you that uh natural beauty that you would get from a handmade tile.

Interviewer: It adds din po sa artistic side.

Jaime Machuca: Yeah, there's a handmade charm to it. That's how we see imperfections, we purposely want to keep the imperfections but there's a line...there's a quality line to it. We're not gonna give products that are cracked or if mali 'yung kulay or stuff like that. There shouldn't be anything that makes you think that it's a low quality tile, just the right amount of imperfection that it gives you a charm.

No two tiles are ever alike, pwedeng same colors, same pattern but there's always something unique.

Interviewer: And then are the tile designs original and patented?

Jaime Machuca: Yes, they are original, we even have a physical 1905 catalog book. The same patterns that were sold when the company started are still sold today. We call them our classic tiles or classic collection so they are Spanish or Mediterranean inspired patterns. And that's what we've become famous for or synonymous with. In terms of patents, the patents aren't patented just because we don't think that has to be patented, that's not our goal.

Interviewer: Confirm ko lang po, 'yung 1905 catalog is the same as the 1914 catalog po?

Jaime Machuca: I think so, there's only one... there's only one catalog, I refer to it as the 1905 catalog just because that's the oldest date that's stated in the catalog. I think if you read specifically the entry I think it says na it's the second version of that catalog so meaning it's likely that the company is older than 1905 it's just that we can't prove it.

Interviewer: And then could you describe the typical design process, especially for heritage or church projects po? How much room is there for customizations in color, patterns and motifs?

Jaime Machuca: Alright, so clients, they choose from our in-house patterns or our in-house catalog so as of today we have over 250 patterns for our square tiles alone. I think the total would probably have over 500 or 600 patterns to choose from. In addition to that you can change the color scheme in any of our patterned tiles so within our catalog alone there's already so much to customize, right. Aside from that we also accept custom patterns so if the client wants their own pattern they could send it to us and we can manufacture that. So for heritage projects, they consult a lot with our in-house architects so usually they will send us whichever pattern they want us to create whether it's a new pattern they're trying to work with or it's a tile they have already installed and they're trying to restore it, either way we could work with that. For tiles that are already there and they want to either replace any broken pieces or remove the unclean areas but keep the same pattern uh we just need one physical sample of an old tile just so we can recreate exactly the color so color matching. That's probably the hardest part of that entire process, the color matching.

Interviewer: Meron po ba kayong head designer?

Jaime Machuca: We don't have a head designer, it's just our own management team. We have different backgrounds so we have an architect, those with an art background. And we're just trying to focus on what we think the market would like.

We also take inspiration from what our clients show us kunwari this is the pattern that they want us to take inspiration from and so we try to make patterns that are trendy but also timeless.

Interviewer: And 'yung brother niyo po si Luis architect din po siya so nagdedesign din po siya?

Jaime Machuca: Um it's more of a team effort really.

Interviewer: So sa 254 patterned tiles po, mga ilang percent po kaya 'yung classic and then 'yung medyo bago po?

Jaime Machuca: There's probably at least 70 patterns that are from the original catalog. Everything else is a new pattern within the last 20 years. So 70 out of 250 are original, those 70 are what we're really known for, those are the Spanish-inspired patterns.

Interviewer: 'Yung nasa catalog po?

Jaime Machuca: Yeah, 'yung nasa old catalog.

Interviewer: Have you created tiles featuring religious or symbolic designs, such as crosses, floral emblems, or Filipino iconography, for particular churches po?

Jaime Machuca: Yeah so we've had a lot of church projects that use religious symbolism. The most common is crosses, there's different styles noh and it's usually a custom tile. So none of our in-house patterns I think have crosses as a clear religious symbolism or inspiration. It's almost always a custom tile. So whether it's a cross or a floral pattern, that's what churches usually go for.

Interviewer: Can you remember or name po which churches po ang may custom tile design?

Jaime Machuca: We're not sure from which project this is (shows 4-piece tile design) I think Manaoag 'yan eh. It's hard for me to...off the top of my head to give you something that specific. Marami kaming naging church project but it's hard for me to tell you which church projects specifically have religious symbols...uh whether the architect or heritage consultant, even parish priest or those from the clergy we've worked with all of them and it depends on the project sometimes we have the priest himself being the one who choose the pattern and orders the tile. Sometimes we have an architect or an engineer uh sometimes it's the contractor you're talking to so everybody I've experienced talking to. It's not standardized.

Interviewer: So they specifically seek out Machuca tiles po talaga?

Jaime Machuca: Yeah that's correct uh most of them are already familiar with the tile or they see it in different churches, some spread really through word of mouth. And also because it lasts so long and I think it speaks for itself. Most parish priests like our tiles and they come here to our showroom or our factory to choose.

Interviewer: Have you worked on tile restoration projects for churches or other heritage sites?

Jaime Machuca: Yeah so a lot of them, we've worked with churches all around the Philippines. Off the top of my head when it comes to restoration I remember the Bohol church projects. It was after the Bohol earthquake which must have been like 2016 or 2017 around that time where unfortunately a lot of churches in Bohol got destroyed so there was an effort to restore them and that included restoring the tiles. I think we worked with a heritage government agency that does all of that work. San Sebastian also is another one.

Interviewer: Do you think Machuca tiles enhance the cultural or spiritual atmosphere in religious spaces?

Jaime Machuca: Yeah of course so we think that our handmade tiles add character, they add warmth, identity to a church, even down to sacred feeling I think. I think it's very inviting as opposed to other types of material. The handmade imperfections brings soul to religious sites.

Interviewer: Questions naman po about management. What business strategies have helped Machuca tiles maintain market relevance for over a century?

Jaime Machuca: So uh listen and adapt to market trends so there was a point in our company's life between the second and third generation Machuca where instead of handmade cement tiles they actually focused on terrazzo. There were a lot of government building projects that we've done before where we've done either terrazzo tile format or poured in place terrazzo meaning the terrazzo was poured onto the site itself so there was that time and then eventually the trend changed instead of terrazzo it came back to handmade cement tile. If you go back around 40 years ago in terms of handmade cement tiles there's also a time where the trend was plain tiles instead of patterned so plain tiles were very trendy and then eventually handmade tiles took over. That's what we're doing now. So adapting to market trends I think is the biggest key. Next is strong brand identity and consistent quality. Last one is staying open even through adversity so my mom has a lot of stories where during the early 2000s where demand was not that great for the products we were manufacturing, thank God that she decided to keep the company open. There were even points where the company would only be open for three to four days a week just to keep

it alive and it's good that she did that 'cause eventually the trend changes and it comes back. We owe it to her and the previous generations for keeping the company alive.

Interviewer: Mga ilang taon na po kaya si Ma'am Elvira naging chairwoman?

Jaime Machuca: She was chairwoman right after my dad passed away, that was 1999. Eventually my brother became president around 2015. But she's worked for the company way longer, she started working for the company around the 1980s and she was chairwoman since 1999 so 'nung 1999 to today she's been our chairwoman.

Interviewer: Can I ask po ano pong age ni maam po ngayon?

Jaime Machuca: She was born in 1948. Seventy-six, right? She's turning seventy-seven.

Interviewer: And she's still active pa rin po?

Jaime Machuca: Yeah she's more on sa consultancy role so we try to make use of her experience.

Interviewer: What are the biggest challenges you currently face in the handmade tile industry?

Jaime Machuca: Rising raw material costs. I would say the main ones are coming up against imported products that try to mimic what we manufacture. It's more good than bad, bad of course because it's competition but good because it pushes us to innovate, it pushes us to improve our quality, to just be better all around. So that's what our greatest challenge is.

Interviewer: What was the transition like between generations of leadership? How do you prepare younger members to take on the legacy?

Jaime Machuca: So it's not always a smooth handover noh but I think it's important that the younger generation listens to the older generations. And it's not always a strict handover na... okay its the new generations time so out na ako generation. I think it's super important to have overlap meaning both generations work together for a certain period of time. I think ideally at least a decade kasi there's so much information, so much experience to be passed down and it's not easy to do that. Also, there has to be inherent interest from younger generations kasi if there's no interest there I don't think this is gonna survive if the younger isn't really interested in what the company is about and what they're doing. Lastly, balancing respect for legacy with new ideas so that means as the new generation you shouldn't always make drastic changes, take a

bit of time also to hear out what the older generation has to say so use their experience as leverage.

Interviewer: Involved pa rin po ba 'yung other three siblings?

Jaime Machuca: Um everyone in the family, my mom, us boys and we're all part of the board. So technically everybody's part of the company. It's just that some of us are in managing roles so we manage the actual operations. Everybody has a thing to add, it's great that me and my siblings have different backgrounds, so we have an architect, an attorney, we have an accountant, and then we have me for business and that helps.

Interviewer: How does being a family-run business influence decision-making? What's your approach to maintaining professionalism across generations?

Jaime Machuca: So there's a lot of pros to being a family-run business. Some of the pros are that we are able to make quick decisions because we trust each other, so trust-based decisions. Other pros are we get to spend time with each other so there's a lot of trust there. To maintain the standards of professionalism, we have to have honest conversations with each other. Next, emotions can mix with work, what I mean by that is you need clear roles for each family member and you just have to trust that that person is going to do their best in their role. Lastly, sometimes work can be discussed too much in a family time setting so that's one of the cons. Sometimes we forget that it's supposed to be a family time thing so sometimes work can still be brought up but I think it's a small price to pay, all things considered.

Interviewer: What advice would you give to those managing or inheriting family-owned artisanal manufacturing businesses in the Philippines?

Jaime Machuca: Protect your brand legacy and I think — only because this was taught to me by our mom and previous generations is that the name is everything so your reputation is everything. It's super important to keep your clients happy because if they're happy sila mismo they're going to spread the word about your company and your products. In order for them to be happy though you have to make sure that the quality of the product and services is of good quality 'cause otherwise there's nothing to talk about. If they're not happy then no one's gonna reorder so it's important to focus on the quality of your product and your service. Don't be afraid to modernize slow, sometimes you make too many drastic changes too quickly you lose your identity and that's where lots of mistakes can happen.

Interviewer: Can you name a few you'd consider local competitors po?

Jaime Machuca: Local competitors so there's actually not many manufacturers anymore of this specific tile uh off the top of my head the next biggest one is from the Kalayaan tile and honestly I can't even name a third one. I'm sure there is... there are smaller ones. A company that has one tile maker so small operations.

Interviewer: How does Machuca tiles differentiate itself in the market, particularly when competing with other local and imported tiles such as Seville tiles/ *Azulejos* Sevilla of Spain?

Jaime Machuca: So our differentiators are we can customize, custom patterns, custom color scheme. Also, the handmade quality, that's the thing uh people generally don't like too much uniformity. Next is quality of product and quality of sales work, I think that makes us stand out. Branding also uh local manufacturing so that's another thing. Also, 'yung brand namin is heritage brand so it lasted for a long time.

Interviewer: When it comes to design po ano po kaya 'yung tingin niyo 'yung intrinsically Filipino sa design?

Jaime Machuca: Actually 'yung Spanish-inspired patterns they almost become Filipino just because of how long they've been around and obviously since we manufacture and distribute here in the Philippines our patterned tiles have become synonymous with Filipino homes like they get installed in Filipino homes so even though they are Spanish-inspired I think overtime naadapt na rin siya as Filipino.

Interviewer: So it's the long history with ancestral houses and heritage churches.

Jaime Machuca: Yeah that's correct.

Interviewer: Has digital marketing, such as social media or your website, helped you reach new audiences?

Jaime Machuca: Yeah it's helped us so much it's been easier for people to search and find us through our website and access our gallery and products so people don't really need to visit us anymore in person, we deliver door to door. Searchability online is super important.

Interviewer: Have you explored innovations like virtual showrooms, augmented reality, or 3D visualization to help clients design with your tiles?

Jaime Machuca: Yeah we have a tile simulator on our website we intend to improve on it even more but rightnow it helps us a lot. That's where you can select the pattern and choose your color scheme.

Interviewer: Are there collaborations or partnerships that have helped boost your visibility? Can you share how the collaboration between Disenyo Lorenzo Interiors and Machuca tiles for San Sebastian Basilica's 130th year came to be?

Jaime Machuca: Okay so cross promotion, with a lot of architects and interior designers that helps us a lot with visibility. So anytime they post online about us as much as possible we tend to reshare or we cross post everything so that helps us with visibility.

In terms of San Sebastian working with Disenyo Lorenzo, uh we actually recommended Disenyo Lorenzo to San Sebastian because Ms. Macy Lorenzo is actually a client of ours so when San Sebastian reached out to us for recommendations on design uh we first thought of Disenyo Lorenzo that's why we collaborated with each other.

Interviewer: And the tiles were donated po ba?

Jaime Machuca: Uh no, the tiles on the main aisle especially must have been installed for a long long time, probably more than 40 or 50 years. If there were anything new that was probably to replace any broken pieces.

Interviewer: How about po 'yung ginawa ng Disenyo Lorenzo na coaster na collectibles?

Jaime Machuca: Yeah I think they wanted to do some promotions, we helped them with that in terms of being able to make small sized tiles but the design and the ideas came from Disenyo Lorenzo and San Sebastian.

Interviewer: Was it donated po?

Jaime Machuca: I think we donated those to San Sebastian. I think Disenyo Lorenzo was resharing or reselling them also.

Interviewer: What are your revenue streams today, and how are you planning to grow them sustainably?

Jaime Machuca: Uh our main product and I think for the foreseeable future there's gonna be a need for it, it's still gonna be our main product, these handmade patterned cement tiles so that's our bread and butter we're always gonna continue to do and grow upon it — more product offerings, more pattern collections uh sizes noh stuff like that. Aside from that newer stuff that we intend to launch or things that are growing are terrazzo offerings. Also, services, so our installation and cleaning services, we're also pushing that along. That's the things we're working on.

Interviewer: Bago lang po 'yung cleaning services niyo?

Jaime Machuca: Yes uh last November even on the installation service that's very recent also.

Interviewer: Very recent lang din po 'yung installation services?

Jaime Machuca: Yeah recent also that's only because of demand like I said before listening to market trends so it's demand, people have been asking us to have these services that's why we're starting that.

Interviewer: Anong year po kayo nag start sa installation services?

Jaime Machuca: It's not even an official service yet it's only on soft launch so it's not even something we've put up on our website yet. The cleaning service we've put it on the website last month but 'yung installation it's not even official yet eventually we will but right now it's on soft opening stage.

Interviewer: Kasi may mga nakikita po ako sa simbahan na baliktad 'yung tile risers or hinati 'yung patterned square tiles tapos ginawang riser. And then questions about community engagement po. Is Machuca Baldozas, Inc. open to engaging with the public through factory visits, live demonstrations, or artisan training programs?

Jaime Machuca: Yeah we're open to factory visits and demos really on a case to case basis but we've done it before whether it's a group of interior designers or a group of students so 'yun we're open to the public.

Interviewer: Do you see Machuca tiles as part of a broader movement to revive Filipino craftsmanship and support cultural heritage?

Jaime Machuca: Yes, so we see ourselves as part of a movement that values handmade cultural identity. We see ourselves as a heritage company. Yeah I think we also pride ourselves in being a Filipino company and all of our artisans and all of our employees they are also Filipino in that sense we are able to support the Filipino community and their families. We actually encourage our clients to come visit our factory to see and it simply gives them appreciation of the effort that goes into creating each tile.

Interviewer: Alright, thank you po!

Additional Information from Email Correspondence:

Researcher: Have you ever cured the tiles by soaking them in water, or has it always been through air-drying at room temperature? How many multigenerational families of artisans have stayed with Machuca Baldozas, Inc. that you know of, and for how long?

Jaime Machuca: Yes we used to dip the tiles in water. We stopped because we found a suitable alternative. Dipping them in water unfortunately would sometimes result in alkaline marks. That's why it got changed out. :)

Re Genealogy, I'm afraid I don't think that would be possible as the only people who are within that kind of discussion are the 2 guys you already interviewed, Domer & Luis. Usually it's only 2 generations max who continue working. I haven't yet come across 3 generations. Also it's less common to have parents->kids, it's usually cousins or uncles or in-laws.

Researcher: May I kindly confirm with Ma'am Elvira whether there have been any other intergenerational artisans even if they are no longer working there or are not from a direct line of descent (cousins/in-laws)?

Jaime Machuca: If not the direct line of descent, there are many. As we hire only based on referrals, we normally hire cousins, *titos/titas*, *pamangkins*, etc.

Researcher: To confirm, are there no other known cases of three-generational artisan lineages that can be recalled? This could include former employees and those with an indirect line of descent. If possible, even just a nickname would be extremely helpful po.

On page 2 of the Spanish brochure, it mentions "*SIETE prensas hidráulicas*" (seven hydraulic presses) in the 1914 document. Do you happen to know when and why the company transitioned from hydraulic presses to *barra*? I also understand that the company eventually returned to using hydraulic presses. Any insight into this timeline or reasoning would be greatly appreciated.

Jaime Machuca: To my personal knowledge (and I asked my mom & other employees), we haven't come across a 3-Generation lineage of tile makers yet. It's plausible that it has occurred within the lifetime of the company, but unfortunately we cannot currently definitively say that it has happened.

Honestly, that's something that puzzles us also! I honestly don't know why. Maybe they got damaged and couldn't get replaced? Maybe electricity/power was an issue so they decided to go for a manual press? Maybe maintenance was a concern? The old manual *barras* did not run on electricity & were very low maintenance.

Appendix H

Transcript of Interviews with Artisans

Interviewee: Dominador “Domer” Mayuyu

Interviewer: Carmela Danganan

Date: Apr 11, 2025

Time: 1:03 - 1:17 PM

Location: Machuca Baldozas, Inc. Parañaque Showroom

Interviewer: Gaano katagal na po kayo nagtatrabaho sa Machuca tiles?

Domer: Simula 1995.

Interviewer: Thirty years na po noh. Paano ka po nagsimula sa work na to and may nagturo po ba sayo or nagpakilala sa ganitong work?

Domer: Sinama lang ako dito noon 'kala ko construction. Pumasok ako dito...siyempre kapag probinsiya iba 'yung trabahong probinsiya 'pag dito easy lang. Nagustuhan nila ako kasi masipag ako sa dyan sa paggawa ng tiles. Kinuha nila ako kasi mabilis ako kumilos.

Interviewer: Sino po 'yung nagpakilala sa inyo, kaibigan niyo po ba?

Domer: Oo

Interviewer: Nagtatrabaho na rin po dito dati?

Domer: Nagtrabaho siya dito bale pinasok niya ko dito tapos siya nakaalis na ako nandito pa.

Interviewer: Ano po 'yung pinakamahirap na bahagi ng pagiging artisan po?

Domer: Mahirap na naassign...wala naman eh kung talagang masipag ka 'di ka naman mahihirapan eh. Siguro 'yung napapagod ka ganun.

Interviewer: Nung nagsimula ka po mabilis ka na po agad gumawa ng tiles?

Domer: Ay 'di naman.

Interviewer: Mga ilang taon bago ka naging bihasa?

Domer: Parang mga one year lang. Puro disiplina lang hanggang palinis nang palinis ang gawa yun.

Interviewer: Meron ka po bang paboritong design sa mga tiles po?

Domer: Marami, 'yung mga three colors mga ganyan pero sa design halos lahat. Kasi pag tiningnan mo lang ng ganyan...mas maganda 'yung sama sama. Halimbawa 'yan paborito ko 'yung 84 na 'yunsimple lang siya pero pag pinagtabi mo maganda.

Interviewer: 'yung pinakamahirap na design po saan po kaya?

Domer: 'yung may maliliit na detalye (points at tile 254).

Interviewer: May mga pagkakataon po ba na nakakapag suggest kayo ng bagong design or mga pagbabago sa tiles?

Domer: Haspe kung tawagin ewan ko kung...may tawag kasi dun. Wala siyang molde, basta gagawa ka lang.

Interviewer: Ah walang mold?

Domer: Wala.

Interviewer: Andito po ba 'yun(sa showroom)?

Domer: Wala dito eh.

Interviewer: Nakapag-restore na po ba kayo ng mga lumang Machuca tiles?

Domer: Ay ako hindi ako nagrerestore, 'yung mga kasamahan ko sila nagrerestore.

Interviewer: Ngayon po kasi ang dami nang mga Machuca tiles sa mga simbahan, ano po 'yung pakiramdam niyo na nakikita niyo 'yung gawa niyo doon?

Domer: Sa totoo lang proud ako 'pag nakikita ko na nasa simbahan gawa ko sa laguna sa may pakil yan malalayo.

Interviewer: Naabutan niyo po ba 'yung (tiles) sa Paoay po?

Domer: Paoay, San Agustin?

Interviewer: Tingin niyo po Machuca tiles yan (shows Paoay church tile)?

Domer: Oo Machuca yan.

Interviewer: May mga kamag-anak ka po ba na dito na rin po nagtrabaho?

Domer: Oo mga kamag anak ko nagtatrabaho karamihan diyan, matagal na sila nagtatrabaho.

Interviewer: Mga anak niyo po ba or..

Domer: Oo.

Interviewer: Anak niyo po? Ilan po 'yung anak niyo po?

Domer: Dalawa.

Interviewer: Dalawa po? Dito po sila nagtatrabaho?

Domer: Oo.

Interviewer: May mga apo na po ba kayo?

Domer: Oo.

Interviewer: Mga ilang taon na po kaya?

Domer: Seven.

Interviewer: Ah mga bata pa.

Interviewer: Ano po 'yung masasabi niyo sa mga gustong maging artisan...parang payo po para sa mga future na magiging artisan?

Domer: Marami naman talaga pumapasok dito samin at lagi ko lang sinasabi sa kanila, sipag at tsaka tiyaga lang eh tuturuan ka naman magtrabaho basta matiyaga ka eh. Pero kung magaling ka..di'ba magaling ka kaya mo lahat gawin 'yun pero kung wala ka naman tiyaga tsaka sipag putol putol din 'yune di ka makakagawa ng maramihan. Pero kung masipag at matiyaga eh tiyatiyagain niya talaga yun. Meron kasing mga tao na di masyado magaling pero matiyaga siya...makukuha niya 'yunsa katagalan. Tiyaga lang tsaka sipag.

Interviewer: Natratrain niyo po ba 'yung mga baguhan?

Domer: Oo 'yung mga tinetrain ko nga minsan mas magaling pa di hamak sakin may mga taong ganyan pero meron din naman talagang di natututo.

Interviewer: Meron pong ganun?

Domer: Meron talagang ganun. Pero kung kahit hindi siya kagalingan..basta matiyaga siya tsaka masipag gaganda trabaho mo.

Interviewer: Okay, thank you po.

Notes:

Jaspe - tile made without the use of mold/trepa. Freehand tiles.

Interviewee: Luis Cabatbat

Interviewer: Carmela Danganan

Date: Apr 11, 2025

Time: 1:32 - 1:51 PM

Location: Machuca Baldozas, Inc. Parañaque Showroom

Interviewer: Gaano katagal na po kayo sa trabaho dito bilang artisan po?

Luis: Sa ngayon po kasi matagal na po ako rito pero mula nung umpisa dito na rin ako tumatanda. Thirty-three years na po, bata pa po ako nung pumasok pero hindi ho sa menor de edad kasi bawal sa company 'yung menor de edad.

Interviewer: Pwede po tanungin kung ano na po 'yung edad niyo po ngayon?

Luis: Ako po? Sa ngayon ha ano na ako..seventy-three.

Interviewer: Naabutan niyo po siguro 'yung ama po nila?

Luis: 'yung inabot ko siguro mga 1960s ganung henerasyon.

Interviewer: So simula po 1960s hanggang ngayon po?

Luis: Opo, 'yung mag asawa tinanggap pa ho nila ako.

Interviewer: May mga kapamilya ka po ba na nagtatrabaho dito?

Luis: Meron isa lang.

Interviewer: Anak niyo po ba?

Luis: Hindi ho pinsan ko po.

Interviewer: Paano po kayo nagsimula dito may nagturo po ba sa inyo?

Luis: Meron, magulang ko po. Hinayaan na ako ng magulang kong pumasok dito at hanggang sa iyong boss naming lalaki nagustuhan niya ako.

Interviewer: So 'yung magulang niyo po nagtatrabaho din po dito dati?

Luis: Oo.

Interviewer: Ano po kayang generation 'yung naabutan nila?

Luis: Yan ang hindi ko...pero ang magulang niya nun ay si Don Pepe iyon ang rinig ko sa kwento. Ano 'yun eh mga espanyol.

Interviewer: Mahirap po ba gumawa ng Machuca tiles?

Luis: Naku po kung wala kang tiyaga mahirap.

Interviewer: Alala niyo po ba kung gaano katagal bago kayo naging bihasa? Mga ilang o ilang buwan po?

Luis: Ano lang...months lang, matagal na po 'yung dalawang bago ako natuto sa paggawa po ng tiles. Ang pinakamadali po diyan na ano yang mga plain. 'yung mahihirap diyan 'yung may mga napakaliit na petals.

Interviewer: Natatandaan niyo po ba kung aling mga simbahan dati 'yung nag order?

Luis: Dito 'yung San...'yung basilica dito sa Batangas, sa Cavite, dito sa may San Agustin Manila tsaka Colegio de San Agustin diyan sa Makati, pati 'yung mga kalapit na simbahan pati 'yung simbahan sa Marikina, simbahan ng Antipolo.

Interviewer: Ito po kaya Machuca tiles po kaya ito (shows Paoay church tiles)?

Luis: Machuca tiles po iyan.

Interviewer: 'Yung mga technique ng paggawa po, simula po nung pumasok kayo hanggang ngayon may nagbago po ba?

Luis: May nagbago kasi noong araw nung ako'y pumasok noon pang asawa ng boss po namin...lalaki. Wala pong mga QC QC wala pa 'yung mga quality control. Hindi tulad ngayon noong nawala 'yung amo naming lalaki, eto ang pumalit ang asawa at mga anak ay may mga nagbago na, nagkaroon na ng quality control. Noong araw noong wala pang quality control dahil per piraso kami kahit na mayroong mga konting diperensya o halimbawa may na mali ng patak hindi na inaano...pinapasa na yan basta pagkayari doon sa barra ibababad 'yun

tapos pagdating ng ano idedelivery na agad yan tapos iinstall yan... walang mga quality control. Di tulad ngayon na nirerebisa yan isa isa pagkatapos nilalagay nila sa karton tapos idedelivery. Dati okay lang kahit may mga diperensya pero ngayon kasi para ano...nakakahiya kasi sa mga kliyente. Mawawalan ng benta tapos masisira kami.

Interviewer: May mga pagbabago po ba na napadali po ba 'yung paggawa ng tiles?

Luis: Mayroon tulad po niyan sa ngayon po diyan sa loob kung sakaling papayag ang aming boss ay puro hydraulic 'yung makina 'di tulad noong araw...ano yan 'yung binibira yan meron silang barra na tinatawag hinihila yan 'yun ang binibira. Pinalitan ng hydraulic para mas matibay ang piece ng tiles.

Interviewer: May mga pagkakataon po ba na nakakapag suggest kayo ng design or pagbabago sa tiles?

Luis: Wala eh kung ano 'yung usapan sa opisina sa kliyente tapos ibibigay doon sa mga gumagawa ng trepa.

Interviewer: Naranasan niyo na po bang mag restore or mag ayos po ng mga lumang Machuca tiles?

Luis: Opo, halimbawa 'yung mga kasama namin sa trabaho may natatanggap na kliyente kapag iniinstall nila sa mga kitchen natatapanan ng mga ano nagmamantsa mantsa eh ngayon pinalilinis nila.

Interviewer: More on cleaning po anoh?

Luis: Oo.

Interviewer: Tuwing nakakapunta po kayo sa mga lumang simbahan ano po 'yung nagiging pakiramdam niyo na nakikita niyo 'yung gawa niyo doon?

Luis: Maganda! Sa tingin ko napakaganda.

Interviewer: Proud po kayo?

Luis: Oo, lalo na kapag nakikita yan ng mga nagsisimba 'yung pumapasok maganda daw.

Interviewer: Sa tingin niyo po ba naa-appreciate pa rin po ng ibang tao 'yung pagka handmade ng Machuca tiles?

Luis: Ay oo naman po.

Interviewer: Sa tingin niyo po ba interesado pa rin 'yung mga kabataan na matutunan 'yung paggawa ng tiles?

Luis: Oo kaso nga lang depende yan kasi may mga kabataan na mahirap turuan lalo na kung hindi niya isinasaulo 'yung tinuturo mo.

Interviewer: Ah nagtratrain din po kayo ng mga baguhan?

Luis: Opo, yang mga kasama ko diyan mga bago, 'yung isang nainterbyu mo iyon ang isa sa nagtuturo sa ngayon. Tapos 'yung mga naturuan na may mga kamag-anak pinapasok na. Tsaka matagal na 'yung isang linggo kadalasan niyan marunong na sila basta ang sabi nga nila kahit wala kang pinag-aralan gaya ko basta may tiyaga...dito ko lahat napagtapos ang mga anak ko, dito ko napalaki 'yung mga anak ko hanggang sa napagtapos ko.

Interviewer: 'yung mga kamag-anak o kakilala pinapasok dito?

Luis: Halos lahat diyan, walang iba. Maliban lang kung 'yung magkakabarkada pero karamihan diyan mga magkakamag-anak yan 'yung gumagawa ng tiles. Marami dyan sa probinsiya yan nakatira nagiistay-in lang yan sila dito.

Interviewer: Ayon lang po, thank you po!

Appendix I

Informed Consent Forms and UPMREB Certification of Exemption

From Jaime Machuca

Good day! I am Carmela E. Danganan, a fourth-year student taking BA Philippine Arts at the University of the Philippines Manila.

For my undergraduate thesis, I am undertaking a qualitative research study entitled **"Machuca Tiles in the Philippine Cultural Landscape."**

In this regard, I would like to invite you to participate in the data gathering for study through an interview.

Informed Consent Form

1. WHAT IS THE PURPOSE OF THIS STUDY?

This study aims to explore the interrelationship between the historical and cultural significance of Machuca Tiles, the arts management practices that have sustained the business. The specific objectives of this study are as follows:

- To uncover the historical and cultural significance of Machuca Tiles.
- To identify challenges faced by Machuca Baldozas, Inc. in marketing and competition.
- To analyze the role of Machuca Tiles in heritage, particularly in selected churches.
- To explore the arts management practices that have sustained the business.

2. WHAT IS THE SIGNIFICANCE OF THIS STUDY?

Significance in Historical Preservation & Cultural Heritage

The study examines Machuca Baldozas, Inc.'s significance in preserving Philippine heritage through traditional tile craftsmanship. It highlights the cultural importance of Machuca Tiles in Philippine historical churches demonstrating their role in architectural heritage.

Significance in Arts Management & Business Sustainability

By analyzing Machuca Baldozas, Inc., the research explores the significance of heritage-based businesses in balancing tradition with commercial viability. It provides insights into sustaining traditional crafts while adapting to modern trends.

Significance for Stakeholders

The study benefits various stakeholders by providing valuable insights into the role of Machuca Tiles in heritage. Historians and cultural institutions can gain a deeper understanding of their historical impact, while architects and conservationists can apply this knowledge in restoration efforts. Business owners and arts managers may learn strategies for sustaining heritage-driven enterprises, ensuring their relevance in modern markets. Additionally, the research fosters community awareness, encouraging local appreciation and support for artisans and cultural industries.

3. WHY WAS I SELECTED?

You are invited to participate in this study due to your direct knowledge and/or experience with Machuca Tiles.

Inclusion Criteria:

Individuals with expertise in Machuca Tiles and their role in Philippine heritage.

Exclusion Criteria:

Individuals without relevant expertise or experience in Machuca Tiles, tile craftsmanship, or heritage conservation related to any of the selected churches.

Withdrawal Criteria:

Participants may withdraw from the study at any time, without obligation or consequence.

4. WHAT ARE MY RESPONSIBILITIES AS A PARTICIPANT AND HOW LONG MY PARTICIPATION WILL BE?

As a participant in this research, your primary responsibility is to provide insights based on your expertise and experience related to Machuca Tiles and you are expected to answer as truthfully as you can, to the best of your ability. This may include discussing its history, production process, business operations, cultural significance, and sustainability efforts. You will be asked to answer interview questions in a structured format, ensuring clarity and depth in your responses. If applicable, you may also allow sharing of archival materials that could support the research in understanding Machuca Tiles' historical and cultural relevance. Additionally, if permitted, your interview may be audio or video recorded to ensure accuracy in data collection. Your interview participation is expected to last no longer than 90 minutes.

5. WHAT ARE MY RIGHTS?

You do not have to take part in this research if you do not wish to do so and choosing to participate will not affect you in any way. You may choose to skip questions and/or stop participating in the research process at any time that you wish without any penalty. You may request a copy of my preliminary analysis to review your remarks and inform me if you do not agree with my notes or if I did not understand you correctly. You also have the right to object or withhold consent to the processing of your data in case of changes or any amendment to the information supplied. Should you withdraw your participation in this research, your information shall be deleted and no longer be included in the final output.

6. WHAT ARE THE BENEFITS OF PARTICIPATING?

Participation in this research offers several benefits to the Machuca Baldozas, Inc. First, it provides recognition for their contributions to Filipino architectural heritage by helping document and validate Machuca Tiles' cultural and historical significance. Additionally, by highlighting the importance of handcrafted tiles, the research can promote a greater appreciation for traditional craftsmanship and help sustain the livelihood of skilled artisans.

Moreover, the study may attract interest from heritage conservation organizations, architects, or government institutions, potentially leading to collaborations that further protect and promote Machuca Tiles. Employees will also have the opportunity to contribute to scholarly work that could be referenced in studies. Lastly, participation provides a platform for the owners and artisans to share their experiences, challenges, and perspectives, fostering discussions on improving training programs, and sustainability efforts.

Participation in this research provides several benefits for informants. By sharing their knowledge and experiences, informants contribute to the documentation and preservation of their church's architectural and cultural heritage, ensuring that its historical significance is recognized and studied.

This study may also highlight the role of Machuca Tiles in church conservation and restoration efforts, potentially attracting interest from heritage organizations,

preservation experts, and funding bodies. Additionally, participation in this research provides a platform for informants to voice their perspectives on historical conservation, community identity, and the role of traditional craftsmanship in sacred spaces.

Furthermore, the findings may support future heritage conservation initiatives by emphasizing the importance of preserving handcrafted materials like Machuca Tiles. Informants will also gain access to the completed study, which may serve as a resource for church administrators, historians, and conservation advocates in sustaining the church's cultural legacy for future generations.

Token

The principal investigator will provide Machuca Baldozas, Inc. with a copy of the finished study upon request. Additionally, the artisans interviewed will each receive a payment of ₱ 400 at the end of the interviews as compensation for their time and effort. The key informants interviewed from the churches/architectural designers will each receive an honorarium of ₱500 via Gcash at the end of the interviews as compensation for their time and effort.

7. HOW WILL INFORMATION ABOUT ME BE KEPT PRIVATE AND CONFIDENTIAL?

Your responses acquired shall be taken collectively with utmost confidentiality, in line with the Data Privacy Act of 2012 or Republic Act 10173. I will anonymize your data so you will not be identified by name based on your participation in my study. However, if you prefer to be recognized for your contributions to this research, please let me know, and I will ensure that due credit is given in the final study. All the personal data you provide will be accessible only to me, the researcher, and will be stored in a protected Google Drive folder to maintain the confidentiality of your personal information. A copy of documents which have been anonymized will be used for the analysis and will be accessible to myself and my thesis adviser/co-investigator. All raw data collected as part of the research process will be discarded after the study is finished.

8. WHO DO I CONTACT IN CASE OF ANY QUESTIONS?

If you have any concerns about the study, please contact the researcher through the details below:

Researcher/Principal Investigator: Carmela E. Danganan
Email Address: cedanganan@up.edu.ph

The UPMREB Ethics Review Panel has approved the study, and may be reached through the following contact for information regarding the rights of study participants, including grievances and complaints:

Dr. Honey Libertine Achanzar-Labor, Panel 5C Chair

Address: Room 126, G/F, NIH Building, UP Manila, 623 Pedro Gil St., Ermita 1000 Manila

Email: upmreb@post.upm.edu.ph

Tel: + 63 2 85264346

STATEMENT OF CONSENT

I have read and understood the contents of the consent form provided by the investigator, and my questions regarding this study have been answered to my satisfaction. Agreeing to participate in this research and completing this consent document does not waive my rights, nor does it release the investigators, institution, or sponsors from their responsibilities. If I have any questions or concerns about this study, I may contact Carmela E. Danganan between 7:00 AM and 7:00 PM via email at cedanganan@up.edu.ph or by phone at 09569874097, where I may leave a message if necessary. I hereby give my voluntary consent to participate in this research.

- ☒ I agree to participate in this study and acknowledge informed consent.
☐ I decline to participate in this study.

JAIME MACHUCA
SIGNATURE OVER PRINTED NAME & DATE

From Dominador Mayuyu

Form ng May Kaalamang Pahintulot

Magandang araw! Ako si Carmela E. Danganan, isang mag-aaral sa ika-apat na taon na kumukuha ng BA Philippine Arts sa Unibersidad ng Pilipinas-Manila. Para sa aking tesis, nagsasagawa ako ng isang kwalitatibong pananaliksik na may pamagat na, ***"Machuca Tiles in the Philippine Cultural Landscape."***

Kaugnay nito, nais kong imbitahan kayo na lumahok sa pangangalap ng datos para sa aking pag-aaral sa pamamagitan ng isang panayam.

Form ng May Kaalamang Pahintulot

1. ANO ANG LAYUNIN NG PAG-AARAL NA ITO?

Layunin ng pag-aaral na ito na tuklasin ang ugnayan sa pagitan ng makasaysayan at kultural na kahalagahan ng Machuca Tiles, ang mga gawi sa pamamahala ng sining na nagpapanatili sa negosyo, at ang mga hamong kinakaharap nito sa isang modernong at kompetitibong merkado. Ang mga partikular na layunin ng pag-aaral na ito ay ang mga sumusunod:

- Matuklasan ang makasaysayan at kultural na kahalagahan ng Machuca Tiles.
- Tukuyin ang mga hamon na kinakaharap ng Machuca Baldozas, Inc. sa pagmemerkado at kompetisyon.
- Suriin ang papel ng Machuca Tiles sa pangangalaga ng pamanang kultural, partikular sa mga piling simbahan.
- Tuklasin ang mga gawi sa pamamahala ng sining na nagpapanatili sa negosyo.

2. ANO ANG KAHALAGAHAN NG PAG-AARAL NA ITO?

Kahalagahan sa Makasaysayang Pangangalaga at Pamanang Kultural

Sinusuri ng pag-aaral ang kahalagahan ng Machuca Baldozas, Inc. sa pagpapanatili ng pamana ng Pilipinas sa pamamagitan ng tradisyunal na paggawa ng tiles. Binibigyang-diin nito ang kultural na halaga ng Machuca Tiles sa mga piling simbahan na nagpapakita ng kanilang papel sa konserbasyon ng arkitektura at kultural na pagkakakilanlan.

Kahalagahan sa Pamamahala ng Sining at Pagpapanatili ng Negosyo

Sa pamamagitan ng pagsusuri sa Machuca Baldozas, Inc., tinatalakay ng pananaliksik ang kahalagahan ng mga negosyong nakabatay sa pamana sa pagbalanse ng tradisyon at kakayahang kumita. Nagbibigay ito ng pananaw sa pagpapanatili ng tradisyunal na sining habang inaangkop ito sa modernong panahon.

Page 1 | Version 2 | 03/04/2025

Kahalagahan para sa mga Stakeholder

Nagbibigay ang pag-aaral ng mahahalagang pananaw sa papel ng Machuca Tiles sa pangangalaga ng pamana. Ang mga mananalaysay at institusyong pangkultura ay maaaring makakuha ng mas malalim na pag-unawa sa kanilang makasaysayang epekto, habang ang mga arkitekto at konserbador ay maaaring gamitin ang impormasyong ito sa pagpapanumbalik ng mga istruktura. Ang mga negosyante at tagapamahala ng sining ay maaaring matuto ng mga estratehiya upang mapanatili ang mga negosyong nakatuon sa pamana. Bukod dito, pinalalakas ng pananaliksik ang kamalayan ng komunidad, na nagpapalakas ng lokal na pagpapahalaga at suporta sa mga artisan at industriya ng kultura.

3. BAKIT AKO PINILI?

Ikaw ay inimitahan upang lumahok sa pananaliksik na ito dahil sa iyong direkta o malawak na kaalaman at/o karanasan sa Machuca Tiles.

Pamantayan sa Pagsasali:

Pangunahing impormante, kabilang ang may-ari at piling artisan ng Machuca Baldozas, Inc., gayundin ang piling eksperto sa konserbasyon/mananalaysay na may kaalaman sa papel ng Machuca Tiles sa pamana ng Pilipinas.

Pamantayan sa Hindi Pagsasali:

Mga indibidwal na walang sapat na kaalaman o karanasan sa Machuca Tiles, paggawa ng tiles, o konserbasyon ng pamana na may kaugnayan sa alinman sa mga napiling simbahan.

Pamantayan sa Pag-alis:

Maaaring umalis ang mga kalahok sa pananaliksik anumang oras nang walang obligasyon o anumang parusa.

4. ANO ANG AKING MGA RESPONSABILIDAD BILANG KALAHOK AT GAANO KATAGAL ANG AKING PAGLAHOK?

Bilang kalahok, ikaw ay inaasahang magbigay ng pananaw batay sa iyong kaalaman at karanasan sa Machuca Tiles at sagutin ang mga tanong nang tapat at ayon sa iyong kakayahan. Ang panayam ay tatagal nang hindi hihigit sa 90 minuto. Maaari ring payagan ang dokumentasyon ng proseso ng paggawa ng tiles o pagbabahagi ng archival materials kung kinakailangan. Kung pinahihintulutan, maaaring i-audio o i-video record ang iyong panayam upang matiyak ang katumpakan ng datos.

5. ANO ANG AKING MGA KARAPATAN?

Hindi mo kailangang lumahok kung ayaw mo at maaari mong laktawan ang mga tanong o huminto sa pananaliksik anumang oras nang walang anumang parusa. Maaari kang humiling ng kopya ng aking paunang pagsusuri upang suriin ang iyong mga pahayag. May karapatan ka ring tumutol o hindi pumayag sa pagproseso ng iyong datos kung may mga pagbabago sa impormasyon. Kung magpasya kang umatras sa pananaliksik, ang iyong impormasyon ay tatanggalin at hindi isasama sa pangwakas na output.

6. ANO ANG MGA BENEPISYO NG PAGLAHOK?

Ang pakikilahok sa pananaliksik na ito ay nag-aalok ng maraming benepisyo sa Machuca Baldozas, Inc. Una, kinikilala nito ang kanilang kontribusyon sa pamana ng arkitekturang Pilipino sa pamamagitan ng pagtulong sa pagdodokumento at pagpapatibay ng kultural at makasaysayang kahalagahan ng Machuca Tiles. Dagdag pa rito, sa pamamagitan ng pagbibigay-diin sa kahalagahan ng mga gawang-kamay na tiles, maaaring mapalakas ng pananaliksik ang pagpapahalaga sa tradisyunal na sining at makatulong sa pagpapanatili ng kabuhayan ng mga bihasang artisan.

Bukod dito, maaaring maakit ng pag-aaral ang interes ng mga organisasyong nakatuon sa konserbasyon ng pamana, mga arkitekto, o mga institusyong pang-gobyerno, na posibleng humantong sa mga pakikipagtulungan upang higit pang maprotektahan at maitaguyod ang Machuca Tiles. Magkakaroon din ng pagkakataon ang mga empleyado na makibahagi sa isang akademikong pananaliksik na maaaring maging sanggunian sa mga pag-aaral. Sa huli, ang pakikilahok ay nagbibigay ng isang plataporma para sa mga may-ari at artisan upang ibahagi ang kanilang mga karanasan, hamon, at pananaw, na nagpapalakas ng talakayan sa pagpapabuti ng mga programa sa pagsasanay at mga pagsisikap para sa pagpapanatili ng negosyo.

Nagbibigay din ang pakikilahok sa pananaliksik na ito ng maraming benepisyo para sa mga impormante mula sa mga piling simbahan. Sa pagbabahagi ng kanilang kaalaman at karanasan, nakakatulong ang mga impormante sa pagdodokumento at pangangalaga ng arkitektural at kultural na pamana ng kanilang simbahan, na tinitiyak na ang kanilang makasaysayang halaga ay kinikilala at pinag-aaralan.

Maaari ring ipakita ng pag-aaral na ito ang papel ng Machuca Tiles sa konserbasyon at pagpapanumbalik ng mga simbahan, na posibleng makahikayat ng interes mula sa mga organisasyon ng pamana, mga eksperto sa konserbasyon, at mga tagapagkaloob ng pondo. Dagdag pa rito, nagbibigay ang pakikilahok sa pananaliksik na ito ng plataporma para sa mga impormante upang ipahayag ang kanilang mga pananaw sa

makasaysayang konserbasyon, pagkakakilanlan ng komunidad, at ang papel ng tradisyunal na sining sa mga sagradong espasyo.

Higit pa rito, maaaring suportahan ng mga natuklasang impormasyon ang mga hinaharap na inisyatiba sa pangangalaga ng pamana sa pamamagitan ng pagbibigay-diin sa kahalagahan ng pagpapanatili ng mga gawang-kamay na materyales tulad ng Machuca Tiles. Magkakaroon din ng access ang mga impormante sa natapos na pag-aaral kung gugustuhin, maaari itong magsilbing sanggunian para sa mga administrador ng simbahan, mananalaysay, at mga tagapagtaguyod ng konserbasyon sa pagpapanatili ng kultural na pamana ng simbahan para sa susunod na henerasyon.

Token

Ibibigay ng pangunahing mananaliksik ang isang kopya ng natapos na pag-aaral sa Machuca Baldozas, Inc. kung hihilingin. Ang piling artisan na ininterbyu ay makatatanggap ng ₱400 bawat isa bilang kompensasyon sa kanilang oras at pagsisikap. Ang mga impormanteng mula sa simbahan ay makatatanggap ng honorarium na ₱500 bawat isa.

7. PAANO PANANATILIHING PRIBADO AT KUMPIDENSYAL ANG IMPORMASYON KO?

Ang iyong mga kasagutan ay pangangalagaan nang may lubos na pagiging kumpidensyal, alinsunod sa Data Privacy Act of 2012 o Republic Act 10173. Aking ia-anonymize ang iyong datos upang hindi ka makilala sa pamamagitan ng iyong pangalan batay sa iyong pakikilahok sa aking pag-aaral. Gayunpaman, kung nais mong makilala at kilalanin ang iyong ambag sa pananaliksik na ito, mangyaring ipaalam lamang, at sisiguraduhin kong mabibigyan ka ng nararapat na pagkilala sa pinal na pag-aaral. Ang lahat ng personal na impormasyong iyong ibibigay ay ako lamang, bilang mananaliksik, ang magkakaroon ng access at ito ay ilalagay sa isang ligtas na folder sa Google Drive upang mapanatili ang pagiging kumpidensyal ng iyong impormasyon. Ang mga kopya ng dokumentong na-anonymize na ay gagamitin para sa pagsusuri at tanging ako at ang aking tagapayo sa thesis/kapanaliksik lamang ang magkakaroon ng access dito. Ang lahat ng raw data na nakolekta bilang bahagi ng proseso ng pananaliksik ay itatapon matapos ang pagtatapos ng pag-aaral.

8. SINO ANG DAPAT KONG KONTAKIN KUNG MAY MGA TANONG AKO?

Kung mayroon kang anumang alalahanin tungkol sa pag-aaral, mangyaring makipag-ugnayan sa mananaliksik gamit ang mga detalyeng nakasaad sa ibaba:

Mananaliksik/Pangunahing Imbestigador: Carmela E. Danganan

Email Address: cedanganan@up.edu.ph

Ang pag-aaral na ito ay inaprubahan ng UPMREB Ethics Review Panel, at maaaring kontakin sa pamamagitan ng sumusunod na impormasyon para sa anumang katanungan tungkol sa mga karapatan ng mga kalahok sa pag-aaral, kabilang ang mga hinaing at reklamo:

Dr. Honey Libertine Achanzar-Labor, Panel 5C Chair

Address: Room 126, G/F, NIH Building, UP Manila, 623 Pedro Gil St., Ermita 1000 Manila

Email: upmreb@post.upm.edu.ph

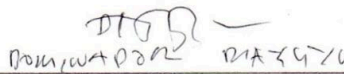
Tel: + 63 2 85264346

PAHAYAG NG PAHINTULOT

Nabasa at naunawaan ko ang nilalaman ng pormang pangpahintulot na ibinigay ng mananaliksik, at ang aking mga katanungan tungkol sa pag-aaral na ito ay nasagot nang ayon sa aking kasiyahan. Ang pagsang-ayon kong lumahok sa pananaliksik na ito at ang pagsagot sa dokumentong ito ay hindi nangangahulugang isinusuko ko ang aking mga karapatan, at hindi rin nito pinalalaya ang mga mananaliksik, institusyon, o tagasuporta mula sa kanilang mga responsibilidad. Kung mayroon akong anumang mga katanungan o alalahanin tungkol sa pag-aaral na ito, maaari akong makipag-ugnayan kay Carmela E. Danganan mula 7:00 AM hanggang 7:00 PM sa pamamagitan ng email sa cedanganan@up.edu.ph o sa telepono sa 09569874097, kung saan maaari rin akong mag-iwan ng mensahe kung kinakailangan. Sa pamamagitan nito, kusang-loob akong nagbibigay ng aking pahintulot na lumahok sa pananaliksik na ito.

☒ Ako ay sumasang-ayon na lumahok sa pag-aaral at kinikilala ang may kaalamang pahintulot.

☐ Ako ay hindi sumasang-ayon na lumahok sa pag-aaral.


LAGDA SA IBABAW NG PANGALAN AT PETA

From Luis Cabatbat

Form ng May Kaalamang Pahintulot

Magandang araw! Ako si Carmela E. Danganan, isang mag-aaral sa ika-apat na taon na kumukuha ng BA Philippine Arts sa Unibersidad ng Pilipinas-Manila. Para sa aking tesis, nagsasagawa ako ng isang kwalitatibong pananaliksik na may pamagat na, ***"Machuca Tiles in the Philippine Cultural Landscape."***

Kaugnay nito, nais kong imbitahan kayo na lumahok sa pangangalap ng datos para sa aking pag-aaral sa pamamagitan ng isang panayam.

Form ng May Kaalamang Pahintulot

1. ANO ANG LAYUNIN NG PAG-AARAL NA ITO?

Layunin ng pag-aaral na ito na tuklasin ang ugnayan sa pagitan ng makasaysayan at kultural na kahalagahan ng Machuca Tiles, ang mga gawi sa pamamahala ng sining na nagpapanatili sa negosyo, at ang mga hamong kinakaharap nito sa isang modernong at kompetitibong merkado. Ang mga partikular na layunin ng pag-aaral na ito ay ang mga sumusunod:

- Matuklasan ang makasaysayan at kultural na kahalagahan ng Machuca Tiles.
- Tukuyin ang mga hamon na kinakaharap ng Machuca Baldozas, Inc. sa pagmemerkado at kompetisyon.
- Suriin ang papel ng Machuca Tiles sa pangangalaga ng pamanang kultural, partikular sa mga piling simbahan.
- Tuklasin ang mga gawi sa pamamahala ng sining na nagpapanatili sa negosyo.

2. ANO ANG KAHALAGAHAN NG PAG-AARAL NA ITO?

Kahalagahan sa Makasaysayang Pangangalaga at Pamanang Kultural

Sinusuri ng pag-aaral ang kahalagahan ng Machuca Baldozas, Inc. sa pagpapanatili ng pamana ng Pilipinas sa pamamagitan ng tradisyunal na paggawa ng tiles. Binibigyang-diin nito ang kultural na halaga ng Machuca Tiles sa mga piling simbahan na nagpapakita ng kanilang papel sa konserbasyon ng arkitektura at kultural na pagkakakilanlan.

Kahalagahan sa Pamamahala ng Sining at Pagpapanatili ng Negosyo

Sa pamamagitan ng pagsusuri sa Machuca Baldozas, Inc., tinatalakay ng pananaliksik ang kahalagahan ng mga negosyong nakabatay sa pamana sa pagbalanse ng tradisyon at kakayahang kumita. Nagbibigay ito ng pananaw sa pagpapanatili ng tradisyunal na sining habang inaangkop ito sa modernong panahon.

Page 1 | Version 2 | 03/04/2025

Kahalagahan para sa mga Stakeholder

Nagbibigay ang pag-aaral ng mahahalagang pananaw sa papel ng Machuca Tiles sa pangangalaga ng pamana. Ang mga mananalaysay at institusyong pangkultura ay maaaring makakuha ng mas malalim na pag-unawa sa kanilang makasaysayang epekto, habang ang mga arkitekto at konserbador ay maaaring gamitin ang impormasyong ito sa pagpapanumbalik ng mga istruktura. Ang mga negosyante at tagapamahala ng sining ay maaaring matuto ng mga estratehiya upang mapanatili ang mga negosyong nakatuon sa pamana. Bukod dito, pinalalakas ng pananaliksik ang kamalayan ng komunidad, na nagpapalakas ng lokal na pagpapahalaga at suporta sa mga artisan at industriya ng kultura.

3. BAKIT AKO PINILI?

Ikaw ay inimitahan upang lumahok sa pananaliksik na ito dahil sa iyong direkta o malawak na kaalaman at/o karanasan sa Machuca Tiles.

Pamantayan sa Pagsasali:

Pangunahing impormante, kabilang ang may-ari at piling artisan ng Machuca Baldozas, Inc., gayundin ang piling eksperto sa konserbasyon/mananalaysay na may kaalaman sa papel ng Machuca Tiles sa pamana ng Pilipinas.

Pamantayan sa Hindi Pagsasali:

Mga indibidwal na walang sapat na kaalaman o karanasan sa Machuca Tiles, paggawa ng tiles, o konserbasyon ng pamana na may kaugnayan sa alinman sa mga napiling simbahan.

Pamantayan sa Pag-alis:

Maaaring umalis ang mga kalahok sa pananaliksik anumang oras nang walang obligasyon o anumang parusa.

4. ANO ANG AKING MGA RESPONSABILIDAD BILANG KALAHOK AT GAANO KATAGAL ANG AKING PAGLAHOK?

Bilang kalahok, ikaw ay inaasahang magbigay ng pananaw batay sa iyong kaalaman at karanasan sa Machuca Tiles at sagutin ang mga tanong nang tapat at ayon sa iyong kakayahan. Ang panayam ay tatagal nang hindi hihigit sa 90 minuto. Maaari ring payagan ang dokumentasyon ng proseso ng paggawa ng tiles o pagbabahagi ng archival materials kung kinakailangan. Kung pinahihintulutan, maaaring i-audio o i-video record ang iyong panayam upang matiyak ang katumpakan ng datos.

5. ANO ANG AKING MGA KARAPATAN?

Hindi mo kailangang lumahok kung ayaw mo at maaari mong laktawan ang mga tanong o huminto sa pananaliksik anumang oras nang walang anumang parusa. Maaari kang humiling ng kopya ng aking paunang pagsusuri upang suriin ang iyong mga pahayag. May karapatan ka ring tumutol o hindi pumayag sa pagproseso ng iyong datos kung may mga pagbabago sa impormasyon. Kung magpasya kang umatras sa pananaliksik, ang iyong impormasyon ay tatanggalin at hindi isasama sa pangwakas na output.

6. ANO ANG MGA BENEPISYO NG PAGLAHOK?

Ang pakikilahok sa pananaliksik na ito ay nag-aalok ng maraming benepisyo sa Machuca Baldozas, Inc. Una, kinikilala nito ang kanilang kontribusyon sa pamana ng arkitekturang Pilipino sa pamamagitan ng pagtulong sa pagdodokumento at pagpapatibay ng kultural at makasaysayang kahalagahan ng Machuca Tiles. Dagdag pa rito, sa pamamagitan ng pagbibigay-diin sa kahalagahan ng mga gawang-kamay na tiles, maaaring mapalakas ng pananaliksik ang pagpapahalaga sa tradisyunal na sining at makatulong sa pagpapanatili ng kabuhatan ng mga bihasang artisan.

Bukod dito, maaaring maakit ng pag-aaral ang interes ng mga organisasyong nakatuon sa konserbasyon ng pamana, mga arkitekto, o mga institusyong pang-gobyerno, na posibleng humantong sa mga pakikipagtulungan upang higit pang maprotektahan at maitaguyod ang Machuca Tiles. Magkakaroon din ng pagkakataon ang mga empleyado na makibahagi sa isang akademikong pananaliksik na maaaring maging sanggunian sa mga pag-aaral. Sa huli, ang pakikilahok ay nagbibigay ng isang plataporma para sa mga may-ari at artisan upang ibahagi ang kanilang mga karanasan, hamon, at pananaw, na nagpapalakas ng talakayan sa pagpapabuti ng mga programa sa pagsasanay at mga pagsisikap para sa pagpapanatili ng negosyo.

Nagbibigay din ang pakikilahok sa pananaliksik na ito ng maraming benepisyo para sa mga impormante mula sa mga piling simbahan. Sa pagbabahagi ng kanilang kaalaman at karanasan, nakakatulong ang mga impormante sa pagdodokumento at pangangalaga ng arkitektural at kultural na pamana ng kanilang simbahan, na tinitiyak na ang kanilang makasaysayang halaga ay kinikilala at pinag-aaralan.

Maaari ring ipakita ng pag-aaral na ito ang papel ng Machuca Tiles sa konserbasyon at pagpapanumbalik ng mga simbahan, na posibleng makahikayat ng interes mula sa mga organisasyon ng pamana, mga eksperto sa konserbasyon, at mga tagapagkaloob ng pondo. Dagdag pa rito, nagbibigay ang pakikilahok sa pananaliksik na ito ng plataporma para sa mga impormante upang ipahayag ang kanilang mga pananaw sa

makasaysayang konserbasyon, pagkakakilanlan ng komunidad, at ang papel ng tradisyunal na sining sa mga sagradong espasyo.

Higit pa rito, maaaring suportahan ng mga natuklasang impormasyon ang mga hinaharap na inisyatiba sa pangangalaga ng pamana sa pamamagitan ng pagbibigay-diin sa kahalagahan ng pagpapanatili ng mga gawang-kamay na materyales tulad ng Machuca Tiles. Magkakaroon din ng access ang mga impormante sa natapos na pag-aaral kung gugustuhin, maaari itong magsilbing sanggunian para sa mga administrador ng simbahan, mananalaysay, at mga tagapagtaguyod ng konserbasyon sa pagpapanatili ng kultural na pamana ng simbahan para sa susunod na henerasyon.

Token

Ibibigay ng pangunahing mananaliksik ang isang kopya ng natapos na pag-aaral sa Machuca Baldozas, Inc. kung hihilingin. Ang piling artisan na ininterbyu ay makatatanggap ng ₱400 bawat isa bilang kompensasyon sa kanilang oras at pagsisikap. Ang mga impormanteng mula sa simbahan ay makakatanggap ng honorarium na ₱500 bawat isa.

7. PAANO PANANATILIHING PRIBADO AT KUMPIDENSYAL ANG IMPORMASYON KO?

Ang iyong mga kasagutan ay pangangalagaan nang may lubos na pagiging kumpidensyal, alinsunod sa Data Privacy Act of 2012 o Republic Act 10173. Aking ia-anonymize ang iyong datos upang hindi ka makilala sa pamamagitan ng iyong pangalan batay sa iyong pakikilahok sa aking pag-aaral. Gayunpaman, kung nais mong makilala at kilalanin ang iyong ambag sa pananaliksik na ito, mangyaring ipaalam lamang, at sisiguraduhin kong mabibigyan ka ng nararapat na pagkilala sa pinal na pag-aaral. Ang lahat ng personal na impormasyong iyong ibibigay ay ako lamang, bilang mananaliksik, ang magkakaroon ng access at ito ay ilalagay sa isang ligtas na folder sa Google Drive upang mapanatili ang pagiging kumpidensyal ng iyong impormasyon. Ang mga kopya ng dokumentong na-anonymize na ay gagamitin para sa pagsusuri at tanging ako at ang aking tagapayo sa thesis/kapanaliksik lamang ang magkakaroon ng access dito. Ang lahat ng raw data na nakolekta bilang bahagi ng proseso ng pananaliksik ay itatapon matapos ang pagtatapos ng pag-aaral.

8. SINO ANG DAPAT KONG KONTAKIN KUNG MAY MGA TANONG AKO?

Kung mayroon kang anumang alalahanin tungkol sa pag-aaral, mangyaring makipag-ugnayan sa mananaliksik gamit ang mga detalyeng nakasaad sa ibaba:

Mananaliksik/Pangunahing Imbestigador: Carmela E. Danganan

Email Address: cedanganan@up.edu.ph

Ang pag-aaral na ito ay inaprubahan ng UPMREB Ethics Review Panel, at maaaring kontakin sa pamamagitan ng sumusunod na impormasyon para sa anumang katanungan tungkol sa mga karapatan ng mga kalahok sa pag-aaral, kabilang ang mga hinaing at reklamo:

Dr. Honey Libertine Achanzar-Labor, Panel 5C Chair
Address: Room 126, G/F, NIH Building, UP Manila, 623 Pedro Gil St., Ermita 1000 Manila
Email: upmreb@post.upm.edu.ph
Tel: + 63 2 85264346

PAHAYAG NG PAHINTULOT

Nabasa at naunawaan ko ang nilalaman ng pormang pangpahintulot na ibinigay ng mananaliksik, at ang aking mga katanungan tungkol sa pag-aaral na ito ay nasagot nang ayon sa aking kasiyahan. Ang pagsang-ayon kong lumahok sa pananaliksik na ito at ang pagsagot sa dokumentong ito ay hindi nangangahulugang isinusuko ko ang aking mga karapatan, at hindi rin nito pinalalaya ang mga mananaliksik, institusyon, o tagasuporta mula sa kanilang mga responsibilidad. Kung mayroon akong anumang mga katanungan o alalahanin tungkol sa pag-aaral na ito, maaari akong makipag-ugnayan kay Carmela E. Danganan mula 7:00 AM hanggang 7:00 PM sa pamamagitan ng email sa cedanganan@up.edu.ph o sa telepono sa 09569874097, kung saan maaari rin akong mag-iwan ng mensahe kung kinakailangan. Sa pamamagitan nito, kusang-loob akong nagbibigay ng aking pahintulot na lumahok sa pananaliksik na ito.

- ☒ Ako ay sumasang-ayon na lumahok sa pag-aaral at kinikilala ang may kaalamang pahintulot.
- ☐ Ako ay hindi sumasang-ayon na lumahok sa pag-aaral.

Luis a Cabatbat
LUIS a Cabatbat

LAGDA SA IBABAW NG PANGALAN AT PETA



University of the Philippines Manila

RESEARCH ETHICS BOARD

Room 126, National Institutes of Health, UP Manila

623 Pedro Gil Street, Ermita, 1000 Manila

Telephone: +63 2 8526-4346; Email: upmreb@post.upm.edu.ph

UPMREB CERTIFICATION OF EXEMPTION FROM ETHICAL REVIEW

The **University of the Philippines Manila Research Ethics Board (UPMREB) Review Panel 5C** has processed your request for *EXEMPTION FROM ETHICAL REVIEW* for the following study protocol and related documents which has been reviewed with resulting panel conditions and considerations:

UPMREB CODE: 2025-0254-EX
SUBMISSION DATE: 15 May 2025
STUDY PROTOCOL TITLE: Machuca Tiles in the Philippine Cultural Landscape
PRINCIPAL INVESTIGATOR: MS. CARMELA DANGANAN
SPONSOR/FUNDING AGENCY: Investigator
DATE OF ACTION: 23 May 2025
JUSTIFICATION FOR THIS CERTIFICATION: The study protocol qualified with the criteria for exemption as stipulated under provisions 47-48, pages 48-49 in the National Ethical Guidelines for Research Involving Human Participants (2022), since the study does not involve vulnerable populations.
Document/s included in the review on which this certification was based: <ol style="list-style-type: none">1. Study Protocol version 3.0 dated 15 May 20252. Theoretical Framework version 3.0 dated 15 May 20253. Conceptual Framework version 3.0 dated 15 May 2025
Composition of Team on Record: <ol style="list-style-type: none">1. Carmela E. Danganan2. Dr. Honey Libertine Achanzar-Labor

RESPONSIBILITIES OF PRINCIPAL INVESTIGATOR WHILE STUDY IS IN PROGRESS:

1. Continuing compliance with the exemption criteria of the National Ethical Guidelines for Research Involving Human Participants (2022) in the duration of the study;
2. No substantial changes in research design, methodology and subject population from the protocol submitted for exemption. Modifications that significantly affect previous risk-benefit assessment or qualification for exemption may be submitted as new protocol for initial review.
3. Notice of termination of the study using 3(C)2012: Final Report Form

All further queries regarding this request may be forwarded to the undersigned through upmreb@post.upm.edu.ph or telephone number +63 2 8526-4346.


PROF. HONEY LIBERTINE ACHANZAR-LABOR, PhD
Chair, UPMREB Review Panel 5C

Appendix J

Factory Visit Photos (April 11, 2025)



