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Céramique décorative entre le Brésil et l'Europe:
le cas de l'usine de Santa Catharina

Decorative Tiles between Brazil and Europe:
the case of the Santa Catharina factory

Ceramica decorativa tra il Brasile e l'Europa:
il caso della fabbrica di Santa Catharina

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Abstract

It was in the first decade of the twentieth century that the first white china Factory was implemented in Brazil. Fruit of the association between the São Paulo Aristocracy and the Italian Romeo Ranzini, this factory was responsible for producing significant amounts of crockery in industrial moulds in São Paulo, Brazil. It was also the first factory to produce decorative tiles that would be part of the architecture of the public buildings built between 1919 and 1922 in Commemoration of the Centennial of the Brazilian Independence.

Known as The Santa Catharina Factory, this factory was inaugurated in 1913 with the participation of Italian immigrants and German technologies for the development of its first manufacturing activities. As a result of a number of economic, political and social matters that started in the previous century in the city of São Paulo, The Santa Catharina factory played an important role in industrial development as regards the production of national white china and was used as a model for the construction of new ceramic factories in São Paulo. After acquired by Matarazzo industries in 1927, had closed their activities in 1937.

This research is based on the identification and analysis of the first tiles produced in Brazil by the Santa Catharina Factory, which were part of the architectural decorations of the buildings built in São Paulo to the celebration of the Centennial of the Brazilian Independence. Designed by Victor Dubugras, The *Largo da Memória* (located in the city of São Paulo) and the buildings located in the "Paths of the Sea" road marked the beginning of Brazilian industrialization and the emergence of Neocolonial Movement in architecture of São Paulo. Studies of the first national patterns of decorative tiles approach a subject poorly researched by experts in tiled studies in Brazil, although in this case these tiles have represented not only an important milestone in the national industrialization, but also have demarcated the significant changes in architectural and decorative practices in the country in the early twentieth century.

Keywords: Ceramic - decorative tiles – The Santa Catharina Factory, Brazil – Production of tiles

Résumé

C'est durant la première décennie du XXe siècle que la première usine de porcelaine blanche fut implantée au Brésil. Elle fut le fruit de l'association entre l'aristocratie de Sao Paulo et l'italien Romeo Ranzini. L'usine produisait une quantité significative de porcelaine sur le territoire industriel de Sao Paulo. Ce fut également la première usine à produire des carreaux décoratifs qui sont aujourd'hui visibles dans l'architecture des bâtiments publics construits entre 1919 et 1922, pour la commémoration du centenaire de l'indépendance brésilienne.

Connue sous le nom de Santa Catharina, cette usine fut inaugurée en 1912. Elle fut construite par des émigrés Italiens, et utilisa pour la technologie allemande pour sa production. En tant que résultat d'un certain nombre de questions économiques, politiques et sociales qui ont débutés durant le siècle précédent dans la ville de São Paulo, l'usine Santa Catharina a joué un rôle important dans le développement industriel de la production de porcelaine blanche nationale et a été utilisée comme modèle pour la construction de nouvelles usines de céramique à São Paulo. Après avoir été achetée par l'industrie Matarazzo en 1927, elle cessa ses activités en 1937.

Cette recherche est basée sur l'identification et l'analyse des premiers carreaux décoratifs fabriqués au Brésil par l'usine Santa Catharina, qui était une partie des décorations architecturales des bâtiments construits à Sao Paulo pour la célébration du centenaire de l'Indépendance Brésilienne. Conçue par Victor Dubugras, le "Largo da Memória" (situé dans la ville de Sao Paulo), et les bâtiments situés sur le "Path of the Sea", ont marqué le début de l'industrialisation brésilienne et l'émergence d'un mouvement néocolonialiste dans l'architecture de Sao Paulo. L'étude des premiers modèles nationaux de carreaux décoratifs est un sujet peu étudié par les experts brésiliens, bien qu'ils furent un jalon important pour l'industrialisation nationale. Ils ont également entraînés des changements importants dans les pratiques architecturales, et décoratives au sein du pays au XXe siècle.

Mots-clés: Céramique - carreaux décoratifs – L'usine Santa Catharina, Brésil - Production de carreaux

Riassunto

Nel primo decennio del Novecento vide luce la prima fabbrica di ceramica di porcellana in Brasile. Frutto dell'associazione tra l'aristocrazia Paulista e l'italiano Romeo Ranzini, questa fabbrica fu responsabile della produzione di notevoli quantità di ceramica di porcellana mediante stampi industriali nella città di San Paolo, Brasile. Fu anche la prima fabbrica a produrre azulejos che avrebbero poi fatto parte dell'architettura degli edifici pubblici costruiti tra il 1919 ed il 1922, per la commemorazione del Centenario dell'indipendenza Brasiliana.

Conosciuta come Fabbrica di Santa Catharina, questa fu inaugurata nel 1913, con la partecipazione di immigrati italiani e con l'impiego di tecnologie tedesche per lo sviluppo delle sue prime attività produttive. Risultato di una serie di cambiamenti economici, politici e sociali, che ebbero inizio nel secolo precedente nella città di San Paolo, la Fabbrica di Santa Catharina svolse un ruolo importante nello sviluppo industriale per quanto riguarda la produzione di ceramica di porcellana nazionale e fu adottata come modello per la costruzione di nuove fabbriche a San Paolo. Successivamente, fu acquisita dalle industrie Matarazzo nel 1927, vedendo poi chiudersi le sue attività nel 1937.

Questa ricerca si basa sull'identificazione e l'analisi dei primi azulejos prodotti in Brasile dalla Fabbrica di Santa Catharina che fecero parte delle decorazioni architettoniche degli edifici costruiti a San Paolo per la commemorazione del Centenario dell'indipendenza Brasiliana. Progettati da Victor Dubugras, il Largo da Memória (situato nella città di San Paolo) e gli edifici che si trovano nei Caminhos do Mar marcarono l'inizio dell'industrializzazione brasiliana e la nascita del Movimento Neocolonial dell'architettura Paulista. Gli studi dei primi modelli di azulejos nazionali affrontano un argomento poco studiato dagli esperti in azulejaria in Brasile, nonostante rappresentino un importante avvenimento dell'industrializzazione nazionale, ma segnano anche i cambiamenti di significative pratiche architettoniche e decorative nel Paese nel primo Novecento.

Parole chiave: Ceramica - porcellana - La fabbrica di Santa Catharina - Produzione di ceramica

List of Acronyms

CONDEPHAAT – Conselho de Defesa do Patrimônio Histórico, Arqueológico, Artístico e Turístico (Council of protection of the Historical, Archeological, Artistic and Touristic Heritage of the State)

IPHAN – Instituto do Patrimônio Histórico e Artístico Nacional (National Institute of Historic and Artistic Heritage)

IRFM – Indústrias Reunidas Fábricas Matarazzo

SCI – Società Italiana Ceramica

SCF – The Santa Catharina Factory

TPTI – Tehcnique, Patrimoine, Territoire de l’Industrie

USP – University of São Paulo

Technical Glossary¹

Acroterion: a terracotta ornament at the top or side angle of the roof pediment, common in Greek, Etruscan and Roman architecture

Adobe: a sun-dried brick made from river mud and straw

Alkaline glaze: a relatively low-fired glaze with a high concentration of alkali elements, such as wood of plant ash, in its composition. Alkaline glazes were used extensively in ancient Egypt and are known for their bright colours, but glaze crazes easily and can be brittle.

Antefix: a terracotta ornament concealing the ends of roof tiles, common Greek, Etruscan and Roman Architecture.

Architectural ceramics: term for all kinds of moulded architectural ceramic ornament, whether glazed or unglazed

Arista: Spanish for 'ridge'. The design is formed by ridges on the tile. Coloured glazes are then put into each space and are kept apart by the ridges.

Art tile: a name in the second half of the 19th century for the tiles showing the influence of the design movements of the day, and often having a special aesthetic quality.

Azulejos: Spanish and Portuguese term for 'tiles'.

Barbotine: Tiles painted with a coloured slip and covered with transparent glaze

Bat: a gelatine pad sometimes used in the process of *transfer-printing*.

Bianco-sopra-bianco: Italian for 'white-on-white'. Found on *tin-grazed* tiles, particularly those made in Briston and Liverpool in Britain during the 18th century.

Biscuit: a tile that has been fired once and yet to be glazed and decorated.

Body: main structure of the tile as distinct from its decoration and glaze.

Bottle kiln: a large type of intermittent kiln, usually coal-fired, formerly used in the large-scale production of pottery and tiles. It has a inner kiln surrounded by tall brick hovel in the shape of the bottle.

Chinoiserie: a style reflecting the fanciful perceptions of Chinese life and art held by the Europeans from the 17th century onwards.

¹ LEMMEN, Han Van. *Tiles in Architecture*. London, Laurence King Publishing, 1993. pp. 290-291

Cobalt: a metal, the oxide of which produces a strong blue colour and a stable ceramic pigment that can be used at a wide range of different temperatures. Much used in the decoration of *tin-glazed* tiles and later printed blue-and-white tiles.

Coperta: an Italian technique of adding an extra coat of transparent lead glaze to the already applied white glaze and painted decoration. When fired this helps to create a more glossy and hard-wearing surface.

Cuenca: Spanish for 'bowl'. Another term for 'Arisca'.

Cuerda-seca: Spanish for 'dry cord'. A decorative process where the design is first painted in outlines using a compound of iron or manganese oxide and grease. Colours are then added but these do not cross the greasy lines. After firing, these outlines appear as matt dark sunken lines separating areas of glossy colour. The earliest form of the technique involved the use of a thin cord, impregnated with the iron/manganese and grease mixture which was carefully placed on the surface on the tile to create the outlines of the design.

Delftware: tile which has been dipped in white tin glaze at the biscuit stage and then painted by hand. This decoration is called 'in-glazed' because it sinks into the glaze during the second firing. The term is derived from the Dutch town of Delft and it generally applied to tin-glazed tiles made in the Netherlands and Britain.

Dust clay: finely powdered clay with a low moisture content.

Dust pressing: describes the machine compression of powdered clay into metal moulds to form tiles.

Earthenware: object made of ordinary clay then fired about 1000°C. Earthenware remains porous unlike stoneware or porcelain.

Efflorescence: a natural process whereby salts move to surface of the clay during the drying process forming a powdery crust of salt that turns into the glaze when fired.

Egyptian faience: non-clay based ceramic composed of crushed quartz and sand, with small amounts of calcite lime and a mixture of alkalis. Used for making small glazed objects and tiles, it is called 'Egyptian faience' to distinguish it from tin-glazed ware and glazed architecture ceramics.

Émaux ombrants: from the French for 'shadow enamels'. A decorative process in which a tile with relief decorations is covered with a translucent glaze. Pooling of the glaze in the hollows produces gradations of light and dark of great delicacy.

Enamel: a ceramic pigment which can be painted on to a glazed tile and permanently fixed to it by low-temperature firing in a muffle kiln.

Encaustic: a ceramic tile where the design is inlaid in coloured clays into the main body of the tile.

Faience: from the Italian town of Faenza. Originally a term for tin-glazed ware, but during the 19th century it was used to describe moulded and glazed architectural ceramics. In France it was used for fine quality Earthenware while in America it refers to tiles with a handmade look decorated with matt glazes.

Fettling: the process of removing the rough edges from dust-pressed tile after pressing.

Flux: an agent added to a glaze to help lower the melting point so that it adheres more easily to the clay body.

Glaze: glassy substance used to cover tiles in order to make them impervious to water, as well as for decoration. Glazes can be transparent, translucent, opaque, glossy or matt. They are applied to a biscuit tile by dipping, painting or spraying, and then the tile is fired for a second time.

Goutou: a round glazed earthenware ornament concealing the ends of glazed Chinese roof tiles.

Hispano-mourisque: a term used for pottery and tiles produced in Spain (in places such as Malaga and Valencia) during the 14th and 15th centuries under Moorish influence. It is characterized by the use of lustre often combined with cobalt blue on a white tin glaze.

Imbrex: Latin word for a curved Roman roof tile which fitted over the raised flanges of tegulae.

In-glaze: decoration painted on to an unfired tin-glazed surface. During the firing the decoration sinks into the tin glaze and fuses with it.

Inlaid: a type of design formed by inserting different coloured clays into the surface of the tile.

Intaglio: relief in reverse or design stamped into the surface

Intermittent kiln: a kiln in which the ware is set, fired, cooled and then drawn.

Kiln: oven in which pottery tiles are fired.

Lead glaze: glassy, transparent glaze made from lead oxide since ancient times. It is highly poisonous in its unfired state.

Lithography: a method of surface printing – from a specially prepared flat stone. The process is based on the antipathy of grease and water. The design is created with aid of greasy ink or crayon, applied to the stone, which is porous and readily accepts water. The stone is first made wet after which it is tolled with greasy ink. The ink is accepted by the stone and put through a roller press which transfers the design to the paper.

Lock back: a special feature of dust-pressed tiles that have under-cut indentations on the back to aid adherence to mortar or cement.

Lustre: a ceramic pigment usually derived from copper or silver which turns into a thin layer of metal on objects in the kiln when smoke or reduction gazes are introduced. This produces iridescent metallic effects.

Maiolica/ majolica: originally earthenware with white tin glaze, painted in bright colours and produced in Italy and Spain. The term ‘majolica’ was applied in the 19th century to relief tiles with colourful opaque glazes.

Manganese: a metal, the oxide of which produces a purple glaze much used on Dutch and English tin-glazed tiles.

Mosaic: small pieces of glass, stone or fired clay, known as tesserae, arranged to make a pattern of picture and set in plaster, mortar or cement.

Mudéjar: a term in design history which refers to a style of architecture and design that is a mixture of Islamic and Gothic Style. The style was particularly prevalent in Spain between the 13th and 15th centuries when Muslim craftsmen worked for Christian masters.

Muffle kiln: a relatively low-temperature kiln with an interior chamber totally enclosed and separated from the main kiln with which shields the ware from the direct flames and combustion gases.

On-glazed: decoration executed on already fired glaze with enamels. Because on-glaze enamels can be fired at lower temperatures, a more variety range of colours is available than with under-glaze decoration.

Opaque glazes: coloured glazes that cover the tile without allowing the body to show through. They are made by adding coloured oxides and other opacifiers to transparent glazes.

Porcelain: a vitreous (glassy) ceramic material characterized by a dense, fine grained and smooth body.

Relief: raised decoration moulded on to the surface of a tile.

Sagger: a fireclay box in which pottery and tiles can be set in a kiln to shield them from direct contact with kiln gases and flames.

Salt glazing: a process whereby the ware is glazed in the kiln. At the height of the firing, salt is thrown into the kiln. This vaporizes and reacts with the clay to form a glaze on the surface of the ware.

Sgraffito: from the Italian for 'scratching'. The technique of scratching through the top layer of a tile with two layers of clay to reveal the colour of the bottom layer.

Silk-screen printing: a decoration method for pottery and tiles. The simplest silk-screen equipment consists of a frame with a stretched silk cloth. A stencil is placed on the screen and varnish applied to fill in those parts of the screen not covered by the stencil. Ceramic colour dispersed in oil is roller or squeezed through the screen on to the ceramic surface

Slip: thin liquid clay

Stencil: a piece of paper, card or metal with a design cut out of it, allowing colour to be applied through the cutaway areas.

Stoneware: tiles fired to a temperature of 1250°C resulting in a vitrified body which is both water and frost proof and therefore suitable for use on the exterior of buildings

Tegula: latin word for a flat roof tiles with upturned flanges along the long sides.

Terracota: Italian for 'fired earth'. Generally used to describe unglazed architectural ceramics except in America where it is applied to all kinds of glazed and unglazed architectural ceramic decoration.

Tile blank: a formed tile before any kind of decoration has been applied.

Tin glaze: a glaze made by adding tin to a lead glaze which becomes an opaque white when fired.

Transfer printing: a method of transferring designs and images from engraved copperplates or lithographic stones to ceramics surfaces, with the aid of a thin paper tissue or gelatine bat.

Translucent glazes: transparent glazes to which small amounts of ceramic colour have been added, allowing the printed or relief moulded design to the tile to show through.

Transparent glazes: clear glazes used to cover tiles to make them impervious to water or dirt and to provide a protective covering for painted or printed decoration.

Tunnel kiln: a continuous kiln fired by gas, oil or electricity in which ware passes through a stationary firing zone in the centre of the kiln. The ware is placed on the refractory lined desks of a series of cars that move slowly through a long straight tunnel.

Under-glazed: decoration painted or printed on to the ceramic surface prior to the application of the glaze.

Vitrification: the progressive fusion of clay in the firing when the body becomes harder, denser and less porous the higher the temperature.

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Introduction

1. Introduction

The tile as a decorative element in Brazilian architecture had the first appearance in the first centuries of colonization and was used in churches and chapels, then, in monasteries and buildings of religious institutions. In the late eighteenth century it became part of the decorations of the interiors of large farms and public buildings to finally, in the next century, win the facades of urban households in developing cities. Initially, their application were restricted to the interior especially because this decorative element was a handmade product and therefore specialized and expensive. It had a very similar use of the uses developed in Portugal, precisely because of the cultural proximity between the two countries that was developed over the centuries XVII, XVIII and XIX.

Portugal, therefore, played an important role in the integration and development of tile work in Brazil, since it was Brazil's main supplier of tiles at the late eighteenth century played significant cultural influences, especially regarding on how to use this ceramic piece in the architecture, such as church towers, cloisters, corridors, lobbies, balconies, etc., and exterior masonry.

From the Industrial Revolution, trade relations and tile production techniques transformed themselves and set up in a new dynamic. Throughout the nineteenth century, new technologies were adopted in the production of tiles, making them more accessible to the general public, since production processes have become more streamlined and faster with the use of new production techniques and machinery. This way, it was enabled the expansion of the tiled market and a large-scale application of this element outside buildings.

Until the early twentieth century, Brazil imported the vast majority of manufactured products, including decorative tiles. Thus, in the nineteenth century, it received a fairly significant amount of European tiles in particular Portuguese, Dutch, French, German and English tiles. These tiles were abundantly used on the facades of urban houses and this usage was facilitated by climatic conditions. In a tropical climate and with a predominantly earth architecture, the tiles were an interesting solution to protect the facades. In addition, the tiles also provided to the facades an air of sophistication becoming quite popular in cities like Belém (Pará State), Sao Luis (Maranhao State), Salvador (Bahia State), Rio de Janeiro (Rio de Janeiro State) and Pelotas (Rio Grande do Sul State) in the mid and late nineteenth century.

The development of new commercial dynamics, particularly linked with the Brazilian agricultural production and the establishment of an internal market, stimulated the development of urban infrastructure such as the creation of hydroelectric power plant and railways. This also enabled the expansion of trade relations between the cities and even with the industrial countries, resulting in the appearance of small manufacturers and small national industries. With the advent of First World War, new possibilities for the implementation of national industries was made possible whereas the European industry could not meet the national demands given the conditions laid down by the war.

Thus, cities like São Paulo, which development of an internal market had already been created in the recent centuries, has benefited from the economic conditions favored by the production and export of coffee and has expanded further its domestic market, in which opened up new prospects for installation of different types of factories to meet the demands of the internal market. In addition, another important factor that has spurred the creation of industries in the region were the large immigration of Europeans, especially Italians, in the late nineteenth and early twentieth centuries to meet the labor-work free of demands on coffee farms e the cities in development.

Among the different types of factories that appeared in São Paulo in the early decades of the twentieth century, the ceramics industries were the first ones. Until then the domestic production of ceramics was dedicated exclusively to the production of roofing tiles and materials for the first needs, however, with the population concentrations in urban areas, fine tableware market was made possible, thus allowing the emergence of the first crockery, earthenware and porcelain factories in Brazil.

The first white china Factory in São Paulo city (Brazil) was the SA Factory Connection Santa Catharina (corporate name Fagundes, Ranzini & Cia), founded in 1913 by Italian immigrant Romeo Ranzini. In 1912, this Italian businessman hired groups of Italian workers and pottery technicians to come to Brazil, since there was no skilled labor to work in this type of industry. According Bellingieri ², Ranzini "(...) also imported German machinery, with capacity to produce 10,000 tiles per day. The Factory produced vases, plates, bowls, mugs, cups, saucers, dinner apparatus for washbasins and tea, and 'objects of fantasy'".

² BELLINGIERI, Julio Cesar. *As origens da Indústria Cerâmica em São Paulo*. Periódico Cerâmica Industrial vol. 10 (3) Maio/ Junho, 2005. p. 21. Translation of the original text: "(...) importou também maquinários alemães, com capacidade para produzir 10.000 azulejos por dia. A empresa produzia vasos, pratos, tijelas, canecas, xícaras, pires, aparelhos de jantar, para lavatórios e para chás, além de 'objetos de fantasi'".

In the early 1920s, it was described as: “*A modeling Factory, admirably organized, whose products the strength, art, elegance, and perfection rivals the best similar foreign pottery factory, being worthy of general admiration (...) About 1,000 workmen of various nationalities, including Japanese ones, among them many women and children*”³.

With the termination of employment contracts, the factory’s foreign technicians founded their own white china factories. In 1937 there were 18 factories producing dinner sets, cups, bowls, soup bowls, mugs, etc. According Pereira⁴, “as a pioneer in the field of white crockery in Sao Paulo, Santa Catharina factory was responsible for the spread of similar industrial facilities to other districts of the capital [São Paulo city], as São Caetano and Mauá, in that period, districts of São Bernardo. Not only for its physical presence but also because some of its workers who have migrated – as owners, including – to the news factories of white china, the installations of Santa Catharina were constituted, albeit unintentionally, as the main technical and architectural reference for future endeavors in this area”.

Little is known about the production of the first ceramics and tiles in Brazil in the early twentieth century. The identification of national typologies of ceramics, especially regarding the decorative tiles, and their application in architecture has been little exploited. Despite the existence of some recent researches about the history of the Santa Catharina factory and the other ceramic factories in the beginning of industrialization in São Paulo (Brazil), these researches deal with the industrialization of tableware production and with the creation of the complex of buildings for the white china factories, but, indeed, they are not dedicate the analyses to the production of decorative tiles and how these tiles were used in the Brazilian Architecture.

Rafael de Abreu e Souza, for example, tried to identify the typology of the crockery

³ BELLINGIERI, Julio Cesar. *As origens da Indústria Cerâmica em São Paulo*. Periódico Cerâmica Industrial vol. 10 (3) Maio/ Junho, 2005. p. 21. Translation of the original text: “Fábrica modelar, admiravelmente organizada, cujos productos pela solidez, a arte, a elegancia, e a perfeição rivalisam com os melhores similares de prodecência estrangeira, tornando-se dignos de geral admiração (...) Trabalham actualmente na fábrica cerca de 1.000 operários de varias nacionalidades, inclusive japonezes, havendo entre elles muitas mulheres e crianças”.

⁴ PEREIRA, J. H. M. *As fábricas paulistas de louça: estudos de tipologias arquitetônicas na area de Patrimônio Industrial*. Dissertação (mestrado), FAU/USP, São Paulo, 2007, p. 63. Translation of the author from the original text: “Como pioneira no ramo das louças brancas em São Paulo, a Fábrica Santa Catharina foi responsável pela disseminação de estabelecimentos industriais congêneres para outros bairros da capital, para São Caetano e para Mauá, à época distritos do município de São Bernardo. Não somente pela sua presença física, mas também pelo fato de terem muitos de seus operários migrado - como proprietários, inclusive - para as novas fábricas de louça, as instalações de Santa Catharina constituíram-se, ainda que involuntariamente, na principal referência técnica e também arquitetônica para os empreendimento futuros na area”.

collection collected in the ancient installations of the Santa Catharina factory during the archeological works developed by the Company *Zanettini Arqueologia* in 2003⁵. It is interesting observe that the author identified the objects and analyzed the characteristics, dimensions and properties of the Santa Catharina production and identify the first productions of tableware of the Santa Catharina factory in an archaeology and historical point of view.

The same happens in the José Hermes Martins Pereira's work, especially when he observed, in an architectural point of view, the features of the industrial space of crockery production, crossing the information about the different activities developed in different industries of ceramics and their different activities in an industrial chain process in Brazil during early twentieth century.

As regards to the use of tiles in Brazilian architectural decorations, the majority of Brazilian studies are more focused in the period that began in the seventeenth century with the appearance of the first examples with tiled decorations until the late nineteenth century when the decorative tiles were abundantly used in facade coatings. Moreover, the studies, which are dedicated to the XIX century period, are more focused on the application of imported tiles and the identification of their sources.

However, about the twentieth century, there are two relevant studies on the Brazilian tiles, but these are already targeted on industrial production after the 1930s. In the dissertation of Master of Ingrid Moura Wanderley⁶, the studies on tiles are oriented specifically on the production of the artist Athos Bulcão, which played an important role in defining a new Brazilian tiled art in the twentieth century. On the other hand, the researcher Maria Cristine da Silveira⁷ deals with the studies on tiles between the years 1930 and 1960, depicting the main modern buildings constructed in that period known as Modern Brazilian Architecture.

Thus, there is no work covering the first productions of national decorative tiles and its application in Brazilian architecture. Although there are two short articles that mention the

⁵ IPHAN/ MinC Portaria nº 151 de 1º de Agosto de 2003. See more information In: ABREU e SOUZA, Rafael de. *Louça Branca para a Paulicéia: Arqueologia Histórica da Fábrica Santa Catharina / IRFM – São Paulo e a Produção da Faiança Fina Nacional (1913-1937)*. Dissertação de Mestrado apresentada ao programa de pós-graduação em Arqueologia do Museu de Arqueologia e Etnologia da Universidade de São Paulo. São Paulo, 2010. p. 18.

⁶ WANDERLEY, Ingrid Moura. *Azulejos na Arquitetura Brasileira: os painéis de Athos Bulcão*. Dissertação de mestrado defendido no Departamento de Arquitetura e Urbanismo da Escola de Engenharia de São Carlos, Universidade de São Paulo, São Carlos, 2006.

⁷ SILVEIRA, Maria Cristina da. *O Azulejo na Modernidade Arquitetônica*. Dissertação de Mestrado defendido na Faculdade de Arquitetura e Urbanismo da Universidade de São Paulo, São Paulo, 2008.

Santa Catharina Factory as the first domestic factory that produced products on an industrial scale, little is known about the initial production of tiles in Brazil. Carlos Lemos and Benedito Toletto identified the existence of tiles manufactured by Santa Catharina factory in the monuments to the celebration of the Centennial of Brazilian Independence. However, they did not analyze those pieces.

Thereby, this work intends to develop a research about the tiled production and its application on Architecture in the beginning of XX century, opening new areas of research on the first productions of Brazilian decorative tiles. In this work, the tiles that were part of the decorations of the first public monuments in the early twentieth century were considered. The Architectural Monuments selected for this work are the *Largo da Memória* (Memory Square) in São Paulo and the Architectural Monuments of the road "Paths for the Sea" built for the celebration of Brazilian Independence Centennial. These buildings received the tiles burned by Santa Catharina factory and painted by the artist José Wash Rodrigues and were designed by the French architect Victor Dubugras, one of the most important representatives of Brazilian Neocolonial Architecture.

In conclusion, this present work was organized in three main chapters. The first chapter seeks to understand the characteristics and applicability of tiles in Brazil, understanding the relations established between the ceramic production and its uses in Brazilian architecture in the early twentieth century, especially regarding the tiles produced by the first white china factory in Sao Paulo. In this chapter, it intends to conduce a brief overview about the history of tiles in Brazil in order to demonstrate the applicability of tiles in architecture and its deep relationship with the Portuguese culture and heritage.

It was also presented a brief overview about the history of Brazilian architecture, especially regarding the artistic and architectural production of Ricardo Severo, José Wash Rodrigues and Victor Dubugras in the formation of neo-colonial architecture developed at that time, being the precursors of the Modern Brazilian Architecture.

The second chapter presents the object of study, punctuating the Santa Catharina factory in the industrial context of Brazil, its functional characteristics and finally presents the buildings receiving the tiles of its productions, performing a parallel with the motifs used and its locations in the buildings.

In the third chapter the research is developed in order to punctuate the differences between the production of ceramics in Europe and the Brazilian production, highlighting the

production of tiles and uses objects to the construction (architecture). At this point, it is worth mentioning the importance of manufacturing in special tiles in countries like Spain, Portugal, England, France, Germany and the Netherlands as the main producers in the nineteenth and early twentieth century.

It is intended to identify the types manufactured in Brazil and its application in architecture and compares them to the types of European tiles that were largely introduced by commerce established at the time. It is worth mentioning that the production of tiles in Europe, especially in countries like Portugal, England and France, was quite significant and as domestic production was still incipient, the import of tiles and other decorative elements was very recurrent and significant in the national context.

Thus, the scope of the research is to address the origin and tiled production technique, understanding their cultural and artistic influences in order to create new perspectives of research about the architectural history in the early twentieth century in the regional and national context.

Finally, the last part of this work is related to the collective project, which was developed during the activities of this Master degree Erasmus Mundus. This collective project consists in a work developed with other five students of the same promotion to study the phenomenon of the Company Towns in the three countries: France, Italy and Portugal.

Chapter 1: History of tiles in Brazilian Architecture

1.1. Decorative Tiles in the Brazilian Architecture: presence of the Portuguese tiles (XVI - XVIII centuries)

The tile as a decorative element in Brazilian architecture has undergone a number of transformations since its first appearances in the interior of churches and chapels until its peak in the nineteenth century when it began to decorate the facades of urban houses. In the twentieth century, it had an important role in the decoration of interiors and exteriors of modern Brazilian buildings mainly because, for the architects and artists of that time, the tile expressed a decorative element which allowed the revival of historical and artistic traditions in a national context and also allowed the creation of a new architectural and decorative identity in the country.

The Portuguese culture had an important and significant role in the development of constructive and decorative traditions in Brazil, especially in urban design and aesthetic architecture standards. According to Santos Simões ⁸, the Portuguese tradition and the Portuguese customs began to actually contribute in the formation of Brazilian culture from the arrival of the Jesuit missions in the country and as well as the founding of the city of Salvador (first capital of colonial of Brazil) in 1549 by Thomas de Sousa. According this author, the management, the hierarchies, the activities and the Brazilian technical and artistic achievements followed the style and Portuguese influences.

When the tile started to decorate the interiors of Portuguese buildings, Brazil received this influence and might be found in the country, "in perfect sync with the other arts and as a result of the same process of acculturation, or better, the pure transfer of taste, transfer of techniques and even transfer of materials", the tile in the enrichment of the interiors of churches and schools built by Jesuit missions ⁹. Until the late eighteenth century, Portugal was the main supplier of this product in Brazilian territory and exerted significant cultural influences in Brazil, in particular on how to use this ceramic piece in architecture so, for this reason, it is possible to verify the use of decorative tiles in church towers , cloisters, corridors, lobbies, balconies, etc., and the outer facings.

⁸ SIMÕES, João Miguel dos Santos. *Estudos de Azulejaria*. Coleção Presenças da Imagem. Imprensa Nacional – Casa da Moeda, Lisboa, 2001. pp. 219-224

⁹ SIMÕES, João Miguel dos Santos. *Estudos de Azulejaria*. Coleção Presenças da Imagem. Imprensa Nacional – Casa da Moeda, Lisboa, 2001. p. 220

According to Alcântara¹⁰, the history of Brazilian decorative tiles is closely linked to the economic history of the country. Primarily thanks to the relations established by the Portuguese Overseas Empire and the moments in which Brazil played an important role in the interests of Portugal and secondly when the tile was used by Brazilian modern architects as an important decorative element that allowed not only a revival of national traditions but also new readings, more suitable to a search for a new national artistic identity quite characteristic of that historic moment in the country.

Thus, to Alcântara¹¹, "(...) the oldest tiles that we have in a significant amount are from the seventeenth century and are concentrated in the Northeast, due to the sugar industry, agribusiness, the mills, the wealth." In addition to the economic imperatives, the presence of the Jesuit missions played a significant role especially regarding the disclosure of sacred art tile, quite characteristic in Portugal. Some examples of application of Portuguese tiles in this period that deserve highlight are the decorative tiles used in the large panels of the wall in the interiors of churches and sacred spaces. Firstly, these tile panels followed the models of geometrized drawings of Arab influence known as "carpet" and the pieces were arranged by repetitive patterns that formed cloths with well-defined edges inspired in the ornamentation of the Moorish art. Secondly, the composition of decorative tiles was inspired in the representation of mythologies and sacred illustrations.

For the same author¹², "(...) This is a decorative line, not identify by the History, but that reveals an ancient Mediterranean tradition, which would pass by a series of transformations. Assimilated by the Islamic civilization, it was introduced in the Iberian Peninsula, and its application in the Alhambra in Granada. It was then the technique of

¹⁰ ALCÂNTARA, Dora. *Azulejo, Documento de nossa Cultura*. In: DIAS, Maria Cristina Vereza Lodi. Patrimônio Azulejar Brasileiro: Aspectos históricos e de Conservação. Brasília: Monumenta – BID / Ministério da Cultura, 2001. p. 28. Translation of the original text: “em perfeito sincronismo com as demais artes e como resultado de um mesmo processo de aculturação, ou seja, transporte puro de gostos, das técnicas e até dos materiais”

¹¹ ALCÂNTARA, Dora. *Azulejo, Documento de nossa Cultura*. In: DIAS, Maria Cristina Vereza Lodi. Patrimônio Azulejar Brasileiro: Aspectos históricos e de Conservação. Brasília: Monumenta – BID / Ministério da Cultura, 2001. p. 28. Translation of original text: “(...) os azulejos mais antigos que possuímos em quantidade significativa são do século XVII e estão concentrados na região Nordeste, devido à economia açucareira, à agroindústria, aos engenhos, à riqueza”.

¹² ALCÂNTARA, Dora. *Azulejo, Documento de nossa Cultura*. In: DIAS, Maria Cristina Vereza Lodi. Patrimônio Azulejar Brasileiro: Aspectos históricos e de Conservação. Brasília: Monumenta – BID / Ministério da Cultura, 2001. p. 29. Translation of the original text: “(...) trata-se de uma linha decorativa, não historiada, mas que revela uma tradição mediterrânea antiquíssima, que passaria por um série de transformações. Assimilada pela civilização islâmica, foi introduzida na Península Ibérica, sendo sua aplicação no Alhambra, em Granada. Tratava-se, então, da técnica do alicatado, que consistia no recorte de placas cerâmicas esmaltadas, com diversas cores, em pequenas formas poligonais variadas, que eram agrupadas, formando desenhos”.

*alicatado*¹³ that consisting in trimming enamelled ceramic plates with various colours, in various small polygonal shapes, which were grouped in patterns ". These geometrical forms and patterns also inspired the fabric and carpet decorations in Portugal and other Mediterranean countries.

An interesting Portuguese example cited by the author is the case of the Church of Jesus in Setubal, Portugal. Built in 1494 by the architect Diogo Boitaca, it is a Gothic church and was one of the first examples of the Manueline Style built in Portugal. In this church the decor tiled type "carpet" appears in two different scales: the foreground, located closer to the viewer's eye, follows the geometrical model in diagonals with smaller scale, while the second level, farther from viewer's eye, follows the same pattern but with larger dimensions. It is showing a concern with decorative scale, or better, the area of the walls more close to the floor on a smaller scale, and the higher planes and vaulted ceilings on a larger scale. In both cases, the cloths are strongly marked by a bar or ledge as a clear reference of the composition from a "carpet". This can be also observed in the lining of the wall side of the small stair situated in one of the parts of the altar of the main church nave.

Another important composition used in the interiors of churches was the figurative or historian panels. In many cases, these panels were used with the composition of type "carpet". The figurative models were developed from the emergence of tin-glazed¹⁴ tiles, whose white surface could receive acidic paintings, which passed to a new burn turning into a glazed surface, bright and colourful allowing the creation of many types of decorative representations. Traditionally this technique was developed by the Italians and was forwarded to Portugal by Flanders. For Alcântara¹⁵, "(...) the new process favoured the figurative or historian gender, as well as others decorative genres. The Italian Renaissance, which valued the representation of human figures, given the continuity of sacred images, however quite humanized, reintroducing the mythologies ". Figurative panels were widely used in Portugal and became known especially from the models in blue and white colour produced in this

¹³ Portuguese Term use to identify the Islamic technique, which were cut and organized small coloured pieces of ceramic to create decorative panels.

¹⁴ According the technical Glossary – In-glazed is a “decoration painted on to an unfired tin-glazed surface. During the firing the decoration sinks into the tin-glaze and fuses with it”. In LEMMEN, Han Van. *Tiles in Architecture*. London, Laurence King Publishing, 1993. p. 290.

¹⁵ ALCÂNTARA, Dora. *Azulejo, Documento de nossa Cultura*. In: DIAS, Maria Cristina Vereza Lodi. *Patrimônio Azulejar Brasileiro: Aspectos históricos e de Conservação*. Brasília: Monumenta – BID / Ministério da Cultura, 2001. p. 30. Translation of the original text: “(...) o novo processo favorecia o gênero figurativo ou historiado, bem como novos gêneros decorativos. O renascimento italiano, que valorizava a representação das figuras humanas, dera continuidade a das figuras sacras, todavia bastante humanizadas, reintroduzindo as mitologias”.

country.

In the city of Evora (Portugal), for example, it is possible to find even nowadays churches that have rich décor in figurative or narrative tiles (historian panels). The Church of St. John the Evangelist, attached to the Convent of Lóios, was built in 1485 and the narrative decorative tiles coat its interior. The walls of the church are covered by panels of figurative tiles, which represent scenes from the life of St. Lorenzo Justinian and were designed by important Portuguese artist of Lisbon António de Oliveira Bernardes. These panels have signing and were dated of 1711 and became known because of the quality in the naturalistic and expressive treatment of the figures as well as the wide scenery of historical scenes. Together with the historian panels, it is possible to identify the panels type "carpet" on the walls of the altar of the main nave. These large tiled panels follow a main standard model that are framed by a different model making it clear the limits of the walls of the architectural space.

On the other hand, the Church of Mercy, located in Largo da Misericórdia in Evora (Portugal), presents a rich union between the figurative tile panels with the décor of gilded wood. Dated 1499, it is one of the few copies that features an indoor decoration in which architectural elements are highlighted, especially as regards the transition between the two arts, gilded wood and tiles, that is both arts follow a decorative continuity of the frames and aligning pilasters, despite being conducted in different periods and by different artisans. The figurative representations of large panels of tiles in blue and white and the paintings located next to the gilded wood followed the theme of the spiritual and material works of mercy and were designed by the master carver Francisco da Silva in 1710¹⁶ and the master tiler Manuel Borges in 1715¹⁷.

Thanks to the digitization of the studies developed by João Miguel dos Santos Simões, currently available at online archive of the Calouste Gulbenkian Foundation¹⁸, it is possible to see images of the Portuguese and Brazilian buildings that received rich decorations of tiles - decorations of figurative and historians tiles as well as the geometric tiles especially among

¹⁶ ADE.CNE. Tabelaão Manuel André Pinheiro de Carvalho. Livro 1009, fl. 125 e 126 vº (Arquivo Distrital de Évora)

¹⁷ ADE.CNE. Tabelaão Manuel André Pinheiro de Carvalho. Livro 1130, fls. 2 a 4 vº (Arquivo Distrital de Évora)

¹⁸ Website: [http://digitile.gulbenkian.pt/cdm/search/searchterm/Azulejos%20--%20Brasil%20--%20Séc.%2017%20--%20\[Fotografias\]/mode/exact](http://digitile.gulbenkian.pt/cdm/search/searchterm/Azulejos%20--%20Brasil%20--%20Séc.%2017%20--%20[Fotografias]/mode/exact)



Image A.1 – Jesus Church, Setubal, Portugal.

Image A.2 – Detail of the Panel of tiles – Jesus Church, Setubal, Portugal

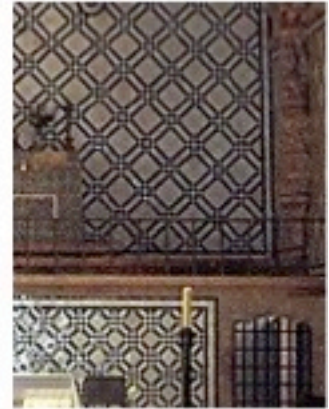


Image A.3 – Ground plan of the Jesus Church, Setubal, Portugal

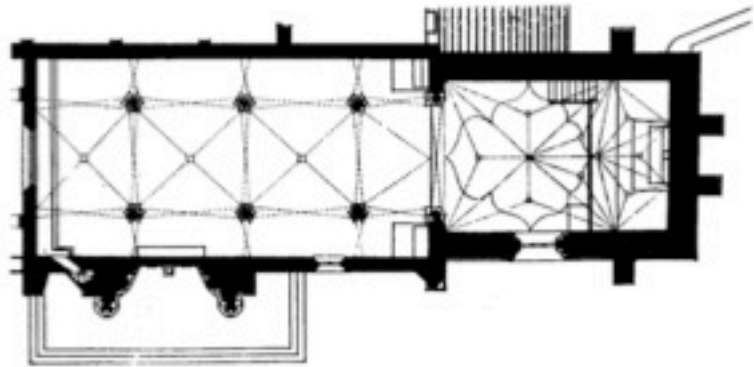


Image A.4 – Section Plan of the Jesus Church, Setubal, Portugal

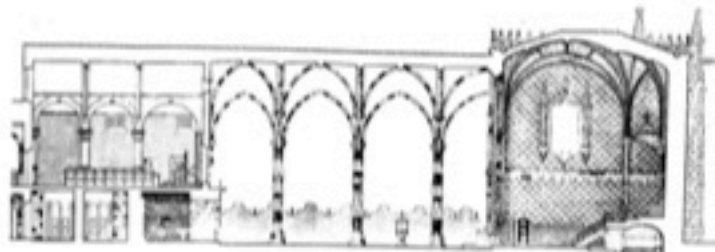




Image A.5 – The Church of St. John the Evangelist, Evora, Portugal.



Image A.6 – Detail of the figurative Panel - The Church of St. John the Evangelist, Evora, Portugal



Image A.7 – Detail of the Patterns of Tiles – The main altar - The Church of St. John the Evangelist , Evora, Portugal



Image A.8 – the Church of Mercy, Évora, Portugal.



Image A.9 – Detail of the Patterns of Tiles and gilded wood – the Church of Mercy, Évora, Portugal



Image A.10 – Detail of the Narrative Panels of tiles, the gilded wood and the painting representing the theme of the spiritual and material works of mercy – the Church of Mercy, Évora, Portugal.

XV to XVIII century. João Miguel dos Santos Simões was a leading researcher in tiles studies in Portugal and managed to gather over your life a significant amount of information about the history of tiles in both countries.

In Brazil, it is possible to find some examples also with the same composition of the tiles type “carpet”, specially, in the interior of some churches, cloisters and chapels. An Interesting example of panels of tiles, which the decorations consist of geometric compositions, is the Chapel of *Engenho Velho do Paraguaçu* (Santiago do Iguape, Brazil) – the chapel of an old processing factory of cane sugar. Located in the riverbanks of the Paraguaçu river, the Our Lady of Penha Chapel was built in 1660 and according the Inventory developed by *Instituto do Patrimônio Histórico e Artístico Nacional* (IPHAN)¹⁹ – Federal Agency under the Ministry of Culture which is responsible for the preservation of the Brazilian Cultural Heritage – the Chapel “consists of a nave and chancel, covered with domes of upper surface with roofing tiles and flanked by two sacristies with 4 roofs. (...) nave and chancel are completely covered by decorative tiles of XVII century, such as “cluster”, that gives the space a certain oriental air, which is also reflected in the volumetric treatment, making it a unique building in the country ". This chapel, following the same Portuguese aesthetic for the decorative tiles as type “carpet, the cloths covered by tiles present its limits defined for smaller and different patterns of the central main pattern. The same border pattern can be found on the framing of doors and windows, as well as the limits of the vaults of coverage, which shows the concern for mark the architecture elements.

In Addition, it is possible to find also the figurative tiled panels in Brazil. Between the examples of figurative tiles located on Brazilian soil, one rich example is the architectural ensemble of the tiles of the *Santa Casa da Bahia*, located in Salvador, Brazil. This architectural complex was founded in 1549 and has a rich set of figurative tiles that were inspired and produced as the Portuguese models. According to Paul Ormino de Azevedo²⁰, these tiled panels were introduced in 1722 and represented the processions of Bonfires and Bones, religious ceremonies performed during the Holy Week, which takes place once a year.

¹⁹ IPHAN - Livro de Belas Artes: Inscrição número 280-A, Data: 08/07/1943, Livro Histórico: inscrição número 214, Data: 08/07/1943. Processo número: 0231-T-41.

Translation of the original text: “é constituída de nave e capela-mor, recobertas com cúpulas com extradorso de telhas e duas sacristias laterais de 4 águas. (...) Nave e capela-mor são completamente revestidas por azulejos do século XVII, tipo “maçaroca”, o que confere ao espaço um certo ar oriental, que também se reflete no tratamento volumétrico, tornando-a um edifício ímpar no país”.

²⁰ Article called “Igreja e Santa Casa de Misericórdia – Arquitetura religiosa” site: <http://www.hpip.org/Default/pt/Homepage/Obra?a=1121>. Access: July 2015.

Another important architectural complex enriched by the figurative tiled panels was the Church and Convent of San Francisco of Bahia, also located in Salvador. Dating back to the early eighteenth century, the church of San Francisco is one of the richest examples of Brazilian religious architecture: it is richly decorated in gilt wood and has some small tiled panels located in the main nave close to the altar. In 1754, the cloister were settled large cloths of Portuguese decorative tiles. These panels, located in the interiors of the corridors of the cloister, were organized into 37 religious scenes and were delimited by the representation of architectural elements and baroque decorative elements. Furthermore, it is important to note the concerns about the dimensions of the panels, which follow the alignment of pillars located on the opposite side to the wall facings and also stay delimited between the stone pillars.

In Portugal, this same type of decorative organization of sacred scenes can be seen in the cloisters, monasteries and Portuguese churches. For example, in College of Holy Spirit (the main building complex of the University of Évora), it is possible to find tiled panels also delimited by representations of Baroque architectural elements. However, in this case, the issues are different, the panels represent the four elements of nature: water, fire, air and earth. Interestingly, the College of Holy Spirit in Evora has a rich collection of different types of decorative tiles: there is a room which is dedicated to special events of the University and in the main entrance there are the welcoming figures, tiled panels representing people richly dressed that invite the visitor to enter, these figures of invitation can also be found in Brazil in cities like Salvador and Rio de Janeiro; other compositions are found in the classrooms, it is possible to observe the tiled panels describing themes related to science according each taught discipline; and finally, in the halls of the main access, it may notice a large tiled panels representing vases of flowers and animals in enclosures with scrolls of acanthus leaves.

According to Santos Simões ²¹, the decorative models of tiles found in Brazil in the early centuries of colonization followed the same rules and applications found in the Kingdom, thus, the tiles brought by the Portuguese in the seventeenth century course with particularity since 1650, were in perfect sync with the types and models used in Portugal and its application followed the same rules and craft precepts of the best Portuguese tilers. In addition, the tastes and the evolution of fashion, reflected in Brazil, also were in sync with the Portuguese Court.

²¹ SIMÕES, João Miguel dos Santos. *Estudos de Azulejaria*. Coleção Presenças da Imagem. Imprensa Nacional – Casa da Moeda, Lisboa, 2001. p. 220

At that moment, the production of decorative tiles was artisan, thus the tiles were expensive and specialized products. According Moita ²², precisely because they are characterized by special decorative elements, their application in Brazil was first inserted into the interior, "(...) and restricted its use outside buildings, a solution which was not adopted from the outset, as was practiced largely in Muslim countries, not so much a matter of taste, but only by economic imperatives".

Although the Northeast have been the first to receive significant amounts of Portuguese tiles, mainly because sugar production allowed the enrichment of the region and the emergence of numerous architectural buildings decorated with tiles, some tiled panels from the same period can also be found occasionally in other regions of the country as was the case of buildings located in southern and Southeaster regions of Brazil.

For Alcântara ²³, "(...) in the south, in the direction of River Plate, which was very targeted for penetration into the mineral wealth coveted land, there was some planting sugarcane, some wealth, nothing comparable to the Northeast," however, this little wealth guaranteed the construction of buildings that received tiled decorations. The same happened in Rio de Janeiro, in which is possible to identify ashlar of carpet tiles at the entrance, in the hallway and the stairs of access ace cells of the Monastery of St. Benedict ²⁴, built in the seventeenth century. Importantly, in the case of the city of Rio de Janeiro, this enrichment also happened in other historical moments, which ensured the appearance of tiled models from different artistic periods. According to the author, the city was in the eighteenth century the main port of gold extracted flow in the region corresponding to the current state of Minas Gerais (Brazilian Midwest State) and subsequently also became the capital of the Empire and the Republic.

In the first centuries of colonization, tiles and tiled decorative panels followed chromatic models in blue, green, winey, yellow and orange on white background and were

²² MOITA, Irisalva. *Cerâmica aplicada à arquitetura oitocentista em Lisboa*. In: ALCÂNTARA, Dora. *Azulejos na Cultura Luso-brasileira*. Rio de Janeiro: IPHAN, 1997, p.13.

Translation of the original text: "(...) sendo restrito o seu emprego no exterior dos edifícios, solução que não se adotou, desde logo, como se praticava em larga escala nos países muçulmanos, não tanto por uma questão de gosto, mas apenas por imperativos econômicos".

²³ ALCÂNTARA, Dora. *Azulejo, Documento de nossa Cultura*. In: DIAS, Maria Cristina Vereza Lodi. *Patrimônio Azulejar Brasileiro: Aspectos históricos e de Conservação*. Brasília: Monumenta – BID / Ministério da Cultura, 2001. pp. 39-40. Translation of the original text: "(...) na região sul, na direção do Rio Prata, que era muito visado para a penetração nas terras cobiçadas pelas riquezas minerais, houve algum plantio de cana, alguma riqueza, nada comparável com a do Nordeste".

²⁴ Monastery was built in 1590 and located in Dom Gerardo Street, 68, Rio de Janeiro city.

generally smooth tiles with geometric abstract decoration which when applied to the architecture of the interior buildings, conferred to spaces built a sense of wealth. According to Santos Simões²⁵, in the seventeenth century, the colour of the Portuguese tiles transformed and the blue colour on white background became the fashion, this change took place especially after the contact with the news of the Italian, Dutch and English blue pottery. Among the Brazilian examples of that period, we highlight the tiles inside the Our Lady of Joy Church in Montes Guararapes (Pernambuco), the Berquó House²⁶ in Salvador (Bahia) and the former Convent of Our Lady of Immaculate Conception in Itanhaem (São Paulo).

In the eighteenth century, the figurative compositions gained prominence in the Portuguese tile production and in the first decades, there was an abandonment of abstract decorations and geometric patterns. By mid-1740, the decorations followed in large settings with "(...) figurative panels, with exaggerated Baroque frames, including pilasters with *amorini faceiros*, imaginative grotesque, *candelieri* complicated, dolphins, cherubs closing flowering motifs, etc"²⁷. Thereafter there was a resurgence of production of geometric patterns of tiles such as the composition on "carpet", which was used in abundance in frames and footers of simple border tiles.

Another model that has gained ground in architecture in this period were the tiles known as loose tile, from Dutch inspiration. These tiles were used in the lining of overlapping and the facades of houses²⁸. This line of tiles is characterized by the existence of a central motif that can represent scenarios, objects, animals, flowers and human representations. For example, in the chapel of Our Lady of Immaculate Conception in Elvas (Hermit of Elvas), it is possible to observe tiles loose type of Dutch inspiration coating all the interior walls. These

²⁵ SIMÕES, João Miguel dos Santos. *Estudos de Azulejaria*. Coleção Presenças da Imagem. Imprensa Nacional – Casa da Moeda, Lisboa, 2001. p. 106.

²⁶ Description of IPHAN – Livro de Belas Artes inscrição número 107 (número do processo: 0119-T-38/ Data: 11/06/1938): “O Solar situa-se no sopé de uma das ladeiras que conduz à Baixa do Sapateiros, a antiga Rua da Vala. O início de sua construção data de 1691, conforme indica a gravação acima da portada, e deve seu nome ao Ouvidor do Crime, Francisco Antônio Berquó da Silveira, que nela habitou em meados do século XVIII. O edifício, de planta mais ou menos quadrangular, desenvolve-se em trono de um pátio e escadaria central, partido comumente empregado nas casa abastadas dos setecentos, uma influência tardia dos palácios renascentistas. Possui, além do subsolo, dois pavimentos sobre a rua e sótão. O acesso principal se faz por portal em arenito, que tem alizares de orelha com ressaltos nos cantos, encimado por frontão curvo partido. No pavimento nobre, os três salões da frente apresentam balcões sobre a rua e tetos gamelados. Destacam-se no seu interior os painéis de azulejo do século XVII, do tipo tapete, e silhar com florão central do tipo camélia, limitado por barras”.

²⁷ SIMÕES, João Miguel dos Santos. *Estudos de Azulejaria*. Coleção Presenças da Imagem. Imprensa Nacional – Casa da Moeda, Lisboa, 2001. p. 33. Translation of the original text: “(...) painéis figurativos, com enquadramentos de barroquismo exagerado, incluindo pilastras com *amorini faceiros*, *groteschi* imaginosos, *candelieri* complicados, *golfinhos*, *querubins* fechando *albarradas floridas*, etc”.

²⁸ VALLADARES, José. *Os Azulejos da Reitoria*. Cidade de Salvador, Universidade Federal da Bahia, 1953, p.17.



Image A.11 – interior decoration of the Our Lady of Penha Chapel, Santiago do Iguape , Brazil



Image A.12 – floor decoration of the Our Lady of Penha Chapel, Santiago do Iguape , Brazil



Image A.13 – Detail of the tiled panel of the Santa Casa da Bahia, Salvador, Brazil.



Image A.14 – corredor of Convent of San Francisco of Bahia, Salvador, Brazil.



Image A.15 - Convent of San Francisco of Bahia, Salvador, Brazil



Image A.16 – The figurative Panels of The College of Holy Spirit , Evora, Portugal.



Image A.17 – The figures of invitation, The College of Holy Spirit, Evora, Portugal



Image A.18 – The panels of the corridor of The college of Holy Spirit , Evora, Portugal

Image A.19 – details of Panels of The College of Holy Spirit , Evora, Portugal.



tiles also follow-up on mat in which limits the scenes are marked by different patterns of tiles, usually inspired by the baroque scrolls of acanthus leaves.

The Dutch painter Jan Vermeer of seventeenth century presents the use of loose decorative tiles in the Dutch interior space, for example, in his work "Young woman standing near a virgin" painted in 1671, it is possible to notice the decorative composition of the simplified decorative tiles for the composition of the footers. These kind of tiles can be also found in the Chapel of Our Lady of Conception in Elvas, Portugal, but, interestingly, the same patterns were used in a different way: apparently the cover patterns were applied in a very similar way to the geometrized patterns found in the interiors of churches and sacred spaces, the composition of these patterns were limited by other motifs that created mouldings and marked the limits of the architectural space.

It is curious to note that the Dutch tiles were widely used in other countries. In the Library of History of the University of Padua, Italy, for example, it is possible to find in a old fireplace Dutch tiles. Unlike the models identified in Evora, Portugal, the models identified in the Library of Padua are more sophisticated as graphical representations such as historical scenes or objects.

Another factor that driving the resurgence of decorative tiles in geometric patterns in Portugal was the reconstruction of Lisbon after the earthquake of 1755. To Alcântara²⁹, the need to rebuild the city stimulated the development of a production of more simplified handmade tiles and the decorative preferences turned to the French models characterized by dotted models and the simpler geometric shapes. In addition, this period was common to use models that had inspiration in French prints and engravings.

²⁹ ALCÂNTARA, Dora. *Azulejo, Documento de nossa Cultura*. In: DIAS, Maria Cristina Vereza Lodi. *Patrimônio Azulejar Brasileiro: Aspectos históricos e de Conservação*. Brasília: Monumenta – BID / Ministério da Cultura, 2001. p.60.

1.2. Decorative Tiles in the Brazilian Architecture: presence of the Portuguese and other European tiles (early and middle of XIX century)

In nineteenth century, the decorative tile industry had begun a process of transformation of its production; it introduced new techniques that changed the way to make these ceramic pieces especially for the development of the decorations. The transfer of drawings on the tiles, made by hand, started to use cards to expedite the process of production and it was possible to manufacture a significant amount of standard tiles in a short period of time.

According Alcântara ³⁰, is also known as technical of manual stamp, this technique was characterized by a semi-industrial production in which "the motif being transported to the tile was drawn on a card; the perforated design was placed on the tile, and a very fine coal dust, through the holes, the design left marked in its contours. With the use of the card, the tile-painter outlined these contours, completing the painting. Using the stamp card, the motifs were resting on, and the brush, passing up, transposed the design directly to the tile. In the case of a larger number of colours, it was used a stencil for each colour ". Thus, small workshops and potteries began to produce more tiles which allowed the market to receive an abundance of decorative tiles at more affordable costs and the use and application of decorative tiles in architecture expanded to other spaces such as external areas, gardens of residences, palaces and public areas like squares.

From the Industrial Revolution the commercial and technical relations in tile production became and established a new dynamic. The production of tiles, beyond to adopting techniques such as the manual stamp, started also to adopt presses for the production of biscuits of the tiles, which made the production more quickly and cheaply.

Furthermore, according to Lemmen ³¹, "the industrial revolution affected not only the manufacture but also the market for tiles. During the nineteenth century, towns grew considerably, and more stringent building regulations came into force, which put new

³⁰ ALCÂNTARA, Dora. *Azulejo, Documento de nossa Cultura*. In: DIAS, Maria Cristina Vereza Lodi. *Patrimônio Azulejar Brasileiro: Aspectos históricos e de Conservação*. Brasília: Monumenta – BID / Ministério da Cultura, 2001. p.64. Translation of the original text: "o motivo a ser transportado para o azulejo era desenhado em um cartão; o desenho perfurado era colocado sobre o azulejo, e um pó de carvão muito fino, passando pelos orifícios, deixava marcado o desenho em seus contornos. Com o pincel, o azulejador delineava esses contornos, completando a pintura. Com o uso da estampilha, os motivos eram recostados, e o pincel, passando por cima, transpunha o desenho diretamente para o azulejo. No caso de um maior número de cores, utilizava-se uma estampilha para cada cor".

³¹ LEMMEN, Hans Van. *Tiles in Architecture*. London: Laurence King Publishing, 1993. p.105.

emphasis on hygiene. Machine-made tiles with their bright, easily cleanable surfaces were ideal. In addition, tiles added an important element of form and colour to architecture. In the home they were used in kitchens, bathrooms, toilets, fireplaces, porches and entrance halls. In the case of public, commercial and educational buildings, tiles began to be used on an even-increasing scale in town hall, hospitals, libraries, railways, schools, banks, warehouses and offices. The developing Victorian leisure industrial saw the building of music halls, theatres, seaside hotels, winter gardens and pavilions, in all of which tiles found a use”.

Thus, with the reduction of the costs of the decorative tiles and with the increased accessibility of this product, the decorative tradition of the compositions with standardized tiles, beyond to ensuring the decoration of interiors of religious buildings, also began to coat the facades of urban buildings and this phenomenon can be observed in Brazilian and Portuguese exemplars. The fashion of tiled facades and the use of the tiles in frontages and entablatures became common, firstly because of its characteristic of waterproofing, protecting the external walls of the buildings from the weather and minimizing the need for constant repainting or other care required to whitewashed walls, a technique traditionally used in the Portuguese and Brazilian architecture (Brazil Colony and Empire); second, because the use of decorative tiles in facades conferred also artistic qualities to the facades and streets, which gave for a simple architecture the impression of richness.

Thus, the coating of facades and exterior areas of buildings were common among Portuguese semi-detached houses and this enrichment of architecture was also built in a similar way in Brazil, which ceased to be Portuguese colony, had begun to Empire and started to try to establish a new architectural identity, using the tile to enrich its unassuming architecture.

In Brazil, the political and economic transformations in the early nineteenth century, such as the coming of the Court of King John VI in 1808, the Treaty of Commerce and Navigation and the Treaty of Alliance and Friendship held in 1810, were important milestones that determined new commercial relations between Brazil, England and Portugal. According to Arruda³², these treaties enabled England to pass to have privileges in the purchase and sale of products in Portugal and the Portuguese colonies.

Faced with the decline of gold mining and precious stones from Brazil, Portugal started an incentive the development of an agricultural diversity and expansion of livestock and leather production in different regions of Brazil. This policy, promoted by the Marquis of

³² ARRUDA, José Jobson de Andrade. *O imperialismo Britânico e o Fenômeno Brasil*. In Revista da Universidade de São Paulo, n. 79, p. 22-33, São Paulo, Setembro/Novembro 2008.

Pombal, was combined with a Portuguese union with new trading partners, which allowed the export of such goods from colony to other countries. When the English market realized that they were in a commercial disadvantage, they initiated practices to prevent greater economic losses and, with the coming of the royal family in Brazil and the creation of the treaties mentioned above, they began importing primary products and exporting manufactured products directly from and to the Portuguese colonies.

In this process, the competition with the British products and the loss of sovereignty over the purchase and sale of products to the colonies generated an economic crisis in Portugal, which resulted in a delay in the development of industries in the country. However, despite financial difficulties and foreign competition, the semi-industrialized Portuguese tiles were imported sharply by Brazil until the mid-nineteenth century. However, with industrialization and the emergence of new techniques, which transformed the tile production after the mid-nineteenth century, Brazil also began to import cheap tiles coming from Spain, Holland, France, England and Germany.

It is worth mentioning that the coming of the Portuguese Court in the early years of the nineteenth century ensured the emergence of a new architectural fad, heavily influenced by neo-classical style, and is now manifested in the buildings in the country boasting thus a new political status with the establishment of the Empire. Some examples of major mill houses and the first urban houses received the tiles in the interior and in some cases the tiles were also used in the exterior coatings.

At this moment, the Brazilian economy was mainly based on the cultivation of crops and livestock - like sugar and cotton production and in particular with the production of leather - and the manufactured consumer goods were almost all imported from Europe. In this context, materials and specialists were imported in order to meet the demands of the new Empire. According to Santos Simões³³, between 1815 and 1850, imports of fine materials and decorative accessories played a significant role in Brazil and were introduced by industrialized countries through the established trade. Alcântara³⁴ notes on "news of imports", large and numerous shipments of tiles to Rio de Janeiro, and surveys performed in the northeast, she found numerous buildings covered by decorative tiles in Salvador, Belém, São Luís and Manaus (North and Northeast of Brazil).

³³ SIMÕES, João Miguel dos Santos. *Estudos de Azulejaria*. Coleção Presenças da Imagem. Imprensa Nacional – Casa da Moeda, Lisboa, 2001. p. 224.

³⁴ ALCÂNTARA, Dora. *Azulejo, Documento de nossa Cultura*. In: DIAS, Maria Cristina Vereza Lodi. Patrimônio Azulejar Brasileiro: Aspectos históricos e de Conservação. Brasília: Monumenta – BID / Ministério da Cultura, 2001. p.62.

After the independence of Brazil in 1822, although Portugal continued to be the main supply of decorative tiles in Brazil, other countries were also important suppliers of the products in Brazilian territory. The fashion of applying the tiles on the outer coatings quickly became popular and it is possible to find buildings whose facades are covered with tiles from the North to the South, particularly in coastal cities or cities that had a prominent role in trade relations with European countries as the cities of São Luis (State of Maranhão), Salvador (State of Bahia), Rio de Janeiro (Rio de Janeiro State), Santos (State of São Paulo) and Pelotas (State of Rio Grande do Sul).

According to Alcântara³⁵, from the Liberal Revolution, a new bourgeois class arises in the national context of Portugal and this group, not as demanding as the aesthetic standards of decoration adopted by the Aristocracy, had the tiles manufactured in this period, industrialized and partly mechanized, his demands met and satisfied. The designs of the tiles, in many cases, were much more simplified than the models produced in earlier centuries, however, this was not an impediment to the tiles were very popular among the new Aristocracy on the rise. This way, it is widely used in exterior design the new Portuguese town houses and cities such as Lisbon, Porto and Braga, for example, still have a significant collection of buildings coated and decorated with tiles that period.

In Brazil, as has been pointed out above, this trend was quickly adopted, primarily thanks to the cleaning of facilities and protection - in a country which the climate is hot and humid, the utilization of materials as tiles was an interesting solution to solve some problems related to the maintenance - and second because it conferred a certain sophistication and "glamor", specially to decorate the newly built urban buildings, which came to meet the new demand of the Brazilian Aristocracy and of the Court recently arrived in the country. In addition, in the same time that the tiles earned status for decorate facades, other ceramics elements appeared also to give more sophistication to the urban buildings as for example the ceramic vases decorated and the decorative statues. These elements have been widely used in the parapets of buildings that followed the parameters of the neoclassical and even today, it is possible to find old urban houses with these characteristics in the Northeast and Southeast of Brazil.

³⁵ ALCÂNTARA, Dora. *Azulejo, Documento de nossa Cultura*. In: DIAS, Maria Cristina Vereza Lodi. *Patrimônio Azulejar Brasileiro: Aspectos históricos e de Conservação*. Brasília: Monumenta – BID / Ministério da Cultura, 2001. p.61.

The city of São Luís has a collection of very significant facade tiles. In 2012, it was published the book "Inventory of Tile Heritage in Maranhão" ³⁶ and this book gathered the inventory conducted in the years 2004, 2005 and 2006 that identified the types of tiles present in the state of Maranhão, northeast of Brazil. In this work, the models used on the facades of the buildings of major cities in the state of Maranhão were identified according their dimensions, their motifs and in some cases according the identification of origins. Interestingly this research present a big variety of patterns that were used in Maranhão architecture and, unlike what some researchers say, the origins of these decorative tiles is also equally diverse and can be identified tiles coming from France, Holland, England and Germany.

Tiles of the city of Salvador, were also identified in some specific publications as it was the case of the publication about the restoration of the panels of the San Francisco Cloister ³⁷ organized by Ricardo Espírito Santo Silva Foundation and the Ministry of Culture of Brazil. In this publication, it is possible to check the richness and diversity of graphical representations resulting from Portuguese heritage that can still be seen on Brazilian soil. Unlike what happened later when the tiles began to coat the walls and facades of urban masons, the tiles of this example in Salvador were commissioned on measure and the decorative arts were thought to be in harmony with the architecture of the building together.

Still considering the publications related to the tiles found in the Brazilian Northeast, there were other important publications that have contributed to the identification of tile patterns. Cavalcanti and Menezes Cruz published two books "The Tile in the Civil Architecture of Pernambuco" ³⁸ and "The tile in the Religious Architecture of Pernambuco" ³⁹ that address the application of tiles in the civil and religious architecture of Pernambuco in the nineteenth century. In these studies, the authors present the compositions of tiles that were found on the facades of houses and observe also the characteristics of the tiles: presenting its dimensions, its chart patterns and finally scoring the historical and artistic context in which these decorative elements were inserted in the local architecture. A comparative analysis

³⁶ FIGUEIREDO, Margareth Gomes de. *Inventário do Patrimônio Azulejar no Maranhão*. São Luís – MA. Editora Aml, 2012.

³⁷ SILVA, Maria João Espírito Santo Bustorff (org.). *A Festa Barroca a Azul e Branco: os azulejos do Claustro e do Concessionário da Ordem Terceira de São Francisco, São Salvador da Bahia*. Conservação e Resturo: Fundação Ricardo do Espírito Santo Silva, Ed. Atelier B2, 2003.

³⁸ CAVALCANTI, Sylvia Tigre de Hollanda; CRUZ, Antônio de Menezes e. *O azulejo na Arquitetura Civil de Pernambuco: séculos XIX*. Ed. Metalivros: São Paulo, 2006.

³⁹ CAVALCANTI, Sylvia Tigre de Hollanda. *O azulejo na Arquitetura Religiosa de Pernambuco: séculos XVII e XVIII*. Ed. Metalivros: São Paulo, 2006.

allows us to observe a big variety of models, which arrived in Brazil and were used on national architecture of the Nineteenth century in different regions of the country.

Studies on the tiles found in South-eastern Brazil are still very punctual. Dora Alcântara and Mario Barata were the principal investigators who are dedicated to research the tiles of history in Brazil. Some research developed at the University of São Paulo also contributed to the understanding of the tiles of the twentieth and twenty-first century, however, only a few articles and short quotes in specific publications treat the use of tiles in the architecture of the period of the late nineteenth century and the early twentieth century. Worth mentioning some works of prof. Dr. Carlos Lemos, professor of the Architecture Faculty of the University of São Paulo, on the use of decorative elements in the Brazilian civil architecture and the publication of Jose Wasth Rodrigues⁴⁰ that identifies some of the common tile models found on the architecture of the State of São Paulo in the late nineteenth century.

Recently, in 2012, the artist Fabio Carvalho created a blog on the Internet called "Old tiles in Rio de Janeiro"⁴¹ in which the artist presents the tiles that cover the facades of old houses located in the city of Rio de Janeiro by him identified. The interesting thing in this work is the presentation of the pictures of the houses, the images of own decorative tiles and it is possible to see exactly all the details of these pieces as well as have access to all the information collected by him about the history of each place and the history of the city.

Another curious fact is that this blog allows others for collaborate with new information, or better, is recurrent appear some messages of private collectors of old decorative tiles who mention about their particular collections and, in some of cases, the collectors give information about the places which they found the tiles of their collections, etc. This creates a kind of informal source, which is very timely and provides new areas of investigation as well as allow anyone, who access the blog, to receive these information. Thus, the blog has become a relevant tool to stimulate the exchange of information and knowledge.

In general, the majority of examples presented by Carvalho are residences, which follow the neoclassical style and its facades received the decorative tiles in a geometric composition, as the examples found in the interior of Brazilian churches of XVII and XVIII

⁴⁰ RODRIGUES, José Wasth. *Documentário arquitetônico relativo à antiga construção civil no Brasil*. 4º Ed. Belo Horizonte. Editora Itatiaia, São Paulo: Editora da Universidade de São Paulo, 1979. pp. 224-228 e pp. 282-306

⁴¹ "Azulejos Antigos do Rio de Janeiro" – blog address: <http://azulejosantigosrj.blogspot.com.br/p/modo-de-uso.html>

centuries. These tiles were applied in a very similar way of the tiled panels like “carpets”, very known in Portuguese Religious Architecture: with the demarcation of boundaries and the creation of frames for windows, doors and other openings.

The care to mark the perimeters of tiled area through linings, trims and mouldings has been recurring in facade coatings of the nineteenth century, particularly in Portugal. According Alcântara ⁴², these elements enclose the empty spaces of the facades of Portuguese houses, underlining "the coping and its frieze, flanking the corners, etc. It is a more classic taste. This taste from Lisbon seems to be the oldest, closest to the habit of limiting the carpets of the seventeenth century with bars and the panels of the eighteenth century with framings. In Porto city, the coatings have much less trims; when used, they are usually mouldings ". For the same author ⁴³, the friezes were smaller pieces - one part with the same size of the tile (around 13.3 or 13.5 cm) and another part with half of the size of the tile (6.4 cm) - and the frameworks were larger pieces than the friezes and they had the same dimensions of the tile (around 13 to 13.5 cm).

In Brazil, the frames were treated as simplified entablatures and were also applied to define the framings in doors and windows. The application of tiles on facades follows a group of repetitive models that are framed by different standards from the main motif and may appear as frameworks and friezes. Silva ⁴⁴ said that, among the buildings on the State of Maranhão in Brazil, these enclosures or frames were common, however, in the absence of corners, or rather from the different models for the demarcation of the boundaries of tiled panels, it is possible to see "the application of cut pieces in 45° or simply were placed without major concerns about the continuity of design".

Silva ⁴⁵ also commented that several vestments were finished off with "frameworks circumventing the reliefs and marking the entablature of buildings. However, regulatory

⁴² ALCÂNTARA, Dora. *Azulejo, Documento de nossa Cultura*. In: DIAS, Maria Cristina Vereza Lodi. Patrimônio Azulejar Brasileiro: Aspectos históricos e de Conservação. Brasília: Monumenta – BID / Ministério da Cultura, 2001. p.26. Translation of the original text: “a cimalha e o seu friso, ladeando os cunhais, etc. É um gosto mais clássico. Esse gosto Lisboa parece ser o mais antigo, mais próximo do hábito de limitar os tapetes do século XVII com barras e os painéis do século XVIII com emolduramentos. Os revestimentos do Porto apresentam bem menos guarnições; quando usados, são quase sempre cercaduras”.

⁴³ ALCÂNTARA, Dora. *Azulejo, Documento de nossa Cultura*. In: DIAS, Maria Cristina Vereza Lodi. Patrimônio Azulejar Brasileiro: Aspectos históricos e de Conservação. Brasília: Monumenta – BID / Ministério da Cultura, 2001. p.65.

⁴⁴ SILVA F., Olavo Pereira da. *Arquitetura Luso-Brasileira no Maranhão*. 2 ed. Belo Horizonte: Formato, 1998. p. 199. Translation of the original text: “a aplicação de peças recortadas a 45° ou simplesmente apostados por inteiros sem grandes preocupações com a continuidade do desenho”.

⁴⁵ SILVA F., Olavo Pereira da. *Arquitetura Luso-Brasileira no Maranhão*. 2 ed. Belo Horizonte: Formato, 1998. p. 197. Translation of the original text: “cercaduras contornando os relevos e marcando o entablamento dos edifícios. Entretanto, as proporções reguladoras entre os elementos arquitetônicos e os azulejos não atingiram o nível de integração alcançado na Metrópole. Tratando-se de uma produção decorativa de uso generalizado e nem

proportions between the architectural elements and the tiles have not reached the level of integration achieved in Metropolis [Portugal]. At is of a decorative production of widespread use and not always specifically ordered for architectural predetermined ranges, sometimes, the combination of different patterns result in strange effects groups ".

To Cavalcanti and Menezes and Cruz ⁴⁶, the Portuguese tiles found in Brazil occurred more often in polychrome patterns, following a composition that favoured the diagonal. They measured between 13 x 13 cm and 14 x 14 cm and maintained patterns 2 x 2 (four pieces to compose the main drawing) and 4 x 4 (eight pieces to compose the main drawing).

Alcântara ⁴⁷ points out that "the colourful and varied colour combinations, especially in tile from Lisbon, is sometimes strange with green, black, yellow and blue, for example. Although, the tiles from Lisbon are tiles with two shades of blue, or two shades of green, the clearest covering the surface, the darker bringing out the design. In addition to blue and white, very common, or those with yellow, they are used in different shades, yellow, green, orange, wine, brown, black and pink (uncommon). These tiles have 13 to 13.5 cm of side".

José Meco ⁴⁸ adds, "the most common production of Lisbon consisted of patterned tiles semi-industrialized (...) both polychrome as blue and white, with decorative schemes and more varied and eclectic reasons since the marbled, the purely geometrical and various needlework. Among these tiles, have a particular importance the resulting of vegetable and floral stylizations. These standards with leading diagonal ornamental reasons are often surrounded by bars or enclosures, often combined with friezes. The tiles 'tin-glazed' were widely used throughout the country and also exported to Brazil in abundance".

sempre especificamente encomendada para escalas arquitetônicas previamente determinadas, por vezes, a junção de diferentes padronagens resultou em agrupamentos de efeitos estranhos".

⁴⁶ CAVALCANTI, Sylvia Tigre de Holanda – CRUZ, António de Menezes. *O Azulejo na Arquitetura Civil de Pernambuco*. São Paulo, Editora Metalivros, 2002. pp. 30-32

⁴⁷ ALCÂNTARA, Dora. *Azulejo, Documento de nossa Cultura*. In: DIAS, Maria Cristina Vereza Lodi. *Patrimônio Azulejar Brasileiro: Aspectos históricos e de Conservação*. Brasília: Monumenta – BID / Ministério da Cultura, 2001. p.30. Translation of the original text: "o colorido variado e as combinações de cores especialmente nos azulejos de Lisboa, é às vezes estranha – verde, preto, amarelo e azul, por exemplo. Ainda lisboetas são os de dois tons de azul, ou dois tons de verde, o mais claro cobrindo a superfície, o mais escuro fazendo sobressair o desenho. Além de azul e branco, muito frequentes, ou destes com amarelo, são usados em diferentes tonalidades, amarelo, verde, laranja, vinho, castanho, preto e rosa (pouco comum). Estes azulejos têm de 13 a 13,5 cm de lado".

⁴⁸ MECO, José. *Azulejaria Portuguesa*. Coleção Patrimônio Português. Bertrand Editora, 1985. p. 76. Translation of the original text: "a produção mais vulgar de Lisboa consistiu nos azulejos de padronagem semi-industrializada (...) tanto policromicos como a azul e branco, com os esquemas ornamentais e motivos mais variados e ecléticos desde os marmoreados, aos puramente geométricos e a diversos labores. Dentre estes têm especial importância os que resultaram de estilizações vegetais e florais. Estes padrões, com motivos de ornamentação diagonal preponderante, encontram-se quase sempre envolvidos por barras ou cercaduras e combinados frequentemente com frisos. Os azulejos de 'estampinha' foram largamente utilizados em todo o país e também exportados em abundância para o Brasil".

According to Silva F.⁴⁹ between the years 1860 and 1918, a significant portion of the tile imports in Maranhão came from the Portuguese factories as the Lisbon factories: Bica do Sapato, Calçada do Monte, Constância, Sacavém, Lamergo, Santana e a Real Fábrica do Rato; and Portuguese factories of Porto as Massarelos, Santo António do Vale da Piedade, Miragaia, Carvalhinho, Devezas and Fonte Nova. The rapid emergence of factories specializing in the production of tiles in Portugal was closely linked to favourable Brazilian and Portuguese consumer market, especially with the emergence of fashion to use the tiles on facades.

According Meco⁵⁰, many emigrants who returned from Brazil to Portugal had a significant interest in expanding the fashion of using tiles on the outer facings of buildings. Known as "Brazilians", many of the Portuguese who returned to homeland employed the tiles to decorate the main facades of their homes especially using models of coloured tiles and vivid hues to create more sophisticated decorative effects with respect to the traditional Portuguese houses. The wealth acquired in the former Portuguese colony permit those returned to home with the ability to develop their own businesses and some of them even bought ancient ceramics factories as were the case of Miragaia factory in 1830, the Carvalhinho factory in 1840 and Devezas factory in 1865.

These factories began their production on the basis of the technologies of the existing ceramics industry, enabling the rapid development of these industries in the national context. However, a significant part of the tiles, which tiles were produced in these factories, was inspired by foreign models and by standards used in that period and in some cases were identical copies, which contributed, according to Meco⁵¹, "to impoverish the Portuguese character of the ornamental motifs".

Another fairly traditional Portuguese typology was the embossed tiles. Characteristic of the region of Porto (Northern Portugal), the embossed tiles were produced in abundance by Massarelos and Santo António do Vale da Piedade factories. These factories used the moulds for the development of the embossed pieces, which were washed in one or two colours, always associated to white (blue, yellow and green have been the most commonly used). The embossed tiles were produced until the early twentieth century and since 1868 the Devezas factory has started to produce embossed tiles and became one of the leading tile

⁴⁹ SILVA F., Olavo Pereira da. *Arquitetura Luso-Brasileira no Maranhão*. 2º ed. Belo Horizonte: Editora Formato, 1998. p. 193.

⁵⁰ MECO, José. *Azulejaria Portuguesa*. Coleção Património Português. Bertrand Editora, 1985. p. 76.

⁵¹ MECO, José. *Azulejaria Portuguesa*. Coleção Património Português. Bertrand Editora, 1985. p. 76. Translation of the original text: "para empobrecer o carácter português dos motivos ornamentais"

manufacturers in the country, however, with less pronounced relief. According Meco ⁵², "This kind of tile that lends volumetric suggestions to the facades, was used in northern and central Portugal, including Lisbon, having arrived also to Brazil."

In the city of Santos in the state of São Paulo, Brazil, it is possible to find a building decorated with Portuguese relief tiles. Known as "Frontaria Azulejada House", this townhouse is located in the Commerce Street, No. 92/98, historic centre of Santos, currently it hosts a centre of cultural attractions, being carried out a series of linked events about the safeguarding of the artistic heritage and Brazilian history. According to Martins dos Santos ⁵³, this building was built in 1865 for residence, warehouse and office of the House of Trade Ferreira Netto & Co. and this building expressed "the importance of the tertiary sector in the development of local and national economic forces", specially, because in that period Santos received the title of city and was considered the most important port of coffee outlets for exportation.

About the architecture of this construction, it is possible to observe that its front facade is completely covered with decorative tiles and there are pieces with embossed floral motifs in yellow and blue colours on white background, tiles that imitate marbles in blue and friezes with small stylized floral motifs in blue on white. For the embossed tiles, it is observed three different floral patterns: the main reason formed by four parts arrangement (composition 4 x 4); the second model simulating a girdle which adopts a central representation with motifs of flower circumscribed by two continuous lines parallel and these sidebands have the same dimensions of the tiles of the first type (13 x 13 cm of side); and finally the third model, with the same floral motifs of the first type but with different dimensions, being one of its sides smaller with 6.5 cm.

Following the same design observed in the compositions of "carpet" in Portugal, the tiles of the facade are limited for trim and mouldings, which strongly demarcate the architectural elements that make up the facade. According to Martins dos Santos ⁵⁴, "the facade is defined by four pillars which between the columns is divided into three spans of full

⁵² MECO, José. *Azulejaria Portuguesa*. Coleção Património Português. Bertrand Editora, 1985. p. 79. Translation of the original text: "Esse tipo de azulejo que empresta sugestões volumétricas às fachadas, foi usado no Norte e no Centro de Portugal, incluindo Lisboa, tendo chegado também ao Brasil".

⁵³ SANTOS, Francisco Martins dos. *História de Santos*. Poliantéia Santista – Fernando Martins Lighti. Editora Caubex Ltda, São Vicente, 1986. p. 170. Translation of the original text: "a importância do setor terciário no desenvolvimento das forças econômicas locais e nacionais".

⁵⁴ SANTOS, Francisco Martins dos. *História de Santos*. Poliantéia Santista – Fernando Martins Lighti. Editora Caubex Ltda, São Vicente, 1986. p. 170. Translation of the original text: "a fachada é definida por quatro pilastras cujo intercolúnio é subdividido em três vãos de arcos pleno em cantaria, no pavimento superior, guarnecidos por balcões de ferro. Na parte central do pavimento térreo o acesso é feito por um único vão, arrematado na altura da platibanda por um frontão clássico triangular".

arches in stone, upstairs, is garnished for iron balconies. In the central part of the ground floor, the main access is done by a single door finished by a classical triangular pediment". All these elements are highlighted by the use of different types of decorative tiles - the embossed tiles are located in the central vestments and the marbled tiles with the friezes of floral motifs in blue are located in the pilasters.

In addition to the embossed tiles, Portugal was also known for the manufacture of other ceramic decorative elements for facades. According to Meco⁵⁵, the city of Porto, northern Portugal, it was known for manufacturing "balusters, merlons, statues, vases and Bonfires of glazed earthenware in white, adorning the parapets of numerous buildings throughout the country, by combining with tiled vestment and plaster mouldings of cornices" of Portuguese architecture.

In Brazil, as previously mentioned, other ceramic decorative elements have been also part of the exterior decorations of the buildings. One of the examples that can be seen in Southeaster Brazil is a building in the city of Campinas, São Paulo, Brazil. Known as "Palace of Tiles", it was built in 1878 and it was two detached residences that when it was acquired by the city of Campinas in the early twentieth century was transformed into a single building. This building received statues and decorative earthenware vessels of Portuguese origin. The crockery vases with drawings of grapes and marbled style were found in purple, blue and green and feature in their bases it is possible to observe the factory seal of Santo António do Vale da Piedade industry, Porto, Portugal.

As the name implies, this building also has tiles lining its walls, some of them very similar of the Dutch, French and Portuguese ones. It may be noted that were used 6 types of tiles with different patterns: three types of standard tiles with central design (13 x 13 cm of side), two types of ribs (13 x 6.5 cm of side) and a standard which the central design is formed from the union of four pieces (10 x 10 cm of side).

⁵⁵ MECO, José. *Azulejaria Portuguesa*. Coleção Património Português. Bertrand Editora, 1985. p. 79. Translation of the original text: "balaústres, merlões, estátuas, vasos e fogaréis de louça esmaltada a branco, que decoram as platibandas de inúmeros prédios por todo o país, combinando-se com os paramento azulejados e os frisos de estuque das cornijas".



Image A.20 – Photo of early XX century in Poliantéia Santista – Frontaria Azulejada House, Santos, Brazil



Image A.21 – The embossed tiles that covered the façade of Frontaria Azulejada House, Santos, Brazil



Image A.22 – Detail of the façade of Frontaria Azulejada House, Santos, Brazil



Image A.23 – Palace of Tiles, Campinas, State of São Paulo, Brazil.



Image A.24 – Typologies of tiles that covered the facades of the Palace of Tiles, Campinas, State of São Paulo, Brazil



Image A.25 – Ceramic vase of the Palace of Tiles, Campinas, State of São Paulo, Brazil.



Image A.26 – Elevation of the Palace of Tiles, Campinas, State of São Paulo, Brazil.

In the second floor, the patterns of the main cloths have a different treatment about the application of patterns of tiles and friezes. In the façade corresponding to the first residence, it was used one unique pattern, very similar to the Dutch model, and in contrast, the façades corresponding to the second residence, were identified another pattern of tile, similar to the French pattern, with the frieze of Portuguese model. This frieze was conducted to demarcate the boundaries of cloths and highlight the architectural elements. Interestingly, this difference is not noted in the rest of the building, the tile decoration is the same in the continuity of the verge coating and the entablature and both houses received the same tiles and the same decorative configuration to ensure a sense of continuity of the building, which is only distinguished at that point.

The French decorative tiles differed by others of the same period because the existence of "reasons composed of dots, dashes, small arabesques, circles or curves". The reason for this Decorative option was "the possibility of using the stamp, without manual retouching, which became indispensable, for example, in the genre of the standards adopted by the Portuguese tiles"⁵⁶. For Urioste⁵⁷, other characteristics such as colour milky white of background (glazed part) and the dimensions of the pieces with 11 x 11 cm side particularize the French tiles.

In the case of tiles from France, especially, Dèsvres region is relevant the factory *Charles Fourmaintraix*, an important producer of ceramics. This French factory exported significant quantities of tiles during the nineteenth century, in particular to Uruguay, to Argentina and throughout the Brazilian coast. For Alcântara⁵⁸, this French factory sought raw materials in the region of the *Plata River* and noting the taste for tile used in the South American coast houses began to export its tiles, using them as ship ballast.

The Dèsvres factories produced models such as the polychromatic tiles in squares standards with a varied typology and the usual type was with motifs in blue, or blue and wine on soft background. The square pieces followed the size of 11cm aside and the biscuit had a high iron content folder, giving to the back of tile a reddish colour. However, there were some

⁵⁶ ALCÂNTARA, Dora. *Azulejo, Documento de nossa Cultura*. In: DIAS, Maria Cristina Vereza Lodi. Patrimônio Azulejar Brasileiro: Aspectos históricos e de Conservação. Brasília: Monumenta – BID / Ministério da Cultura, 2001. pp. 65-66. Translation of the original text: "motivos compostos por pontos, traços, pequenos arabescos, círculos ou curvas" and "possibilidade do uso da estampilha, sem retoques manuais, o que se tornava indispensável, por exemplo, no gênero dos padrões adotados pelos azulejos portugueses".

⁵⁷ URIOSTE, Alejandro Artucio. *El azulejo en la arquitectura de Rio de la Plata – siglo XVIII y XIX*. Intendencia Municipal de Montevideo, Editorial dos Puntos, 1996, p. 102.

⁵⁸ ALCÂNTARA, Dora. *Azulejo, Documento de nossa Cultura*. In: DIAS, Maria Cristina Vereza Lodi. Patrimônio Azulejar Brasileiro: Aspectos históricos e de Conservação. Brasília: Monumenta – BID / Ministério da Cultura, 2001.p 68.

exceptions, it was also made a number of French tiles with varying sizes, all square pieces between 11 cm and 20 cm aside.

The introduction of French tiles in America started just to have relevance after the using of the stamp moulds in the industrial process. The common naturalistic design until then was replaced by essentially geometric motifs with a central figure well demarcated. The French tiles - usually monochrome or two colours - had their decorations in blue or winey colour. As previously mentioned, the manual stamp technique require different moulds according the type of colour used and, in many cases, precisely because of economic imperatives and in order to streamline the manufacturing of parts, they usually used just one stamp mould.

The first tiles produced in Dèsvres and Beauvais had Dutch inspiration and was often hand-painted copies. In the mid-nineteenth century, the introduction of stamp, to increase production, was crucial to classify the type of French manufacturing that reached later. At that moment, the hand painting was practically abandoned and manual stamp became the main method of manufacturing decorative tiles. However, there were exceptions, around the 1850s, the factory *Fourmaintraux-Hornoy* launched a series of hand-painted tiles with designs that followed human and landscaped grounds. However, this small production differs from what was produced until that moment by this factory.

According to Urioste⁵⁹, the first French tile factories have installed in Dèsvres region around 1764. Between the late eighteenth century and the first decades of the next century there were about two or three craft production factories and with small dimensions (about two employees per factory). In 1804 was founded the first tiles factory of *Fourmaintraux* family, *La Grande Place*. Mr. François Joseph Marie Fourmaintraux, founder of the dynasty of Fourmaintraux tile factories, had three sons who dedicated themselves to the ceramics industry. One of them, Louis François, joins his father in 1820 and establishing the second family factory in Rue des Poitiers. In 1843, along with his wife Charlotte Hornoy, expands its firm and creates the factory of ceramic *Maisons Fourmaintraux-Hornoy*. With the death of François Joseph Marie Fourmaintraux, the factory in the Rue des Poitiers is leased by the other two children, Antoine and Alexandra. With the death of the first, the second transfers the factory to his brother François, formed in 1887, *Maisons Fourmaintraux Reunies* and *Fourmaintraux Hornoy*. In 1872, François gave his factory for their children, which is now

⁵⁹ URIOSTE, Alejandro Artucio. *El azulejo en la arquitectura de Rio de la Plata – siglo XVIII y XIX*. Intendencia Municipal de Montevideo, Editorial dos Puntos, 1996, pp. 126-127. Other important factories were: the Boulogne Factory, which was founded in 1806 by François Cesar Boulogne, and the Felic Vincent Fils Factory, which was founded in 1870.

called *Fourmaintraux Frères*. These French factories accounted for the large number of tiles used in the *Plata* River region, especially *Fourmaintraux- Hornoy* factory.

In Belém and São Luis (Maranhão State, Brazil) were identified tiles with more elaborate reasons with the dimensions of 11 x 11 cm, i.e. the same dimensions as the tiles produced in Dèsvres region. However, these examples followed a different technique of the manual stamp. According Alcântara ⁶⁰, this technique was know as transfer printing and "the drawing was engraved in metal plate and, as in the drawings, by chemical action, transferred to a paper; it was placed on the tin tile base and then went into the oven. The paper was loosened or burned, leaving the printed design. In this technique, the motives were much more elaborate, and the images showed a characteristic pigmentation of the technique used with the typical dots of some prints". This technique was used abundantly in the English production of tiles. This technique has been known for transfer printing, was used in different factories in several countries and has become popular precisely because it allows the execution of more complex designs.

In addition to the French tiles, the Dutch, Belgian, German and Spanish tiles were present at the Brazilian architecture of the nineteenth century. Cities like Belém in State of Maranhão, Estância in State of Sergipe, Rio de Janeiro in State of Rio de Janeiro and Paranagua in State of Paraná received significant amount of Dutch tiles with similar dimensions to the Portuguese standards. The Dutch tiles had a prominent role in the tile industry in the seventeenth, eighteenth and nineteenth. Holland was known in the early centuries as an important tile production centre with tin-glazed in Northern Europe and following the Italian influences for the application of tiles on floors, first the Dutch tiles were produced for application in floors but then were also used on the walls and fireplaces thanks its physical qualities and its resistance to fire.

The Dutch tiles were those presented the major variety of themes in comparison with the decorative motifs used by other countries. According Lemmen ⁶¹, "The early motifs were tulips, flowerpots, dishes filled with fruit, and a wide range of animals and bird", then also appeared the grounds with soldiers, ships and scenes of everyday life. "By the mid-seventeenth century, the range was extended to include mythological, biblical and rural

⁶⁰ ALCÂNTARA, Dora. *Azulejos, documento de nossa Cultura*. In DIAS, Maria Cristina Veneza Lodi. *Patrimônio Azulejar Brasileiro: aspectos históricos e de conservação*. Brasília: Monumenta BID/ Ministério da Cultura, 2001, p. 69. Translation of the original text: "o desenho era gravado em chapa metálica e, tal como nas gravuras, por ação química, transferido para o papel; este era colocado sobre a base escanifra do azulejo e ia para o forno. O papel soltava, ou queimava, deixando o desenho impresso. Nesta técnica, os motivos eram muito mais elaborados, e as imagens apresentavam uma pigmentação característica da técnica utilizada, os pontinhos típicos de algumas impressões".

⁶¹ LEMMEN, Hans Van. *Tiles in Architecture*. London: Laurence King Publishing, 1993. p.66.

scenes, peopled by shepherds and shepherdesses, as well as landscapes”. The interesting of these motifs was that each piece had a different design that stimulated in some way the disappearance of many examples from their original places, once they were the focus of interest of collectors.

One of the examples in Brazil which receive Dutch tiles of XIX century is a building located in Itu, State of São Paulo, which is, nowadays, the Museum of Energy. This building was built in 1847 for R. Pacheco e Silva. In the beginning of XX century, was the headquarters of the *Companhia Ituana de Força e Luz* and, in 1927, was acquired by *The São Paulo Tramway Light & Power Co.* Later, between 1981 and 1997, belonged by *Eletropaulo – Eletricidade de São Paulo S.A.* and in 1998 by *Empresa Baderante de Energia S.A.* until be donated to *Fundação Patrimônio Histórico da Energia de São Paulo*, transforming it in the Museum of Energy. This building has a very interesting collection of tiles and figurative panels of tiles. Its façade is cover by a Dutch tile pattern, which the composition follows the “carpet” style. Inside, the figurative panels of tiles, which show the History of Political Activity in Itu, were applied in all walls of the entrance hall.

In the late nineteenth and early twentieth centuries, the tiles from Germany were abundant in several Brazilian cities. The Villeroy & Boch factory was one of the most important and became known, according to Alcantara ⁶², by "(...) versatility of its production, with regard to both the techniques and the standards and even to products: it manufactured hydraulic floors and still sanitary ware manufactures, and continue to innovate in the field of tiles".

According to her, one of the examples of this factory tiles can be found on the facades of the Palace Pinho in Belém, State of Maranhão. This building was built in 1897 and designed by architect Camilo Amorim and belonged to the wealthy merchant Antonio José Pinho. The ground floor has the form of "U" and two stairs to lateral access and one in the centre of the main entrance demarcate the front of the building. The composition of the tiles in the building follows the model type of "carpet" with the limits of vestments were marked by the presence of a differentiated pattern of the central pattern. It is also observed the same composition for the tiles of the floor. Currently, this building is considered Brazil's national heritage and was listed in 1986 by the Instituto do Patrimônio Artístico e Histórico Nacional

⁶² ALCÂNTARA, Dora. *Azulejos, documento de nossa Cultura*. In DIAS, Maria Cristina Veneza Lodi. *Patrimônio Azulejar Brasileiro: aspectos históricos e de conservação*. Brasília: Monumenta BID/ Ministério da Cultura, 2001, pp. 70-71. Translation of the original text: “(...) versatilidade de sua produção, no que diz respeito tanto às técnicas quanto aos padrões e mesmo aos produtos: ela fabricou pisos hidráulicos e ainda fabrica louça sanitária, além de continuar inovando em matéria de azulejos”.



Image A.27 – Examples of Portuguese Tiles found in Brazil (13 x 13 cm) – XIX century.



Image A.28 – Examples of French Tiles found in Brazil (11 x 11 cm) – XIX century.



Image A.29 – The Museum of Energy, Itu, State of São Paulo, Brazil.



Image A.30 – image of the Dutch pattern of tile used in the façade of the building.



Image A.31 – Entrance Hall of the Museum of Energy, Itu, State of São Paulo, Brazil.



Image A.32 – Panel of tiles , which illustrate the Conference with the representatives of Itu – September 1821. Museum of Energy, Itu, State of São Paulo, Brazil.



Image A.33 – Palece of Pinho, Belém, State of Maranhão, Brazil.



Image A. 34 – Tile from Germany – Palace of Pinho, Belém, State of Maranhão, Brazil.



Image A. 35 – Monastery of St, Benedicth, Rio de Janeiro, State of Rio de Janeiro, Brazil.



Image A.36 – Spanish tiles in Monastery of St. Benedicth, Rio de Janeiro, State of Rio de Janeiro, Brazil.

(IPHAN) and is considered one of the most important examples of the nineteenth century which marks the wealth brought by the rubber boom in the Brazilian Northeast.

Finally, some tiles that covered facades of buildings of the XIX century received some examples from Spain. The Spanish tiles usually had larger dimensions with around 20 x 20 cm aside and, in Brazil, have been employed in the interiors and exterior of buildings. One of the examples that can be found in Rio de Janeiro city is the motif located in the Monastery of St. Benedict, which has 22 x 22 cm aside.

During the Second Meeting of *The Tile Today*, organized by the city of Lisbon on 12/06/2013 at the Open Theatre in Lisbon (Portugal), Fabio Carvalho, responsible for the development of the blog *Old Tiles in Rio de Janeiro*⁶³, gathered the cases presented the buildings covered with decorative tiles identified in Rio de Janeiro and demonstrated that the decorative tiles (tiles of the late of nineteenth century) have a big variety of motifs and came from different countries. Carvalho noted that the vast majority of the tiles was not of Portuguese origin as most of the researchers often imagine. On the contrary, a significant amount of tiles found in Rio de Janeiro came from Holland, France, Belgium and Germany and only some models of tiles were properly Portuguese ones.

It is important to note that in the nineteenth century was recurrent that some factories copied the tile decorations from other factories, including motifs of foreign factories. Some factories stamped their marks and stamps on the inside face of the pieces, however, many did not have this concern, which often makes it difficult to identify. Meanwhile, there were those that only produce biscuits while others only perform glaze decoration. Despite these difficulties, it is still possible to identify many pieces using the production technique employed, dimensioning the pieces and observing the decorative patterns that in some cases had very specific patterns.

⁶³ “Azulejos Antigos do Rio de Janeiro” – blog address: <http://azulejosantigosrj.blogspot.com.br/p/modo-de-uso.html>

1.3. Decorative Tiles in the Brazilian Architecture: the presence of European tiles and the first Brazilian Tiles (late XIX century and early XX century)

Until the mid-nineteenth century, the Brazilian economy was based on agriculture-exporting economy. According to Suzigan ⁶⁴, "the main exportation of products were: rubber produced in the Amazon region; sugar, cotton, tobacco and cocoa, in North and Northeast; coffee, in Rio de Janeiro, Minas Gerais, Espírito Santo and São Paulo States; mate, hides and skins, in the South, where it is also exported beef jerky to other regions of Brazil and later, frozen and processed meat to foreign markets. "From the second quarter of the nineteenth century, coffee has become the most important product for export and "the expansion of exports, especially coffee, encouraged the diversification of domestic economic activities and the modernization of the economy".

With the increased of exportations, the internal income increased, which made it possible to increased also the internal market and the demand for consumer goods. However, until the beginning of the next century, the production of consumer goods as machines, equipment, transports and supplies was occasionally produced in the national territory and these consumer goods were provide by the industrial countries. Besides, with the accumulation of income, made possible by the exportation of coffee, it was possible to invest in infrastructure, specially, linked with the implantation of Railway System and the modernization of the Port Areas, which made more easy the access between the agriculture areas and the Export Areas.

For Suzivan ⁶⁵, "the progress of the export economy led to important social changes. By increasing the demand for labour, it accelerated the transition from slave economy to an

⁶⁴ SUZIGAN, Wilson. *Indústria Brasileira: origem e desenvolvimento*. São Paulo: Hucitec, Editora da Unicamp, 2000. p. 17. Translation of the original text: "os principais produtos de exportação eram: borracha, produzida na região do Amazônas; açúcar, algodão, fumo e cacau, no Norte e Nordeste; café, no Rio de Janeiro, Minas Gerais, Espírito Santo e São Paulo; mate, couros e peles, no Sul, onde também se exportava charque para outras regiões do Brasil e, mais tarde, carnes congeladas e industrializadas para o mercado externo" and "(...) a expansão das exportações, especialmente do café, estimulou a diversificação das atividades econômicas internas e a modernização da economia".

⁶⁵ SUZIGAN, Wilson. *Indústria Brasileira: origem e desenvolvimento*. São Paulo: Hucitec, Editora da Unicamp, 2000. p. 18. Translation of the original text: "o progresso da economia de exportação provocou importantes mudanças sociais. Ao aumentar a procura de mão-de-obra, acelerou o processo de transição da economia escravista para uma economia baseada no trabalho assalariado, criando, assim, um mercado de trabalho crescentemente suprido por trabalhadores imigrantes e contribuindo para a formação de uma economia de mercado. Ao estimular a acumulação de capital, propiciou o surgimento de uma classe empresarial".

economy based on wage labour, creating, thus, a labour market increasingly supplied by immigrant workers and contributing to the formation of a market economy. By stimulating the accumulation of capital, it has given rise to a business class ". Thus, a significant amount of European immigrants arrived in Brazil in the late nineteenth century and early twentieth century, especially the Italian community, which was in the State of São Paulo a significant quantity of population.

According to Trento ⁶⁶, "(...) Will be mainly for the State of São Paulo, with an area almost as big as Italy, which will address comprehensive immigration: the 4,100,000 foreigners who entering in Brazil between 1886 and 1934, 56% were absorbed by this region, with the Italians in the first place in relation to other nationalities. The pioneers are five individuals that the statistics recorded in 1874. After this date, entries remain an average of 1,750 people a year, until 1886; from the following year, the flow mass start, which will raise the number of Italian immigration in São Paulo to 1078437 until 1920. Between 1888 and 1919, Italians accounted for 44.7% of total immigration that state, followed by the Spanish (19.2%) and Portuguese people (15.4%). But the percentage results much higher if we consider only the period of 1887 to 1902 (63.5%). If we use another parameter, the State of São Paulo was the target of 44% of Italian emigration to Brazil between 1820 and 1888, 67% between 1889 and 1919, reaching its peak in the decade from 1900 to 1909, with 79% ".

Despite the importance of Rio de Janeiro in the economy at that time, the state of São Paulo had a significant role in the economic and social changes. São Paulo lived a prosperous period resulting from the cultivation of coffee and the protectionism policy practices - in times when the exports decreased and with an incentive scheme which was the case of the initiatives developed for the immigration of Europeans and the implementation of a new urban infrastructure. Thanks to these favourable economic conditions, the large amount of money accumulated allowed São Paulo to create new prospects for development, more

⁶⁶ TRENTO, Angelo. *Do outro lado do Atlântico : um século de imigração italiana no Brasil*. São Paulo. Nobel: Instituto Italiano di Cultura di San Paolo e Instituto Cultural Ítalo-Brasileiro, 1988.p. 107. Translation of the original text: “ (...) será sobretudo para o Estado de São Paulo, com um território quase tão grande quanto a Itália, que se dirigirá a imigração global: dos 4.100.000 estrangeiros entrados no Brasil entre 1886 e 1934, 56 % foram absorvidos por essa região, com os italianos em primeiro lugar em relação às outras nacionalidades. Os pioneiros são cinco indivíduos que as estatísticas registram em 1874. Após essa data, as entradas se mantêm numa média de 1.750 pessoas por ano, até 1886; a partir do ano seguinte, começará o fluxo em massa, que elevará a cifra da imigração italiana em São Paulo para 1.078.437 até 1920. Entre 1888 e 1919, os italianos representaram 44,7% da imigração total daquele estado, seguidos pelos espanhóis (19,2%) e pelos portugueses (15,4%). Mas a percentagem resulta muito maior se considerarmos apenas o período de 1887 a 1902 (63,5%). Se usarmos outro parâmetro, o Estado de São Paulo foi a meta de 44% da emigração italiana para o Brasil entre 1820 e 1888, de 67% entre 1889 e 1919, atingindo seu ponto máximo na década de 1900 a 1909, com 79%”.

focused, however, on market interests, which happened differently in other Brazilian states in that period. In addition, the arrival of immigrants to São Paulo also helped to shape and define a new São Paulo society, specially when this population began to exercise economic activities linked to trade, services and industry.

This importance also reflected in the arts and the architecture. The arrival of immigrants from different backgrounds brought to the country changes, especially regarding the formation of a new ideal of society, culminating in an eclectic architecture, blending styles from different nationalities and in many cases ignoring the local cultural and architectural heritage. In addition, the new social class, which also gained ground with the new economic conditions and with the contact more close with Europe, looked in the eclectic architecture her needs met.

This new eclectic architecture was able to meet the new demands resulting from the contact with the railroad and new urban functions that the city started to exercise, such as the commercial functions, administrative functions and the provision of services. In addition, the arrival of immigrants led to the diffusion of new construction practices especially based on the use of brick masonry, until then, the bricks were punctually used in Brazilian architecture because the vast majority of the buildings were constructed by the rammed earth techniques with adobe and mud.

At that point there was a clear appreciation of European culture and the Brazilian Aristocracy tried to create a new image of Brazil as a country that was not anymore a Colony. Brazilian artists and intellectuals tried to identify and point out the Brazilian culture from the idealization of the indigenous and the lush nature of the country. These ideas were considered "authentic national expressions" and they can be clearly seen in the way Brazil was presented for the world in the Universal Exhibition of Paris in 1889.

In this exhibition, designed architecture went against of the architectural styles of French fashion and the decorations were linked to the national identity, which were influenced by the ideal of a country with an exuberant nature and the representation of the Indian as the noble savage. This imagery was strongly aligned to the Romanticism and the ideas promoted by it. According to Ortiz ⁶⁷, it was in romantic literature that they sought the inspiration for identify the good savage as a national symbol.

⁶⁷ ORTIZ, Renato. *Cultura Brasileira e Identidade Nacional*. São Paulo: Brasiliense, 5ª reimpressão da 5ª edição, 2005, pp. 18-19.

The eclectic style then in vogue in Brazilian architecture, was the expression of a new architecture and was devoid of the legacies of colonization and, thus, quickly became widespread among the urban and architectural space of the expanding city, remaining virtually no major changes until the First World War.

Particularly in São Paulo, the rich farmers and the new rising class of merchants and industrialists adopted the palaces as the house style. These palaces were located in the centre of the lot and were surrounded by lush gardens. According to D'Alembert ⁶⁸, these palaces usually had a protruding volumes moved with roofs and distinctions between different facades.

Just a few houses received some decorative tiles, however, nothing comparable to the use of large panels in tiled facades observed in the first urban mansions. In contrast, the decorative tiles were used in the decorations of the entrance halls, kitchens and bathrooms. Until then, the kitchen and the bathrooms were located in the outer areas of the buildings in São Paulo city. This characteristic of the São Paulo houses was developed because these places were considered as dirty areas, however, with the development of the Ceramic European industries and the appearance of sanitary parts for the use of spaces for personal hygiene dictated by the new urban lifestyle, these areas were incorporated into the space of the house.

According to D'Alembert ⁶⁹, specialized magazines and technical publications mainly imported from France played an important role in the dissemination of architectural styles that could be copied in buildings of São Paulo palaces. Between them were the publications of architect César Daly in which the designs of elegant eclectic residences were presented. However, the styles adopted were always determined by the tastes of the owners.

Other typologies of houses of São Paulo characterized by smaller single-storey houses, which occupied one or both sides of the urban lot and the toilet was located on the back in the backyards. Until the abolition of slavery in 1888, the role of slaves was essential especially because they organized and maintained the organizational structure of the house, since they

⁶⁸ D'ALAMBERT, Clara. Manifestações da Arquitetura residencial paulistana entre as Grandes Guerras. Tese de doutoramento apresentada à Faculdade de Arquitetura e Urbanismo da Universidade de São Paulo. São Paulo, 2003.p.32.

⁶⁹ D'ALAMBERT, Clara. Manifestações da Arquitetura residencial paulistana entre as Grandes Guerras. Tese de doutoramento apresentada à Faculdade de Arquitetura e Urbanismo da Universidade de São Paulo. São Paulo, 2003.p.33.

cared and supplied the needs of the house.

As above mentioned, spaces dedicated to house domestic services generally were located outside of the house and these dependencies were organized in order to add the kitchen to the backyard area as it was in the yard where they raised animals, which were produced and enjoyed the food, which were located the barns and stables and where slaves were. As we read, the yard was the site "for raising chickens, flower beds of parsley, fresh fruits and vegetables (citrus and avocado), sheds to cut firewood, coffee (cylindrical roasters), cistern, water pump, *coradouros* and poles of fine clothes washed at home, improvisations for stoves" ⁷⁰.

After 1888, with the establishment of new urban and domestic dynamics, the housing program has undergone significant change in particular about the kitchen area and bathroom, which were relocated next to and inside to the main building. The tiles at this time appeared punctually on the facades of eclectic houses in São Paulo and on the facades in many homes in Rio de Janeiro, where there are still some copies today and can be seen on the blog *Old Tiles in Rio de Janeiro*.

However, the tiled walls of exteriors have not been abundantly used as observed in the neoclassical buildings in the mid-nineteenth century. The manufacture and the use of new techniques for the production of tiles resulted in a change not only of the patterns and motifs but also, in some cases, into a difference of quality of parts. The tiles did not have the same qualities as those produced in previous centuries. Besides, for the new class rising, the tiles were related to a colonial architectural culture that no longer represented the new styles and interests dictated in that moment.

Regarding the construction characteristics of these small urban dwellings, these houses were built almost entirely with materials imported from Europe, except the construction materials such as bricks and tiles that were already produced in the country.

In 1914, with the eclecticism already established as the predominant style in Brazilian

⁷⁰ LEMOS, Carlos A. C. *Cozinhas, etc.: um estudo sobre as zonas de serviço da casa paulista*. Volume 94 de Debates Arquitetura. Editora Perspectiva: São Paulo, 1976. p.152. Translation fo the original text: "para a criação de galinhas, canteiros de cheiro verde, de verduras frescas e frutas (limoeiros e abacateiros), telheiros para a lenha cortada, tomar café (torradores cilíndrico), cisterna, bomba d'água, coradouros e varais de roupas miúdas lavadas em casa, improvisações para fogões".

architecture, the Portuguese engineer Ricardo Severo⁷¹ presented at the Artistic Culture Society the conference called *Traditional art in Brazil*, which introduced the wealthy São Paulo society his ideas about the relevance of perceived value of the local traditions and the national identity, discussing the importance of roots to guide the construction of a national architecture. According to Severo⁷², “(...) here, the architecture had an aesthetic intent and its own character while was traditional, even though it has been humble its principles; left, however, to have a particular artistic expression when it was copying styles or foreign models. Shall repurchase the Brazilian art forums, when reintegrated into its local and traditional environment, even with imported models and since those come from a civilization or race of our order and be conformed completely to the national mesological conditions”.

Ricardo Severo arrived in Brazil in 1907 and in the following year he joined the Ramos de Azevedo office, known as *Companhia Indiciadore Predial*, one of the leading civil engineering companies in São Paulo in the early decades of the twentieth century. In 1911, he assumed the Chair at the Institute of History and Geography of Sao Paulo and in 1918 he financed the trips of the artist José Rodrigues Wash⁷³ and architect Felisberto Ranzini⁷⁴ to the North, Northeast and Minas Gerais with the objective that these professionals could register and document the colonial architecture through drawings and photos.

The travel of Wash José Rodrigues⁷⁵ and Felisberto Ranzini⁷⁶ resulted in the first publications of this nature and subject in the country. It was performed a kind of inventory of the decorations and the traditional construction techniques developed in Brazil during the first centuries of colonization. In these studies, the tiles were marked presence, the tiled

⁷¹ The official text about this Conference can be found in the publication called “Conferências 1914-1915” of the Society of Artistic Culture and also in “Revista do Brasil” published in January 1917. More information can be found In LEMOS, Carlos. *Ramos de Azevedo e seu escritório*. and SEGAWA, Hugo. *Arquiteturas no Brasil 1900-1990*.

⁷² SEVERO, Ricardo. *A arte tradicional no Brasil*. In: Revista do Brasil, vol. IV, Ano II. São Paulo, Janeiro-abril de 1917. p. 419. Translation of the original text: “Aqui, a arquitetura teve um cunho estético e um caráter próprio enquanto foi tradicional, muito embora tenham sido humildes os seus princípios; deixou, porém, de ter essa particular expressão artística quando foi cópia de estilos ou de modelos estrangeiros. Readquirirá os foros de arte brasileira, quando se reintegrar no seu meio local e tradicional, mesmo com modelos importados e desde que estes provenham de uma civilização ou raça afim da nossa e se amoldem por completo às condições mesológicas nacionais”.

⁷³ Wash Rodrigues (1891-1957) was a painter, ceramist, illustrator and Brazilian historian.

⁷⁴ Felisberto Ranzini (1881-1976) born in Italy and arrived to Brazil with 7 years old in 1888. Graduated in Architecture in São Paulo in 1927 but have worked since very early. Started to work with Ramos de Azevedo Office in 1904 and continue all his life in this office, completing 42 years of firm. (information collected in LEMOS, Carlos A. *Azulejos Decorados na modernidade arquitetônica brasileira*. In: Revista do Patrimônio Histórico e Artístico Nacional, nº 20, Rio de Janeiro: Ed. RJ, 1987. p. 173.

⁷⁵ Publication of the book called *Documentário Arquitetônico* in 1945.

⁷⁶ Publication of the book called *Estylo Colonial Brasileiro – Composições Architectonicas de Motivos Originaes* in 1927.

decorations were recurrent in Brazilian architecture from the north to the south of the country and these decorative elements were understood as forms of the Lusitanian artistic expression, however, adapted to the climatic conditions of the country. Dora Alcântara⁷⁷ noted the existence of decorative tiles in the national territory and identified that same patterns can be found in cities located in different parts of Brazil in the nineteenth and twentieth centuries and understand that this phenomenon "documents in a way that the territorial unity was maintained".

Thus, this research in the field had an important role to support the nationalist discourse. Severo introduces the idea of construction of national identity from the architectural research, i.e., the construction of identity supported in the evidences of architecture from a primordial past. When promoted the registration and documentation of colonial architecture, Severo tried to identify the formation of foundations for a genuine and national architectural style, which was related to the art produced in the territory as a whole. For Severo⁷⁸, "(...) Traditional art is the styling of the previous art forms that integrate at one time the local environment, the moral character of a people, the nature of their civilization; It is the product of a rhythmic evolution of successive cycles of art and styles; is a collective expression, foreign to the individual will, the full sense of the domain, determinate in people (nations) who the tradition is defined and which the aesthetic feeling is stable like the feeling of nationality and the idea of fatherland".

In his native country since the end of the nineteenth century, Severo had already done some work with this character of cult to traditions and after the Conference presented to the Artistic Culture Society, he started its activities in Brazilian territory following these ideas that were later known as Neocolonial Movement.

The Neocolonial Movement in Brazil sought to establish an architectural identity in which were valued the local expressions and traditions. The quest to identify the colonial architecture in the country was considered the most consistent way to make the Brazilian

⁷⁷ ALCÂNTARA, Dora. *Azulejos, documento de nossa Cultura*. In DIAS, Maria Cristina Veneza Lodi. *Patrimônio Azulejar Brasileiro: aspectos históricos e de conservação*. Brasília: Monumenta BID/ Ministério da Cultura, 2001, p. 71.

⁷⁸ SEVERO, Ricardo. *A arte tradicional no Brasil*. In: *Revista do Brasil*, vol. IV, Ano II. São Paulo, Janeiro-abril de 1917. pp. 423-424. Translation of the original text: "(...) arte tradicional é a estilização das formas artísticas anteriores que integram em determinado tempo o meio local, o caráter moral dum povo, o cunho da sua civilização; é o produto duma evolução rítmica de ciclos sucessivos de arte e estilos; é uma expressão coletiva, estranha à vontade individual, do pleno domínio do sentimento, determinada em povos de tradição definida, nos quase o sentimento estético é estável como o sentimento da nacionalidade e a ideia de pátria".

architecture of that moment a national architecture. Following a contrary position of the Eclecticism Movement, which represented an architecture without identity because it was a collage of different artistic expressions and influences, the Neocolonial Movement was gaining expression and the tiles reappeared as a live art from the colonial architecture and were considered an important element of the national tradition.

According to Lemos⁷⁹, “(...) the emergence of the Neocolonial during the First World War was accompanied by certain nationalist revivals and, among them, the tiles. No more the big cloths of with standard patterns, but the figurative panels inspired by the religious decorations of our colonial temples”.

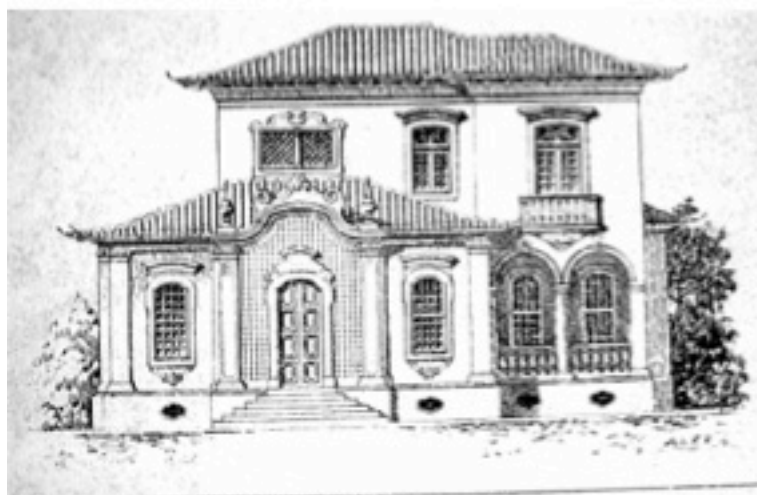
The majority of architects, civil engineers and builders, who were not familiar with the principles and diversity of Luso-Brazilian architecture, appropriated only of the elements considered "colonial" and produced buildings and architecture totally devoid of real intentions recommended by Severo, without respect, for example, the differences between the civilian, the religious and Luso-Brazilian military buildings. That is, according to Segawa⁸⁰, “the neoclassical, in practice, it has established itself as a variation of eclecticism, in seeking to elect a style but adequate for the purpose it was intended, which was to build an architecture with identity, an architecture with Brazilian characteristics as a factor of renewal, even if it was necessary to simulate the technique and art”.

Thus, the neoclassical movement split into two distinct streams: the first considered classical, linked to Severo, and practiced by qualified professionals, with the major representatives were the French architect Victor Dubugras⁸¹ in Sao Paulo and architect José Mariano Filho in Rio de Janeiro; and the second considered popular, current appropriated some traditional elements of colonial architecture in order to use them freely without any aesthetic and architectural concern, being mostly made up of anonymous builders who were on the demands of a middle class population.

⁷⁹ LEMOS, Carlos A. *Azulejos Decorados na modernidade arquitetônica brasileira*. In: Revista do Patrimônio Histórico e Artístico Nacional, nº 20, Rio de Janeiro: Ed. RJ, 1987, p. 167. `translation of the original text: “(...) o surgimento do neocolonial durante a Primeira Guerra Mundial foi acompanhado de certas revivências ditas nacionalistas e, dentre elas, a azulejaria. Não mais os grandes painéis de peças padronizadas, mas os painéis figurativos inspirados nas decorações religiosas de nossos templos coloniais”.

⁸⁰ SEGAWA, Hugo. *Arquitetura do Brasil 1900-1990*. São Paulo: Editora Edusp, 1997, p. 39.. Translation of the original text: “o neoclássico, na prática, afirmou-se como uma variação do ecletismo, no que busca eleger um estilo, mas adequado para o fim que se tinha em vista, que era a construção de uma arquitetura com identidade, uma arquitetura com características brasileiras como fator de renovação, mesmo que para isso fosse necessário simular a técnica e a arte”.

⁸¹ Victor Dubugras (1868 – 1933) was a French architect who lived his childhood in Buenos Aires and later moved to Brazil in 1891 and was one of the main represent of Neoclassical Architecture in Brazil.



Exemplo de aplicações de varios motivos numa Fachada em estilo Tradicional

Image A.37 – Examples of application of various motifs in a façade of the Tradicional Style. Felisberto Ranzini, 1927.



Image A.38 and A.39 – Design of the book cover of the Felisberto Ranzini book (Estylo colonial brasileiro, 1927) and some examples of the crowning of the openings.

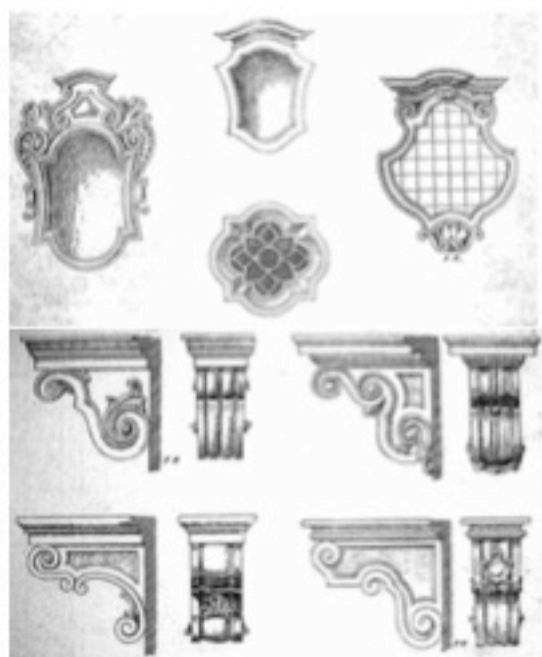


Image A.40 – examples of the bull's eye and the corbels/plinths. Felizberto Ranzini, 1927.



Image A.41 and A.42 – Examples of tiles in Rio de Janeiro, XVIII and XIX century. Wasth Rodrigues, 1947, pp.224 - 227





Image A.43 – Examples of tiles with covered a monument in Bahia, Brazil, XVIII and XIX century. Wasth Rodrigues, 1947, pp. 282-283

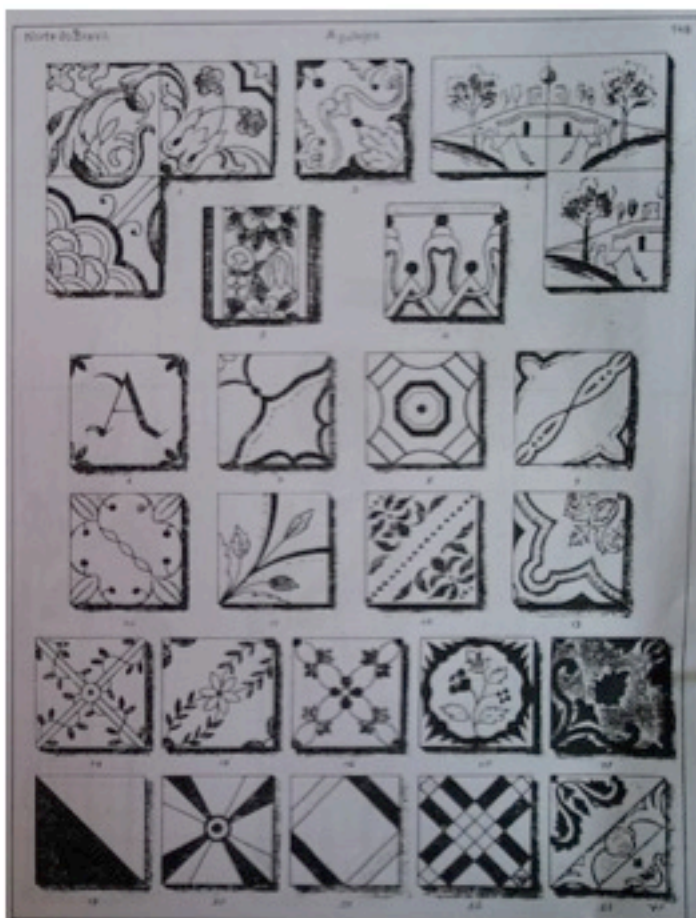


Image A.44 – Examples of tiles in North of Brazil, XVIII and XIX century. Wasth Rodrigues, 1947, pp. 302-303

In the first decades of the twentieth century, the Neocolonial Movement was accompanied by two important events of patriotic nature: the commemoration of the centenary of Brazilian Independence and the week of Modern Art in 1922. In Rio de Janeiro the centennial celebration was marked by the International Exhibition of Centennial of Independence, which was characterized by the presence of the Neocolonial as the official style adopted in public buildings.

According Bruand⁸², “(...) the neocolonial style found immediately a magnificent opportunity to assert itself: The International Exhibition of the Centennial of Independence, opened in 1922. Some of the Brazilian pavilions were entirely academic, but the majority (...) clung to the new style, considered a symbol of artistic emancipation of the country, hundred years after its political emancipation. (...) The success of the Neocolonial at the International Exhibition of 1922 had a profound impact; the style is not appreciated only in local terms, but also was praised by foreigners, delighted with the exoticism it exuded; in turn, these compliments reinforced the Brazilian enthusiasm for the movement, which since then has expanded to a declared official support”.

To celebrate the Centennial of Independence, in Sao Paulo were held some public works such as the new design for the *Largo da Memória* and the set of commemorative monuments of independence built along the old road to Santos in 1922. Interestingly, in these neocolonial works, the tile appears in the decorations of exteriors and mark presence. Produced by the first white china factory of São Paulo, Santa Catharina factory, these tiles were the first officially tiles produced in the country, which further underscores this nationalistic spirit in vogue at that time. These monuments will be better presented in the second chapter of this work when the Santa Catharina Factory will be analyzed.

In addition to the public works mentioned above, the tiles also largely imported, appeared in the interior of civil buildings. Lemos⁸³ notes that “(...) there were two types of

⁸² BRUAND, Yves. *Arquitetura Contemporânea no Brasil*. São Paulo: Editora Perspectiva, 1999. p.53. Translation of the original text: “(...) o estilo neocolonial encontrou de imediato uma magnífica oportunidade de afirmar-se: A Exposição Internacional do Centenário da Independência, inaugurada em 1922. Alguns dos pavilhões brasileiros eram inteiramente acadêmicos, mas a sua maioria (...) prendia-se ao novo estilo, considerado símbolo da emancipação artística do país, cem anos após a sua emancipação política. (...) O sucesso do neocolonial na exposição internacional de 1922 teve uma profunda repercussão; o estilo não apreciado apenas em termos locais, mas também elogiado pelos estrangeiros, encantados com o exotismo que ele exalava; por sua vez, esses elogios reforçaram o entusiasmo brasileiro pelo movimento, que a partir de então passou a contar com o apoio oficial declarado”.

⁸³ LEMOS, Carlos A. *Azulejos Decorados na modernidade arquitetônica brasileira*. In: *Revista do Patrimônio Histórico e Artístico Nacional*, nº 20, Rio de Janeiro: Ed. RJ, 1987.p. 167. Translation of the original text: “(...)

tiles: these decorative brought by the new nostalgic style and those usually employed in so-called 'impermeable bars' of sanitary facilities, pantries and kitchens. At the end of the century, the latter were already imported from England, Germany and France, and also decorated with very discrete standardized designs, but completely smooth. These bars were always finished off above by a row of embossed pieces often illustrated with the most imaginative figurations repertoire Art Nouveau. Thus, the neo-colonial houses were common in its decoration intimacy alien to the Luso-Brazilian tradition that was worship”.

Moreover, Severo produced some residences and have applied the tiles in the decorations of indoor and outdoor. These panels followed the figurative models related to Biblical scenes or allegories and were imported by Portuguese manufacturers. One of his best known works was the Lusa House and its tile panels were produced by Portuguese artist Jorge Calação and were inspired by biblical scenes as was the case of the panel of St. Elizabeth of Portugal located in the backyard. This residence was built in Taguá street in the Liberty neighborhood in the city of São Paulo in the second decade of the twentieth century between 1920 and 1924. According to Lemos⁸⁴, the *Lusa House* was “(...) abundantly provided with tiled panels, both internally and outside until in the aedicule. The panels regarding the landscapes of the earth, bucolic scenes, religious scenes, the heraldic background information and even Latin couplets alluding to his guiding philosophical thought of life, as the motto 'pro aris et focus', which meant 'by the altar and at home' whose contents, according to his son-in-law, guided the daily routine, the architect who saw that expression a mandatory interest, general and particular, to divine things and the human condition”.

In parallel to Neocolonial Movement other new ideas began to emerge. These ideas came to meet an architectural rationality, where the function and the economy gained greater

houve dois tipos de azulejos: esses decorativos trazidos pelo novo estilo saudosista e aqueles empregados normalmente nas chamadas 'barras impermeáveis' das instalações sanitárias, copas e cozinhas. Esses últimos eram já desde o fim do século importados da Inglaterra, Alemanha e França, sendo, também decorados com desenhos padronizados muito discretos, senão completamente lisos. Essas barras eram sistematicamente arrematadas superiormente por uma fiada de peças em relevo quase sempre ilustradas com as mais imaginativas figurações do repertório *Art Nouveau*. Assim, foram comuns casas neocoloniais abrigando na sua intimidade decoração alheia à tradição luso-brasileira que se estava cultivar ”.

⁸⁴ LEMOS, Carlos A. *Azulejos Decorados na modernidade arquitetônica brasileira*. In: Revista do Patrimônio Histórico e Artístico Nacional, nº 20, Rio de Janeiro: Ed. RJ, 1987.pp. 167-168. Translation of the original text: “fartamente provida de painéis azulejados, tanto internamente como fora, até nas edículas. Painéis referentes à paisagens da terra, cenas bucólicas, cenas religiosas, a indicações de fundo heráldico e até a dísticos latinos alusivos a seu pensamento filosófico norteador da vida, como o lema 'proaris et focus', que significava 'pelo altar e pelo lar', cujo conteúdo, segundo seu genro, guiava n cotidiano o arquiteto que via naquela expressão um interesse obrigatório, geral e particular, às coisas divinas e à condição humana”.



Image A.45 – Image of Lusa House, designed by Ricardo Severo (1920-24) São Paulo, State of São Paulo, Brazil. Today is demolish.



Image A.46 – Lusa House, image of the backyard. São Paulo, State of São Paulo, Brazil.



Image A.47 – Plans of ground floor and second floor. Ricardo Severo. São Paulo, State of São Paulo, Brazil.



Image A.48 – Lusa House, image of the internal garden. São Paulo, State of São Paulo, Brazil.



Image A.49 – Lusa House, image of the entrance hall. São Paulo, State of São Paulo, Brazil.

Image A.50 – Lusa House, image of the office. São Paulo, State of São Paulo, Brazil.

Image A.51 – Lusa House, image of the altar of the Carmo church, São Paulo, State of São Paulo, Brazil.



importance. The architects Gregori Warchavchik⁸⁵ and Rino Levi⁸⁶ were the important personalities of these first activities that will create the concepts of the Modern Architecture. These architects were the forerunners of the Brazilian Modern Architecture. In 1924, Warchavchik wrote a pioneering article entitled *Futurism* published in the journal *II Piccolo*. According to D'Alembert⁸⁷, in this article, Warchavchik defended that a new aesthetics of architecture "(...) should be based on concepts of rationality and functionality more suited to modern times. This manifesto brought innovative ideas regarding a new concept of modernity in architecture in line with contemporary European production of that time. Thus, he defended an architecture linked directly to new construction methods, iron, glass and, above all, the concrete". Simultaneously to this publication, Levi published on October 15, 1925, in the newspaper *O Estado de São Paulo*, the letter titled *Architecture and Esthetic of cities*, which also the architect proposes a rational architecture dictated by practicality and economy.

In contrast, the architect Lucio Costa, responsible for the proposal of the Pilot Plan of Brasília years later, adept to the ideas and the concept of rescue the tradition, at that time, he was beginning to sow the ideas that would base the hegemonic discourse of a new architecture: the architecture Brazilian modern. However, the new rational architecture should continue the traditions, or rather, should continue the essence and simplicity of construction and these solutions should be present in architectural design.

The Modern Brazilian Architecture is not addressed in this work, however, worth mentioning that the Brazilian tiles, after the 1930s, will be present in the Brazilian modern architecture and will have a leading role in important public buildings in the country. Artists such as Portinari, Athos Bulcão and Burle Marx played an important role for creating a new artistic language in particular with regard to national tile production. Works, which carried out by the researchers Marcela Cristina Silveira and Ingrid Moura Wanderley at University of São Paulo, addressed the modern and contemporary production of Brazilian tiles in a quite interesting way.

⁸⁵ Architect born in Russia, finished the University of Architecture in Rome in 1920 and then went to Brazil in 1923.

⁸⁶ Rino Levi (1901-1965) was a Brazilian Architect who was one of the main important represent of the Brazilian Modern Architecture.

⁸⁷ D'ALAMBERT, Clara. Manifestações da Arquitetura residencial paulistana entre as Grandes Guerras. Tese de doutoramento apresentada à Faculdade de Arquitetura e Urbanismo da Universidade de São Paulo. São Paulo, 2003. p. 40. Translation of the original text: "(...) deveria ser baseada em conceitos de racionalidade e funcionalidade mais adequados aos tempos modernos. Este manifesto trazia ideias inovadoras a respeito de um novo conceito de modernidade na arquitetura em consonância com a produção europeia contemporânea da época. Assim, propugnava uma arquitetura vinculada diretamente aos novos modos de construção, ferro, vidro e, sobretudo, o concreto armado".

Chapter 2: São Paulo e the first White china Factory in Brazil

2.1. São Paulo and the Santa Catharina Factory

The History of Industrialization in Brazil and more specific in São Paulo were discussed by a vast number of researchers. According to the majority of them, until the middle of nineteenth century, Brazil was a major producer of agriculture products and the industrialization in São Paulo was a result of the coffee production, which allowed the capital accumulation and gave the opportunity to create an internal market. However, some researchers specialized in the Agriculture History started to understand that the small crops and the agriculture had an important role to the development of the organization of work, the capital accumulation and the occupation of the territory on the State of São Paulo. According to Linhares⁸⁸, differently of the idea of an economy based just in a production of the monocultures of cane sugar and coffee, São Paulo was also an important producer of manioc and other kinds of products for the local and regional subsistence.

According to Abreu e Souza⁸⁹, "(...) more recent studies about the São Paulo Village in the Colonial Period have highlighted its increasing degree of marketization and the formation of a rigidly hierarchical Society, and in this line, Blaj shows that, at least, from the eighteenth century, is witnessing settling of an Elite of São Paulo that concentrate on their hands lands, slaves, cattle, agricultural production and trade, and that through the property relations within the framework of the Portuguese Crown, consolidates gradually in power".

In addition, in the XVIII century, a local and regional production of goods created gradually an internal market and a market logic that was organized by the articulation of the cities and the mining areas. This organization allowed the increased of trade between the local and regional areas in São Paulo and with other captaincies of Brazil.

For the same author⁹⁰, "(...) the revitalization of the São Paulo economy would be part of the on-going process of commodification of São Paulo, that in the period, shall

⁸⁸ LINHARES, M. Y. L. *Pecuária, Alimentos e Sistemas Agrários no Brasil séculos XVIII e XIX*. Revista Tempo, UFF/Relume Dumará, v. 1, n.º.2, 1996, p. 137.

⁸⁹ ABREU e SOUZA, Rafael de. *Louça Branca para a Paulicéia: Arqueologia Histórica da Fábrica Santa Catharina / IRFM – São Paulo e a Produção da Faiança Fina Nacional (1913-1937)*. Dissertação de Mestrado apresentada ao programa de pós-graduação em Arqueologia do Museu de Arqueologia e Etnologia da Universidade de São Paulo. São Paulo, 2010. p.146. Translation of the original text: "Estudos mais recentes sobre a vila de São Paulo no período colonial têm destacado seu grau de mercantilização crescente e a formação de uma sociedade rigidamente hierarquização, e nesta linha, Blaj mostra que a partir, pelo menos, do século XVIII, assiste-se a sedimentação de uma elite paulistana que concentra em suas mãos terras, escravos, gado, produção agrícola e comércio, e que, através das relações patrimoniais no âmbito da Coroa Portuguesa, consolida-se progressivamente no poder".

⁹⁰ ABREU e SOUZA, Rafael de. *Louça Branca para a Paulicéia: Arqueologia Histórica da Fábrica Santa Catharina / IRFM – São Paulo e a Produção da Faiança Fina Nacional (1913-1937)*. Dissertação de Mestrado apresentada ao programa de pós-graduação em Arqueologia do Museu de Arqueologia e Etnologia da

maintain a large trade exports and imports through the port of Santos, supplying not only inland areas and rural districts, as well as Minas Gerais, Cuiabá and Goiás, and providing genres to the captaincies of Bahia and Rio, causing that, in the words of Braj, the ancient village of Piratininga became an important commercial hub, extending more and more the networks of its commercial web”.

This way, the movement of goods created profits and incomes that permitted the development of a vast connection of trade, allowing also the appearance of other activities as the production of ceramics. Thereby, small producers of ceramic started to appear in the local and regional context meeting the demand of internal market and the population. With the increase of population and the emergence of new villages, the necessity of ceramic products was presented, however, the first productions were divided in two categories: the production for the market and the production for their own use. So, the ceramic productions for both needs coexisted until the mid-nineteenth century when better conditions for the development of trade and industries, which were able to replace the imports of consumer goods for a domestic production, became a reality.

According to Abreu e Souza⁹¹, “(...) with this, the production of ceramics and potteries were brought into the factories and their structure began to gain more capitalist lines. (...) In the State of São Paulo, the industries were created first inside and then were concentrated in the Capital, making the city, in the 1910s, it was the largest Brazilian industrial centre, responsible for more than half of domestic production. However, inverse paths made the tableware factories in the State: Capital towards inside”.

In addition, the origin of ceramic as an industrial activity in São Paulo took place in late nineteenth century and early twentieth century and was a consequence of the expansion of internal market, the increase of immigration, the urbanization and the develop of coffee

Universidade de São Paulo. São Paulo, 2010. p.146. Translation of the original text: “A dinamização da economia paulistana seria parte do continuo processo de mercantilização de São Paulo, que, no período, passa a manter um grande comércio de exportações e importações através do porto de Santos, abastecendo não apenas áreas interioranas e bairros rurais, como também Minas Gerais, Cuiabá e Goiás, e fornecendo gêneros às capitanias da Bahia e do Rio, fazendo com que, nas palavras de Braj, a antiga vila de Piratininga se tornasse um importante pólo comercial, estendendo, cada vez mais, as redes de sua teia mercantil”

⁹¹ ABREU e SOUZA, Rafael de. *Louça Branca para a Paulicéia: Arqueologia Histórica da Fábrica Santa Catharina / IRFM – São Paulo e a Produção da Faiança Fina Nacional (1913-1937)*. Dissertação de Mestrado apresentada ao programa de pós-graduação em Arqueologia do Museu de Arqueologia e Etnologia da Universidade de São Paulo. São Paulo, 2010. p.149. Translation of the original text: “(...) com isso, a produção de cerâmica e as olarias foram trazidas para dentro das fábricas e sua estrutura começou a ganhar moldes capitalistas. (...) no estado de São Paulo, as indústrias foram criadas primeiro no interior e só depois se concentraram na capital, fazendo com que a cidade, na década de 1910, fosse o maior pólo industrial brasileiro, responsável por mais da metade da produção nacional. No entanto, caminhos inversos fizeram as fábricas de louças finas no estado: capital rumo ao interior”.

production. Besides, the development of the infrastructure sector as the railways and electric energy plants was important for allowed the implantation of new factories with new technologies and machines.

Another important event was the First World War, the imports of consumer goods decreased dramatically with the war and this commercial situation stimulated the appearance of new factories to meet the domestic market. Furthermore, some Brazilian factories started to export food and fabrics to the countries in conflict, which also stimulated the enlargement of commercial facilities and the appearance of new kinds of industries in the city. In this context, the local manufacturing of ceramics and the potteries were also favoured, especially in São Paulo city, which had already started to establish a consumer market.

Is worth mention that another important factor of the development of the potteries and ceramic manufactures in São Paulo was the presence of areas enriched by the raw materials, such as the clay. Areas like the neighbourhoods Pinheiros and Água Branca were appropriate for the extraction of clay, fact that was also influencing the selection for the location area that was implemented the first white china factory in São Paulo.

Thus, the first white china factory that emerged in Brazil, precisely in São Paulo city, was the Santa Catharina factory. Known as SA Factory Connection Santa Catharina, corporate name Fagundes, Ranzini & Cia., this factory was, according to Abreu de Souza ⁹², “(...) the first factory to produce crockery in large amounts industrially, to saturate the market with thousands of serial products. The factory produced in fine stoneware, vases, dishes, bowls, mugs, cups, saucers and sanitary ware” in its first phase of implementation. According to Bellingieri ⁹³, later, from the 1920s, began also to produce filter candles, destined to the fabrication of antiophidic serum for the Institute of Butantã. And it was also known by the production of the tiles, which were used in the rebuild of the *Largo da Memória* and the set of commemorative monuments of independence built along the old road to Santos in 1922 for the celebration of the Centennial of the Independence of Brazil.

⁹² ABREU e SOUZA, Rafael de. *Louça Branca para a Paulicéia: Arqueologia Histórica da Fábrica Santa Catharina / IRFM – São Paulo e a Produção da Faiança Fina Nacional (1913-1937)*. Dissertação de Mestrado apresentada ao programa de pós-graduação em Arqueologia do Museu de Arqueologia e Etnologia da Universidade de São Paulo. São Paulo, 2010. p. 152. Translation of the original text: "foi a primeira fábrica a produzir louças em grandes quantidades, industrialmente, a saturar o mercado com milhares de produtos em série. A fábrica produziu, em faiança fina, vasos, pratos, tijelas (malgas), canecas, xícaras, pires e louça sanitária".

⁹³ BELLINGIERI, José Carlos. *A indústria Cerâmica em São Paulo e a invenção do filtro de água: um estudo sobre a ceramic Lamparelli – Jaboticabal (1920-1947)*. Dissertação (Mestrado) – Universidade de São Paulo, Franca, 2004, p. 29.

It is interesting to note that there was some attempts of some manufactures in produce fine stoneware in Brazil; however, these initiatives were punctual and not so expressive like the production of the Santa Catharina Factory.

Originally, the Santa Catharina Factory was founded by five partners: four from the Fagundes family with Euclydes Fagundes as the majority shareholder and the Italian Romeo Ranzini. This factory was founded in 1913 and located in the neighbourhood Lapa, between the Coriolano, Fábria and Aurélia streets. Gained this name because of the statue of Santa Catharina that came with the Ranzini family from Milan (Italy) to Brazil⁹⁴. In the 1920s, the factory started to feel the impact of the Revolution of 1924, the high customs duties and the prices of electric power that was leading it to put in mortgage until be bought by *the Indústrias Reunidas Fábricas Matarazzo* (IRFM) in 1926.

According Pereira⁹⁵, "(...) the landscape of the Lapa neighbourhood is still permeated by old industrial warehouses, especially in bordering stretches of the railway. Away this range, the land on, which the Santa Catharina factory was installed, is in the highest part of the region known as Água Branca. The flat profile of the terrain, as well as the environment, facilitated the viewing at a distance, from the factory premises".

After be bought by Matarazzo industries, the factory started a new phase of production and, for this reason, Abreu e Souza⁹⁶ separated the history of Santa Catharina Factory in two parts: the first with Ranzini orientation, between 1913 and 1926, and the second part with the Matarazzo organization, between 1927 and 1937 when was closed as a ceramic factory.

According to the same author⁹⁷, "(...) from the official purchase, made in 1927, the Factory has become known as the *Fábrica de Louças da Água Branca*" and after to be closed,

⁹⁴ Information collected in the questionnaire wrote by Romeo Ranzini *In*: Archive of the Paulista Museum – University of São Paulo. December 2014/January 2015.

⁹⁵ PEREIRA, J. H. M. *As fábricas paulistas de louça: estudos de tipologias arquitetônicas na area de Patrimônio Industrial*. Dissertação (mestrado), FAU/USP, São Paulo, 2007, p. 63. Translation of the original text: "a paisagem do bairro da Lapa é ainda hoje permeada por antigos galpões industriais, sobretudo nos trechos lindeiros à ferrovia. Afastado dessa faixa, o terreno onde foi instalada a Fábrica Santa Catharina encontra-se na porção mais elevada da região conhecida como Água Branca. O perfil plano do terreno, assim como do entorno, facilitava a visualização, à distância, das instalações da fábrica".

⁹⁶ ABREU e SOUZA, Rafael de. *Louça Branca para a Paulicéia: Arqueologia Histórica da Fábrica Santa Catharina / IRFM – São Paulo e a Produção da Faiança Fina Nacional (1913-1937)*. Dissertação de Mestrado apresentada ao programa de pós-graduação em Arqueologia do Museu de Arqueologia e Etnologia da Universidade de São Paulo. São Paulo, 2010. p. 153.

⁹⁷ ABREU e SOUZA, Rafael de. *Louça Branca para a Paulicéia: Arqueologia Histórica da Fábrica Santa Catharina / IRFM – São Paulo e a Produção da Faiança Fina Nacional (1913-1937)*. Dissertação de Mestrado apresentada ao programa de pós-graduação em Arqueologia do Museu de Arqueologia e Etnologia da Universidade de São Paulo. São Paulo, 2010. p. 153. Translation of the original text: "(...) a partir da compra oficial, efetuada em 1927. A Fábrica passou a ser conhecida por como Fábrica de Louças da Água Branca".

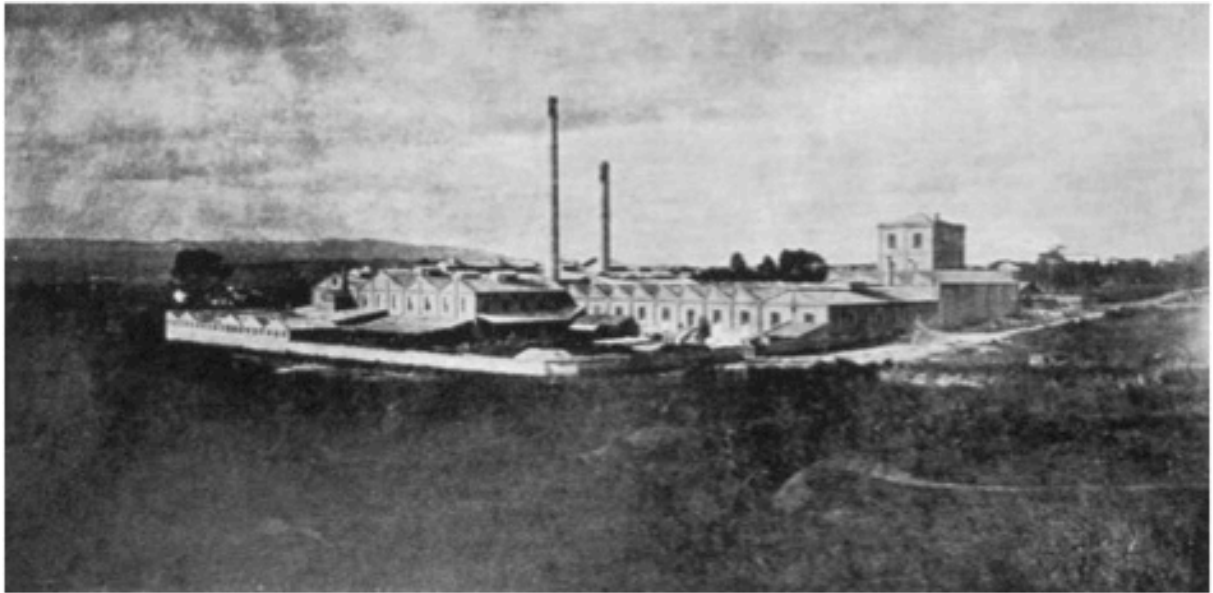


Image A.52 – Overview of The Santa Catharina Factory, São Paulo, Brazil. Front image of the publication about the Municipal Exposition of São Paulo in 1918.



Image A.53 – Partial view of The Santa Catharina Factory, São Paulo, Brazil. Date and Author unknown. Image was used as the front page of the text about the enterprise in celebration about the foundation and new expansions of the factory.

made way to the Fábrica de Biscoitos Petybon, a factory of crackers, which worked until 1980s.

After to passed to the control of the Matarazzo industries, The Santa Catharina Factory started a new phase of production and concentrated in its production of tiles and sanitary pieces. This way, the Matarazzo industries promoted a series of transformations⁹⁸, specially regarding the area built, creating new areas of storage of products and raw materials and areas for the installation of new furnaces.

Initially, the factory occupied an area of 36.000 meters square with 15.000 meters square of area built. In the beginning of 1920s, the factory passed for transformations and expansions for keep working and producing a big quantity of products with a greater diversity. According to Pereira⁹⁹, “(...) precisely because of not having in Brazil a model to be followed, Romeo Ranzini, founder and partner of Santa Catharina, held technical visit to Europe in order to gain knowledge, employ specialized operators and negotiate the necessary equipment to the enterprise”.

For the same author, Romeo Ranzini brought from Germany the project, the machinery and the equipment of his factory made via an Italian firm called Vittorio Burco & Cia., from Milan. According to Ranzini¹⁰⁰, it was the German firm August Reissmann responsible for the project of his factory. Besides, according to Pereira¹⁰¹, is worth mention the experience of the Ranzini family in civil constructions: in a advertisement of 1889, Sisto Ranzini, Romeo’s father, presented himself as a builder who had experiences in the construction of fired heaters destined for the production of bricks, tiles, vases, etc. Especially regarding the construction of the factory, the participation of the Romeo Ranzini’s father was confirmed by the plan of 1916 in which Sisto was mentioned as the responsible for the expansion of the area built of the factory.

The first part of the building of the factory was built in 1912 and, along its History, the factory passed for a series of transformations. Using a plan of the factory designed in 1932,

⁹⁸ PEREIRA, J. H. M. *As fábricas paulistas de louça: estudos de tipologias arquitetônicas na área de Patrimônio Industrial*. Dissertação (mestrado), FAU/USP, São Paulo, 2007, p. 61.

⁹⁹ PEREIRA, J. H. M. *As fábricas paulistas de louça: estudos de tipologias arquitetônicas na área de Patrimônio Industrial*. Dissertação (mestrado), FAU/USP, São Paulo, 2007, p. 53. Translation of the original text: “justamente por não possuir o Brasil um modelo a ser seguido, Romeo Ranzini, idealizador e sócio da Santa Catharina, realizou visita técnica à Europa com a finalidade de obter conhecimentos, contratar operários especializados e negociar o equipamento necessário ao empreendimento”

¹⁰⁰ Information collected in the questionnaire wrote by Romeo Ranzini *In: Archive of the Paulista Museum – University of São Paulo*. December 2014/January 2015.

¹⁰¹ PEREIRA, J. H. M. *As fábricas paulistas de louça: estudos de tipologias arquitetônicas na área de Patrimônio Industrial*. Dissertação (mestrado), FAU/USP, São Paulo, 2007, p. 54 – documentation identify in City Hall of São Paulo – identification: Cf. SÃO PAULO (cidade) SMC-AHMWL., Doc. 49 Cx.A6/ 1915.

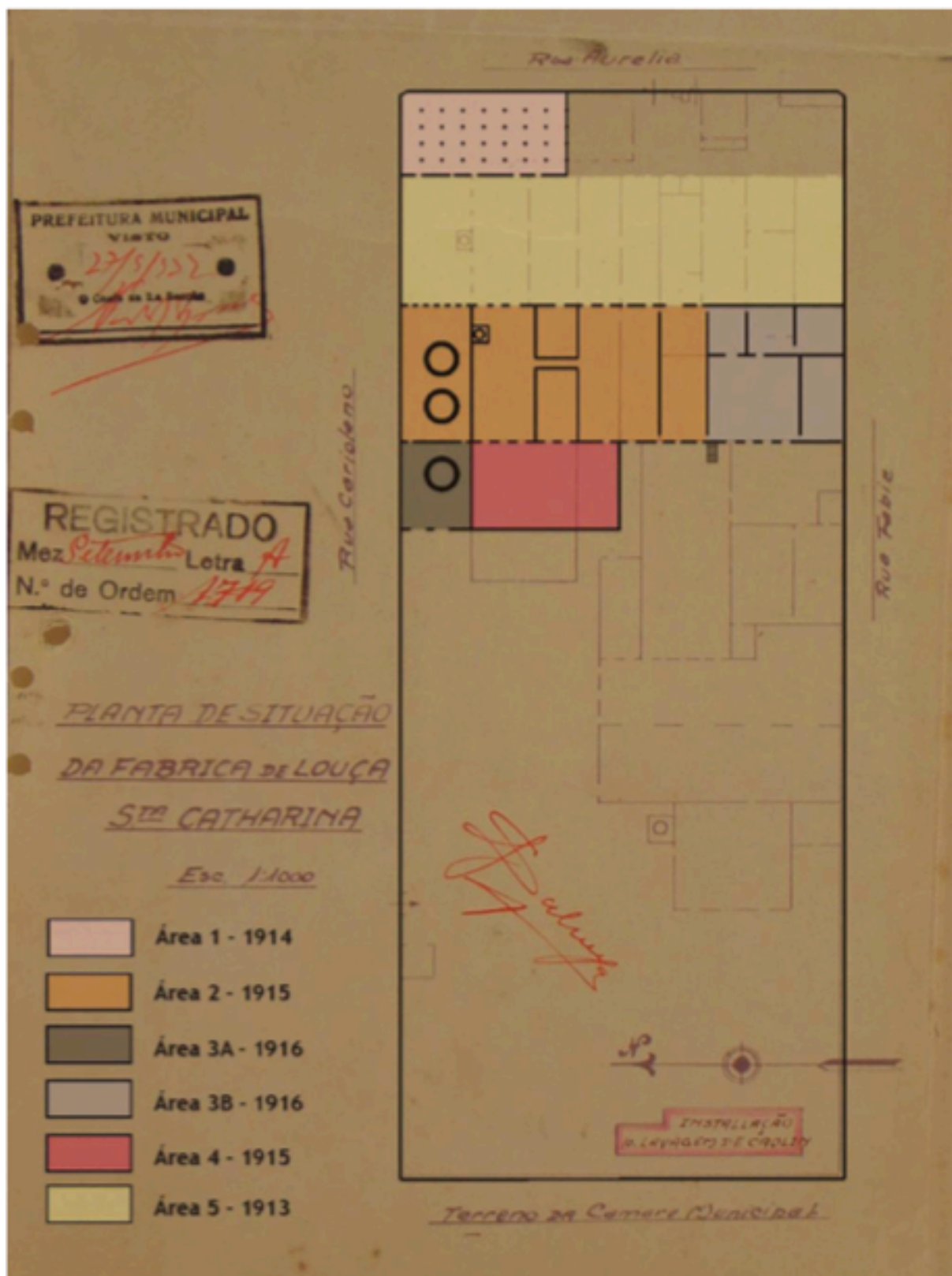


Image A.54 – Plan of Ground floor of The Santa Catharina Factory in 1932 modify by Pereira. Scale 1:1000. The different colors represent the different expansions of the factory in the 1920s. (São Paulo city, Secretaria Municipal de Gestão, Divisão de Arquivo Municipal de Processos – SMG-DAMP. Processo 37.902/1932)

Pereira presented the different expansions that the factory passed in the first decade of its activities. Using the information consulted in the Dossiers of License for a Building Site for a City Hall (1915-1916), Pereira¹⁰² created a overlap of plans of the factory that can give us an idea of how was quick the change of the area built in just a few years of factory activities.

In the Questionnaire available in the Ranzini Collection of the Archive of the Paulista Museum – University of São Paulo, Ranzini describes the construction of the Santa Catharina Factory and the process of production as well as where came from the raw material, the equipment and the machinery:

"(...) The ovens are constructed in cylindrical shape of inverted flame, and the diameter of the furnace was 4.00, 6.00 and 8.00 meters. The height was 3.00 meters with domes. The wall thickness ranged from 0.80 to 0.90 centimeters. There were four furnaces with 4.00 meters of diameter for veneer and 2 furnaces with 6 meters of diameter and 4 furnaces with 8 meters of diameter for the first burning cracker. The bricks were refractory, national products, re-burned in Cia Cerâmica Progresso Paulista in Água Branca Neighborhood. The fuel was coal Cardiff (long calls) imported from England.

(...) Refractory boxes were made of hand and part with press. The mockery was purchased from Cia. Gas (broken retorts the Gazometro).

The grinding and decommissioning were made at the factory. The duration of the boxes was 5 to 7 times.

(...) The raw materials were all national. The Caulin came from Santo Amaro, the clay from Santo Amaro, São Caetano, Pinheiros and Taipas neighborhoods. Quartz came from the Alto da Serra. The Feldspar came from Perú.

(...) The machines were imported from Saalfeld Saale, Germany: the firm August Reismann. The drums, the filters presses, pumps the rubber bellows, the tube mills, the Automatic sieves, the mixers, the simple lathes and oval lathes, were offered by the firm above mentioned. The tiled presses and presses for boxes were provided by the same firm. The other machines to expand the

¹⁰² PEREIRA, J. H. M. *As fábricas paulistas de louça: estudos de tipologias arquitetônicas na área de Patrimônio Industrial*. Dissertação (mestrado), FAU/USP, São Paulo, 2007, p. 54 – documentation identify in City Hall of São Paulo – identification: Cf. SÃO PAULO (cidade) SMC-AHMWL., Doc. 48 Cx.A6/ 1915, Cf. SÃO PAULO (cidade) SMC-AHMWL., Doc. 49 Cx.A6/ 1915, Cf. SÃO PAULO (cidade) SMC-AHMWL., Doc. 31 Cx.A5/ 1915 and Cf. SÃO PAULO (cidade) SMC-AHMWL., Doc. 34 Cx.A6/ 1915

factory were all national " ¹⁰³.

It is interesting to note that Ranzini presented an idea of a modern industry, not just in area, when he described the quantity of furnaces with their dimensions and typologies, but also when he showed a enterprise structured with a diversity of machines, which came from Germany, and were able to produce different kinds of products. Besides, Ranzini also marked the presence of national raw materials, which can give us an idea of strong feeling of nationality: the construction of a national factory with the best technology and, in the same time, with the materials that came from its territory.

According to Pereira ¹⁰⁴, in the first decade of the twentieth century, The Santa Catharina Factory was presented in different kinds of publication that celebrated the industrial progress of São Paulo. One of these publications tried to present not only the ingenuity of their owners but also how was organized the industry, indicating information about internal organization, the human sources, the buildings and the expansions planned:

"The factory covers an area of land of 28,000 square meters, which is found covered some 15,000 meters. Soon, however, the extension of the plant will be much greater, because, for this, are being carried out important works and with the greatest activity. Currently work at the plant about 1,000 workers of various nationalities, including Japanese people, with many among them women and

¹⁰³ Translation of the author from the original text: "(...) Os fornos foram construídos em forma cilíndricas e de chama invertida e o diâmetro dos fornos era de 4.00, de 6.00 e de 8.00 metros. A altura era de 3.00 metros com abobada. A espessura das paredes variava de 0.80 a 0.90 centímetros. Existiam 4 fornos de 4.00 metros de diâmetro para verniz e 2 de 6 metros de diâmetro e 4 fornos de 8 metros de diâmetro para a primeira queima biscoito. Os tijolos eram de refratário nacional, requeimados na Cia Cerâmica Progresso Paulista na Água Branca. O combustível era carvão Cardif (chama longa) importado da Inglaterra.

(...) as caixas refratárias eram feitas parte à mão e parte com prensa. A chacota era comprada na Cia. de Gás (Retortas quebradas do Gazometro).

A moagem e penetração eram feitas na fábrica. A duração das caixas era de 5 a 7 vezes.

(...) As matérias primas eram todas nacionais. O Caulin era de Santo Amaro, a argila de Santo Amaro, de São Caetano, de Pinheiros e Taipas. O quartzo provinha do Alto da Serra. O Feldspato de Perú.

(...) As máquinas eram importadas da Alemanha de Saalfeld Saale: da firma August Reismann. Os tamborões, os filtros prensas, as bombas a membrana, os trituradores, as peneiras automáticas, as bateadeiras, os tornos simples e ovais, foram oferecidos pela firma supra. As prensas para caixotas e para azulejos foram oferecidas pela mesma firma. As demais máquinas para ampliar a fábrica, foram todas nacionais"[sic] In: The Ranzini Collection – The Archive of Paulista Museum – University of São Paulo.

¹⁰⁴ PEREIRA, J. H. M. *As fábricas paulistas de louça: estudos de tipologias arquitetônicas na área de Patrimônio Industrial*. Dissertação (mestrado), FAU/USP, São Paulo, 2007, p. 57.

*children. This number of workers will be raised twice, once are completed the buildings, which we refer above”*¹⁰⁵.

The expansions were related with all fundamental activities of the factory and with the process of development of each sector of production. As a pioneer, the implementation of new activities and machineries were important to allow new possibilities of production and products. For Pereira¹⁰⁶, the owners of The Santa Catharina Factory knew how to deal with the increase of consumer market and the conditions of the retractions of imports of consumer goods from Europe with the First World War. All expansions and transformations promoted by the factory were a result of the activities developed by those who understood very well how the industrial branches worked.

In the documents of the Ranzini Collection¹⁰⁷, Ranzini commented about the economic situation of the Santa Catharina Factory:

*“With the First World War, the white china factory was benefited. After 1920 and 1925, became acute the foreign competition in the Government of Arthur Bernardes. In May 1919, the Company's Management of the firm Fagundes, Ranzini & Cia. went to The Federal Senate of Rio de Janeiro to address the customs duties”*¹⁰⁸.

Thus, the first phase of the Santa Catharina Factory was marked by the development of the infrastructure and the creation of a variety of products. These diversity of products can be noted in the first Letter Patent number 6.912 of 07 February 1912, assigned by the president Hermes da Fonseca, in which the Santa Catharina Factory was responsible for: “The

¹⁰⁵ PEREIRA, J. H. M. *As fábricas paulistas de louça: estudos de tipologias arquitetônicas na area de Patrimônio Industrial*. Dissertação (mestrado), FAU/USP, São Paulo, 2007, p. 57. Information of the Ranzini Collection of the Archive of the Paulista Museum – University of São Paulo. Translation of the Author from the original text: “A fábrica ocupa uma grande área de terreno de 28.000 metros quadrados, da qual se acha coberta certa de 15.000 metros. Em breve, porém, a extensão da fábrica será muito maior, pois, que para isso se estão realizando obras importantes e com a maior atividade. Trabalham atualmente na fábrica cerca de 1000 operários de várias nacionalidades, inclusive japoneses, havendo entre ele muitas mulheres e crianças. Esse número de operários será elevado ao dobro, logo que estejam concluídas as construções a que acima nos referimos”.

¹⁰⁶ PEREIRA, J. H. M. *As fábricas paulistas de louça: estudos de tipologias arquitetônicas na area de Patrimônio Industrial*. Dissertação (mestrado), FAU/USP, São Paulo, 2007, p. 57.

¹⁰⁷ The Ranzini Collection – The Archive of Paulista Museum – University of São Paulo.

¹⁰⁸ Translation of the author from the original text: “Com a primeira Guerra mundial a indústria de louça foi beneficiada. Depois do ano de 1920 a 1925 tornou-se aguda a concorrência estrangeira no Governo Arthur Bernardes. No mez de maio de 1919, a diretoria da firma Fagundes Ranzini & Cia foi ao Rio de Janeiro, no Senado Federal afim de combater os impostos alfandegários Vide anexo “o caso das louças no Senado Federal. A revolução de 1924 afetou em parte a fábrica de louça. A crise de energia também afetou em parte” n: The Ranzini Collection – The Archive of Paulista Museum – University of São Paulo.

production of fine white china (porcelain), glazed and decorate, tiles and similar articles”¹⁰⁹. This way, in a few years of its foundation, The Santa Catharina Factory already had a small production of tiles.

About the tiles produced in his factory, in the Questionnaire of the Ranzini Collection¹¹⁰, Ranzini mentioned that “The formation of the people was done here with facility and the production was complete, all domestic series. It was manufactured also white and colour tiles”¹¹¹. However, the information available about the patterns is unknown.

Abreu e Souza, one of the main researchers that worked with the Santa Catharina Factory, focused his studies in the production of tableware and practically, not exist so much information about the production of tiles of The Santa Catharina Factory. During the excavations of Archaeological site of Petybon (Area of the ancient Santa Catharina installations) in 2003, Abreu e Souza identified seven types of tiles: two typologies that could be sized (one tile with 14.4 cm x 14.4 cm and other with 7.4 cm x 14.6 cm) and two of these pieces that could be identified as footers. However the patterns were not identified for him, just was presented a pattern with a white smooth surface. This tile can be observed in the image in which Abreu e Souza shows some forms of the material found in the Archaeological site of Petybon.

It is worth mentioning that Abreu and Souza¹¹² points to the predominant use of white crockery thanks to the hygienist discourse in vogue in the late nineteenth century and early twentieth century. According to him, at least in Brazil, the creation of entirely white or white pieces with few decorations were coincidental to the hygienist movement, since white has become synonymous with clear, clean and aseptic.

Thus, it is observed that, during this period, a large production of white crockery or with small decorations always predominating the white. The same can be seen in architecture, when kitchens and bathrooms are now being coated by tiles. The emergence of regulations and building codes that determined surfaces covered by tiles in these areas increased the use of these pieces in all social classes and perhaps the use of white tiles were more common

¹⁰⁹ The Letter Patent nº 6.912 – 07 February 1912 *In*: The Ranzini Collection – The Archive of Paulista Museum – University of São Paulo.

¹¹⁰ The Ranzini Collection – The Archive of Paulista Museum – University of São Paulo.

¹¹¹ The Ranzini Collection – The Archive of Paulista Museum – University of São Paulo. Translation of the author from the original text: “A formação do pessoal era feita aqui mesmo com facilidade e a produção era completa, toda a serie domestica. Fabricava-se também azulejos brancos e de cores” (sic)

¹¹² ABREU e SOUZA, Rafael de. *Louça Branca para a Paulicéia: Arqueologia Histórica da Fábrica Santa Catharina / IRFM – São Paulo e a Produção da Faiança Fina Nacional (1913-1937)*. Dissertação de Mestrado apresentada ao programa de pós-graduação em Arqueologia do Museu de Arqueologia e Etnologia da Universidade de São Paulo. São Paulo, 2010. p. 204.

precisely because of the same reasons observed in a greater tendency for the production of white crockery, that would explain the appearance of smooth white tiles produced by the factory Santa Catharina, seen in models acquired in the excavations of the archaeological site of Petybon.

Furthermore, it is known that the Ranzini's factory was responsible for the production of the tiles painted by Wash Rodrigues for the *Largo da Memória* and the set of commemorative monuments of independence built along the old road to Santos in 1922. According to Lemos ¹¹³, "(...) everything indicates that it was Victor Dubugras the pioneer in trying to produce between us ornate tiles, making in offhand the burned of the panels painted by José Wash Rodrigues in São Paulo for the works of *Largo da Memória* in 1919".

Lemos identified that the relationship between Dubugras and The Santa Catharina Factory started with Felisberto Ranzini ¹¹⁴, the brother of Romeo Ranzini. Felisberto Ranzini, in the Lemos words, had great skills and was an emeritus water-colourist and was an architect who worked for Ramos de Azevedo and Ricardo Severo in the Ramos Azevedo Office. Inspired by Severo, the leader of the Neocolonial Movement, Felisberto documented in details the traditional Brazilian Colonial architecture and its decoration when he did a travel supported by Severo in the 1910s.

As a close friend of Ricardo Severo, Victor Dubugras saw the possibilities to use in his architecture the tiles produced by the national industry of Felisberto's brother. This way, some houses designed by Dubugras received the Santa Catharina's tiles. Besides, the public projects also designed by Dubugras for the Centennial of Independence of Brazil, in 1922, received the tiles painted by Wash Rodrigues and burned by the Santa Catharina Factory.

¹¹³ LEMOS, Carlos A. *Azulejos Decorados na modernidade arquitetônica brasileira*. In: Revista do Patrimônio Histórico e Artístico Nacional, nº 20, Rio de Janeiro: Ed. RJ, 1987.p. 168. Translation of the original text: "tudo indica tenha sido Victor Dubugras o pioneiro na tentativa de produzir entre nós azulejaria ornamentada, fazendo queimar improvisadamente em São Paulo os painéis pintados por José Wash Rodrigues para as obras do Largo da Memória, em 1919"

¹¹⁴ According to Lemos (1987, p. 173), Felisberto Ranzini, as his brother, He was a native of St. Benedetto Po, Mantova province. Arrived in Brazil with seven years old, in 1888. He graduated in architecture in São Paulo in 1927, but worked in the business since young as the age 23. In 1904, he began to working with Ramos de Azevedo, in whose office he ascended to the main leadership of the office after the death of Domiziano Rossi and stayed there until 1946, completing as 42 years and three months. In that office, were of his responsibility the Municipal Market designs from the Cantareira Street, the Law School of Largo de São Francisco and the Post and Telegraph building, between St. John Avenue and Anhangabaú Avenue. Published in 1907 the *Estylo Colonial Brazilian*, album edited by Amadeu de Barros Saraiva, and in 1945, the Rio de Janeiro book (lands and waters of Guanabara), with text of Peixoto, GF Lanzara edition, accompanied by eighty reproduced watercolors photogravure polychrome. He died in São Paulo on August 22, 1976. Data provided by his grandson Renzo Ranzini on March 19, 1984.



Image A.55 – Presentation of the different forms and ceramics produced by the Santa Catharina Factory (RAFAEL DE ABREU E SOUZA)



Image A.56 – Detail of the decorative tile - Presentation of the different forms and ceramics produced by the Santa Catharina Factory (RAFAEL DE ABREU E SOUZA).

However, is worth mention that, despite The Santa Catharina Factory have already started to produce decorative tiles in the first years of its activities, its production of tiles didn't have the same quality as the european tiles especially regarding the fixing colour in the glazed layer of the tile. Some colours need to be burned in especific temperatures for fixing in the glazed layer and, without the equipment correct and a especific knowhow, it is very difficult to know if the temperatures were reached.

According to Lemos ¹¹⁵, “(...) what happened was that there was no practice in the production of panels and the improvisation was focused in the way of burning painted material by Wasth Rodrigues”. In the case of the panels for the *Largo da Memória* in São Paulo city, they “arranged hastily some refractory grilles, whose cracks were willing the painted tiles”. These grilles were organized in serial position inside of a “continuous kiln” on which the tiles were moved using a wooden stick. Indeed, it wasn't the best conditions for production of tiles painted in diferent colours and Lemos mentions some difficulties with the preservation of some panels produzed in rose colour for the interior of the Pouso Paranapiacaba, which, nowadays, are pratically missed. It is important to note that the material for the production of colours were import from Europe, especially, France, Germany and England.

In the 1920s, the Santa Catharina factory marked presence also in the International Exposition of Rio de Janeiro, the Factory brought its products and gained the main Award of the Exposition. According to Ranzini ¹¹⁶, “(...) the factory attended the international exhibition of Rio de Janeiro in 1922 and won the Grand Award and a Gold Medal, which is in power of Mr. Juarez Fagundes [one of the partners of Santa Catharina factory]. Also appeared in the Água Branca Exposition, on behalf of itself manufactures: Romeo Ranzini white china

¹¹⁵ LEMOS, Carlos A. *Azulejos Decorados na modernidade arquitetônica brasileira*. In: Revista do Patrimônio Histórico e Artístico Nacional, nº 20, Rio de Janeiro: Ed. RJ, 1987.p. 168. Translation of the original text: “(...) alguns anos depois de inaugurada, já possuía uma pequena produção de azulejos. Portanto, aparentemente, a primeira queima de painéis decorados não tinha sido tão improvisada como alegamos atrás. O que ocorreu foi que não havia prática na fabrico de painéis e a improvisação se ateve na maneira de se queimar o material pintado por Wasth Rodrigues. Arranjaram às pressas umas grelhas refratárias em cujas rachaduras eram dispostos os azulejos pintados e imaginou-se um ‘forno contínuo’ que chamavam de ‘túnel, onde elas eram dispostas encontradas umas às outras e uma empurrando a seguinte acionadas por um longo bastão de madeira. Percebe-se que era uma produção em condições precárias, onde as temperaturas corretas, conforme o esmalte, não tinham a duração requerida. A técnica era aquela ‘sobre esmalte’, isto é, a ornamentação era aposta sobre a superfície branca vidrada, incorporando-se os pigmentos à base pela fusão. Aliás, tudo era importado: esmaltes, ‘fritas’, pigmentos e até o óleo chamado ‘grass’ usado como veículo para as cores”.

¹¹⁶ The Ranzini Collection – The Archive of Paulista Museum – University of São Paulo. Translation of the author from the original text: “(...) a fábrica compareceu na exposição internacional do Rop de Janeiro no ano de 1922 e obteve o Grande Premio e Medalha de Ouro que está no poder do Sr. Juarez Fagundes. Compareceu também na exposição da Agua Branca, em nome da fabrica própria : Fábrica de Louça Romeo Ranzini no ano de 1933 e obteve o grande prêmio e medalha de ouro. Na Itália obtive também duas medalhas de ouro e duas Cruzes de ao Merito da Cidade de Riccione e Bologna”(sic).

factory in 1933 and won the grand prize and gold medal. In the Italy also got two gold medals and two crosses to Merit of Riccione city and Bologna city”.

It is interesting to note that, Romeo Ranzini tried to improve the compositions of the biscuits and the varnishes of his products. These awards can show us some of the results of his dedication. According to Abreu e Souza ¹¹⁷, “Ranzini was an applied chemist who, throughout life, tried to develop not only new formulas for the paste of the crockery, as well as new pigments and varnishes colours, such as can be noted in their diaries available in the Paulista Museum, referents to the factories where he worked after his departure from IRFM - São Paulo”. In his diaries, Ranzini presented all different kinds of compositions with the results and his experiences with them. One of his diaries is dedicated to the compositions for the production of tiles and their pigments.

In addition, in the beginning of his first experiences with the production of crockery in Brazil, Romeo tried to learn more about the techniques and materials. In some of documents of the Ranzini Collection of the Paulista Museum, it is possible to find letters that Ranzini received from some crockery factories in France and Germany, such as *Manufacture D’Emaux et Couleurs Céramiques* (France) and *Keramische Abteilung* (Germany), in which these factories have explained how to combine the varnishes to obtain the best results.

Actually this knowledge was very specific and there weren't in the country specialized professionals to develop the best paste and compositions for fine ceramics and crockery. Few people dominated the manufacturing techniques and precisely for this reason that, when the factory Santa Catharina was acquired by Matarazzo Industries, Ranzini practically was forced to continue working for IRFM in order to convey the new engineer in charge all his knowledge about the production processes and compositions of materials. Clearly, Matarazzo Industries understood the importance to continue producing products with a reasonable quality with the same design because otherwise it could mean a drop in sales of its products, which would result in lower profits.

According to Abreu e Souza ¹¹⁸, “Romeo was forced to sign a contract on March 5, 1932, with the new technician responsible for production and IRFM (Collection Ranzini

¹¹⁷ ABREU e SOUZA, Rafael de. *Louça Branca para a Paulicéia: Arqueologia Histórica da Fábrica Santa Catharina / IRFM – São Paulo e a Produção da Faiança Fina Nacional (1913-1937)*. Dissertação de Mestrado apresentada ao programa de pós-graduação em Arqueologia do Museu de Arqueologia e Etnologia da Universidade de São Paulo. São Paulo, 2010. pp. 173-174. Translation of the original text: “Ranzini fora um químico aplicado que, por toda vida, tentou desenvolver não apenas novas formulas de pastas para as louças, como também novos pigmentos e cores de vernizes, como pode ser notado em seus diários disponíveis no Museu paulista referents às fábricas onde trabalhou após sua saída da IRFM – São Paulo”.

¹¹⁸ ABREU e SOUZA, Rafael de. *Louça Branca para a Paulicéia: Arqueologia Histórica da Fábrica Santa Catharina / IRFM – São Paulo e a Produção da Faiança Fina Nacional (1913-1937)*. Dissertação de Mestrado

Paulista Museum). (...) The purpose of the contract was clear: 'instruct Eng Pari Marchezi about the making of crockery'. Ranzini was then obliged to: provide to the technical director, the Pari engineer Marchezi, mass and glaze formulas ('varnish for crockery, detailed indication'); instruct on the operation of the machines and ministration on methods, techniques, etc. Ranzini should fulfil all these until March 10 of that year (...) and would be required to be present when Marchezi began his experiments. Although off the document forced him to remain three hours in the factory, every day, until 31 March, and be available to the engineer, receiving in the end of the month 300 thousand réis”.

With the entry of the Matarazzo industries, the crockery factory was turning in order to follow a hierarchical model more on line with the Taylorism in vogue at that time. The Enterprise administrators were removed from the factory to leave the responsibility for the managers responsible for management of the activities. Categorizing the different stages of production and managing activities related to the head of production, head of workers and finally the workers.

It is worth mentioning the importance of different workers in the company. When Santa Catharina was founded, Ranzini went to Italy to seek equipment and workers more skilled for the installation of his industry. Ranzini, realizing the need to hire professionals who could former the other employees, brought from Italy technicians of decoration and professionals who knew the fine crockery production techniques.

The first workers came from Milan region, Italy, and had a three-years of service contract. Thanks to the appointment of his cousin, the deputy Enrico Dugoni of the Chamber of Deputies of Italy, Ranzini went to the city of Laveno-Monbello, the "country of pottery", to hire his employees. Among them were the potters Pedotti José Francisco Spertini, Pascoal Rimazza, Joseph Rossetti, Guido Monteggia, Luiz Binoto, Julio Gradana, Fioravanti De Ambrosi, Luiz and Angelo Torrignelli. The master painter was Giovanni Miniati, who came from Florence, Tuscany, and the chief of workers was Giusieppe Zappi, who came from Ímoía, Bologna region, North of Italy.

apresentada ao programa de pós-graduação em Arqueologia do Museu de Arqueologia e Etnologia da Universidade de São Paulo. São Paulo, 2010. p. 176. Translation of the original text: “Romeo foi obrigado a assinar um contrato, no dia 05 de Março de 1932, com o novo técnico responsável pela produção e as IRFM (Coleção Ranzini Museu Paulista). (...) o objetivo do contrato foi claro: ‘instruir o Eng.º Pari de Marchezi sobre a fabricação de Louça’. Ranzini estava, então, obrigado a: fornecer ao director técnico, o engenheiro Pari de Marchezi, fórmulas de massa e esmalte (‘verniz de louça, indicação minusiosa’); instruir sobre o funcionamento das máquinas e ministrar sobre métodos, técnicas, etc. Ranzini deveria cumprir tudo até dia 10 de Março do mesmo ano (...) e ficaria obrigado a estar presente quando Marchezi começasse seus experimentos. Apesar de desligado o documento o obrigou a permanecer 3 horas na fábrica, todo dia, até 31 de Março, à disposição do engenheiro, recebendo no fim do mês 300 contos de réis”

It is interesting to note that after the termination of employment contracts, some of the technicians founded their own factories and small shops of production of crockery. For example, Giuseppe Zappi founded the *Indústrias de Louças Zappi S/A*, in Vila Prudente Neighbourhood, which worked until 1957.

According to Pilleggi¹¹⁹, the first ceramic piece produced by the Santa Catharina factory was marked with the signatures of Giuseppe Zappi, Giovanni Miniati and Romeo Ranzini for the celebration of the first crockery piece produced in Brazil. This evidence can give us an idea of the importance of some professionals in the development of the industry.

However, little is known about the stories of workers who were part of the technical and aesthetic decisions of ceramics produced by the Santa Catharina factory. However, might be found in *Archivio della Ceramica Italiana del 900*¹²⁰ some potters of Laveno Monbello region and Florence with the same surname of some of the workers of the Santa Catharina factory, which made us suspect that the activity as a ceramist, for some of them, was a family activity in Italy.

Among the surnames found, deserves attention to the ceramist Arnaldo Miniati who, according to the *Archivio della Ceramica Italiana del 900*¹²¹:

"Born in Florence in 1909, the painter and ceramist Arnaldo Miniati, technician great ability, founded in the years after World War II, in his hometown, a ceramic workshop called Miniati Ceramiche where he created a production of serial refined pieces flanked a monotype of artist inspired by an austere archaism. In 1951, he was present with some works including a base for light table in the XV Mostra dell'Artigianato in Florence. He died in Florence in 1979".

However, this information is not sufficient to establish any kind of relationship to the master painter Giovanni Miniati and the Santa Catharina factory. Thus, it was observed that would be needed specific researches in order to understand the relationships established between the factory Santa Catharina and their workers, especially as regards the decorative and technical influences that these Italian potters had. Besides, it is not known what was the participation of these workers in the development of the decorations in the ceramics produced by the Brazilian factory.

¹¹⁹ PILLEGI, A. *A cerâmica no Brasil e no Mundo*. São Paulo: Martins Fontes, 1958, p. 145.

¹²⁰ <http://www.archivioceramica.com>

¹²¹ Source: <http://www.archivioceramica.com/CERAMISTI/M/Miniati%20Arnaldo.htm>. Translation of the original text: "Nato a Firenze nel 1909 il pittore e ceramista Arnaldo Miniati, tecnico di grande capacità, fonda negli anni del secondo dopoguerra, nella sua città natale, un laboratorio ceramico denominato Miniati Ceramiche dove realizza una produzione di raffinati pezzi seriali affiancata da monotipi d'artista ispirati ad un austero arcaismo. Nel 1951 è presente con alcuni lavori tra cui una base per lume da tavolo, alla XV Mostra dell'Artigianato di Firenze. Muore a Firenze nel 1979".

Despite this information be very interesting and open up new paths of research into the stories of these workers and the possible relations between the factory Santa Catharina and Italy, this information would lead us to the opposite paths to the objectives establish in this research especially because, for conducting a comparative research, would be needed not only arduous investigations in the Italian archives as well as investigations of the same nature in Brazilian archives. It would be important to conduct the identification of all the ceramics produced by the factory Santa Catharina beyond the studies about the personal stories of these workers, understanding their routes and their influences. Given the large volume of research and the limited availability of time of this master's research, a survey of this nature seems more appropriate in a PhD.

On the other hand, observing the history of the city of Laveno, it was possible to identify interesting connections with a ware production and ceramic pieces inspired by art movements in vogue in the late nineteenth and early twentieth century in Europe.

The town of Laveno-Monbello became known for its production of ceramics from 1856, when it began to develop this activity as industrial activity, having a rapid growth until the 1870s. In 1883, there was a merger of factories that have passed to be known as Società Italiana Ceramica (SCI), which was maintained until a new merged with Richard-Ginori factory in 1956.

According to Abreu e Souza ¹²², its golden age was between the years 1935 and 1960 when it came to possess 4500 workers in production. The decoration developed in this region followed the romantic, rich patterns in colors and nuances, with strong influence of the Italian style Art Nouveau, known as Stile Liberty or Stile Floreale.

According to Lemmen ¹²³, “(...) Art Nouveau was a late nineteenth and early twentieth century stylist phenomenon that manifested itself particularly in Europe in art, architecture ad design including tiles and architectural ceramics. Brussels and Paris - often regarded as the birth-places of Art Nouveau – were where progressive artists, designs and architects created a new style based on fresh inspirations from nature and the art and design traditions of the Far East. A group of avant-garde artists in Brussels known as *Les Vingt* became associated with a publication called *l'Art Moderne* and in 1885 began to call

¹²² ABREU e SOUZA, Rafael de. *Louça Branca para a Paulicéia: Arqueologia Histórica da Fábrica Santa Catharina / IRFM – São Paulo e a Produção da Faiança Fina Nacional (1913-1937)*. Dissertação de Mestrado apresentada ao programa de pós-graduação em Arqueologia do Museu de Arqueologia e Etnologia da Universidade de São Paulo. São Paulo, 2010. p. 178.

¹²³ LEMMEN, Hans Van. *5000 years of Tiles*. London: The British Museum Press, 2013. p. 216.

themselves ‘the believers’ in Art Nouveau. However, the popular use of the name is associated with the gallery called *L’Art Nouveau* opened by Siegfried Bing in Paris in 1895. Until 1910, Art Nouveau became the iconic style of the period now known as the *Belle Époque*”.

Adopting the new techniques of the industrial production, with new materials such as iron, glass and concrete, Art Nouveau became a art which its presence was demarked in painting, architecture, publishing market and finally in the production of tiles.

According to the same author ¹²⁴, “(...) from a stylistic point of view Art Nouveau was characterized by the dominant use of line and the emphasis on flat areas of colour which added vitality to the linear design. These lines and flat colours were applied to organic design motifs such as plants and flowers with slender sinuous stems and tendrils, insects with their delicate wings, legs and antennae, amphibians and lizards with their strange curvilinear body shapes, different varieties of exotic birds and their bright plumage, and last but not least young women in long dresses with free flowing hair. Drawing in such diverse sources and themes, designs were able to create striking and visually appealing images. However, Art Nouveau could also be geometric rather than organic. Geometric Art Nouveau designs characterized by angular abstract forms became an important aspect of the work of a number of artists in Glasgow and Vienna at the beginning of the twentieth century”.

In Italy, the movement Art Nouveau, also known as *Stilo Floreale*, appeared in the late nineteenth century in important centers as Turim, Florence, Palermo, Lucca, Viareggio, Rome and Emilia Romagna, especially after the Exposition of Turim in 1902. Some of the main most important artists were: the furniture designer Carlo Bugatti, the architects Ernesto Basile and Vittorio Ducrot and the ceramist Galileu Chini.

The forms of nature also were explored by the Italian artists and the ceramists used also these inspirations for create the tiles motifs. Besides, the Italians used also the curving lines, supple shapes that originally came from the nineteenth century with the Pre-Raphaelite movement. This taste and form received the influence of the positivist philosophical movements in which it was based in the reason and in the studies of science and nature.

Another important influence for the motifs was the Pointillism Movement, which consisted in create motifs with points, a trend developed in Italy between 1885 and 1917. The pointillist painters adopted a procedure very similar of the French neo-impressionism artists in

¹²⁴ LEMMEN, Hans Van. *5000 years of Tiles*. London: The British Museum Press, 2013. p. 217.

which the design is developed using points in different colours to create in a bigger scale the colour desired.

The interesting thing about this artistic movement was the use of new techniques, especially regarding the production of tiles. According to Lemmen ¹²⁵, “(...) architects and tile designers were important in established the fashion for Art Nouveau tiles but their work was ultimately only available to those who could afford their specialist services as part of upmarket commissions for prestigious locations. There was also widespread demand for Art Nouveau tiles for use in bathrooms, hallways and porches in ordinary homes. To respond to this demand for affordable tiles many manufacturers branched out into making Art Nouveau tiles that were machine moulded and dust pressed and decorated with translucent glazes”. This way, it is possible to understand that some events and transformations about the industry and the designs, especially regarding the tiles production, were related not only to the new demand of a new market but also it was a result of the historical and technological changes in the late nineteenth and early twentieth centuries.

¹²⁵ LEMMEN, Hans Van. *5000 years of Tiles*. London: The British Museum Press, 2013. pp. 230-232

2.2. The First tiles of Santa Catharina Factory: Largo da Memória of São Paulo and The Centennial of Independence Monuments

As previously mentioned, the tiled production of the Santa Catharina factory is publicly marked by the tiles, which were part of the works for the Celebration of the Centennial of the Independence of Brazil in 1922. The first work was the *Largo da Memória* (Memory Square) in 1919 and then were the monuments built along the route of the sea road in 1922.

Also known as Slope of Memory, the *Largo da Memória* is bounded by the streets Quirino de Andrade and Colonel Xavier Toledo in São Paulo, Brazil. Located near the Anhangabaú Valley, was created in the early nineteenth century and is home to one of the oldest monuments of the city of São Paulo: the Obelisk of Piques opened in 1814. Designed by Daniel Pedro Müller engineer, *Largo da Memória* demarcated the point of encounter of the old drovers and travelers and was designed to house a small fountain and the obelisk that represented "the zeal memory of the public good"¹²⁶.

According to Toledo¹²⁷, Pereira de Souza understand that the *Largo da Memória* "(...) was, in fact, the most commercial point of Sao Paulo, for the concentration of large business houses in thick, rotating with any significance capital. From that point, it radiated all main roads to the interior and exterior of the province, with connection to other surrounding (...) it can, therefore, make idea of the intense movement of troops who daily arrived there and from there they journeyed in so many directions, transporting goods of all kinds".

This square was created from the expansion of slopes of Piques and Palha. In order to celebrate the commemorations for the centenary of Brazilian Independence, the *Largo da Memória* was remodeled in 1919, receiving a new look, more adequate to ideas of an independent country with a promising future. Thus, in 1917, the city's mayor, Washington Luiz, organized a design competition for the redevelopment of this city's history milestone and the responsible for the refurbishment was the architect Victor Dubugras¹²⁸.

¹²⁶ Phase in the Obelisk of Piques - translation of the original inscriptions: "A Memória do zelo do bem Público".

¹²⁷ TOLEDO, Benedito Lima de. *Anhangabaú*, São Paulo: Federação das Indústrias do Estado de São Paulo, 1989, p. 48. Translation of the original text: "(...) era ali de fato o ponto mais comercial de São Paulo, pela concentração de grandes casas de negócios em grosso, girando com vultuosos capitais. Daquele ponto irradiavam-se todas principais Estradas para o Interior e exterior da Província, com ligação a outras vizinhas (...) Pode-se, por isso, fazer idéia do intenso movimento de tropas que, diariamente, ali chegavam e dali partiam em tão diversas direções, transportando mercadorias de toda espécie".

¹²⁸ Victor Dubugras born in Sarthe, France, in 1868. When was a child moved to Buenos Aires, where initiate his first works in Architecture. In 1981, moved to São Paulo city. In 1894 worked In the Union Bank with the coordination of Ramos de Azevedo. Later started to work in the Department of Public Works of São Paulo and started to teach in Polytechnic School. From 1897, opened his own office and designed a lot of buildings in São

In partnership with Almeida Guilherme and the artist José Wash Rodrigues, Dubugras drew up a renovation project in which was adopted a new fountain and a Portico. A figurative tiled panel, depicting the old drovers and travellers that passed there at the beginning of the previous century, marks this architectural element located behind the Obelisk.

In this intervention, Dubugras designs a large stone staircase presenting different directions and that, at the same time, is interrupted by rest areas covered by decorative standard tiles. These decorative tiles follow two different patterns: the pattern representing the coat of arms of the city of São Paulo and another illustrating a central floral element.

As is observed by Benedito Lima Toledo¹²⁹, the original position of the Obelisk of Piques is maintained, Dubugras keeps the original vocation of the place and highlights this landmark of the city with the construction of a fountain, which the funds is delimited by the Portico, which the pediment is received a figurative tiled panel. This architectural composition works as a great backdrop giving the feeling of continuity of the landscape.

As can be seen in the images, the tile panels used in Largo da Memória have a clear intention to revitalize the Brazilian decorative traditions. Depicting the history of the place through the great figurative cloth, Wash Rodrigues rescues the Portuguese traditions in the use of large historical cloths thoroughly inserted in public buildings, churches, monasteries, etc. in the previous centuries. Also, another important point of reference that Wash makes about the Luso-Brazilian traditions is the option to create a large historical cloth in blue and white, which in the eighteenth and nineteenth centuries were predominant for the figurative or historical panels in Brazil and Portugal.

It is worth to note, however, that Wash Rodrigues does not demarcate the limits of the panel as traditionally observed in Luso-Brazilian figurative panels, which are usually marked by borders with Baroque elements or enclosures with scrolls in acanthus leaves. In this example, the panel is only limited on the sides by two scrolls in stone that are part of the pediment of the Portico itself. A simple gesture that adds to the whole an air of modernity and simplicity that is in line with the idea of building a new architecture advocated by Neocolonial movement which Wash Rodrigues and Dubugras were closely linked.

For the other tiles, they deserve equal attention, primarily because demarcate the vestments of banks and the rest points suggested in the project. And second because they have

Paulo city following the Neocolonial Movement. Died in 1933 in Teresópolis, State of Rio de Janeiro. More information consult REIS FILHO, Nestor Goulart. *Victor Dubugras: Precursor da Arquitetura Moderna na América Latina*. São Paulo: Via das Artes, 2005.

¹²⁹ TOLEDO, Benedito Lima de. *Anhangabaú*, São Paulo: Federação das Indústrias do Estado de São Paulo, 1989, p. 48.



Image A.57 – View from Xavier de Toledo Street in the late XIX century, São Paulo, Brazil.



Image A.58 – Image took by Militão Augusto de Azevedo. At the bottom, the Xavier de Toledo Street, the wall of Piques, the fountain and the first Obelisk, late XIX century. View from Formosa Street, São Paulo, Brazil



Image A.59 – Largo da Memória in the early twentieth century, after its rebuild in 1919, São Paulo, Brazil.



Image A.60 – Largo da Memória designed by Victor Dubugras



Image A.61 – Largo da Memória, Front view of the Obelisk, early XXI century.



Image A.62 – Largo da Memória, view of the stairs, early XXI century



Image A.63 – View from Xavier Toledo Street, Largo da Memória, early XXI century



Image A.64 – The figurative panel of tiles representing the square as the old point of encounter of the drovers and travelers (Estúdio Artes Martins Sarasá: conservação e Resturo)



Image A.65 – Patterns of tiles that covered the fountain. Photo Heidi Monezzi – July 2015.

Image A.66 – the two patterns used in the decoration of the Largo da Memória – the first representing the city's patron and the second a stylized flower. Photo Heidi Monezzi – July 2015.



a very close relation to the "carpet" type compositions, traditionally used in the interiors of the churches in the eighteenth century and early and mid-nineteenth century. The two patterns of tiles are arranged interchangeably, creating the idea of continuity of design from the composition with 3 x 3 pieces. The first pattern uses as a central figure the coat of arms of the city of Sao Paulo, making unprecedented use at that time, and the second pattern is represented by the styling of a floral central figure and is enclosed by arches that create along a circular trend with the other pattern giving greater prominence to the figure represented by the coat of arms.

As the decorative techniques employed, are sharp the differences between the two sets of compositions: the first, following the traditions of handmade tiles, were hand-painted by the artist and then burned resulting in the fixation of the pigment in the biscuit; the second set, however, follows the industrial production techniques, which may be through the transfer-printing technique, decal or stencil, which will be analysed further forward.

In the sequence, are presented the other works that are part of the set built for the celebrations of the Centennial of Brazilian Independence. Ordered by the state governor and former mayor of São Paulo, Washington Luiz proposes the construction of six monuments along the Way of the Sea route in order to demarcate the Brazilian history and the importance of the connection between Sao Paulo and the port of Santos. They are: the Pouso Paranapiacaba, the Quinhentista Cruise (Cruzeiro Quinhentista), The Landmark of Lorena (Marco de Lorena), the circular landing (Pouso Circular), the Pico Monument (Monumento do Pico) and the Ranch of Manhood (Rancho da Maioridade).

Each one of these monuments address a one specific moment of the History of the "Sea Route". These works deserve more attention four - the landing Paranapiacaba (Pouso Paranapiacaba), the Quinhentista Cruise (Cruzeiro Quinhentista), The Landmark of Lorena (Marco de Lorena) and the Ranch of Manhood (Rancho da Maioridade) – especially regarding the decorative tiles in these architecture compositions.

Nowadays known as "Paths for the Sea" highway, the highway SP-148 connects the coast of the São Paulo State with the Paulista plateau. These paths that connected Santos and the Governador Mem Sá charged José de Anchieta along with other Jesuit priests to open a new path between São Vicente and Piratininga Plateau.

In 1661, the Governador of the District of São Paulo order to build the "Sea Road", building 70 bridges to allow and to facilitate the passage of carts and carriages. In 1789, Bernardo José de Lorena, the then governor of the District of São Paulo, regained the road the



Image A.67 – Poste Card of “Sea Route” in 1930, Theodor Preising.



Image A.68 – Poste Card of “Sea Route” in 1930.

Image A.69 – Poste Card – Overview of “Sea Route” in 1930



Image A.70 – Poste Card of “Sea Route” in 1938.



way of the sea, paving the stretch of the Sierra with granite slabs, which then became known as the Lorena sidewalk, just in his honour. In the mid-nineteenth century, in reference to the São Paulo cities were called “Sea paths of São Paulo” and their history begin in 1560, when age of D. Pedro II, the "Sea Way" came to be called “Road of Adulthood” and received at that time some improvements but only in the early twentieth century that the road was reformed resuming its original name “Sea Way”.

In the 1920s, the road began to receive the buildings mentioned above in celebration of the Centennial of Brazilian Independence. According to Lemos¹³⁰, “Washington Luiz, the head of the state government, called the same architect - who he had called when was the mayor of São Paulo on the occasion of the relocation of The old Largo da Memória - for the construction of these significant buildings willing in the borders of that road, the first in Latin America with concrete paving”.

The set of buildings was built in 1922 by the Department of Agriculture, which in that moment was the office in charge for all public buildings works undertaken in the State, and were designed by Victor Dubugras with the collaboration of José Wash Rodrigues especially regarding the production of the tiled panels that were part of the internal and external decorative compositions of the buildings.

The first building is the Quinhentista Cruise, located in the *Baixada do Cubatão*, evoked the Jesuit presence on site and the paths of Father Joseph, who that point climbed the Serra do Mar with the help of the Indians who lived there.

Following an oval shape, the monument is marked by the presence of a large Cross raised in the centre next to a small fountain. The walls of the central monument are lined by four figurative panels, three located on the front and fourth panel on the backside. The first panels illustrates the history of Father Joseph and the Jesuit presence in the first century of colonization and the rear panel portrays the Portuguese ships coming from the sea to Brazil. It is interesting to note the absence also of the edge elements in framings of the panels. For other side, the panels are enclosed by stone architectural elements that act as frames that highlight the large flat panels in blue and white.

¹³⁰ LEMOS, Carlos A. *Azulejos Decorados na modernidade arquitetônica brasileira*. In: Revista do Patrimônio Histórico e Artístico Nacional, nº 20, Rio de Janeiro: Ed. RJ, 1987.p. 169. Translation of the original text: “Washington Luiz, o chefe do governo paulista, chamou o mesmo arquiteto que convocara quando prefeito de São Paulo por ocasião do remanejamento do velho Largo da Memória para essas tão significativas construções dispostas margeando aquela estrada, a primeira da América Latina com pavimentação de concreto”.



Image A.71 – Quinhentista Cruise, 1930s.



Image A.72 – Quinhentista Cruise, 1986.

Image A.73 – Quinhentista Cruise – Front View with the 3 main panels and the small fountain, Cubatão, Brazil.



Image A.74 – Quinhentista Cruise – Front View with the 3 main panels and the small fountain, Cubatão, Brazil.





Image A.75 –
Quinhentista Cruise –
View of the set of
panels and fountain.
Cubatão, Brazil.
Photo Mariana Ginesi

Image A.76 – Detail of the central
figurative panel – Father Joseph.
Cubatão, Brazil. Photo Mariana Ginesi



Image A.77 – Detail of the second
decorative panel. Cubatão, Brazil. Photo
Mariana Ginesi



Image A.78 – Detail of the third
figurative panel. Cubatão, Brazil. Photo
Mariana Ginesi



Image A.79 – Backside of the Quinhentista Cruise



Image A.80 – Detail of the decorative tiles – patterns located in the fountain. Photo Mariana Ginesi.



Image A.81 – Detail of the tiled panel with the representation of the Portuguese ships

According to Lemos¹³¹, “(...) this monument has had for twice its decorative tiles remade, due to intervention of CONDEPHAAT (Council of protection of the Historical, Artistic and Touristic Heritage of the State) and the last intervention because of the rebuild due the change of the implementation place, in which was motivated by works and landfill promoted by Petrobras in its surroundings”.

Following the same characteristics of the Monument of the *Largo da Memória*, here appeared also the standard motifs of the decorative tiles for the coating of the fountain and the area of the seats located around of the three main panels. The standard tiles used in Quinhentista Cruise follow the same logic of the composition that was possible to be observed in the *Largo da Memória*: two different patterns are interleaved in such way that created a dynamic and a sequence that give us the impression of continuity. One of these tiles also received as a central figure a coat of arms, however, in this case, the pattern is related to the armillary sphere that also is used as symbol of the Empire. Furthermore, this same pattern with the symbol of armillary sphere appeared also in the decoration of the Landmark de Lorena Monument of the “Sea Route”, being a decorative element of connection between these buildings.

For the other evocative buildings, Lemos¹³² noted that “(...) they remember the significant monuments of the long history on the conquest of the Serra do Mar, the exploits of the first conductors troops, actions of successive governments to facilitate communications between the coast and the highlands, even the exploits of the first drivers”.

The evocative building that celebrated the routes of concrete constructed until 1923 was the second building built for the celebration: the *Pouso Paranapiacaba*. Translate from the indigenous language *Tupi Guarani*, “Paranapiacaba” means “place where can see the sea”¹³³ and is located in the kilometre 44 of the road “Paths for the Sea”. According to Ficher¹³⁴, “(...) the *Pouso Paranapiacaba* alluded to Indian trail used by the Portuguese in the sixteenth century” and also the concrete roads. These roads and highways were indicated in a big tiled

¹³¹ LEMOS, Carlos A. *Azulejos Decorados na modernidade arquitetônica brasileira*. In: Revista do Patrimônio Histórico e Artístico Nacional, nº 20, Rio de Janeiro: Ed. RJ, 1987.p. 169. Translation of the original text: “Esse monumento teve duas vezes refeita a sua decoração de azulejos devido a intervenção do CONDEPHAAT (Conselho de Defesa do Patrimônio Histórico, Artístico e Turístico do Estado) sendo que a última por causa de uma anástilose decorrente de mudança de local de implantação motivada por obras e aterro promovidos pela Petrobrás nas suas imediações”.

¹³² LEMOS, Carlos A. *Azulejos Decorados na modernidade arquitetônica brasileira*. In: Revista do Patrimônio Histórico e Artístico Nacional, nº 20, Rio de Janeiro: Ed. RJ, 1987.p. 170. Translation of the original text: “(...) lembram elas os monumentos significantes da longa história relativa à conquista da Serra do Ma, as proezas dos primeiros condutores de tropas, as providências dos sucessivos governos em facilitar as comunicações entre o litoral e o planalto e até as façanhas dos primeiros automobilistas”.

¹³³ *paranã*, sea + *epiaka* + *aba*, place

¹³⁴ FICHER, Sylvia. *Os arquitetos da Poli: ensino e profissão em São Paulo*. São Paulo: Edusp, 2005. p. 80.



Image A.82 – Pouso Paranapiacaba – porte card 1930.



Image A.83 – Pouso Paranapiacaba.



Image A.84 – Project Victor Dubugras (Archive Library – FAU-USP) – Elevation plan. Photo Mariana Ginesi.

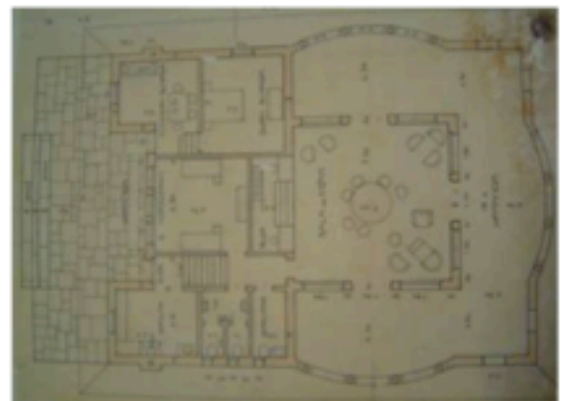


Image A.85 – Project Victor Dubugras (Archive Library – FAU-USP). Ground Plan. Photo Mariana Ginesi.



Image A.86 – Pouso Paranapiacaba – the façade of the main entrance



Image A.87 – Detail of tiled panel of the map of São Paulo State. Photo Mariana Ginesi



Image A.88 – Tiled panel with the Map of roads of São Paulo State. Photo Mariana Ginesi



Image A.89 – Detail of the end wall with the friezes. Photo Marcos Piffer (08 June 2010)



Image A.90 – Detail of the small fountain in front of the main façade. Photo Mariana Ginesi



Image A.91 – Pouso Paranapiacaba – The façade of the main entrance



Image A.92 and A. 93 – Patterns of tile located in the facades of the Pouso Paranapiacaba. Photo Mariana Ginesi



Image A.95 – Stairs in the interior of the building – Pouso Paranapiacaba. Photo Mariana Ginesi

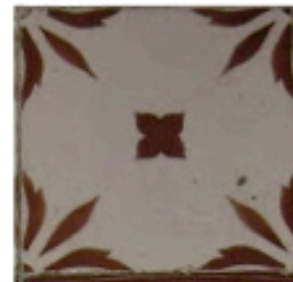


Image A.94 – Pattern of tile located in the interior of the building – Pouso Paranapiacaba Poto Mariana Ginesi



Image A.96 – Detail of the panel with the inscriptions about the foundation of the Pouso Paranapiacaba Photo Mariana Ginesi

panel with a plan of the São Paulo State in the façade of the main entrance. This panel is limited in the both sides by the representation of two pillars stylized with plants and fruits. Around this panel with the roads of the state, the wall is covered by standard patterns in a composition in carpet. The same pattern can be seen in the top, close to the roof ending, demarking the top limits of the facades. These standard pattern ends in a line of blue and white friezes.

In front of the main entrance there is a small fountain that remarks the idea to give support for the traveller during the trajectory. This fountain is covered by another pattern of tile. The same pattern can be seen inside of the Ranch of Adulthood, however, the colours are different: in *Pouso Paranapiacaba* the pattern appears in yellow and blue and in the Ranch of Adulthood in blue and grey.

Inside, in the central hall, there are tiles covering the walls and unfortunately a part of the decoration of these panels was lost. According to Lemos ¹³⁵, “(...) It is a pity that all the central hall of the tile decoration has been lost due to bad burning conditions of the pieces, all painted in shades of pink salmon, colour with difficult fixation”. However, there are also some tiles that are covering the walls close to the stairs, a standard pattern in brown, in which the motif also appears in the Landmark of Lorena, but in a different colour, light blue (close to grey).

The Third building of the “Paths for the Sea” is the Ranch of Adulthood. Located in the kilometre 47 of the road, the Ranch of Adulthood got its name because of the Road of Adulthood, created in 1841 and in which name honoured the beginning of the government of Emperor D. Pedro II ¹³⁶. In one of the sides of the building, there is an entrance for a big balcony in which the façade in curve is covered by a big tiled panel that illustrates the passage of the travellers, carts and carriages. Inside, another figurative tiled panel is located above of the central stone bench. This panel illustrates a view of Itanhaém, the second oldest city of Brazil (Foundation in 1532) located in *Baixada Santista* region, and is demarcated by a baroque framing referring to the traditional Portuguese panels from XVIII and XIX centuries. It is important to note the presence of the yellow and brown colours (the second more close to wine colour), which was very common in the figurative panels of that period, especially the panels found in Northeast of Brazil.

¹³⁵ LEMOS, Carlos A. *Azulejos Decorados na modernidade arquitetônica brasileira*. In: Revista do Patrimônio Histórico e Artístico Nacional, nº 20, Rio de Janeiro: Ed. RJ, 1987.p. 170. Translation of the original text: “(...) É pena que toda a sua decoração de azulejos do salão central tenha-se perdido devido às más condições de queima das peças, todas pintadas em tons de rosa salmão, cor de difícil fixação”.

¹³⁶ FICHER, Sylvia. *Os arquitetos da Poli: ensino e profissão em São Paulo*. São Paulo: Edusp, 2005. p. 80.



Image A.97 – Poste Card of the Ranch of Manhood, 1930s.



Image A.98 –The Ranch of Manhood (early XXI century).



Image A.99 – The Ranch of Manhood (early XXI century).



Image A.100 – The Ranch of Manhood (early XXI century)



Image A.101 – Detail of the decorative tile located in the external wall in the top bars. Photo Mariana Ginesi.



Image A.102 – The curve wall covered by a figurative tiled panel.



Image A.103 – Detail of the figurative tiled panel.

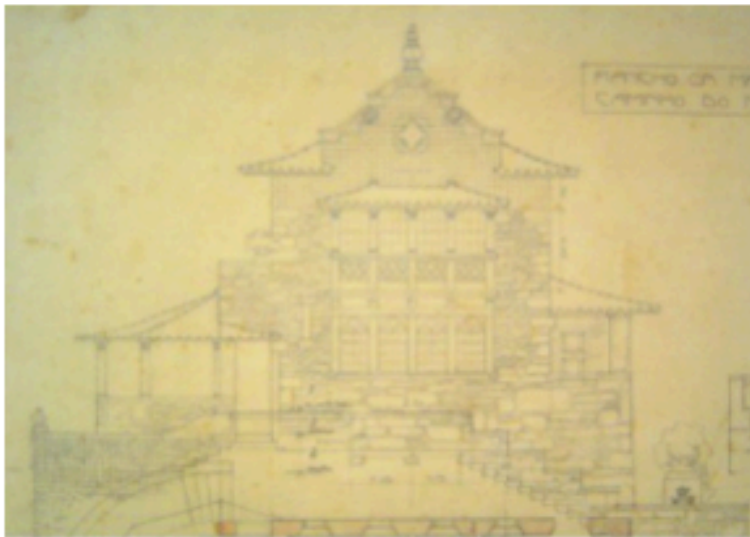


Image A.104 – Project of Victor Dubugras (Archive Library FAU-USP) Elevation Plan. Photo Mariane Ginesi.



Image A.105 – Detail of the figurative tiled panel illustrating a view of Itanhaem, São Paulo, Brazil. Below the detail of the decoration of the framing of the panel. Photo Mariana Ginesi.



Image A.106 – Detail of the interior tile.



Image A.107 – Detail of the tiled composition.



Image A.108 – The central room of Ranch of Manhood with the decorative tiles in "carpet"..

Inside of the building, there is a central room in which the walls are also covered by decorative tiles. These tiles are organized in a composition of “carpet” and end with a figurative frieze illustrating different typical tropical fruits. The same pattern of the carpet tiles can be seen in the small fountain in *Pouso Paranapiacaba*, as mentioned above, but in this case the pattern has a different colour, blue and light blue.

Finally, the last building covered by tiles is the Landmark of Lorena. Located in the kilometre 47,5 of the road, the Landmark of Lorena remembers the sidewalk of Lorena, conducted by the government of the Province Bernardo José Maria de Lorena. In this landmark it is possible to observe two main figurative tiled panels, each one located in one side of the external walls in curve. These figurative panels illustrate the road with the first travellers: being the left side dedicated to the oldest travellers with their horses and mules; and the right side, dedicated to the second kind of travellers like the uniformed soldiers, a small chariot carried by slaves and finally men with their slaves and horses.

In the central part of the monument, there is a Portico topped by the iron sculpture representing the armillary sphere. The same figure is indicated in one of the standard tiles, which can be also seen in the monument of the Quinhentista Cruise. On the ceiling of the Portico, is possible to observe the portrait of the state governor Bernardo José Maria de Lorena in a panel, which the background is composed by a pattern in light blue. The same motif can be noted in the tiled pattern located in the central hall of the Pouso Paranapiacaba, but in that place the colour of the motif is brown. This panel also receives a styled frieze with leaves in volutes. Finally, there are two benches that are coated by a pattern that is also possible to note in the small fountain of the Pouso Paranapiacaba, motif blue and yellow.

Furthermore, it is important to note that between 1970 and 1980 the set of buildings were restored and stayed closed until 1982 when the Company of Electricity of São Paulo have assumed the responsibility for the maintained of the buildings. The area and buildings were listed by the CONDEPHAAT ¹³⁷(Council of protection of the Historical, Artistic and Touristic Heritage of the State) in 1972.

In 1997, The Metropolitan Company of Water and Sewage (Empresa Metropolitana de Água e Esgoto – EMAE) became responsible for the building set, transforming some years later, in the complex of *Pólo Ecoturístico Caminhos do Mar*, which are included the roads, the buildings and a part of natural forest.

¹³⁷ Documentation: Processo de Tombamento nº 00123/72 “Estrada de Lorena, Monumentos de Victor Dubugras e área da mata circundante Caminhos do Mar” and Processo de tombamento nº 41346/01 “Revitalização da Estrada Velha do Mar e seus monumentos”



Image A.109 – The Landmark of Lorena. Front view.



Image A.110 –The Landmark of Lorena. Left side view.



Image A.111 – The Landmark of Lorena. Right side view.



Image A.112 – Detail of the tiled panel with the portrait of Bernardo José María de Lorena. Photo Mariana Ginesi.



Image A.114 – Portico of the Landmark of Lorena. Photo Mariana Ginesi.

Image A.113 – Patterns of tiles identified in The Landmark of Lorena.



Chapter 3: The production of tiles: techniques of production - Brazilian and European Tiles

3.1. The production of tiles in Europe: techniques of production

In Brazil, as previously mentioned, in late nineteenth and early twentieth centuries, the majority of the products which require special technologies for its manufacture were imported from Europe, specially some products used in the construction of buildings as decorated fences, metal pillars, ceramic elements such as vases, tiles, statues for decorative purposes.

The main important countries that export these kinds of materials such as tiles and ceramics for Architectural meanings to Brazil were Portugal, England, France, Germany and Netherlands. It is important noted that this countries were important producers of tiles and ceramics in the mid-nineteenth century and the early twentieth century and were also responsible for the significant changes in the production process, using new technologies and machines.

According to Lemmen ¹³⁸, the British businessmen were the first entrepreneurs to develop the significant changes in the production process and to modernize the means of production for the manufacture of decorative tiles. The emergence of new machines and new technologies uses, especially regarding the parts of the paint manufacturing process, resulted in rapid changes in the production chain, allowing the appearance of large quantities of material in the market.

Despite these transformations, different production techniques coexisted in the industrial productions, this way, it was possible to verify factories that still maintained the manual painting techniques and, simultaneously, used other more modernized techniques that allow greater speed to produce drawings and decorations.

Among the first techniques used in the manufacture of decorations, it was the use of the manual stamp with manual retouching. As mentioned in the first chapter of this work, the stamp is uses as a mould to transfer the motifs. Lemmen ¹³⁹ explained, “(...) the painter places a transfer pricked with a particular design of pattern (...) on the unfired white glaze and pounces charcoal through the roles pricked in the transfer. When this is removed, a faint outline of the design can be seen, the painter then outlines the design (...) with the colour such as cobalt blue, which is pigment ground fine and mixed with water. After the design has been delineated, the various tints and shapes are added”. This technique was widely used in the area of Delft and is known as *Delftware*.

¹³⁸ LEMMEN, Hans Van. *Tiles in Architecture*. London: Laurence King Publishing, 1993, p. 96.

¹³⁹ LEMMEN, Hans Van. *Delftware Tiles*. Oxford: Shire Publications Ltd, 2005, p. 6.

According to Lemmen¹⁴⁰, “(...) the term Delftware is generally used to indicate functional or decorative earthenware pottery covered with an opaque white tin glaze on which decorations have been painted in blue or other colours. The term is derived from the Dutch town of Delft, where from the seventeenth century many potteries produced hand-painted tin-glazed pottery of high quality that was exported all over the world”.

Lemmen reports this manufacturing process step by step in one of his publications¹⁴¹ in which he cites the case of manufacturing manual tile in the city of Orleton, Shropshire. According to the author, the first part of the manufacturing process is characterized by the mix of the raw materials that will compose the folder to the formation of the biscuit. Then, this material is moulded using a wooden mould that will provide the perfect square shapes. These pieces are placed for drying and after losing most of the moisture, it is carried to the first burning at a temperature ranging about 950 to 1000 ° C. After firing the biscuits, they are checked and directed to receive the white film of tin glazed. In the sequence, the tiles are taken to a natural drying and then they are ready to receive the decorative paintings. After receiving the painting and following the procedures mentioned above, are done a second firing at around 1000 ° C and, in this burns, the coloured pigment designed merges with the tin glazed and its opaque appearance turns into a bright and waterproof surface.

The same process can be considered for the hand-painted tiles, as in the case of large panels of figurative tiles. The artist, using a brush, transmits its design for the surface of the biscuit covered by white tin glaze film, in a second firing, the glaze melts and gets a shiny film properties as previously mentioned.

In addition, it is worth to noting that, according to Abreu e Souza, the manual application of the decorations is usually performed with paintbrushes and in the most of cases, it is possible to see the marks of the bristles and even the ink build-up in the paint contours, "resulting pressure between the instrument of action and the support surface". This accumulation of ink is variant and is closely related to the artist and painter skills, resulting therefore in a particular action according the operator.

However, it is important to mention that, according to Lemmen¹⁴², “(...) on certain special tile on-grazed enamels were used. They were painted on after the tin-glaze firing and

¹⁴⁰ LEMMEN, Hans Van. *Delftware Tiles*. Oxford: Shire Publications Ltd, 2005, p. 4.

¹⁴¹ LEMMEN, Hans Van. *Delftware Tiles*. Oxford: Shire Publications Ltd, 2005, pp.4-9.

¹⁴² LEMMEN, Hans Van. *Delftware Tiles*. Oxford: Shire Publications Ltd, 2005, p. 9.



A.115



A.116

Tin glaze tiles and the Manual Stamp Technique

Image A.115 – cutting a tile with the aid of a square wooden template

Image A.116 – a biscuit tile dipped into tin glaze



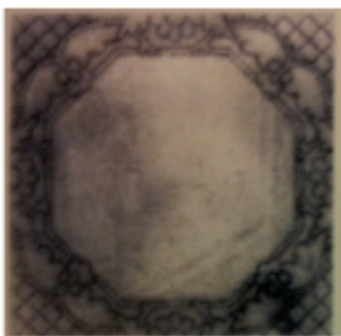
A.117



A.118

Image A.117 – a fired biscuit tile ready to be dipped into tin glaze;

Image A.118 – a dipped tile covered with a thin, even layer of white tin glaze.



A.119



A.120



A.121

Image A.119 – a pin-pricked design with an ornate octagonal border pattern

Image A.120 – a pin-pricked design with a landscape

Image A.121 – a tile with a charcoal imprint left by the pin-pricked design and used as a guide by the painter..



A.122



A.123



A.124

Image A.122 – a tile with the outlines of the charcoal design partially painted in.

Image A.123 – a tile with all tints and shapes added in, ready to be fired. The dull gray and black colours will be transformed into a bright blue during the firing.

Image A.124 – the fired tile showing the landscape and decorative border in all its vivid blue colouring.

were fixed to the glaze during a special third firing in a muffle kiln at a lower temperature, between 600° and 800°C. Although the basic procedures outlined here seem simple, much experience and skill are needed to complete each phase satisfactory. The success of the delftware trade depended (and still does) on the expertise being passed on from master to apprentice”.

In addition, it is worth mentioning that this technique with a third stage of firing, the temperature control is very important to ensure the proper fixation of the design pigments. Depending on the type of composition of the pigment, is necessary a certain temperature that the tile should be submitted in such a way to fix satisfactorily the pigment to the tin glaze surface. When Lemos mentioned about the appearance of some problems with the conservation of the tiled panels located in the central hall of Pouso Paranapiacaba, it is possible to relate these problems precisely to an inappropriate firing, or rather, perhaps the painted tiles of the panels of Pouso Paranapiacaba followed this manufacturing technique and they have not been well done for fixing the specific colour of this panel. The pigments were applied after a second firing and the suitable temperatures have not been achieved in the third firing. As it has, as mention above, the purpose of fixing the pigment to the layer glazed of biscuit, maybe for these reasons, the painting of the tiled panels could not be very well fixed and with the time it has started to gradually disappear, leaving therefore nowadays only few traces of the painting.

According to Wanderley ¹⁴³, the Santa Catharina factory imported the biscuits of tiles from the English tiled factories for the production of the decorations in the tiled panels used in the buildings of “Paths of the Sea”. What could, actually, justify the need of a third firing in order to attach the painting of Wasth Rodrigues in the tin-glaze film of the white tiles. Considering that a third firing could cost much more, it is interesting the choice for import white tin glaze tiles, specially, if could be less expensive. Besides, the information from Lemos about the few experience of the Santa Catharina factory for the manufacture of tiles and the decoration of ceramics in the beginning of its activities could be related in how to conduce a control of the temperatures reached in the kiln for a third step of the decoration process. Otherwise the results would be very similar to the problems identified in the tiles located in Pouso Paranapiacaba.

¹⁴³ WANDERLEY, Ingrid Moura. *Azulejos na Arquitetura Brasileira: os painéis de Athos Bulcão*. Dissertação de mestrado defendido no Departamento de Arquitetura e Urbanismo da Escola de Engenharia de São Carlos, Universidade de São Paulo, São Carlos, 2006.p.31.

Another production technique of the decorations on the tiles was the Stencil. In this technique, are used the die casting moulds, in which are placed on the tile surface, serving as a support for the ink passage and the definition of the motif to be transferred to the workpiece.

According Abreu Souza ¹⁴⁴, "(...) the casting areas of the mould are, actually, the contours of the motifs that after the application of the pigments, are marked on the support." In this technique are needed different kinds of moulds according to the type of colour that is used.

In France, this type of technique has been widely used by factories, precisely because the motifs could be transferred very quickly and without much technical expertise, in contrast with what happen with the handmade paintings. According to Abreu e Souza¹⁴⁵, this technique follows, therefore, a "(...) standardization of production since it has reproduced identically motifs and patterns, in a fast way, without need of a great technical know-how".

The French channel "France3tv"¹⁴⁶ in the "Midi en France" held a small documentary on manufacturing decorative tiles using a stencil technique in Moon-be-Elle region, near Sainte-Mère-Église, North of France. In this documentary, it is possible to see each step of the production of decorative tiles in a semi-industrial technology. Firstly, to develop the square shape, the tiles are moulded into metal or wooden moulds. Then the biscuit is taken for the first natural drying and later is fired. After this step of the formation of the biscuit, a small white tin glaze film is applied in which again will be taken to natural drying. Finally, to implement the decorations, plastic moulds are used and with the paintbrush is passed through these hollowed areas, forming the motifs according the design of these moulds in design. Interestingly, this process is also observed the ink build-up in some areas of the motif, a result of the action of the painter in the painting act.

In Belgium, the stencil technique with the use of different plastic moulds was also widely used. An image of a small factory in Sint-Kruis-Brugge, Belgium, in the late

¹⁴⁴ ABREU e SOUZA, Rafael de. *Louça Branca para a Paulicéia: Arqueologia Histórica da Fábrica Santa Catharina / IRFM – São Paulo e a Produção da Faiança Fina Nacional (1913-1937)*. Dissertação de Mestrado apresentada ao programa de pós-graduação em Arqueologia do Museu de Arqueologia e Etnologia da Universidade de São Paulo. São Paulo, 2010. p.74. Translation of the original text: "(...) as áreas vazadas, do molde, são, na realidade, contornos de motivos decorativos que após aplicação dos pigmentos, ficam marcados no suporte".

¹⁴⁵ ABREU e SOUZA, Rafael de. *Louça Branca para a Paulicéia: Arqueologia Histórica da Fábrica Santa Catharina / IRFM – São Paulo e a Produção da Faiança Fina Nacional (1913-1937)*. Dissertação de Mestrado apresentada ao programa de pós-graduação em Arqueologia do Museu de Arqueologia e Etnologia da Universidade de São Paulo. São Paulo, 2010. p.76. Translation of the original text: "(...) estandardização da produção uma vez que reproduz motivos e padrões de modo idêntico, de maneira rápida, sem que haja necessidade de grande domínio da técnica".

¹⁴⁶ Youtube : <https://www.youtube.com/watch?v=RMhiIERha58> - Publication: 4, June 2014. Access August 2015.

nineteenth century, the tile production steps are easily identified: it is possible to observe a semi-industrial production in which the preparation of biscuits of the tiles is performed manually and the decorations are made with the use of moulds, using the stencil technique. In this image is sharp the organization of production activities, and it can be categorized into three main stages: the mass crushing and handling for creating the tile biscuit; the area for the shelves for drying and transport the tiles; and finally the sector which is intended to make the decorations using die casting mould. The image is not possible to observe the presence of the kiln for firing; thus, the analysis presented here is based on information provided by the publication "Industrial Tiles" developed by the Association of Museums for the safeguard of the tiled Industrial Heritage.

In the sequence, another technique used for the decoration of tiles and ceramics was the *decal*, which consists in a kind of print decoration, resulting from the use of adhesive film or paper that were printed with the motifs of decoration, mono or polychrome. This adhesive paper is applied on the support of tiles, on the tin glaze surface, and when the tiles go to the kiln to be fired, the film or paper with high temperatures burn or release and let the motifs print on the surface. According to Abreu e Souza¹⁴⁷, "(...) differently from the transfer-printing, which it is sometimes confused with decal, the decal is mostly used in decorations on enamel, resulting in fine stoneware in three firings, the last in continuous kiln to about 600°C and features a light relief or roughness. The printed decal is produced in a special emulsion coated paper or plastic film. When ready for use, the plastic, in which the decoration is adhered, is removed and applied to the support (as an adhesive). During firing, the decal is fused to the glaze and the excess adhesive around the decoration disappears".

This technique became very popular for the production of tiles in the late nineteenth century, however, with the World Wars, the production of ceramics and tiles decreased and initiated a process of decline in Europe, in contrast, this technique started to become more used in Brazil, very usual even nowadays.

Another technique used in the decoration of tiles in the nineteenth century was the

¹⁴⁷ ABREU e SOUZA, Rafael de. *Louça Branca para a Paulicéia: Arqueologia Histórica da Fábrica Santa Catharina / IRFM – São Paulo e a Produção da Faiança Fina Nacional (1913-1937)*. Dissertação de Mestrado apresentada ao programa de pós-graduação em Arqueologia do Museu de Arqueologia e Etnologia da Universidade de São Paulo. São Paulo, 2010. p.76. Translation of the original text: "(...) Diferente do *transfer-printing*, com a qual é, às vezes, confundida, a decalcomania é majoritariamente utilizada em decorações sobre-esmalte, implicando, na faiança fina, em três queimas, sendo a última em forno contínuo à aproximadamente 600°C, e apresenta um leve relevo ou aspereza. A decalcomania é produzida impressa em uma emulsão especial de papéis revestidos com película plástica. Quando pronto para usar, o plástico, no qual a decoração está aderida, é retirado e aplicado ao suporte (como um adesivo). Durante a queima, a decalcomania funde-se ao vidrado e o excesso de cola ao redor da decoração desaparece".



Image A.125 – Workers in the cement tile factory at Sint-Kruis-Brugge (Belgium). Above, there are the indication in red colour of the different steps of production identified.



Image A.126 – orkers in the ceramic floor tile factory at Paray-le-Monial (France)

transfer-printing technique. This technique allowed the reproduction of very complex patterns and illustrations, in which was very quickly applied in the pieces, and implicated in a standardization of tiled industries.

According to Abreu e Souza¹⁴⁸, “(...) The process consisted in the record of a motifs in copper plates or steel plate, printed on a piece of film or tissue paper, then applied to the biscuit. The design configured a low relief on the metal, filled with ink - deeper the incision on the board was or more ink was used, more dark the drawing could be on its final performance. A sponge, chamois or similar instrument was used to remove the paper, leaving in the support the colour image. Between the firing, the application of the decoration and glaze firing had, in some factories, other combustion for the decorative attachment to the biscuit and other to burn the oil generally mixed into the ink to harden it on the clay in order to didn't have the risk of dripping when immersed in the glaze. Generally monochromatic, the colour range of the transfers was limited due to the possibilities of many of them change or disappear completely when subjected to very high temperatures, as the temperatures for the glaze firing (besides the preference, the use of cobalt blue was due to its features to keep the colour and not fade during the firing). Over time, they have been simplified to some steps, such as the construction of the plates or the pattern transfer to the tissue paper”.

Despite these technique had previously used for the transfer of drawings in other industrial activities, in the case of decorations on ceramics, the tiled production with this technique was inaugurated by John Sadler, a recorder from Liverpool. Sadler had founded his first printing shop in Harrington Street and used this technique for printing significant amounts of tiles in a short period of time, which surprised many people at the time, specially considering that the manual tiled technique was the technology more used by manufacturers.

¹⁴⁸ ABREU e SOUZA, Rafael de. *Louça Branca para a Paulicéia: Arqueologia Histórica da Fábrica Santa Catharina / IRFM – São Paulo e a Produção da Faiança Fina Nacional (1913-1937)*. Dissertação de Mestrado apresentada ao programa de pós-graduação em Arqueologia do Museu de Arqueologia e Etnologia da Universidade de São Paulo. São Paulo, 2010. p.75. Translation of the original text: “(...) O processo consistia na gravação de um desenho em placas de cobre ou chapa de aço, impresso em um pedaço de filme ou papel seda, então aplicado ao biscoito. O desenho configurava um baixo relevo no metal, preenchido com tinta – quanto mais funda a incisão na placa ou quanto mais tinta, mas escuro o desenho em sua performance final. Uma esponja, flanela ou instrumento semelhante era utilizado para remoção do papel, deixando no suporte a imagem colorida. Entre a queima, a aplicação da decoração e a queima do vidro havia, em algumas fábricas, outra queima para fixação da decoração no biscoito e para queimar o óleo que era, em geral, misturado à tinta, para endurecê-la sobre a argila, a fim de que não houvesse risco de escorregar quando mergulhada no vidro. A gama de cores dos *transfers*, em geral monocromáticos, era limitada devido às possibilidades de muitas mudarem ou desaparecerem completamente quando sujeitas à temperaturas muito altas, como às da queima do vidro, além de uma preferência, a utilização do azul cobalto deveu-se a suas características em manter a cor e não desaparecer durante a queima. Com o tempo, foram simplificando-se algumas etapas, como a da construção das placas ou a transferência do desenho para o papel de seda”.

According to Lemmen¹⁴⁹, “(...) by 1756 he had mastered the process sufficiently well to begin commercial production. In a affidavit dated 2 August 1756, he took oath that he and his partner, Guy Green, ‘without the aid or assistance of any person or persons, did, within the space of six hours, to wit, betwixt the hours of nine in the morning and three in the afternoon of the same day, print upwards of twelve hundred earthenware tiles of different patterns, at Liverpoole aforesaid, and which, as these deponents have heard and believe, were more in number and better and neater, than one hundred skilful pot painters could have painted in the like space of time in the common and usual way painting with pencil’(that is, a fine brush)”.

Finally, the last technique that changed completely the tiled production in the nineteenth century was the press printing. Using the press machines, this technique was very usual in the production of tiles, encaustic tiles for floor tiles and dust-pressed tiles. This technique was used in different factories in England, Netherlands, France, Germany and Portugal and in the case of decorative tiles, this technique consists in the development of tiles with the surface in high or low reliefs with the use of pressed machines, which could be used the manual, mechanical or hydraulic force power. As commented by Baeck¹⁵⁰, "the dust pressing technique using fly presses, mechanical presses and hydraulic presses later" and with this technology, the industries were able to produce a significant quantity of tiles in a very short time in a serial production.

In the image of the interior of a French factory of tiles in Paray-le-Monial, is possible to observe the proportions that some factories specialized in tiled production gained during the late nineteenth and early twentieth centuries. In this image, the press machines are arranged in a sequence in order to create a serial production and can give us an idea of the development achieved. Also it is interesting to note the dimensions of the factory and the quantity of workers, whom are majority women and children.

It is worth to mention that the World Wars were important milestones of social and industrial transformation and, in the case of the industry of tiles, it is possible to observe the changes related to the genre in the profile of workers. Considering that the men were the main labour force in the factories, this image can give us an idea of the changes resulting of the

¹⁴⁹ LEMMEN, Hans Van. *Tiles in Architecture*. London: Laurence King Publishing, 1993, p. 96.

¹⁵⁰ BAECK, Mario - HAMBURG, Ulrich – KAMERMANS, Johan – LEMMEN, Hans Van – RABENAU, Thomas and VERBRUGGE, Bart. *Industrial Tiles – 1840-1940*. Erstes Deutsches Fliesenmuseum, Boizenburg Stedelijk Museum Stellingwerff-Waerdenhof, Hasselt Neterlands Tegelmuseum, Otterlo Tiles and Architecture Ceramics Society, 2004. p. 70

Industrial Revolutions, in which the changes were not only dedicated to the use of new technologies and new machineries but also with the use of a new labour force as women and children.

The technology linked to the use of the tile press was initially applied in England in the mid-nineteenth century. According to the publication of the Association of Museums for the safeguard of the tiled Industrial Heritage in 2004¹⁵¹, “(...) although the English engineer Richard Prosser made the initial invention that led to the industrial mass production of tiles, his important discovery was not at first related to tile making. In his patent of 17 June 1840 mention is made of ‘...improvements in manufacturing Buttons from certain materials which improvements in manufacturing are applicable in whole or in part to the production of Knobs, Rings and other articles from the same materials’. The material used was finely powdered clay with a low moisture content that was compacted under pressure between the surfaces of two steel dies in a metal mould with the aid of hand operated screw press. It was the ceramics manufacturer Herbert Minton who saw the potential of this invention for the production of tiles and the manufacture of tesserae for mosaic floors and bought a stake in Prosser’s patent. In August 1840, less than two months after Prosser had been granted his patent, Minton had 6 presses in operation for ceramic buttons and small tile tesserae and one large tile press for the production of white glazed tiles. More tile presses were constructed and by September 1842 Minton had 62 presses in operation. Early Minton dust pressed tiles made in the 1840s therefore carry acknowledgement of Prosser’s patent”.

This technology allowed the production of many types of patterns and motifs and, according to Lemmen¹⁵², allowed also that “a skilled operator could make up to a thousand tiles per day and it was possible to manufacture perfectly formed tiles which were subject to little or no warping and required much less drying time than tiles made from ordinary clay. (...) this became the most cost effective production method because forming and decorating the tile were done in one single operation”.

Indeed the pressed tile production had many advantages over the traditional hand production specially regarding the facilities of production and the time spent for each step. As mentioned

¹⁵¹ BAECK, Mario - HAMBURG, Ulrich – KAMERMANS, Johan – LEMMEN, Hans Van – RABENAU, Thomas and VERBRUGGE, Bart. *Industrial Tiles – 1840-1940*. Erstes Deutsches Fliesenmuseum, Boizenburg Stedelijk Museum Stellingwerff-Waerdenhof, Hasselt Nederlands Tegelmuseum, Otterlo Tiles and Architecture Ceramics Society, 2004. pp. 7-8.

¹⁵² LEMMEN, Hans Van. *5000 years of Tiles*. London: The British Museum Press, 2013. p. 172

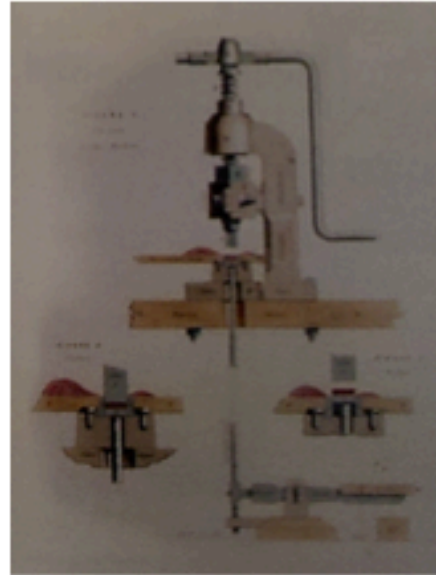
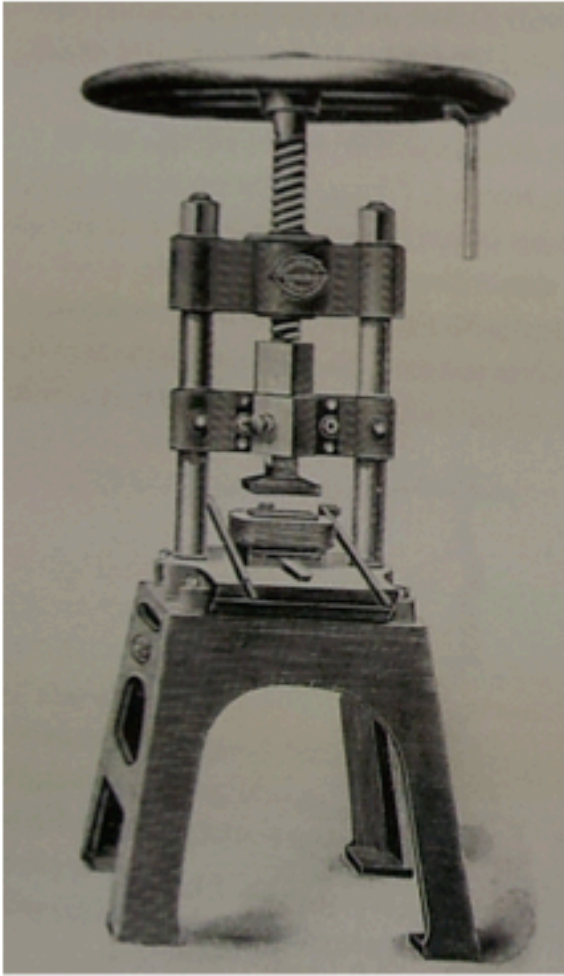


Image A.127 - Richard Prosser's invention of dust pressing clay made in 1840. It can clearly be seen how dust clay is compressed in a small screw press

Image A.128 - Tiles Press like this 19th century English encaustic tiles press made the industrial production of tiles a reality.



Image A.129 - tile making by hand pressing

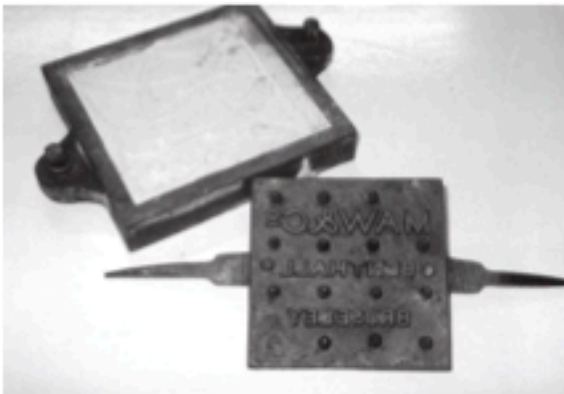


Image A.130 - Above is a plastic mould for an encaustic tile fixed into a former, below is a hand-operated backstamp used for wet clay tile making, the two wooden handles are missing. The stamp, reading Maw & Co., was simply pushed into the wet clay.

Lemmen¹⁵³, “(...) Dust pressed tiles have a perfectly smooth surface on which it was possible to print or execute decorations directly. For plain tiles, metal dies with flat surfaces were used, but it was also possible to make relief tiles using a die with an intaglio design”. Besides, “(...) dust pressing brought about the mass production of tiles of consistent quality at affordable prices, and tiles with machine-moulded patterns and transfer-printed designs became a major and relatively inexpensive product for architectural use”. Industries in Germany, France, Belgium and Netherlands followed these changes and started to use the press machines to improve their production of tiles. Moreover, some companies acted simultaneously in these countries, which enabled to a rapid transmission of knowledge and the use of the presses in the tile industry. Industries developed by the Boch family¹⁵⁴, for example, worked in England, France and Belgium, allowing these countries to use techniques similar enough to produce industrial tiles in the mid-nineteenth century and early twentieth century.

Another important item about this revolution was the use of stamps to demark the names of the factories using the press machines. Some companies built the moulds to mark one face of the tile with the factory seal and its brands to guarantee ease of grip parts for the application on walls, floors, etc. In other words, according Lemmen¹⁵⁵, “ (...) dust pressing also allowed for a key pattern to be imprinted on the back of the tile to assist adhesion to cement and to show the name of the manufacturer and place of manufacture”. In some cases, the factories stamped in both sides of the pieces, making the embossing drawings in the frontal face, which give them the perfect aspect to receive just the tin glaze film. In the image below it is possible to see a cast model of a British factory with an indication of their MAW & Co label.

¹⁵³ BAECK, Mario - HAMBURG, Ulrich – KAMERMANS, Johan – LEMMEN, Hans Van – RABENAU, Thomas and VERBRUGGE, Bart. *Industrial Tiles – 1840-1940*. Erstes Deutsches Fliesenmuseum, Boizenburg Stedelijk Museum Stellingwerff-Waerdenhof, Hasselt Neterlands Tegelmuseum, Otterlo Tiles and Architecture Ceramics Society, 2004. p.69.

¹⁵⁴ BAECK, Mario - HAMBURG, Ulrich – KAMERMANS, Johan – LEMMEN, Hans Van – RABENAU, Thomas and VERBRUGGE, Bart. *Industrial Tiles – 1840-1940*. Erstes Deutsches Fliesenmuseum, Boizenburg Stedelijk Museum Stellingwerff-Waerdenhof, Hasselt Neterlands Tegelmuseum, Otterlo Tiles and Architecture Ceramics Society, 2004, p. 67.

¹⁵⁵ BAECK, Mario - HAMBURG, Ulrich – KAMERMANS, Johan – LEMMEN, Hans Van – RABENAU, Thomas and VERBRUGGE, Bart. *Industrial Tiles – 1840-1940*. Erstes Deutsches Fliesenmuseum, Boizenburg Stedelijk Museum Stellingwerff-Waerdenhof, Hasselt Neterlands Tegelmuseum, Otterlo Tiles and Architecture Ceramics Society, 2004, p. 70.

3.2. The Santa Catharina Factory: the crockery production and the techniques for the decoration.

Although the ceramic production was not a novelty in the city of São Paulo, technical and productive differentials made the Santa Catharina factory a pioneer in the production of crockery and white china in Brazil and the Santa Catharina factory was also a reference for the creation of other factories of this category in the twentieth century in São Paulo city.

The productive process of the Santa Catharina factory will be present using the information analysed by Abreu e Souza about the archaeological remains from the archaeological site of Petybon and the data collected about the decorative tiles design for the celebration of Brazilian independence. The archaeological remains can give us an idea of the operational sequence that, according to Abreu e Souza, "(...) characterize and particularize this national white china".

It is important to note that the development of the operational chain is the result of a set of factors that are characterized by the formation of the company and its board of directors. It is also the conception of the factory premises, the team of workers, the use of certain materials and finally the local and cultural characteristics, being, therefore, the sum of diverse knowledge that have been acquired along the path of industrial development followed by the factory Santa Catharina.

The factory has adopted a capitalist mode of production, based on the precepts of Taylorism. For Abreu e Souza¹⁵⁶, "(...) differently of the operational chains where the potters retains the knowledge of the whole process and / or where produce the ceramics which consume, in the Taylorism, the capitalist ideology of consumption and production features a universe where the employee no longer dominates the entire production process, but only a few gestures in the chain, producing an artefact for a consumer market that is not strictly himself - that can never consume an object that he produced".

Thus, the Santa Catharina production chain was based on the use of its workforce under a strict coordination in order to minimize the time spent for the execution of each

¹⁵⁶ ABREU e SOUZA, Rafael de. *Louça Branca para a Paulicéia: Arqueologia Histórica da Fábrica Santa Catharina / IRFM – São Paulo e a Produção da Faiança Fina Nacional (1913-1937)*. Dissertação de Mestrado apresentada ao programa de pós-graduação em Arqueologia do Museu de Arqueologia e Etnologia da Universidade de São Paulo. São Paulo, 2010. p.130. Translation of the original text: "(...)diferentemente de cadeias operatórias onde o oleiro ou oleira retém o conhecimento de todo o processo e/ou onde produz a cerâmica que consome, no taylorismo, a ideologia capitalista de consumo e produção caracteriza um universo onde o trabalhador não mais domina todo o processo de produção, mas apenas alguns gestos dentro da cadeia, fabricando um artefato para um mercado consumidor que não é estritamente ele próprio – que pode mesmo nunca consumir um objeto que produziu".

activity and also synchronize the stages of production, resulting, therefore, a production with clear goals of performing an increasing number of pieces. Moreover, “(...) this scientific organization of work aimed to facilitate the use of a hand-labour without industrial work experience, ensuring high productivity, just as seems to be the case of Santa Catharina, where most of the workers should have little experience with an industrial universe, as well as with the white ware production, disposal the experience of some production to red ceramics”¹⁵⁷. Thus, tableware production at the factory was carried out in order to restrict the activities of each worker to a particular task, subjecting them to an intensive day's work, “(...) marked by simple gestures repeated almost to exhaustion”.

In the Santa Catharina factory, according Ranzini, the materials for the manufacture of biscuits were local materials and the clay was acquired close to the Água Branca region where was the place in which the factory was installed, favouring, therefore, the cheap prices of the raw materials. However, the operative chain begins with the development of biscuit paste that is the resulting of the mixture of clay, feldspar, kaolin and quartz. This material is crushed and then mixed inside of large drums and they turn into a fine powder. This, in turn, is mixed with water to form aqueous slurry, which is directed into presses to ensure that the paste is compacted and stored in the form of large disks. Subsequently, these discs are immersed again in water to be used for the moulding work. In the case of tableware production, the resulting material of this step is inserted in the negative mould of plaster for be produced. For the tiles, however, there is a small variation in the consistency of the mass and the amount of water placed into the moulding and for the shaping of the square pieces are used square wooden moulds. At this stage, it is also carried out the decorations in relief in the pieces, can be used stamps and presses.

After the removal of objects from moulds, that are arranged on wooden shelves for natural drying. Piccarolo & Linocchi ¹⁵⁸ commented that the room for the natural drying of the pieces had an ingenious opening system, which allowed a constant ventilation of the space and ensured the successful outcome of this drying step.

¹⁵⁷ ABREU e SOUZA, Rafael de. *Louça Branca para a Paulicéia: Arqueologia Histórica da Fábrica Santa Catharina / IRFM – São Paulo e a Produção da Faiança Fina Nacional (1913-1937)*. Dissertação de Mestrado apresentada ao programa de pós-graduação em Arqueologia do Museu de Arqueologia e Etnologia da Universidade de São Paulo. São Paulo, 2010. p.130. Translation of the original text: “(...) essa organização científica do trabalho objetivava facilitar a utilização de uma mão-de-obra sem experiência de trabalho industrial, garantindo uma elevada produtividade, exatamente como parece ter sido o caso da Santa Catharina, onde a maior parte dos operários deveria ter pouca experiência com um universo fabril, assim como com a produção de louça branca, destarte a experiência de alguns com produção de cerâmica vermelha” and “(...) marcados por gestos simples repetidos quase até a exaustão”.

¹⁵⁸ PICCAROLO, Antonio - FINOCCHI, Lino. *O desenvolvimento industrial de S. Paulo através da Primeira Exposição Municipal*. São Paulo: Pocai, 1918, p. 148 (Acervo do IEB/USP).

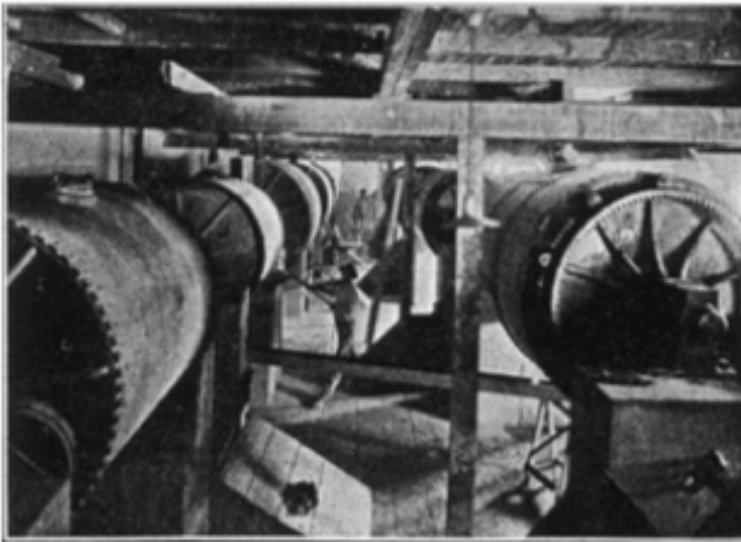


Image A.131 – Interior image of The Santa Catharina Factory – Section of Crushing and Milling (FABRICA SANTA CATHARINA – Fagundes, Ranzini & Cia.)



Image A.132 – Interior image of The Santa Catharina Factory – Section of Crushing and Milling (FABRICA SANTA CATHARINA – Fagundes, Ranzini & Cia.)



Image A.133 – Interior image of The Santa Catharina Factory – Section of lathes benches for making empties, vases, etc. (FABRICA SANTA CATHARINA – Fagundes, Ranzini & Cia.)



Image A.134 – Interior image of The Santa Catharina Factory – Section of lathes benches for making empties and also, in the center of the image, a glaze mixer and a glazing pond (FABRICA SANTA CATHARINA – Fagundes, Ranzini & Cia.)



Image A.135 – Interior image of The Santa Catharina Factory – Section of furnaces, which were equipped with rails for iron rails (FABRICA SANTA CATHARINA – Fagundes, Ranzini & Cia.)



Image A.136 – Interior image of The Santa Catharina Factory – Section of tableware store (FABRICA SANTA CATHARINA – Fagundes, Ranzini & Cia.)

Once dry, the pieces are transported to the finishing section, in which are corrected the imperfections, inserted the handles in the case of vases models and applied some other decorative details, as well as held the cleaning of the pieces and the finishes before being taken to the oven. In the oven, the pieces are fired at a temperature between 1200 ° C and 1.300°C. After firing, follows the cooling period of the oven that guarantees the safety of the workers and also the quality of parts. Then these parts can be gone to three different sections: the enamelling section, where they receive the glazed film; the painting section; or section marks.

If the pieces follow the enamelling section, they will result in glazed white pieces or will receive decoration from the decal technique. In Section of brands, the factory stamps are inserted and usually this step come first of the painting for avoid that the paint being damaged. In the painting section are performed manual paintings or use of moulds with the reasons to be transmitted.

When are ready the decorations, the pieces go to enamelling section for receiving the tin glaze film and stored again on wooden shelves, then they are burned in the kiln at a temperature slightly lower around 1150°C. It is worth mentioning that some decorating techniques receiving first the tin glaze for then being carried out or transfer of the paintings drawings with decorative motifs.

As regards about the differences of firing, Abreu Souza notes that the major difference between the two firings is primarily on the use of different movable support parts, which in the second firing is especially designed to avoid contact between the pieces and with the refractory boxes. After the second firing and cooling of the kiln, the pieces are ready and can be stored and boxed for shipping to retail outlets.

It is important to note that depending on the type of technique and type of paint colour the oven temperature should be differentiated as well as the amount of firings. In the case of decal technique, temperatures in the kiln should be lower around 600 ° C and 850 ° C for fixing the decal and the parts generally undergo three firings (biscuit + fixing of the tin glaze + fixing of the decal).

Abreu e Souza made a map with the sequence of activities in the Santa Catharina factory and through this plan is possible to understand the productive stages of the tableware, which can give us some clues to understand the production processes of the tiles, which were used in the decorations of the buildings to the commemoration of the Centennial of the Brazilian Independence. However, in this study, the analysis focused on the decorations, once seemed more relevant to the understanding of the subject presented in this research and

because are more related with the motifs selected for the decoration of the buildings and their architectural spaces.

Between the criteria establish for the analyses of typologies, Abreu e Souza categorized the types of materials produced by the Santa Catharina factory and also the pieces that have been identified in the archaeological site of Petybon. Among these pieces, he classified them according to the type of decorative technique used, which allows us to have an overview of the pottery factory output in terms of arts and crafts and the technologies developed.

According to the author ¹⁵⁹, the archaeological site of Petybon were identified 1050 pieces including: bowls, cups, mugs, glasses, plates, saucers, platters, bowls, pots for butter, jars, lids, flower pots, tiles and supporters. Thus, “(...) the decorations on crockery of Petybon site are composed chiefly of non-modified surfaces (91% of decorated pieces), while only 9% are moulded or with surface modified. As regards the former, there is a predominance of decorations applied by hand painting, followed by transfer-printings, sponged technique and stencils; only one fragment was decorated with decal”. It is worth mentioning that the analysis of Abreu e Souza followed the criteria related to the final look of the pieces, the decorative production technique used, the pattern of the pieces and finally the motives and themes.

Among the decorative techniques observed by him, the techniques used are: the hand painting, representing the vast majority of the decorations made; the rubber stamps for the transfer of small motifs; the transfer-printing technique; the sponged technique, also known as *Spatterware*, in which decorations are applied with fabric pieces or sponges; the decal technique; stencil and finally the technique of moulded, understood by him for the pieces which the decorations are made on the biscuit production stage, receiving the decorations in relief. In addition, the author also identifies the existence of two techniques performed together: a transfer-printing technique with manual retouching.

As for the motives and themes applied to the ceramic pieces, there was a large majority of parts receiving floral decorations, however, were also observed geometric models, bands and friezes, arabesques, dots, oval, anthropomorphic, sponged, garlands and decorative

¹⁵⁹ ABREU e SOUZA, Rafael de. *Louça Branca para a Paulicéia: Arqueologia Histórica da Fábrica Santa Catharina / IRFM – São Paulo e a Produção da Faiança Fina Nacional (1913-1937)*. Dissertação de Mestrado apresentada ao programa de pós-graduação em Arqueologia do Museu de Arqueologia e Etnologia da Universidade de São Paulo. São Paulo, 2010. p.130. Translation of the original text: “(...) as decorações nas louças do sítio Petybon são compostas, majoritariamente, por superfícies não modificadas (91% do total de peças decoradas), enquanto apenas 9% são moldadas ou em superfície modificada. Quanto às primeiras, existe um predomínio de decorações aplicadas por pintura à mão livre, seguidas de *transfer-printings*, esponjados e estênceis; apenas um fragmento foi decorado com decalcomania”.

Image A. 137 - Typologies of decorative tiles - Santa Catharina Factory (tiles found in the decoration of the buildings built for the Centennial of the Brazilian Independence - São Paulo State)



Floral Pattern (Portuguese inspiration)
Composition : 4 x 4
Colour: blue and yellow, light blue/
grey and blue
Technique: Stencil

Floral Pattern
Composition : 2 x 2
Colour: brown, light blue/ grey
Technique: Stencil



Pattern horseshoe
(Portuguese inspiration)
Composition : 4 x 4
Colour: blue and
yellow
Technique: Stencil

Central Floral Pattern
(French inspiration)
Composition : 4 x 4
(with the coal of
arms pattern)
Colour: blue
Technique: Stencil

Central Floral Pattern
Composition : 4 x 4
(with the coal of
arms pattern)
Colour: blue
Technique: Stencil

Greek Pattern
Frieze
Composition :
continue
Colour: blue
Technique: Stencil



Fish Pattern
Composition : 4 x 4
Colour: blue
(with the central floral
pattern and the
Armillary Sphere
pattern)
Technique: Stencil

Coat of arms SP
Pattern
Composition : 4 x 4
(with the central
floral pattern)
Colour: blue
Technique: Stencil

Armillary Sphere
Pattern
Composition : 4 x 4
(with the central
floral pattern)
Colour: blue
Technique: Stencil

Fruit and Leaves Pattern
Frieze
Composition : continue
Colour: blue
Technique: hand painting

ties. Furthermore, for the embossed pieces the motifs are represented by wheat, shells and the framed edges on plates and bowls.

Among the motifs of the decorations of the tiles used in the commemorative buildings, it can be observed the development of large figurative panels hand-painted and standardized models produced from the stencil technique. For the second category of standard tiles, the models follow the inspiration of Portuguese and French models used abundantly in Brazilian architecture of the eighteenth and nineteenth centuries. It is worth mentioning that the same patterns were identified in the various commemorative buildings, however, the motives were in different colours.

Thus the tiles were classified as: the floral stylizations 2 x 2, the floral stylizations 4 x 4, the figurative motifs with central design (the Coat of Arms of São Paulo and the Armillary Sphere, the floral motif with central design, the stylized geometric friezes with continuous decoration, the floral friezes and the figurative friezes.

The categorized as floral stylizations 2 x 2 and 4 x 4 floral stylizations are the standards to form the complete design with the quantities of parts in the compositions of 2 pieces x 2 pieces and 4 pieces x 4 pieces. All standard tiles were inserted to form the compositions in "carpet" as could be analysed in the second chapter of this work.

Interestingly, the floral compositions of dishes which, according to Abreu e Souza, represent about 85% of the parts, following models of flowers found in the country, some, however, very particular of Brazilian landscape as was the case of the stylization of the flower of passion fruit. In the Ranch of Adulthood, in the lobby, the walls were covered by tiles type pattern with floral stylizations and these panels are finished off with a sequence of hand-painted friezes, depicting fruit models, flowers and branches. It can be seen that between the representations of fruits, some are particularly tropical fruits such as the pineapple representation.

Despite the tiled patterns have taken inspiration from models already found in Brazil that moment, some models, however, seems that were the product of a decorative initiative that was practiced for the tableware decorations of The Santa Catharina factory, as was the case of representations of the figurative friezes located in Ranch of Adulthood.

However, Abreu e Souza points out to the presence of a repertoire of themes and motifs in the tableware of the Santa Catharina factory, which were present also in the decorative elements of the arts and architecture in early twentieth-century. The presence of the decorations with arabesques, for example, had a certain similarity to the models of the

decorations of the railings of the stairs of the São Paulo Light Station (*Estação da Luz*) in São Paulo, built in the early twentieth century.

On the design of tiles, it is clear the intentions of Victor Dubugras and José Rodrigues Wasth to define certain standard models and for the option to create large figurative panels expressing the Brazilian history. These decorations were aligned to a new idea of industrial society in vogue at that time and very present in the discussions opened by Ricardo Severo.

While the decorations gained new expressions from new production techniques and expressed an idea of nation-building - what is clear on the options for using the patterns of tiles with the pattern of the coat of arms of the city of São Paulo in *Largo da Memória* and the pattern of the Armillary Sphere in the Landmark of Lorena and Quinhentista Cruise (first and last milestones on the road "Paths of the Sea") - they also use models and traditional patterns to mark an identity that was born with the arrival of the Portuguese on Brazilian soil. It is not surprising that the tiles with patterns 4 x 4 are similar to the models that are easily identified in the Brazilian traditional architecture and can even be found in the publications of Felisberto Ranzini and Wasth José Rodrigues.

Furthermore, the decorative traditions were present in the way of forming the patterned tile carpets as well as the figurative representation of tiled panels in blue and white. However, it is worth mentioning that the uses gained a new look on its use and layout in the architecture, or rather, in the case of Ranch of Adulthood, the internal cloths are covered by standard tiles, which are finished with a decorative strip that illustrates the elements and objects comprise the Brazilian natural landscape as the typical tropical flowers and fruits, which is something quite particular.

The same can be observed in the tile panel depicting the state of São Paulo with its highways for cars located on the main facade of the *Pouso Paranapiacaba*. This panel brings us the idea of creating a modern society, expressed in one of the most significant elements of modernity: the car. Thus, the decorative tiles and how they were produced and applied in architecture are consistent with the new economic, political and social of the country in the early twentieth century.

Final Remarks

Final Remarks

Different trajectories have been part of the studies for this master's research. The first trodden paths were related to the studies about the productive aspects of the manufacture of decorative tiles, especially in the period of the nineteenth and early twentieth century, being this first one marked by significant changes linked to the implementation techniques in the ceramic industry, which supported the productions and changed the concepts of art and crafts, completely changing the dynamics till then established.

Thus, in this first stage of the research, the objectives were centered on identifying the techniques applied, always trying to have a look in parallel with the similarities and differences with the first industrial production of decorative tiles in Brazil. However, as far as it was understood how were made the tiles and how were used the different techniques for the definition of decorative motifs, it was perceived that such techniques and knowledge were closely linked to the cultural issues of each country and its relations with the decorative arts.

Brazil was a major importer of ceramic products, particularly tiles, and had in its architectural history and use of decorative tiles very interesting links with these industrial transformations of the European ceramics industry. Its applicability won different dimensions in national artistic context, especially given its widespread use that began with the use of panels depicting its history and its close relationship with Portugal, going through a marked application in the lining of the facades of the houses in the cities and finally reaching to the first national productions.

Thereby, the decorative tile has always been present in the architecture and in Brazilian artistic manifestations and, perhaps precisely for this reason, it was considered a national identity element in a period marked by the installation and creation of industry in the country that happened in the early decades of the century XX.

Understanding that the political and social issues also played a major role in the formation of national identity concepts, the research followed a second course of investigation, more linked, however, to the understanding on how was characterized the political and social transformations in the late nineteenth century and early twentieth century in Brazil, specifically in São Paulo where the first white china factories were installed. The factory Santa Catharina was the product of this process, it was inaugurated following the precepts of modernity and development, in vogue at the time, and its production was linked to an idea of progress and modernity strongly present on the industrial imaginary in beginning of the century.

In the contrast, its first productions of fine ceramics were also a reflection of cultural and artistic traditions of the country: while the ideas of creating a modern nation were present, apparently disconnected from colonial traditions, the products manufactured by the factory Santa Catharina - in with regard to decorative tiles which were produced to decorate the set of public works to commemorate the Centennial of Brazilian Independence - had strongly rooted characteristics, however, to these colonies traditions.

At this time, the search began a third path of research, connected now to the architecture and its manifestations, that is to say, the questions that came to the fore at this time were tied to the reasons of why the certain uses of tiles, especially in the decoration of the representative buildings of a new political and cultural moment of Brazilian history.

Thus, the focus of the investigation became directed to the use of tiles in Brazilian architecture, especially in the corresponding period of the last decades of the nineteenth century and the first decades of the twentieth century. It tried to understand, this way, how the tile was part of the architectural decorations in this historic moments in the country and how the Brazilian architecture manifested itself at that moment, which led us to have greater contact with the ideas of the Brazilian Neocolonial movement, discussed in the first chapter this research.

At the same time, was also carried out a research in countries like Portugal, Czech Republic and Austria especially linked to the artistic movements as *Art Nouveau* and the construction of new concepts on the decorative arts, especially regarding the industrial aspects. This contributed in a very rich way to understand how the decorative arts were expressed at that historical moment and how this art had an intimate connection with industrial development such as the case of the productions of the Arts and Crafts movement, when were given greater value for the handwork, going in an opposite direction to industry trends with the *Taylorism* and the *Fordism*, and the movements that were in the industry trends with the emergence of artists who joined their productions to a standardized logic.

Thus, this research has been trodden different paths in order to understand the reasons that led to certain decorative trends of the first productions of national tiles in Brazil. As these tiles were inserted in the architecture in a particular and rich way, and in which measure the influence of foreign production, through the use of certain manufacturing technologies, contributed to the formation of national industry and the production of these decorations. However, productive experiences and decorative results followed a particularized process, given the political, cultural and economic issues established in the country, not decoupling,

however, the important role of training of national production with the relations established with Europe and the coming of foreigners in the country.

This work became an unprecedented work regarding the analysis of the first national tiles and the set of commemorative works of the Centennial of Brazilian Independence. Studies about tiles in Brazil are concentrated in periods before and after the temporary cut proposed in this research, which opens new perspectives for future researches. In Brazil, the researches conducted in this subject are still very timid, especially regarding the investigations related to the use of decorative tile in the neo-colonial architecture.

Another important item that added value to this research was the possibility of having a personal contact with the works and tiled decorations in countries like France, Portugal, Italy, Czech Republic, Austria and finally Spain, which allowed a greater maturity on the meaning and use of decorative arts in architecture.

Bibliography

Bibliography

ABREU e SOUZA, Rafael de. *Louça Branca para a Paulicéia: Arqueologia Histórica da Fábrica Santa Catharina / IRFM – São Paulo e a Produção da Faiança Fina Nacional (1913-1937)*. Dissertação de Mestrado apresentada ao programa de pós-graduação em Arqueologia do Museu de Arqueologia e Etnologia da Universidade de São Paulo. São Paulo, 2010.

ALCÂNTARA, Dora. *Azulejos na Cultura Luso-brasileira*. Rio de Janeiro: IPHAN, 1997.

ALCÂNTARA, Dora. *Os Azulejos Portugueses em São Luís do Maranhão*. Fontana: Fundação Luiz la Saigne. Rio de Janeiro, Ed. Fontana, 1980.

ALCÂNTARA, Dora. *Azulejo, Documento de nossa Cultura*. In: DIAS, Maria Cristina Vereza Lodi. *Patrimônio Azulejar Brasileiro: Aspectos históricos e de Conservação*. Brasília: Monumenta – BID / Ministério da Cultura, 2001.

ALFREY, Judith - PUTNAM, Tim. *The industrial heritage: managing resources and uses*. London; New York: Routledge., 1992.

ALMEIDA, Carlos Alberto Ferreira de. *A igreja de Jesus de Setúbal In: Revista da Faculdade de Letras : História, II série, vol. 7, pp. 267-280, 1990.*

ARRUDA, José Jobson de Andrade. *O imperialismo Britânico e o Fenômeno Brasil In: Revista da Universidade de São Paulo, n. 79, p. 22-33, São Paulo, Setembro/Novembro 2008.*

AZEVEDO, F. de S. V. de. *Os primórdios da indústria cerâmica em São Paulo*. Revista Cerâmica, São Paulo, v. 10, n. 40, p. 25-33, 1964.

BAECK, Mario - HAMBURG, Ulrich – KAMERMANS, Johan – LEMMEN, Hans Van – RABENAU, Thomas and VERBRUGGE, Bart. *Industrial Tiles – 1840-1940*. Erstes Deutsches Fliesenmuseum, Boizenburg Stedelijk Museum Stellingwerff-Waerdenhof, Hasselt Neterlands Tegelmuseum, Otterlo Tiles and Architecture Ceramics Society, 2004.

BARCELLOS, Henrique de. *Almanach do Correio de Campinas para 1886.* Typ. a vapor do 'Correio de Campinas', Campinas, 1886.

BELLINGIERI, J. C. *A indústria Cerâmica em São Paulo e a invenção do filtro de água: um estudo sobre a ceramic Lamparelli – Jaboticabal (1920-1947).* Dissertação (Mestrado) – Universidade de São Paulo, Franca, 2004.

BELLINGIERI, J. C. *As origens da Indústria Cerâmica em São Paulo.* Periódico Cerâmica Industrial vol. 10 (3) Maio/ Junho, pp. 19-23, 2005.

BRANCANTE, Eldino da Fonseca. *O Brasil e a Cerâmica Antiga.* Cia Lithografica Ypiranga, São Paulo, 1981.

BRESCIANI, M. Stella M. *Londres e paris no século XIX: o espetáculo da pobreza.* São Paulo: Brasiliense. 1982

BRUAND, Yves. *Arquitetura Contemporânea no Brasil.* São Paulo: Editora Perspectiva, 1999.

BUCHANAN, R. A. *Industrial archeology in Britain.* Harmondsworth: Penguin. 1982.

BURLAMAQUI, Suraya. *Cerâmica Mural Portuguesa contemporânea: azulejos, placas e relevos.* Lisboa: Quetzal Editores, 1996.

CAHIER, Charles – MARTIN, Arthur. *376 Decorative Allover Patterns from Historic Tilework and textiles.* New York: Dover Publications, Inc. 1989.

CAVALCANTI, Sylvia Tigre de Hollanda. *O azulejo na Arquitetura Religiosa de Pernambuco: séculos XVII e XVIII.* São Paulo: Ed. Metalivros, 2006.

CAVALCANTI, Sylvia Tigre de Hollanda - CRUZ, António de Menezes e. *O azulejo na Arquitetura Civil de Pernambuco: séculos XIX.* São Paulo: Ed. Metalivros, 2006.

Cinquant'anni di lavoro degli italiani in Brasile: lo Stato di S. Paolo. São Paulo: Società Editrice Italiana, 1936. v. 1, 1937. p. 2.

CHING, Francis D. K. *Dicionário Visual de Arquitetura*. São Paulo: Ed. Martins Fontes, 2000.

CHOAY, Françoise. *A alegoria do patrimônio*. São Paulo: Estação Liberdade/ Unesp, 2001.

COSTA, Cacilda Teixeira da. *O sonho e a técnica: a arquitetura de ferro no Brasil*. São Paulo: USP, 1994.

D'ALAMBERT, Clara. *Manifestações da Arquitetura residencial paulistana entre as Grandes Guerras*. Tese de doutoramento apresentada à Faculdade de Arquitetura e Urbanismo da Universidade de São Paulo. São Paulo, 2003.

DIAS, Maria Cristina Vereza Lodi. *Patrimônio Azulejar Brasileiro: Aspectos históricos e de Conservação*. Brasília: Monumenta – BID / Ministério da Cultura, 2001.

FICHER, Sylvia. *Os arquitetos da Poli: ensino e profissão em São Paulo*. São Paulo: Edusp, 2005.

FIGUEIREDO, Margareth Gomes de. *Inventário do Patrimônio Azulejar no Maranhão*. São Luís – MA. Editora Aml, 2012.

FLOR, Susana Varela (org.). *A Herança de Santos Simões: novas perspectivas para o Estudo da Azulejaria e da Cerâmica*. Lisboa: Edições Colibri, 2014.

FONSECA, Maria C. L. *O patrimônio em processo*. Rio de Janeiro: UFRJ/IPHAN, 1997.

FUNDAÇÃO PATRIMÔNIO HISTÓRICO DA ENERGIA DE SÃO PAULO. *História e energia 8: Patrimônio Arquitetônico da Fundação Patrimônio Histórico da Energia de São Paulo*. São Paulo: 2 ed., 2000.

FUNDAÇÃO PATRIMÔNIO HISTÓRICO DA ENERGIA DE SÃO PAULO. *História, energia e cotidiano: exposição inaugural do Museu da Energia Núcleo de Itu – 14 de*

dezembro de 1999. São Paulo: 2.ed., 2000.

GRAHAM, Richard. *A Grã-Bretanha e o início da modernização no Brasil (1850-1914)*. São Paulo: Brasiliense, 1973.

KNOFF, Udo. *Azulejos da Bahia*. Rio de Janeiro: Livraria Kosmos Ed.; Salvador: Fundação Cultural do Estado da Bahia, 1986.

HAUSER, Arnold. *História Social da Arte e da Literatura*. São Paulo - Martins Fontes, 1998.

HERBERT, Tony - HUGGINS, Kathryn. *The Decorative Tiles in Architecture and interiors*. London: Phaidon Press Limited, 1995.

HUDSON, Kenneth. *Industrial archaeology: an introduction*. London: Baker, 1966.

JOHNSON, Matthew. *Archaeological theory: an introduction*. Oxford: Blackwell, 1999.

LAPRI, R. *O Estado de São Paulo e o centenário da Independência*. São Paulo: [s.n.], [1922].

LEMMEN, Hans Van. *Tiles in Architecture*. London: Laurence King Publishing, 1993

LEMMEN, Hans Van. *Decorative Tiles throught the ages*. Rhode Island: Moyer Bell, 1997.

LEMMEN, Hans Van. *Architectural Ceramics*. Oxford: Shire Publications Ltd, 2002.

LEMMEN, Hans Van. *Delftware Tiles*. Oxford: Shire Publications Ltd, 2005.

LEMMEN, Hans Van. *Art Nouveau tiles*. Oxford: Shire Publications Ltd, 2008.

LEMMEN, Hans Van. *Church tiles of the Nineteenth Century*. Oxford: Shire Publications Ltd, 2ºed. 2012.

LEMMEN, Hans Van. *Art Deco Tiles*. Oxford: Shire Publications Ltd, 2012.

LEMMEN, Hans Van. *5000 years of Tiles*. London: The British Museum Press, 2013.

LEMOS, Carlos A. C. *Cozinhas, etc.: um estudo sobre as zonas de serviço da casa paulista*. Volume 94 de Debates Arquitetura. Editora Perspectiva: São Paulo, 1976.

LEMOS, Carlos A. C. *Alvenaria Burguesa: breve histórico da arquitetura residencial de tijolos de São Paulo a partir do ciclo econômico liberado pelo café*. São Paulo: Nobel, 1985.

LEMOS, Carlos A. *Azulejos Decorados na modernidade arquitetônica brasileira*. In: Revista do Patrimônio Histórico e Artístico Nacional, nº 20, Rio de Janeiro: Ed. RJ, 1987.

LIMA, H. F. *Evolução Industrial de São Paulo*. São Paulo: Livraria Martins, 1954.

LINHARES, M. Y. L. *Pecuária, Alimentos e Sistemas Agrários no Brasil séculos XVIII e XIX*. Revista Tempo, UFF/Relume Dumará, v. 1, nº.2, 1996.

LUNÉ, A. J. B. de - Fonseca, P. D. da (Orgs.). *Almanak da Província de São Paulo para 1873*. São Paulo: Imprensa Oficial do Estado de São Paulo, 1985.

LUNÉ, A. J. B. de - Fonseca, P. D. da (Orgs.). *Almanach do Estado de São Paulo para 1891*. São Paulo: Companhia Industrial de São Paulo, 1891.

MANGUCCI, Celso. *Francisco da Silva, António de Oliveira Bernardes e Francisco Lopes Mendes na Igreja da Misericórdia em Évora*. CENÁCULO: Boletim online do Museu de Évora, nº 3, Setembro, pp. 3 -18, 2008.

MECO, José. *Azulejaria Portuguesa*. Coleção Património Português. Bertrand Editora, 1985.

MELLO, Joana. *Ricardo Severo: da arqueologia portuguesa à arquitetura brasileira*. São Paulo: Annablume, 2007.

MOITA, Irisalva. *Cerâmica aplicada à arquitetura oitocentista em Lisboa.* In: ALCÂNTARA, Dora. *Azulejos na Cultura Luso-brasileira.* Rio de Janeiro: IPHAN, 1997.

MORA, Vicente Natal. *El Azulejo en el Rio de la Plata – siglo XIX.* Universidad de Buenos Aires, Facultad de Arquitectura y Urbanismo – Instituto de Arte Americano e investigaciones esteticas, Buenos Aires, 1949.

MORAES, Frederico. *Azulejaria Contemporânea no Brasil.* São Paulo: Editoração Publicações e Comunicações, 1988.

ORTIZ, Renato. *Cultura Brasileira e Identidade Nacional.* São Paulo: Brasiliense, 5º reimpressão da 5º edição, 2005.

OWEN, Jones. *The grammar of Ornament.* London: Day& Son, Lincoln’s Inn Fields, 1856.

PEREIRA, José Hermes Martins. *Louça Paulista: as primeiras fábricas de faiança e porcelana de São Paulo.* São Paulo: Imprensa Oficial EDUSP, 2001.

PEREIRA, José Hermes Martins. *A implantação da indústria de louça em São Paulo - 1912- 1937.* São Paulo. Relatório Final apresentado à FAPESP,2002.

PEREIRA, José Hermer Martins. *As fábricas paulistas de louça: estudos de tipologias arquitetônicas na area de Patrimônio Industrial.* Dissertação (mestrado), FAU/USP, São Paulo, 2007.

PETERS, Tom F. *Building the 19 century.* Cambridge, Massachusetts: The MIT press, 1996.

PICCAROLO, Antonio - FINOCCHI, Lino. *O desenvolvimento industrial de S. Paulo atravez da Primeira Exposição Municipal.* São Paulo: Pocaí, 1918.

PILLEGI, A. *A cerâmica no Brasil e no Mundo.* São Paulo: Martins Fontes, 1958.

PINHEIRO, Silvanisio. *Azulejos do Convento de São Francisco da Bahia.* Salvador, Livraria Turista, 1951.

RIBEIRO, Maria Eurydice de Barros. *Os azulejos da Misericórdia: a imagem documento na história da cultura religiosa luso-brasileira.* In: SCIELO: História vol. 34 Franca Jan./Jun. 2015. DOSSIÊ: ESCRITOS E IMAGENS DO MUNDO LUSO-BRASILEIRO (SÉCULOS XIII-XVIII).

RODRIGUES, José Wasth. *Documentário arquitetônico relativo à antiga construção civil no Brasil.* 4º Ed. Belo Horizonte. Editora Itatiaia, São Paulo: Editora da Universidade de São Paulo, 1979.

SANJAD, Thais Alessandra Bastos Caminha. *Patologias e conservação de azulejos: um estudo tecnológico de conservação e restauração de azulejos, século XVI, XVII, XIX, encontrados nas cidades de Belém e Salvador.* Dissertação de Mestrado, Universidade Federal da Bahia, 2002.

SANTOS, Francisco Martins dos. *História de Santos.* Poliantéia Santista – Fernando Martins Lighti. Editora Caubex Ltda, São Vicente, 1986.

SAPORITI, Teresa. *Azulejos portugueses: padrões do século XX.* Portuguese Ceramic Tiles. Lisboa: Textype, 1998.

SAPORITI, Teresa. *Azulejaria de Luís Ferreira :o "Ferreira das Tabuletas" ; um pintor de Lisboa.* Lisboa : Câmara Municipal de Lisboa, 1993.

SECKLER, Jorge. *Amanach Administrativo, Commercial e Industrial da Província de São Paulo para o Anno de 1886.* São Paulo. Editores – Proprietários Jorge Seckler & Cia., 1886.

SEGAWA, Hugo. *Arquitetura do Brasil 1900-1990.* São Paulo: Editora Edusp, 1997.

SEVERO, Ricardo. *A arte tradicional no Brasil.* In: Revista do Brasil, vol. IV, Ano II. São Paulo, Janeiro-abril de 1917.

SIEMEN Wilhelm (org.). *From a king's dream to Mass Production. 300 years of European Porcelain.* Exhibition of the Porzellanikon Selb and Hohenberg a. d. Eger. German Porcelain Museum nº105/2. Abril/November, 2010.

SILVA, Hypolito da. *Almanach Popular para o Anno de 1878: contendo diversos artigos de interesse geral, e uma parte noticiosa, litterária e recreativa.* Primeiro Anno. Rua do Commercio, 40. Typ. da Gazeta de Campinas, Campinas, 1877.

SILVA, Hypolito da. - FERREIRA, Carlos. *Almanach Popular de Campinas para o Anno de 1879.* Rua do Commercio, 40. Segundo Anno. Typ. da Gazeta de Campinas, Campinas, 1878.

SILVA, Maria João Espírito Santo Bustorff (org.). *A Festa Barroca a Azul e Branco: os azulejos do Claustro e do Confessionário da Ordem Terceira de São Francisco, São Salvador da Bahia.* Conservação e Resturo: Fundação Ricardo do Espírito Santo Silva, Ed. Atelier B2, 2003.

SILVA F., Olavo Pereira da. *Arquitetura Luso-Brasileira no Maranhão.* 2 ed. Belo Horizonte: Formato, 1998.

SILVEIRA, Maria Cristina da. *O Azulejo na Modernidade Arquitetônica.* Dissertação de Mestrado defendido na Faculdade de Arquitetura e Urbanismo da Universidade de São Paulo, São Paulo, 2008.

SIMÕES, João Miguel dos Santos. *Azulejaria no Brasil.* Comunicação destinada ao Colóquio de Estudos Luso-Brasileiros, na Bahia, 1959. In. *Revista do Patrimônio Histórico e Artístico Nacional* no14, Rio de Janeiro, RJ, 1959.

SIMÕES, João Miguel dos Santos. *Azulejos Holandeses no convento de Santo Antônio do Recife.* In: *Cadernos de Arte do Nordeste* n. 3 Amigos do DPHAN, Recife, 1959.

SIMÕES, João Miguel dos Santos. *Azulejaria Portuguesa no Brasil, 1500-1822.* Lisboa: Fundação Calouste Gulbenkian, 1965.

SIMÕES, João Miguel dos Santos. *Estudos de Azulejaria.* Colecção Presenças da Imagem. Imprensa Nacional – Casa da Moeda, Lisboa, 2001.

SOUZA, Jonas Soares de. *Painéis de Azulejos do Museu Republicano “Convenção de Itu”.* Editora da Universidade de São Paulo/ Museu Paulista, São Paulo, 2013.

SUZIGAN, Wilson. *Indústria Brasileira: origem e desenvolvimento.* São Paulo: Hucitec, Editora da Unicamp, 2000.

TOLEDO, Benedito Lima de. *Anhangabaú,* São Paulo: Federação das Indústrias do Estado de São Paulo, 1989.

TOMAN, Rolf. *Viena: Art and Architecture.* Potstam: h.f.ullmann publishing GmbH, 2013 (English edition)

TONON, Joana. Palácio dos Azulejos. Arquivo Coordenadoria Setorial de Patrimônio Cultural de Campinas/ Campinas - texto mimeo, 2000.

TONON, Joana. *Palácio dos Azulejos: de Residência à Paço Municipal - 1878- 1968.* Dissertação de Mestrado apresentada ao Departamento de História Instituto de Filosofia e Ciências Humanas da Universidade Estadual de Campinas, 2003.

TRENTO, Angelo. *Do outro lado do Atlântico : um século de imigração italiana no Brasil.* São Paulo. Nobel: Instituto Italiano di Cultura di San Paolo e Instituto Cultural Ítalo-Brasileiro, 1988.

URIOSTE, Alejandro Artucio. *El azulejo en la arquitectura de Rio de la Plata – siglo XVIII y XIX.* Intendencia Municipal de Montevideo, Editorial dos Puntos, 1996.

URIOSTE, Alejandro Artucio. *Catálogo de azulejos franceses del siglo XIX hallados en Argentina, Brasil y Uruguay.* Associacio Catalana de Cerámica Decorada I Terrissa-Santiago Alberti, 1998.

VALLADARES, José. *Os Azulejos da Reitoria.* Cidade de Salvador, Universidade Federal da Bahia, 1953.

WANDERLEY, Ingrid Moura. *Azulejos na Arquitetura Brasileira: os painéis de Athos Bulcão*. Dissertação de mestrado defendido no Departamento de Arquitetura e Urbanismo da Escola de Engenharia de São Carlos, Universidade de São Paulo, São Carlos, 2006.

ZANETTINI, Paulo Eduardo. *Relatório: Prospecções Arqueológicas no Quintal do Museu da Energia Itu – São Paulo*. Museu da Energia Itu, Abril 1999.

ZARANKIN, Andrés. *Paredes que domesticam: Arqueologia da Arquitetura escolar capitalista; o caso de Buenos Aires*. Campinas: Centro de História da Arte e Arqueologia (IFCH-UNICAMP), 2002.

First Sources:

1. The Ranzini Collection – The Archive of Paulista Museum – University of São Paulo.
2. Archive of Evora (CityHall), Portugal : ADE.CNE. Tabelaão Manuel André Pinheiro de Carvalho. Livro 1009, fl. 125 e 126 vº (Arquivo Distrital de Évora); ADE.CNE. Tabelaão Manuel André Pinheiro de Carvalho. Livro 1130, fls. 2 a 4 vº(Arquivo Distrital de Évora)
3. IPHAN - Livro de Belas Artes: Inscrição número 280-A, Data: 08/07/1943, Livro Histórico: inscrição número 214, Data: 08/07/1943. Processo número: 0231-T-41.
4. Journals: Gazeta de Campinas 1878 e 1877 and Diário de Campinas: folha popular 1878
5. Archive Gulkenkian – Lisbon , Portugal
Website: [http://digitile.gulbenkian.pt/cdm/search/searchterm/Azulejos%20--%20Brasil%20--%20Séc.%2017%20--%20\[Fotografias\]/mode/exact](http://digitile.gulbenkian.pt/cdm/search/searchterm/Azulejos%20--%20Brasil%20--%20Séc.%2017%20--%20[Fotografias]/mode/exact)

Websites:

1. Igreja e Santa Casa de Misericórdia – Arquitetura religiosa
Site: <http://www.hpip.org/Default/pt/Homepage/Obra?a=1121>.
Access: July 2015.
2. Azulejos Antigos do Rio de Janeiro
blog address: <http://azulejosantigosrj.blogspot.com.br/p/modo-de-uso.html>

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[http://www.scielo.br/scielo.php?script=sci_arttext&pid=S010190742015000100148&lng=pt
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Source: Photo of the Author. October 2003.

Image A.26 – Elevation of the Palace of Tiles, Campinas, State of São Paulo, Brazil

Source: Author. October 2003.

Image A.27 – Examples of Portuguese Tiles found in Brazil (13 x 13 cm) – XIX century.

Source: CAVALCANTI, Sylvia Tigre de Hollanda; CRUZ, António de Menezes e. *O azulejo na Arquitetura Civil de Pernambuco: séculos XIX*. Ed. Metalivros: São Paulo, 2006.

Image A.28 – Examples of French Tiles found in Brazil (11 x 11 cm) – XIX century

Source: CAVALCANTI, Sylvia Tigre de Hollanda; CRUZ, António de Menezes e. *O azulejo na Arquitetura Civil de Pernambuco: séculos XIX*. Ed. Metalivros: São Paulo, 2006.

Image A.29 – The Museum of Energy, Itu, State of São Paulo, Brazil.

Source: Photo of the Author. October 2003.

Image A.30 – image of the Dutch pattern of tile used in the façade of the building.

Source: Photo of the Author. October 2003.

Image A.31 – Entrance Hall of the Museum of Energy, Itu, State of São Paulo, Brazil.

Source: SOUZA, Joana Soares de. Painéis de Azulejos do Museu Republicano “Covenção de Itu”. São Paulo: Imprensa Oficial, Editora EDUSP, 2013, p. 55.

Image A.32 – Panel of tiles, which illustrate the Conference with the representatives of Itu – September 1821. Museum of Energy, Itu, State of São Paulo, Brazil.

Source: SOUZA, Joana Soares de. Painéis de Azulejos do Museu Republicano “Covenção de Itu”. São Paulo: Imprensa Oficial, Editora EDUSP, 2013, p. 132.

Image A.33 – Palece of Pinho, Belém, State of Maranhão, Brazil

Source: <http://www.diarioonline.com.br/entretenimento/cinema/noticia-273756-.html>

Access August 2015.

Image A. 34 – Tile from Germany – Palace of Pinho, Belém, State of Maranhão, Brazil.

Source: <http://www.skyscrapercity.com/showthread.php?t=1203921&page=25>

Access August 2015.

Image A. 35 – Monastery of St, Benedicth, Rio de Janeiro, State of Rio de Janeiro, Brazil.

Source: <http://urbecarioca.blogspot.it/2013/06/artigo-projetos-para-o-centro-do-rio.html>

Access August 2015.

Image A.36 – Spanish tiles in Monastery of St. Benedicth, Rio de Janeiro, State of Rio de Janeiro, Brazil.

Source:<http://azulejosantigosrj.blogspot.it/2012/10/centro-xxiv-mosteiro-de-sao-bento.html#more> – in “Azulejos Antigos do Rio de Janeiro” , Fábio Carvalho, Access August 2015.

Image A.37 – Examples of application of various motifs in a façade of the Tradicional Style.

Felisberto Ranzini, 1927.

Source: D'ALAMBERT, Clara. *Manifestações da Arquitetura residencial paulistana entre as Grandes Guerras*. Tese de doutoramento apresentada à Faculdade de Arquitetura e Urbanismo da Universidade de São Paulo. São Paulo, 2003.p.46

Image A.38 and A.39 – Design of the book cover of the Felisberto Ranzini book (*Estylo colonial brasileiro, 1927*) and some examples of the crowning of the openings.

Source: D'ALAMBERT, Clara. *Manifestações da Arquitetura residencial paulistana entre as Grandes Guerras*. Tese de doutoramento apresentada à Faculdade de Arquitetura e Urbanismo da Universidade de São Paulo. São Paulo, 2003.p.46

Image A.40 – examples of the bull's eye and the corbels/plinths. Felisberto Ranzini, 1927.

Source: D'ALAMBERT, Clara. *Manifestações da Arquitetura residencial paulistana entre as Grandes Guerras*. Tese de doutoramento apresentada à Faculdade de Arquitetura e Urbanismo da Universidade de São Paulo. São Paulo, 2003.p.46

Image A.41 and A.42 – Examples of tiles in Rio de Janeiro, XVIII and XIX century. Wash Rodrigues, 1947.pp.224 - 227

Source: RODRIGUES, José Wash. *Documentário arquitetônico relativo à antiga construção civil no Brasil*. 4º Ed. Belo Horizonte. Editora Itatiaia, São Paulo: Editora da Universidade de São Paulo, 1979. pp. 224-228

Image A.43 – Examples of tiles with covered a monument in Bahia, Brazil, XVIII and XIX century. Wash Rodrigues, 1947. pp. 282-283

Source: RODRIGUES, José Wash. *Documentário arquitetônico relativo à antiga construção civil no Brasil*. 4º Ed. Belo Horizonte. Editora Itatiaia, São Paulo: Editora da Universidade de São Paulo, 1979. pp. 282-306

Image A.44 – Examples of tiles in North of Brazil, XVIII and XIX century. Wash Rodrigues, 1947. pp. 302-303

Source: RODRIGUES, José Wash. *Documentário arquitetônico relativo à antiga construção civil no Brasil*. 4º Ed. Belo Horizonte. Editora Itatiaia, São Paulo: Editora da Universidade de

São Paulo, 1979. pp. 302-303.

Image A.45 – Image of Lusa House, designed by Ricardo Severo (1920-24). São Paulo, State of São Paulo, Brazil. Today is demolished.

Source: http://mdc.arq.br/2012/03/20/antonio-garcia-moya-um-arquiteto-da-semana-de-22/02-02-casalusa-severo-1917-24_aracy_-p-89/

Access August 2015

Image A.46 – Lusa House, image of the backyard. São Paulo, State of São Paulo, Brazil.

Source: MELLO, Joana. *Ricardo Severo: da arqueologia portuguesa à arquitetura brasileira*. São Paulo: Annablume, 2007. pp. 206-209.

Image A.47 – Plans of ground floor and second floor. Ricardo Severo. São Paulo, State of São Paulo, Brazil.

Source: MELLO, Joana. *Ricardo Severo: da arqueologia portuguesa à arquitetura brasileira*. São Paulo: Annablume, 2007. pp. 206-209.

Image A.48 – Lusa House, image of the internal garden. São Paulo, State of São Paulo, Brazil.

Source: MELLO, Joana. *Ricardo Severo: da arqueologia portuguesa à arquitetura brasileira*. São Paulo: Annablume, 2007. pp. 206-209.

Image A.49 – Lusa House, image of the entrance hall. São Paulo, State of São Paulo, Brazil.

Source: MELLO, Joana. *Ricardo Severo: da arqueologia portuguesa à arquitetura brasileira*. São Paulo: Annablume, 2007. pp. 206-209.

Image A.50 – Lusa House, image of the office. São Paulo, State of São Paulo, Brazil.

Source: MELLO, Joana. *Ricardo Severo: da arqueologia portuguesa à arquitetura brasileira*. São Paulo: Annablume, 2007. pp. 206-209.

Image A.51 – Lusa House, image of the altar of the Carmo church, São Paulo, State of São Paulo, Brazil.

Source: MELLO, Joana. *Ricardo Severo: da arqueologia portuguesa à arquitetura brasileira*. São Paulo: Annablume, 2007. pp. 206-209.

Image A.52 – Overview of The Santa Catharina Factory, São Paulo, Brazil. Front image of the publication about the Municipal Exposition of São Paulo in 1918.

Source: PICCAROLO, Antonio - FINOCCHI, Lino. *O desenvolvimento industrial de S. Paulo através da Primeira Exposição Municipal*. São Paulo: Pocaí, 1918, p. 146 (Acervo do IEB/USP)

Image A.53 – Partial view of The Santa Catharina Factory, São Paulo, Brazil. Date and Author unknown. Image was used as the front page of the text about the enterprise in celebration about the foundation and new expansions of the factory.

Source: FABRICA SANTA CATHARINA – Fagundes, Ranzini & Cia.

Collection Ranzini, Archive Paulista Museum – University of São Paulo (USP): photographs, original of letters patent, notes and 23 books about the fabrication of ceramics and varnishes, documentation about the objects of Ranzini Family

Image A.54 – Plan of Ground floor of The Santa Catharina Factory in 1932 modify by Pereira. Scale 1:1000. The different colors represent the different expansions of the factory in the 1920s. (São Paulo city, Secretaria Municipal de Gestão, Divisão de Arquivo Municipal de Processos – SMG-DAMP. Processo 37.902/1932)

Source: PEREIRA, J. H. M. *As fábricas paulistas de louça: estudos de tipologias arquitetônicas na area de Patrimônio Industrial*. Dissertação (mestrado), FAU/USP, São Paulo, 2007, p. 55.

Image A.55 – Presentation of the different forms and ceramics produced by the Santa Catharina Factory (RAFAEL DE ABREU E SOUZA).

Source: ABREU e SOUZA, Rafael. *Louça Branca para a Paulicéia: Arqueologia Histórica da Fábrica Santa Catharina / IRFM – São Paulo e a Produção da Faiança Fina Nacional (1913-1937)*. Dissertação de Mestrado apresentada ao programa de pós-graduação em Arqueologia do Museu de Arqueologia e Etnologia da Universidade de São Paulo. São Paulo, 2010. p.73.

Image A.56 – Detail of the decorative tile - Presentation of the different forms and ceramics produced by the Santa Catharina Factory (RAFAEL DE ABREU E SOUZA).

Source: ABREU e SOUZA, Rafael. *Louça Branca para a Paulicéia: Arqueologia Histórica da Fábrica Santa Catharina / IRFM – São Paulo e a Produção da Faiança Fina Nacional (1913-1937)*. Dissertação de Mestrado apresentada ao programa de pós-graduação em

Arqueologia do Museu de Arqueologia e Etnologia da Universidade de São Paulo. São Paulo, 2010. p.73.

Image A.57 – View from Xavier de Toledo Street in the late XIX century, São Paulo, Brazil.

Source: <http://www.saopauloantiga.com.br/largo-da-memoria/>

Access August 2015.

Image A.58 – Image took by Militão Augusto de Azevedo. At the bottom, the Xavier de Toledo Street, the wall of Piques, the fountain and the first Obelisk, late XIX century. View from Formosa Street, São Paulo, Brazil

Source: FREHSE, Fraya. *Antropologia do encontro e do desencontro: fotografos e fotografados nas ruas de São Paulo (1880-1910)*. In: José de Souza Martins; Cornelia Eckert; Sylvia Caiuby Nov. (Org.). *O Imaginário e o Poético nas Ciências Sociais*. 1 ed. Bauru: EDUSC, 2005, v. 1, p. 185-223.

Image A.59 – Largo da Memória in the early twentieth century, after its rebuild in 1919, São Paulo, Brazil.

Source: <http://www.saopauloantiga.com.br/largo-da-memoria/>

Access August 2015.

Image A.60 – Largo da Memória designed by Victor Dubugras

Source: Archive of the Library Faculty of Architecture and Urbanism - University of São Paulo (FAU/USP)

Image A.61 – Largo da Memória, Front view of the Obelisk, early XXI century.

Source: http://www.yelp.com.br/biz_photos/largo-da-memoria-sao-paulo?select=asWLUBDWjg4gsJjYRtFEuw

Access August 2015

Image A.62 – Largo da Memória, view of the stairs, early XXI century

Source: Photo Heidi Monezzi, July 2015

Image A.63 – View from Xavier Toledo Street, Largo da Memória, early XXI century

Source: Photo Heidi Monezzi, July 2015

Image A.64 – The figurative panel of tiles representing the square as the old point of encounter of the drovers and travelers (Estúdio Artes Martins Sarasá: conservação e Resturo)

Source: Archive Estúdio Artes Martins Sarasá: conservação e restauro

Image A.65 – Patterns of tiles that covered the fountain. Photo Heidi Monezzi – July 2015.

Source: Photo Heidi Monezzi, July 2015

Image A.66 – the two patterns used in the decoration of the Largo da Memória – the first representing the city's patron and the second a stylized flower. Photo Heidi Monezzi – July 2015.

Source: Photo Heidi Monezzi, July 2015

Image A.67 – Poste Card of “Sea Route” in 1930, Theodor Preising.

Source: <https://sampahistorica.wordpress.com/tag/estrada-do-lorena/>

Access August 2015

Image A.68 – Poste Card of “Sea Route” in 1930.

Source: <https://sampahistorica.wordpress.com/tag/estrada-do-lorena/>

Access August 2015

Image A.69 – Poste Card – Overview of “Sea Route” in 1930

Source: <https://sampahistorica.wordpress.com/tag/estrada-do-lorena/>

Access August 2015

Image A.70 – Poste Card of “Sea Route” in 1938.

Source: <https://sampahistorica.wordpress.com/tag/estrada-do-lorena/>

Access August 2015

Image A.71 – Quinhentista Cruise, 1930s

Source: <http://www.novomilenio.inf.br/santos/h0102x7.htm>

Access August 2015

Image A.72 – Quinhentista Cruise, 1986

Source: <http://www.novomilenio.inf.br/cubatao/cfoto006.htm>

Access August 2015

Image A.73 – Quinhentista Cruise – Front View with the 3 main panels and the small fountain, Cubatão, Brazil.

Source: <http://www.camaracubatao.sp.gov.br/cidade4.html>

Access August 2015.

Image A.74 – Quinhentista Cruise – Front View with the 3 main panels and the small fountain, Cubatão, Brazil.

Source: <http://www.novomilenio.inf.br/real/ed145e.htm>

Access August 2015

Image A.75 – Quinhentista Cruise – View of the set of panels and fountain. Cubatão, Brazil.

Photo Mariana Ginesi

Source: Photo of Mariana Ginesi, 2006

Image A.76 – Detail of the central figurative panel – Father Joseph. Cubatão, Brazil. Photo Mariana Ginesi

Source: Photo of Mariana Ginesi, 2006

Image A.77 – Detail of the second decorative panel. Cubatão, Brazil. Photo Mariana Ginesi

Source: Photo of Mariana Ginesi, 2006

Image A.78 – Detail of the third figurative panel. Cubatão, Brazil. Photo Mariana Ginesi

Source: Photo of Mariana Ginesi, 2006

Image A.79 – Backside of the Quinhentista Cruise

Source: <http://www.novomilenio.inf.br/cubatao/cfoto006b.htm>

Access August 2015

Image A.80 – Detail of the decorative tiles – patterns located in the fountain. Photo Mariana Ginesi

Source: Photo of Mariana Ginesi, 2006

Image A.81 – Detail of the tiled panel with the representation of the Portuguese ships

Source: <http://www.panoramio.com/photo/22785662>

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Image A.82 – Pouso Paranapiacaba – porte card 1930.

Source: <https://sampahistorica.wordpress.com/tag/estrada-do-lorena/>

Access August 2015

Image A.83 – Pouso Paranapiacaba.

Source: <http://blog.imagensaereas.com.br/as-curvas-se-acabam-e-na-estrada-de-santos-nao-vou-mais-passar/>

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Image A.84 – Project Victor Dubugras (Archive Library – FAU-USP) – Elevation plan. Photo Mariana Ginesi.

Source: Photo of Mariana Ginesi, 2006

Image A.85 – Project Victor Dubugras (Archive Library – FAU-USP). Ground Plan.

Photo Mariana Ginesi

Source: Photo of Mariana Ginesi, 2006

Image A.86 – Pouso Paranapiacaba – the façade of the main entrance

Image A.87 – Detail of tiled panel of the map of São Paulo State. Photo Mariana Ginesi

Source: Photo of Mariana Ginesi, 2006

Image A.88 – Tiled panel with the Map of roads of São Paulo State. Photo Mariana Ginesi

Source: Photo of Mariana Ginesi, 2006

Image A.89 – Detail of the end wall with the friezes. Photo Marcos Piffer (08 June 2010)

Source: Photo of Marcos Piffer, 08 June 2010

Image A.90 – Detail of the small fountain in front of the main façade. Photo Mariana Ginesi

Source: Photo of Mariana Ginesi, 2006

Image A.91 – Pouso Paranapiacaba – The façade of the main entrance

Source: <http://www.panoramio.com/photo/8075696>

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Image A.92 and A. 93 – Patterns of tile located in the facades of the Pouso Paranapiacaba.

Photo Mariana Ginesi

Source: Photo of Mariana Ginesi, 2006

Image A.94 – Pattern of tile located in the interior of the building – Pouso Paranapiacaba.

Photo Mariana Ginesi

Source: Photo of Mariana Ginesi, 2006

Image A.95 – Stairs in the interior of the building – Pouso Paranapiacaba. Photo Mariana

Ginesi

Source: Photo of Mariana Ginesi, 2006

Image A.96 – Detail of the panel with the inscriptions about the foundation of the Pouso Paranapiacaba. Photo Mariana Ginesi

Source: Photo of Mariana Ginesi, 2006

Image A.97 – Poste Card of the Ranch of Manhood, 1930s.

Source: <https://sambahistorica.wordpress.com/tag/estrada-do-lorena/>

Access August 2015

Image A.98 – The Ranch of Manhood (early XXI century).

Source: <http://blog.imagensaereas.com.br/as-curvas-se-acabam-e-na-estrada-de-santos-nao-vou-mais-passar/>

Access August 2015

Image A.99 – The Ranch of Manhood (early XXI century).

Source: <http://blog.imagensaereas.com.br/as-curvas-se-acabam-e-na-estrada-de-santos-nao-vou-mais-passar/>

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Image A.100 – The Ranch of Manhood (early XXI century)

Source: <http://blog.imagensaereas.com.br/as-curvas-se-acabam-e-na-estrada-de-santos-nao-vou-mais-passar/>

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Image A.101 – Detail of the decorative tile located in the external wall in the top bars. Photo Mariana Ginesi.

Source: Photo of Mariana Ginesi, 2006

Image A.102 – The curve wall covered by a figurative tiled panel.

Source: Estúdio Artes Martins Sarará

Image A.103 – Detail of the figurative tiled panel.

Source: Estúdio Artes Martins Sarará

Image A.104 – Project of Victor Dubugras (Archive Library FAU-USP) Elevation Plan. Photo Mariane Ginesi.

Source: Photo of Mariana Ginesi, 2006

Image A.105 – Detail of the figurative tiled panel illustrating a view of Itanhaem, São Paulo, Brazil. Below the detail of the decoration of the framing of the panel. Photo Mariana Ginesi.

Source: Photo of Mariana Ginesi, 2006

Image A.106 – Detail of the interior tile.

Source: Photo of Mariana Ginesi, 2006

Image A.107 – Detail of the tiled composition.

Source: Photo of Mariana Ginesi, 2006

Image A.108 – The central room of Ranch of Manhood with the decorative tiles in “carpet”.

Source: <http://www.novomilenio.inf.br/santos/h0102x7.htm>

Access August 2015

Image A.109 – The Landmark of Lorena. Front view.

Source: <http://blog.imagensaereas.com.br/as-curvas-se-acabam-e-na-estrada-de-santos-nao-vou-mais-passar/>

Access August 2015

Image A.110 – The Landmark of Lorena. Left side view.

Source: <http://blog.imagensaereas.com.br/as-curvas-se-acabam-e-na-estrada-de-santos-nao-vou-mais-passar/>

Access August 2015

Image A.111 – The Landmark of Lorena. Right side view

Source: <http://blog.imagensaereas.com.br/as-curvas-se-acabam-e-na-estrada-de-santos-nao-vou-mais-passar/>

Access August 2015

Image A.112 – Detail of the tiled panel with the portrait of Bernardo José Maria de Lorena. Photo Mariana Ginesi.

Source: Photo of Mariana Ginesi, 2006

Image A.113 – Patterns of tiles identified in The Landmark of Lorena. Photo Mariana Ginesi

Source: Photo of Mariana Ginesi, 2006

Image A.114 – Portico of the Landmark of Lorena. Photo Mariana Ginesi.

Source: Photo of Mariana Ginesi, 2006

Image A.115 – cutting a tile with the aid of a square wooden template

Source: LEMMEN, Hans Van. *Delftware Tiles*. Oxford: Shire Publications Ltd, 2005, pp.4-9.

Image A.116 – a biscuit tile dipped into tin glaze

Source: LEMMEN, Hans Van. *Delftware Tiles*. Oxford: Shire Publications Ltd, 2005, pp.4-9.

Image A.117 – a fired biscuit tile ready to be dipped into tin glaze;

Source: LEMMEN, Hans Van. *Delftware Tiles*. Oxford: Shire Publications Ltd, 2005, pp.4-9.

Image A.118 – a dipped tile covered with a thin, even layer of white tin glaze.

Source: LEMMEN, Hans Van. *Delftware Tiles*. Oxford: Shire Publications Ltd, 2005, pp.4-9.

Image A.119 – a pin-pricked design with an ornate octagonal border pattern

Source: LEMMEN, Hans Van. *Delftware Tiles*. Oxford: Shire Publications Ltd, 2005, pp.4-9.

Image A.120 – a pin-pricked design with a landscape

Source: LEMMEN, Hans Van. *Delftware Tiles*. Oxford: Shire Publications Ltd, 2005, pp.4-9.

Image A.121 – a tile with a charcoal imprint left by the pin-pricked design and used as a guide by the painter.

Source: LEMMEN, Hans Van. *Delftware Tiles*. Oxford: Shire Publications Ltd, 2005, pp.4-9.

Image A.122 – a tile with the outlines of the charcoal design partially painted in.

Source: LEMMEN, Hans Van. *Delftware Tiles*. Oxford: Shire Publications Ltd, 2005, pp.4-9.

Image A.123 – a tile with all tints and shapes added in, ready to be fired. The dull gray and black colours will be transformed into a bright blue during the firing.

Source: LEMMEN, Hans Van. *Delftware Tiles*. Oxford: Shire Publications Ltd, 2005, pp.4-9.

Image A.124 – the fired tile showing the landscape and decorative border in all its vivid blue colouring.

Source: LEMMEN, Hans Van. *Delftware Tiles*. Oxford: Shire Publications Ltd, 2005, pp.4-9.

Image A.125 – Workers in the cement tile factory at Sint-Kruis-Brugge (Belgium). Above, there are the indication in red colour of the different steps of production identified.

Source: BAECK, Mario - HAMBURG, Ulrich – KAMERMANS, Johan – LEMMEN, Hans Van – RABENAU, Thomas and VERBRUGGE, Bart. *Industrial Tiles – 1840-1940*. Erstes Deutsches Fliesenmuseum, Boizenburg Stedelijk Museum Stellingwerff-Waerdenhof, Hasselt Neterlands Tegelmuseum, Otterlo Tiles and Architecture Ceramics Society, 2004.

Image A.126 – workers in the ceramic floor tile factory at Paray-le-Monial (France)

Source: BAECK, Mario - HAMBURG, Ulrich – KAMERMANS, Johan – LEMMEN, Hans Van – RABENAU, Thomas and VERBRUGGE, Bart. *Industrial Tiles – 1840-1940*. Erstes Deutsches Fliesenmuseum, Boizenburg Stedelijk Museum Stellingwerff-Waerdenhof, Hasselt Netherlands Tegelmuseum, Otterlo Tiles and Architecture Ceramics Society, 2004.

Image A.127 - Richard Prosser's invention of dust pressing clay made in 1840. It can clearly be seen how dust clay is compressed in a small screw press

Source: BAECK, Mario - HAMBURG, Ulrich – KAMERMANS, Johan – LEMMEN, Hans Van – RABENAU, Thomas and VERBRUGGE, Bart. *Industrial Tiles – 1840-1940*. Erstes Deutsches Fliesenmuseum, Boizenburg Stedelijk Museum Stellingwerff-Waerdenhof, Hasselt Netherlands Tegelmuseum, Otterlo Tiles and Architecture Ceramics Society, 2004.

Image A.128 - Tiles Press like this 19th century English encaustic tiles press made the industrial production of tiles a reality.

Source: W. F. Furnival, *Leadlines Decorative Tiles, Faience and Mosaic, Stone, Staffordshire*, 1904

Image A.129 - tile making by hand pressing

Source: http://www.thepotteries.org/photo_wk/040.htm date: December 2014

Image A.130 - Above is a plastic mould for an encaustic tile fixed into a former, below is a hand-operated backstamp used for wet clay tile making, the two wooden handles are missing. The stamp, reading Maw & Co., was simply pushed into the wet clay.

Source: DULBIN, Lesley. *Architectural Tiles: Conservation and Restoration*. Butterworth-Heinemann, 2005.

Image A.131 – Interior image of The Santa Catharina Factory – Section of Crushing and Milling (FABRICA SANTA CATHARINA – Fagundes, Ranzini & Cia.)

Source: PEREIRA, J. H. M. *As fábricas paulistas de louça: estudos de tipologias arquitetônicas na área de Patrimônio Industrial*. Dissertação (mestrado), FAU/USP, São Paulo, 2007, p. 58.

Image A.132 – Interior image of The Santa Catharina Factory – Section of Crushing and Milling (FABRICA SANTA CATHARINA – Fagundes, Ranzini & Cia.)

Source: PEREIRA, J. H. M. *As fábricas paulistas de louça: estudos de tipologias arquitetônicas na área de Patrimônio Industrial*. Dissertação (mestrado), FAU/USP, São Paulo, 2007, p. 58.

Image A.133 – Interior image of The Santa Catharina Factory – Section of lathes benches for making empties, vases, etc. (FABRICA SANTA CATHARINA – Fagundes, Ranzini & Cia.)

Source: PEREIRA, J. H. M. *As fábricas paulistas de louça: estudos de tipologias arquitetônicas na área de Patrimônio Industrial*. Dissertação (mestrado), FAU/USP, São Paulo, 2007, p. 58.

Image A.134 – Interior image of The Santa Catharina Factory – Section of lathes benches for making empties and also, in the center of the image, a glaze mixer and a glazing pond (FABRICA SANTA CATHARINA – Fagundes, Ranzini & Cia.)

Source: PEREIRA, J. H. M. *As fábricas paulistas de louça: estudos de tipologias arquitetônicas na área de Patrimônio Industrial*. Dissertação (mestrado), FAU/USP, São Paulo, 2007, p. 58.

Image A.135 – Interior image of The Santa Catharina Factory – Section of furnaces, which were equipped with rails for iron rails (FABRICA SANTA CATHARINA – Fagundes, Ranzini & Cia.)

Source: PEREIRA, J. H. M. *As fábricas paulistas de louça: estudos de tipologias arquitetônicas na área de Patrimônio Industrial*. Dissertação (mestrado), FAU/USP, São Paulo, 2007, p. 58.

Image A.136 – Interior image of The Santa Catharina Factory – Section of tableware store (FABRICA SANTA CATHARINA – Fagundes, Ranzini & Cia.)

Source: PEREIRA, J. H. M. *As fábricas paulistas de louça: estudos de tipologias arquitetônicas na área de Patrimônio Industrial*. Dissertação (mestrado), FAU/USP, São Paulo, 2007, p. 58.

Image A. 137 - Typologies of decorative tiles - Santa Catharina Factory (tiles found in the decoration of the buildings built for the Centennial of the Brazilian Independence - São Paulo State)

Source: Renata P. C. Monezzi - identification of the patterns of tiles.

Attachments

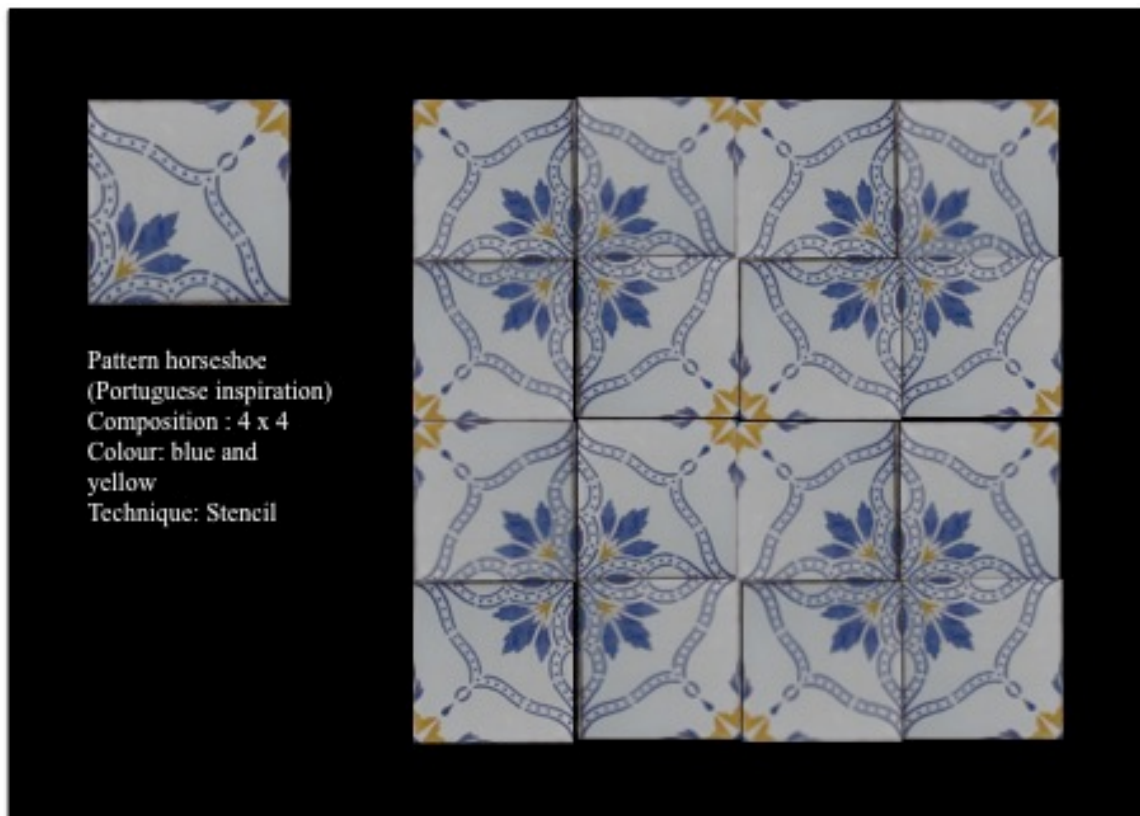
Attach 01. Composition of the panels type ‘carpet’ 2 x 2. Source: Renata Monezzi.



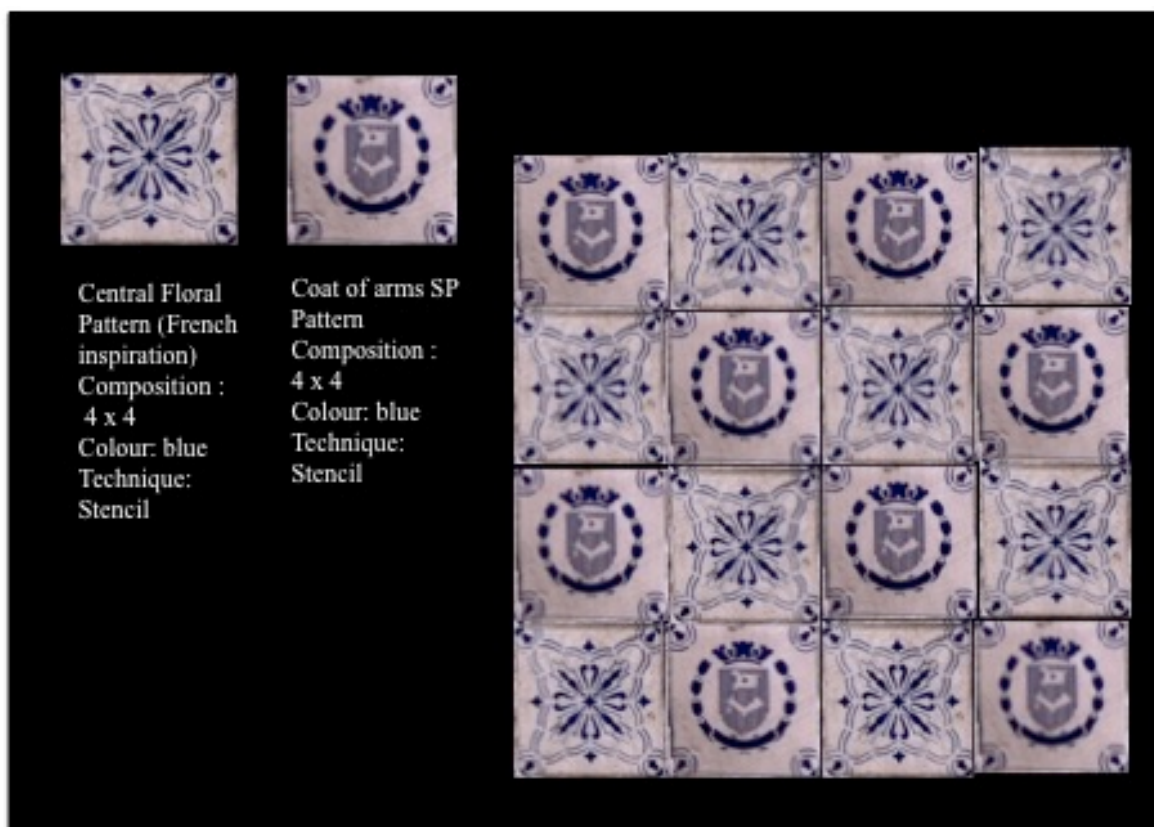
Attach 02. Compositions of the panels type ‘carpet’ 4 x 4. Source: Renata Monezzi.



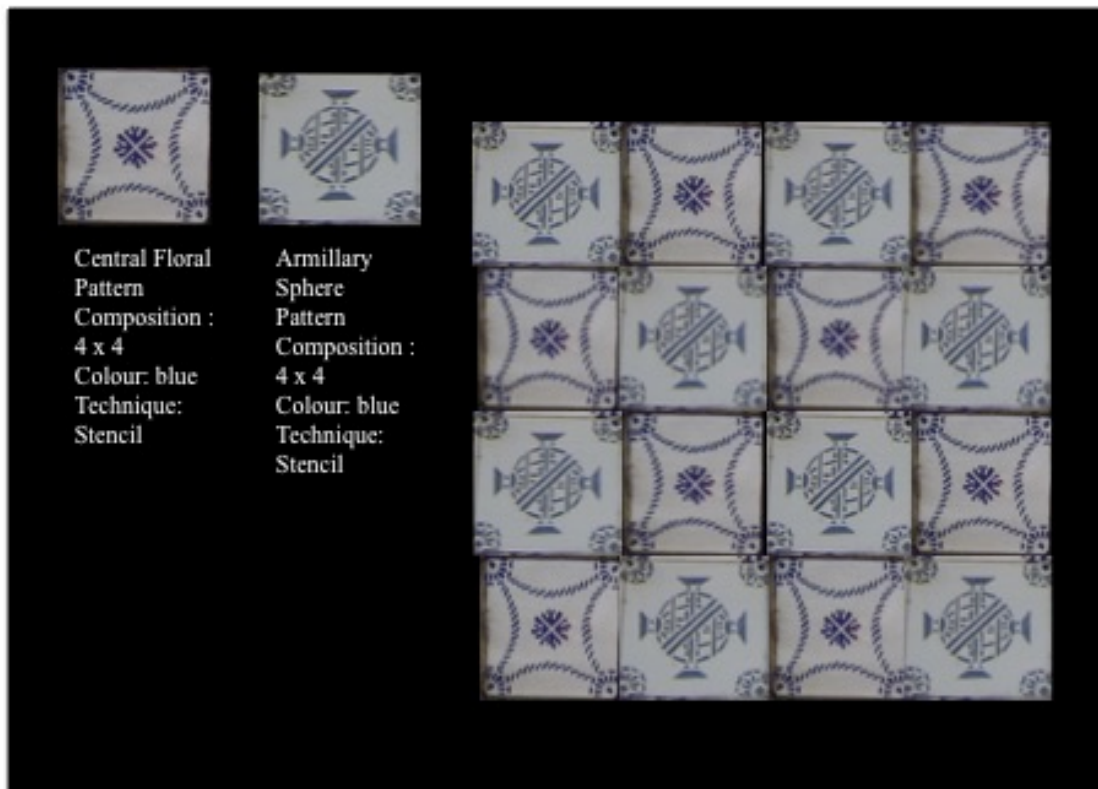
Attach 03. Compositions of the panels type 'carpet' 4 x 4. Source: Renata Monezzi.



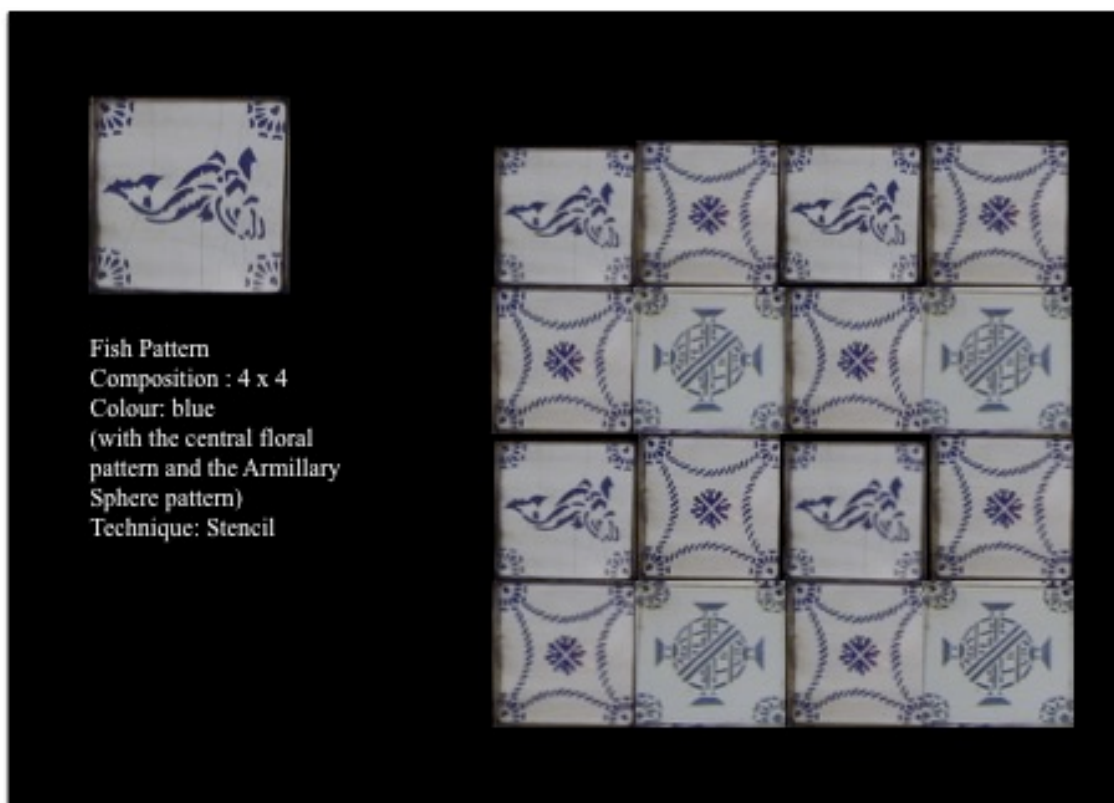
Attach 04. Compositions of the panels type 'carpet' 4 x 4. Source: Renata Monezzi.



Attach 05. Compositions of the panels type ‘carpet’ 4 x 4 – Landmark of Lorena. Source: Renata Monezzi.



Attach 06. Compositions of the panels type ‘carpet’ 4 x 4 – Quinhentista Cruise. Source: Renata Monezzi.



Attach 07.Figurative Panels – Landmark of Lorena. Source: Mariana Ginesi



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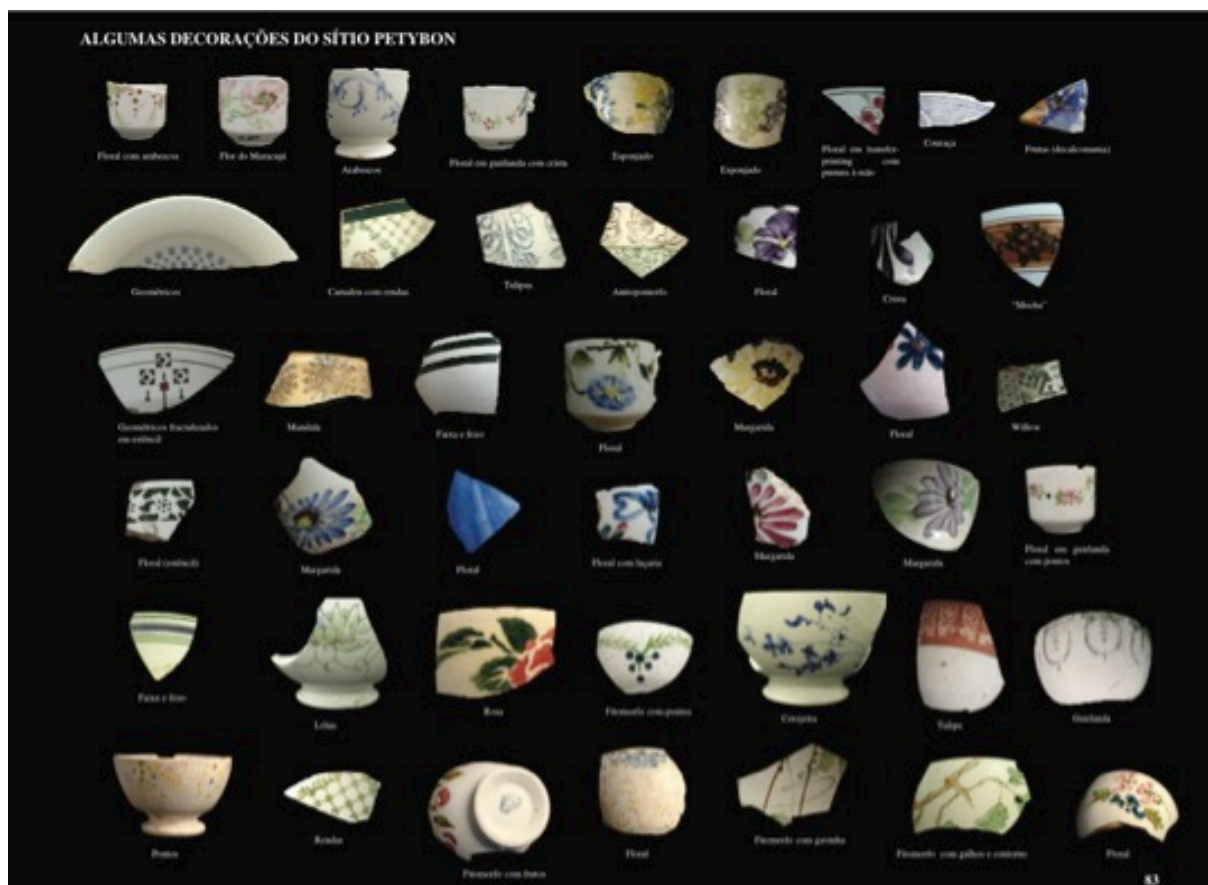


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Attach 08.Figurative Panels – Ranch of Adulthood. Source: Mariana Ginesi



Attach 09. Decorations in the tableware of the Santa Catharina Factory. Source: Rafael de Abreu e Souza *In:* ABREU e SOUZA, Rafael de. *Louça Branca para a Paulicéia: Arqueologia Histórica da Fábrica Santa Catharina / IRFM – São Paulo e a Produção da Faiança Fina Nacional (1913-1937)*. Dissertação de Mestrado apresentada ao programa de pós-graduação em Arqueologia do Museu de Arqueologia e Etnologia da Universidade de São Paulo. São Paulo, 2010. p. 83.



**TPTI – TECHNIQUES, PATRIMOINE ET TERRITOIRES DE
L’INDUSTRIE**

PROJET TUTORÉ – “Company Town”

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**Collective Project (Projet Tutoré):
Company Towns**

1. Introduction

This work presents a survey conducted on Master's Program Erasmus Mundus TPTI (Techniques, Patrimoine et Territoire de l'Industrie). The Master TPTI is a master's program that consists of three European Universities - University of Paris 1 Panthéon-Sorbonne (France), University of Padua (Italy) and University of Evora (Portugal) – whose the main objective is form the professionals of different fields in skills related to the Conservation and Valorization of Industrial Heritage. In this master's program, in addition to the activities linked to the individual training, the group activities are also developed and this present work is result of the collective project called “Projet Tutoré”, which aimed to allowing the development of collective works grouped into three main themes: The Company Towns, The Nautical Heritage and The Engineering Works.

The line of research presented in this work deals with the theme *Company Towns* and the main goal is conduct the research considering the particularities of *Company Towns* in France, Italy and Portugal in order to understand the existence of this kind of cities as a phenomenon of *Company Towns* and observe their similarities and differences. The time period of this research mainly cover the nineteenth and mid-twentieth centuries and the cities selected for this project were the cities of Noisiel (France), Schio (Italy) and São Domingos (Portugal). Furthermore, one of the ultimate goals is develop a virtual exhibition to share the information collected during this research with the general public.

Thanks the character of this project proposed by the Master TPTI (*Technique, Patrimoine et Territoires de l'Industrie*), this collective project about *Company Towns* has been developed with an interdisciplinary group composed by the architect Carina Marrero Leivas, the manager Spencer Moise, the scenographer Aicha Mokline, the historian and archeologist Valentine Aldebert and the architect Renata Poliana Cezar Monezzi. This interdisciplinary approach allowed new paths to study the phenomenon of *Company Towns* on different points of views and it is an interesting contribution for the studies related to industrial heritage and the thematic of *Company Towns*. It is important remark that during the first semester of this work, between September 2013 and January 2014, the architect Érika Nozawa participated of the group's activities.

Using the personal experiences and studying the three cases of study selected in France, Italy and Portugal, the group conducted a brief investigation about the types of *Company towns* and selected only an existing city in each country in order to develop an in-depth analysis and comparative studies between the cities that fall in the same category of

Company Town, which will be explained in the first chapter. Therefore, the group intends to understand the phenomenon of Company Town in these countries, investigating them today, understanding their backgrounds and their developments, as also the characteristics of the industrial heritage.

Thus, in order to carry out these objectives and considering the multidisciplinary group, each member of the group conducted an analysis of each case selected according to their respective specialties or rather the analyses were grouped into four main groups:

1. Investigations related to the thematic History of Techniques: addressing different aspects of production processes and industrial development;
2. Investigations related to Architecture and Urban Planning: addressing the formation of workers' cities, the types of buildings and their relations in the context of the industry;
3. Investigations related to the Social and Cultural History: covering the activities of the community to understanding their traditions and life;
4. Investigations related to Heritage's Valorisation: addressing the transformations of the villages and the history of each one to understanding the actions carried out for their valuation and permanence.

Therefore, the group performed researches in materials available in each country being consulted books, articles, specialized websites and conducted investigations on the spot during the visits “in loco” in each city selected as a case of study.

Finally, considering the division of the subjects covered about *Company Town* according to the specialty of each member of the research group, the architectural analyses were considered in this present work. Thereby, the architectural researches were divided into two main categories of work: the analyses that address the characteristics of the housing itself and the analyses about the characteristics of buildings that housed support services, as well as the analyses of the urban design of the worker's village. This way, the architect Carina Marrero Leivas developed the studies about the workers' dwellings and the architect Renata Poliana Cezar Monezzi developed the studies about the characteristics of the support buildings and the master plan. Thus, the second category has been identified in this present research.

2. Definition and Justification

In order to initiate the research and understand the meaning of Company Town, the working activities were organized firstly with a research of the bibliography available on the topic. When the group were seeking references, it was possible understand that the Company Towns were cities which have been developed and were created by companies or industries and its life was intimately tied to the interest of these enterprises. These enterprises have exercised absolute dominance over the territory and have established the life and routine around the industry.

According John Garner ¹⁶⁰, “(...) a company Town is a settlement build and operated by a single business enterprise. Most company towns appeared between 1830 and 1930 during the early industrial age“. Furthermore, “(...) in a Company Town virtually everything associated with the settlement, including the houses, store, school, and even the Chapel, was subordinate to the business enterprise” ¹⁶¹.

For the same author ¹⁶², “(...) most towns were quite small, with populations rarely exceeding a few thousand. The workers who lived in Company towns, who conformed to the circumstances imposed on them, created subcultures of their own. Social order derived from labor routine, isolation, and company-imposed rules or policies [...] A model company town was one in which the paternalism of the owner extended beyond the bare-bones architectural requirements of factories or mines. Well-designed houses, parks, schools, libraries, and meeting hall, all set within an attractive landscape, represented an unusual degree of interest by developer. But equally exceptional were the social programs that extended to the families of employees. Some resident industrialists took a genuine interest in the welfare of their work forces, and attempted to provide a model environment. Although their interest on local affairs could also be meddlesome or oppressive, more than a few industrialists undertook paternalistic measures to recruit or retain skilled labor as well as to maintain their financial investment in building and grounds. Some attempts were made to manage resources and to preserve or protect the surrounding environment”. Some of significant examples were the Garden Cities and New Towns like the cities in Letchworth and Birmingham designed by Barry Parker and Raymond Unwin.

¹⁶⁰ GARNER, John S. *The Company Town: Architecture and Society in the Early Industrial Age*. Oxford: Oxford University Press, 1992. p.3.

¹⁶¹ GARNER, John S. *The Company Town: Architecture and Society in the Early Industrial Age*. Oxford: Oxford University Press, 1992. p.4.

¹⁶² GARNER, John S. *The Company Town: Architecture and Society in the Early Industrial Age*. Oxford: Oxford University Press, 1992. p.4.

In 1898, Ebenezer Howard published “*Garden Cities of To-morrow*”¹⁶³, an important book that presented a utopic city, which its habitants lived in harmony with the environment. This publication inspired the built of many garden cities in England in the early XX century, as other company towns in different places around the world in nineteenth and twentieth centuries.

In France, besides the villages built to the workers, there was also the publication of the utopic projects for company towns. For example, the architect Tony Garnier published the book “*Une Cité Industrielle – étude pour la construction des Villes*”, in which illustrates in detail an idealized design for a Company Town. The Museum “*Cité de l’Architecture et du Patrimoine*” have a model of the Garnier’s project in the permanent exhibition area, as well as the book with the illustrations from the architect.

In the case of workers’ villages that were built in France by industries, there are some very well preserved places that still retain some original features such as the working village of Noisiel (near Paris and created by the Chocolatier Menier) and the working village of Arc-et-Senans, saline real in Chaux (centre west region of France and designed by architect Claude Nicolas Ledoux). In Italy, two cases of workers village built by companies, which are also very well preserved, are village of Crespi d’Adda (Lombardy) and village of Rossi’s factory (Schio) and are located in North of Italy. Augusto Ciuffetti showed in his book “*Casa e lavoro: dal paternalism aziendale alle ‘comunità globali’*” the appearance of Company towns in Italy and present the formation of some of them in the nineteenth century.

According to Ciuffetti¹⁶⁴, “(...) entrepreneurs like Rossi in Schio or Crespi in Lombardy, become examples for other Italian industries, not only for the obvious business skills, but also for the organization of the same business. In their economic strategies, the technological renewal is always accompanied by timely interventions in terms of work and

¹⁶³ The original title “*To-Morrow: A Peaceful Path to Real Reform*” was changed in 1902 for “*Garden cities of to-morrow*”

¹⁶⁴ CIUFFETTI, Augusto. *Casa e Lavoro: Dal Paternalismo aziendale alle ‘Comunità Globale’ – villaggi e quartieri operai in Italia tra Otto e Novecento*. Centro Ricerche Ambiente Cultura Economia, CRACE , 2004. p. 03. Translation of the original text: “imprenditori come i Rossi a Schio o i Crespi in Lombardia, diventano degli esempi per gli altri industriali italiani, non solo per le evidenti capacità imprenditoriali, ma anche per l’organizzazione delle stesse attività aziendali. Nelle loro strategie economiche, il rinnovamento tecnologico, si accompagna sempre a puntuali interventi sul fronte dell’organizzazione del lavoro e delle previdenze a favore degli operai e delle loro famiglie. L’innovazione, cioè, investe tutti gli aspetti della vita di fabbrica, dai processi produttivi fino all’ambito sociale, in una visione d’insieme, animata dalla logica del paternalismo. È in quest’ottica che i Rossi e i Crespi procedono, accanto ai loro opifici, nella fondazione dei primi villaggi operai, funzionali ai ritmi ed ai tempi di lavoro del sistema manifatturiero. Tra le motivazioni che portano alla creazione dei villaggi operai, si colloca, infatti, anche la necessità di staccare i lavoratori, in modo definitivo, dal loro contesto agricolo, dal mondo contadino dal quale provengono, per trasformarli in operai, perfettamente integrati con le attività industriali ”.

insurance in favour of the workers and their families. The innovation that is affecting all aspects of life of the factory, from production processes up to the social, in an overview, animated by the logic of paternalism. It is in this context that the Rossi and Crespi proceed, next to their factories, in the foundation of the first workers' villages, functioning in the rhythms and in the time of work of the manufacturing system. Among the reasons that lead to the creation of workers' villages, it lies, in fact, even the need to remove the workers, permanently, from their agricultural context, the rural world from which they come, to turn them into workers perfectly integrated with the industrial activities”.

In Portugal, however, the identification of cases of study was a little more complicated because some examples of *Company Town* are totally destroyed or modified drastically and the literature available is more dedicated to the architectural analysis about the workers villages and does not actually address the phenomenon of Company towns in Portugal. Researching about the history of Portugal and its industrialization, it was possible identify cases of workers villages in Lisbon and the area around, as the case of the district of Alcântara in Lisbon, but these examples were initiatives, in majority of cases, that were a consequence of the industrialization process and does not necessarily were the result of an Company or an Industry initiative. Although, it is possible to find some cases that can be identified as a *Company Town* and are well preserved as Village of São Domingos Mine in Bertola and the Village of Estrela d’Ouro in Lisbon.

Looking closely at the range of material available on the subject *Company Towns*, it can understand that it would be possible to classify the company towns into three groups: the cities that were devised and designed, but not built; the company towns that were built, but currently do not exist or are in ruins; and the cities that have been built and currently retain their initial activities, performing in many cases, well-preserved buildings.

Thus, taking into consideration these three categories, the group have considered appropriate the investigation of examples that showed some unique characteristics, hence, company towns that still retained some of its original buildings constructions, being possible, in this way, to perform analysis in place, so that not only allow a bibliographic research but also observe on the changes and the new intended uses.

The French Company town selected for this work was the village built by the Chocolatier Menier. This Village was built in 1874 by the businessman Emile Justin Menier. According the *Inventaire Général des Documents et des Richesses Artistiques de la*

*France*¹⁶⁵, this company town “(...) illustrate perfectly a line of thought that brings, since middle of nineteenth century, hygienists and industries in the same direction: to overcome the physical and moral evils that engendered by the cramped and unsanitary dwellings”. Its architectural ensemble is very well preserved as regards the buildings that make up the built set of industry and a large part of the buildings that made up the original village still exist in the working place. This being one of the criteria considered by the group as an important requirement for defining the object of study, the working village of the Menier's Chocolate industry proved a timely case study not only because largely to preserve its original features but also for being an important reference in France related to important example of Company Towns existed in this country.

The same criteria were considered for the Italian case selected for this present work. Following the selection of the measures on which are given more importance to the state of conservation of the built set and the original architectural characteristics, the Italian company town selected was the Company Town of Rossi's Factory in Schio, located in Veneto region, North of Italy. This Company Town is one of the first examples in North of Italy of workers' village and keeps, still nowadays, the original characteristics of space organization established in the period of the factory and its production.

For the Portuguese case, firstly were conducted several researches related to the formation of workers' villages in Portugal particularly in Lisbon and regions around the city, specially because of the difficulties to find a relevant example of Company Town for the purposes of this project. Among the main workers' villages stand out from the case of working-class district of Alcantara, which developed from the growth and formation of the port area and the industrialization of Lisbon. These Portuguese examples differ from the case of the village of São Domingos Mine, precisely because these workers' villages were formed not only by the initiative of a company or an industry and marked by a strong sense paternalistic, but were also resulted of both initiatives (public and private), which had as a main objective transform and adapt the living spaces of the workers in order to provide better conditions of health and quality of life, given the fact of the existence of serious public health problems in this region.

¹⁶⁵ HERVIER, Dominique - JANTZEN, Hélène (direction). Inventaire Général des Documents et des Richesses Artistiques de la France / Service Régional de l'Inventaire Ile-de-France. *Noisiel: la chocolaterie Menier – Seine-et-Marne*. Association pour le Patrimoine d' Ile-de-France, 1994. p.56. Translation of the original text: “illustre parfaitement le courant de pensée que réunit, depuis le milieu du XIXe siècle, hygiénistes et industriels dans une même volonte: celle de remédier aux maux physiques et moraux qu'engendrent l'exiguïté et l'insalubrité du logement”.

Besides of Alcantara Distric, the case of Village of Estrela D'Ouro, also located in Lisbon and closer to what is meant by Company Town, is a case that shows how relevant this example can be for future studies. This workers' village of Estrela d'Ouro¹⁶⁶, which was formed from the initiative of Agapito Serra Fernandes (owner of the industry of confectionery who created a minimum urban infrastructure in order to host his own family members and the workers of his factory) is a rich case of appropriation of urban space with the construction of workers' houses, cinema and garden following a model and urban design rather peculiar, using decorative tiles and the design of the street marked by stars. Unfortunately given the difficulty of obtaining more information, maybe result from little scientific research on this industry and its village, there is a need for further research, especially regarding the researches in primary sources. Among the collected and researched information and thanks to lack of professional literature, the family and industry history were insufficient to support the discussions raised here, making it impossible use this case for the proposed objectives of this study.

Another equally interesting example in Lisbon was the workers' village of the Sacavém Ceramic Factory, which came to build a series of improvements around its industry to ensure better quality of life for its workers. However, in 2009 with the decline of the company and the need for the payment of debts, the land was sold and was refurbished with the construction of apartment towers, leaving only as a living memory of this region and its history the Ceramic Museum of Sacavém. Whereas one of the premises established by the group was the actual existence of urban facilities and housing the *Company Town*, it was decided to select the case of Company Town of *São Domingos*, whereas the Sacavém Village suffered very significant changes that prevent investigations "in loco "of existing structures.

Thus, following the examples of other Company Towns selected for the French case and the Italian case, the Portuguese case of the village of São Domingos Mine was relevant precisely because it is a village that still maintains features of its founding and keeps its architectural whole well preserved as a Company Town. The Mine of São Domingos was the main mine of copper in Portugal between middle of XIX and XX centuries and is formed by an industrial buildings set with workers' dwellings and collective buildings. According to

¹⁶⁶ Located in Lisbon in freguesia de São Vicente, Virgínia Street, between the Graça Street and Senhora do Monte Street. Designed by the architect Norte Júnior and built in 1909. For more information – research in the website: <http://www.patrimoniocultural.pt/pt/patrimonio/patrimonio-imovel/pesquisa-do-patrimonio/classificado-ou-em-vias-de-classificacao/geral/view/72302/>

Helena Alves¹⁶⁷“(…) this enterprise is the group of industrial buildings and main town, erected to house all hand labor and services needed to work organization and marketing of products in an integrated space with the same name - Mina de S. Domingos”.

¹⁶⁷ ALVES, Helena. *Mina de S. Domingos: Breve Historial In: Memória Alentejana* – CEDA (Centro de Estudos Documentais do Alentejo – Memória Coletiva e Cidadania). Ministério da Cultura Direção Regional Cultura Alentejo. Outono-Inverno nº21/22, 2007. p. 30. Translation of the original text: “*esse empreendimento é formado pelo conjunto dos edifícios industriais e povoado principal, erguidos para albergar toda a mão-de-obra e serviços necessários à organização do trabalho e comercialização dos produtos, num espaço integrado com o mesmo nome – Mina de S. Domingos*”.

3. The Cases of Study in France, Italy and Portugal

In this present chapter, was analysed the three cases of Company towns selected for this collective project, which were explained in the first chapter. This way, in this chapter, the architectural aspects were addressed, especially regarding the buildings that housed the collective facilities of the company town. Moreover, were addressed also the analysis of the master plan, especially for the cities that were designed or planned by an architect. The architect Carina Marrero Leivas will address the characterization of workers' dwellings to complement the other aspects conducive to that discipline.

This way, firstly, was presented a brief introduction of the history of the Company Town and the industry related in each case of study to introduce the reader about the context of each city. Secondly, it was presented the master plan to understand how were organized the buildings of collective interest and the dwellings in the context of space of the city, presented also the organization of the zones designate for the public means. Finally, it was presented each collective building for understand its peculiarity in the Company Town.

3.1. Noisiel and the Menier Chocolate Factory - Brief History

The Menier Chocolate Factory began as an initiative of Jean Antoine Brutus Menier, a pharmacist who became interested in the art of making chocolate. He purchased an old mill in Noisiel to produce chocolate and the same time tried to keep their activities as a pharmacist. The Menier chocolate factory began its real expansion process only with the leadership of Emile Justin Menier, son of Jean Antoine. He was able to significantly expand the family business. Emile separated the two main activities founded by his father, Jean, reserving the manufacture of pharmaceuticals in Saint-Denis and the factory Noisiel intended only for the production of chocolate.

Emile sought to control all stages of production and distribution of their products: in Nicaragua, began the cultivation of Cacao, that is the main raw material of the production of chocolate, and then he tried to settle the popularization of the consumption of chocolate. Finally, after the development of company of chocolate, he created his *Company Town*.

3.1.1. The Company Town of Noisiel - La Cité Ouvrière de Noisiel

The Company Town of Noisiel began to be built in 1874 and it is located in the city of Noisiel, North of France. The company town follows a plan in rectangular grid which were implanted dwellings for families of workers, collective housing for single people and the buildings that house the collective facilities such as City Hall, the municipal department, school group, cafeterias, stores, restaurants, hotels, nursing home, medical service and a laundry room (the laundry room worked just for a while, after the death of Émile-Justin Menier it was disabled).

The community facilities are located around two large central squares. One side of the first square was located the school group building. In the centre of this square in front of building to the School is located a monument in honour of Emile-Justin Menier. This monument was inaugurated on 8 October 1898 for a series of festivities related to the laying of the first stone of the nursing home. The monument was made by the sculptor Paul Berthe and “(...) it consists of a bust of marble, original magnification due to Carrier Belleuse, placed on a pedestal, flanked by two bronze allegories recognizable by their attributes: Thought and Industry. At the base of pedestal were two cherubs, filed today, bearing the stick of Mercury for convey the message of pharmaceutical origins of the company. On the base four bronze reliefs illustrate the highlights of the establishment of the factory and the city”.¹⁶⁸



Image B.1 - Bust of marble of Emile-Justin Menier - Source: Visit at Noisiel 07/12/2013 - image took by Renata P. C. Monezzi

The construction of the building set was occurring in stages. According the “*Inventaire Général des Documents et des Richesses Artistiques de la France*”, the construction of this Company Town was working on five different stages: the first stage was characterized by the construction of 66 dwellings and the school group (between 1874 and

¹⁶⁸ HERVIER, Dominique - JANTZEN, Hélène (direction). *Inventaire Général des Documents et des Richesses Artistiques de la France / Service Régional de l’Inventaire Ile-de-France. Noisiel: la chocolaterie Menier – Seine-et-Marne*. Association pour le Patrimoine d’ Ile-de-France, 1994. p. 70. Translation of the original text: “il est composé d’un busto de marbre, agrandissement d’un original dû à Carrier Belleuse, placé sur un piédestal, flanqué de deux allégories de bronze reconnaissables à leurs attributs: la Pensée et l’Industrie. A la base du piédestal se trouvaient deux angelots, aujourd’hui déposés, porteurs du bâton de Mercure en rappel des origines pharmaceutiques de l’entreprise. Sur le socle quatre bas-reliefs de bronze illustrent les temps forts de la création de l’usine et de la cité”.

1876); the second stage was the construction of 26 houses between 1880 and 1882; the third was the construction of coffee shop and restaurant for the workers (between 1884–1885); the fourth stage was the construction of the City Hall, the “*Arsenal des Pompes*” and 53 houses (between 1890–1895); Finally, the fifth stage was the construction of the Nursing House and 6 homes (between 1901-1911).



B.1.



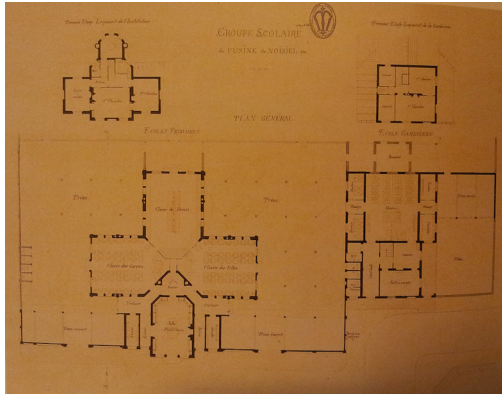
B.3.

Image B.2 - Plan of Noisiel area with indication of industrial area and the village.

Image B.3 - indication of the position of the collective buildings as City Hall, main Squares with the restaurants, primary school, hotels and below of image the nurse house.

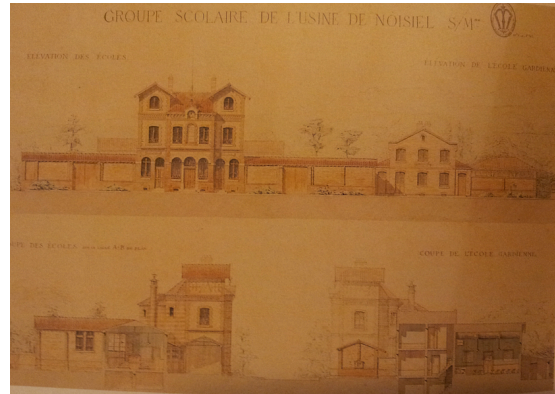
As previously mentioned, the first collective buildings constructed were the buildings of the School Group. Emile-Justin, with its paternalistic policy, gave special importance to the education of his employees, built the set located at the edge of the square in the center between two lines of trees distributed along of the streets. The buildings of the School Group were built between 1874 and 1876. As can be noted in plan, the kindergarten program (main building left plant) provided three rooms that could be joined as pedagogical needs. Each room was designed respectively to girls class, the class of boys and the last was a multipurpose room. On the right, was located the Elementary School, which had only one classroom, the kitchen and a small dining room. In both buildings is noted that, in the first floor, were provided small rooms that probably served as a support for school activities. The facades of both buildings follow the same model of the Moulin Menier facades, which are lined with bricks of different shades creating geometric patterns and demarcating the upper

floors. The mark of the Menier factory (represented by the letter "M") appears on the sides of the building facades corresponding to Elementary School.



B.4.

Image B.4 - Plan of the buildings of the School Group.



B.5.

Image B.5 - Facades and Sections of the buildings of School Group.

In addition to the buildings, the architect was also concerned with the design of furniture: the desks were designed in order to meet the ergonomic standards (see illustrative example). In 1892, the group undergoes by some changes in which were added to the main building of the body plus two additional classes, forming a configuration that can be currently observed.



B.6.

Image B.6 - the model of school desk



B.7.

Image B.7 - the image took in 1900 in front of the School group with the configuration that can be see nowadays

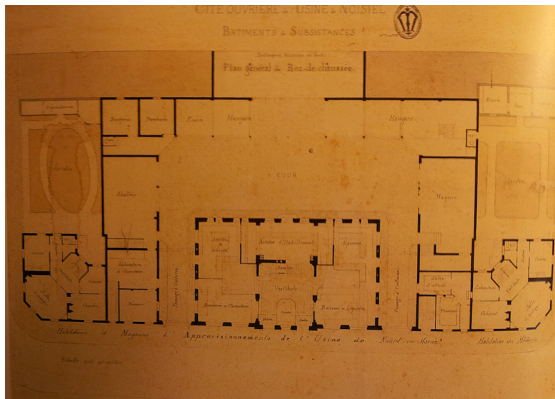


B.8.

Image B.8 - the image took during the visit in 07/12/2013.

After that, the buildings built were the restaurants and the shops (or the buildings of subsistence, as indicated in the project plans). In 1876, the population of Noisiel doubled and the problems of lack of infrastructure began to be dormant. Emile Justin, as the first financier, proposed to create a cooperative in order to build the warehouses, however, turned out to be the only partner.

The buildings of subsistence, built on the south side of the square, which where is located the monument of Emile Justin Menier, originally presented a very interesting setup to create two small access for vehicles (between the main building and the buildings of the extremities) and create also a kind of small gallery inside the lot intended to support services to businesses. In the facades, there are the coating bricks, marking embossed the lintels of doors and windows. In the windows, it can be also noted, the presence of the iron fences decorated.



B.9.



B.10.

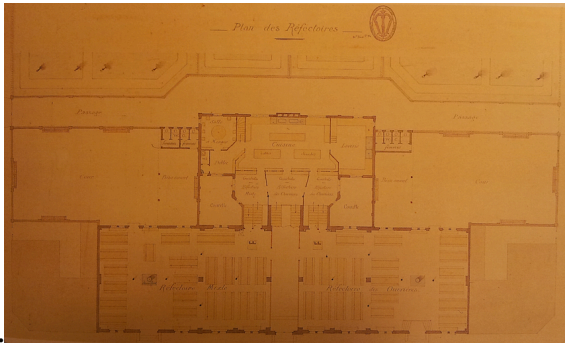
Images B.9 – Ground Plan of the Subsistence Building

Image B.10 – Elevation Plan - Facades of the Subsistence Building.

The dining halls were built between 1884 and 1885 on the north side of the square. The main entrance gives access to a small hall that distributes to each side of the two dining areas. Each dining room has access to a small yard abroad and bathrooms. There is also the access to the dining rooms located in the first floor. The kitchen, built in 1889, is located in the central part of the funds and was designed to follow the model of hygiene at that time: separate washing area of the food preparation area. It had also a support area with small kitchen and bathroom for employees. On the last floor (check the cut section) was planned a conference room with overhead lighting. The facade of this building follows the same line of coatings planned for School Group: the decor in bricks marking the windows and doors and small ceramic strips that give value and demarcate the different floors.

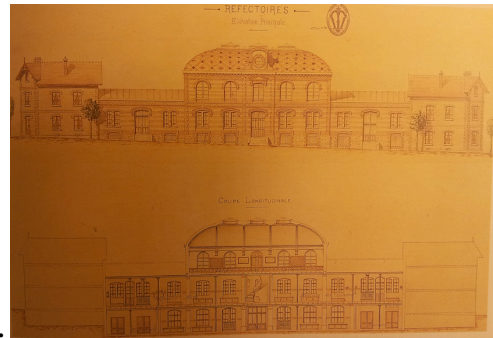
Finally, the last collective buildings that are located around the central squares of the working village are the buildings intended for restaurant, cafeteria and hotel. Located on both sides (north and south) of the second square, follow the same kind of facade. Equally valued by coating in brick, the facade follows the same style as other buildings previously presented. They have 3 floors with lines in ceramic pieces to mark the change of pavement. In the centre,

the main entrance is marked by the existence of a semi-circular window on top and a triangular pediment with cast iron gutters decorated.



B.11.

Image B.11 – Ground Floor Plan of Restaurants for the workers.



B.12.

Image B.12 – Elevation and Section Plan of Restaurants for the workers.

Evaluating images taken between 1885 and 1887 (online archive of the city of Noisiel), it is possible to observe that the ground floor in the building, located in south of the square, has undergone significant modifications to meet new demands and programs. However the building located in north of the square still has some of the original features. In the pictures below, it is possible to observe the sustained change. Unfortunately, it was not possible to identify the original plans of these buildings and was also not possible to make a visit to the interiors of them during the visit guided, so the evaluations were restricted only to the observations of the facades.

According to the *Inventaire Général des Documents et des Richesses Artistiques de la France*¹⁶⁹, “(...) the ground floor houses a drinking establishment, one big room widely open to the garden and essential equipment (reserves...). Twenty bedrooms upstairs and the dwellings in the attic are destined to the singles of the factory”.

Besides the collective buildings that are located around the main squares close to the Menier’s Industry, it is possible to observe two buildings that are located far from these central squares of the village: the first building is the City Hall, which is located in the first block close to the industry and where are located the first homes; and the second building, located further south of the urban area of the village, is the nursing home.

¹⁶⁹ HERVIER, Dominique - JANTZEN, Hélène (direction). *Inventaire Général des Documents et des Richesses Artistiques de la France / Service Régional de l’Inventaire Ile-de-France. Noisiel: la chocolaterie Menier – Seine-et-Marne*. Association pour le Patrimoine d’ Ile-de-France, 1994. p. 66. Translation of the original text: “Le rez-de-chaussée abrite un débit de boissons, une grande salle largement ouverte côté jardin et les équipements indispensables (réserves...). Une vingtaine de chambres à l’étage, destinées aux célibataires de l’usine ainsi que des logements sous les combles pour le personnel complètent l’ensemble”.



B.13.



B.14.



B.15.

Image B.13 – the ancient image of the hotel for workers between 1885 and 1887.

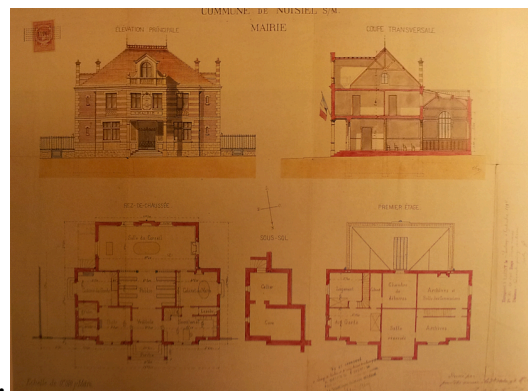
Image B.14 – the hotel in South of square.

Image B.15 – the hotel in North of square.

The City Hall of Noisiel was built in 1895 and was one of the later built buildings. This building also received the usual materials found in other buildings in the workers' village, however, started a new composition of decoration. On the facade, bricks appeared in dark tones and light tones creating stripes. The staircase and the portico in stone with Roman columns mark the entrance of the building. The windows are rectangular and are protected by iron railings decorated. Inside, it is possible notice the domain on the municipal management exercised by the Menier family: the internal decoration is always somehow related to the Chocolatier Menier. The wallpaper, for example, is richly decorated with drawings of flowers and branches of cacao and the ceiling has representations of the letter "M", symbol of the Menier family.



B.16.



B.17.

Image B.16 – image of the main facade of the City Hall building

Image B.17 – Ground Floor Plan with elevation and section plan of the Project

Finally, the Nursing Home was a building designed by architect Emile Hottot. Opened in 1902, it is a building of great proportions compared with the others that make up the program that houses the collective interests of the village. The facades of this building follows the style of other buildings promoted by the Menier industry, however as a coating, as well as

bricks present in the buildings described above, the architect opted for the use of stone. The bricks in darker tones make the details of the corners, frame the windows and make the demarcations of pavements.

According to *Inventaire Général des Documents et des Richesses Artistiques de la France*¹⁷⁰, “(...) on the ground floor were housed the infirm and elderly workers. The steering, the doctor's office, the kitchen, refectories occupied the centre of the building. In both wings, were the dormitories and its services. On the first floor were greeted sick or injured workers. In the centre, were distributed the operating room, locker rooms, lingerie which were located around the director's dwellings. A right and left, the rooms for the wounded with suite bathrooms, equipped with hot and cold water”.



B.18.



B.19.

Image B.18 – image of the main façade of the Nursing Home

Image B.19 – image of the building set of the Village.

Analyzing the buildings that make up the set built for the collective activity of the Company Town of Noisiel, it is possible observe certain important architectural similarity that created a visual unity of the industrial complex and its city. The use of materials as bricks and the facades decoration were a valuable resource used by the Menier industry to determine the locations of its domain.

¹⁷⁰ HERVIER, Dominique - JANTZEN, Hélène (direction). *Inventaire Général des Documents et des Richesses Artistiques de la France / Service Régional de l’Inventaire Ile-de-France. Noisiel: la chocolaterie Menier – Seine-et-Marne*. Association pour le Patrimoine d’ Ile-de-France, 1994. p. 74. Translation of the original text: “Au rez-de-chaussée, étaient logés les infirmes ou les ouvriers âgés. La direction, le cabinet du médecin, la cuisine, les réfectoires occupaient le centre de l’édifice. Dans les deux ailes, se trouvaient les dortoirs et leurs pièces de services. Au premier étage, étaient accueillis les malades ou les accidentés du travail. Au centre, le logement de la directrice, autour duquel étaient distribués la salle d’opération, les vestiaires, la lingerie. A droite et à gauche, les salles pour les blessés avec leurs salles de bains attenantes, équipées d’eau chaude et froide »

3.2. Schio and The Alessandro Rossi's Factory, Italy – Brief History

Throughout its history, the city of Schio has in the production of wool and textile an important tradition. During the winter, agricultural production was frustrated by the rigorous cold and tasks relating to textile production gained importance in domestic life. After Italian unification and the extent that there was a further development of textile production, the region of Schio and Vicenza received a large number of rural workers seeking job opportunities in existing industries. This stimulated the development of the city of Schio and the creation of the worker's village that was built in order to house the workers newcomers. Among companies that have played an important role in the industrial development of the region highlights the Rossi industry of woolen manufacture.

Francesco Rossi founded the Rossi industry of woolen manufacture in 1817. It was a small factory whose production was handmade and gained prominence only later when, in 1849, this small industry was inherited by his son, Alessandro Rossi. Alessandro transformed this small industry on the most important national industries and a reference with regard to regional economic development.

Thus, Alessandro organized its industrial village in an area of about 2 hectares encompassing collective buildings with utilities, gardens and 436 dwellings classified in different types bound to the different positions in the company. The architectural and urban design was designed by architect Antonio Caregaro Negrin that, according to Fontana¹⁷¹, was responsible for realizing the conception of Rossi about the necessities of the workers village: one city that would be organized and aligned with a concept of morality and conceptions of a functional modern architecture.

3.2.1. The Company Town of Alessandro Rossi

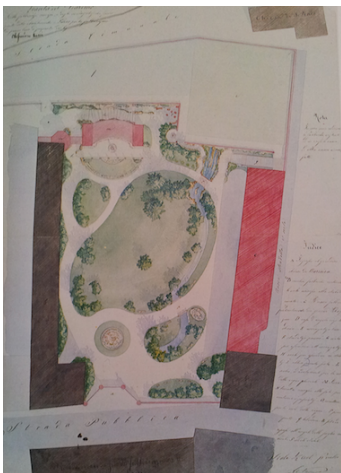
Among the first initiatives of Alessandro Rossi for the construction of housing and a workers village was the build of a residential building called Palazzone. This building came to meet the basic needs of housing for the workers of his factory. Following the same mold of the workers' villages in Europe, the project of the workers village of Rossi's company tried to

¹⁷¹ FONTANA, Giovanni Luigi. *Schio e Alessandro Rossi: imprenditorialità, politica, cultura e paesaggi sociali del Secondo Ottocento*. Roma: Edizioni di Storia e Letteratura, 1985. p. 689.

ensure a maximum utilization of built area and the optimization of habitable space, as well as the employment of cheap materials.

According to Ciuffetti ¹⁷², the Palazzone was a building with four floors, with 28 small dwellings (with two and three rooms), which had some rooms for collective purposes as the kitchen, dining hall and a room for recreation and dance. The Palazzone was demolished in 1965. However, to the author, Rossi changed his ideas about this first model of houses and preferred create detached houses as the model for the dwellings of his workers' village. Besides, considering the social needs, Rossi developed also buildings for collective purposes as the Primary School, the Nursing Home, the Theater, the Workers Restaurants (dinning halls) and the Medical Center.

In Addition, in 1862, Alessandro realized the construction of the factory call “Fabbrica Alta” (designed by Belgian architect Auguste Vivroux), expanding this way the manufacturing facilities and becoming a reference in the industrialization of Italy. Some years before, Alessandro realized the construction of the Garden and the Theater Jacquard in order to enable the development of cultural and recreational activities to its employees.



B.20.



B. 21.

Image B.20 – Plan of the Garden Jacquard

Image B.21 – Photo took during the visit in March 2014 by Renata Monezzi

The Garden Jacquard was designed by the architect A. Caregaro Negrin (Vincentian architect) and was built in 1859. It was a small garden area bounded by Jacquard Theatre and an old building. In the center area was constructed a sculpture in honor of Alessandro Rossi.

¹⁷² CIUFFETTI, Augusto. *Casa e Lavoro: Dal Paternalismo aziendale alle 'Comunità Globale' – villaggi e quartieri operai in Italia tra Otto e Novecento*. Centro Ricerche Ambiente Cultura Economia, CRACE , 2004. p. 30.

According to Fontana¹⁷³, “(...) the happy position of the site, integrated part in the plains and in the hills, and the existing buildings made from old horse stable of Rubini (probably ex-factory Tron), recent property of Rossi, the church of San Rocco (1500) and the two corners facing the road - together to the new architecture, avenues, water courses, the endless variety of plants and flowers - are cleverly exploited by Caregato Negrin to create a romantic facade to represent the real-life factory”.

To Fontana, the foundation of the Jacquard Theater was a solution created by Rossi for the organization of the free-time of his workers. The headquarters of the foundation was located in the building known as "building-magazine" (which later was adapted to become the Jacquard Theatre) and recreational activities were linked to the creation of musical groups, theater and literature prizes. The architect Caregato Negrin in 1869 turned the building into a theatre room with seating for 600 people. According to the same author¹⁷⁴, “(...) it assumes the particular form horseshoe to the trend of the wooden lodge, which once ran along three sides, directing the viewer's attention to the deep scene framed by a sober decoration with floral motifs. The theater will also function as a music room, meeting workers, home of the School of declamation, lending library and reading room, thus a true multipurpose cultural center”.



B.22.



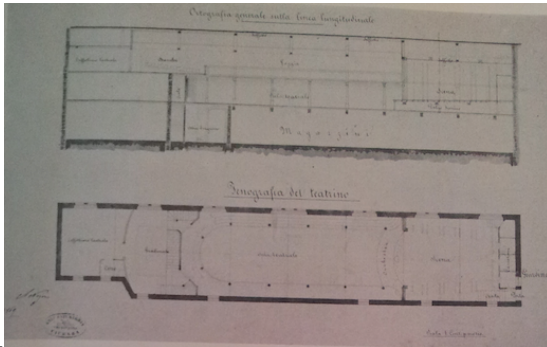
B.23.

Image B.22 – Theater Jacquard, photo took by Renata Monezzi in March 2014.

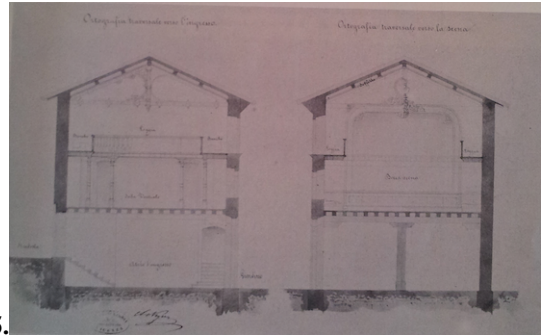
Image B.23 – Theater Jacquard

¹⁷³ FONTANA, Giovanni Luigi. *Schio e Alessandro Rossi: imprenditorialità, politica, cultura e paesaggi sociali del Secondo Ottocento*. Roma: Edizioni di Storia e Letteratura, 1985. p. 691. Translation of the original Text: “la Felice posizione del sito, parte in pianura e parte in collina, e le preesistenti costruzioni costituite dal vecchio stabile Rubini (probabilmente ex-stabilimento Tron), recentemente divenuto proprietà Rossi, dalla chiesetta di San Rocco (1500 circa) e dalle due case d’angolo prospiciente la strada, sono abilmente sfruttate dal Caregato Negrin insieme alle nuove architetture, ai viali, ai corsi d’acqua, alle infinite varietà di piante e di Fiori per creare una romantica facciata alla vita reale della fabbrica”.

¹⁷⁴ FONTANA, Giovanni Luigi. *Schio e Alessandro Rossi: imprenditorialità, politica, cultura e paesaggi sociali del Secondo Ottocento*. Roma: Edizioni di Storia e Letteratura, 1985. p. 694. Translation of the original text: “assume la particolare forma a ferro di cavallo per l’andamento della loggia lignea, che un tempo correva lungo i tre lati, orientando l’attenzione dello spettatore verso la profonda scena incorniciata da una sobria decorazione a motivi floreali. Il Teatro funzionerà anche come sala di musica, di riunioni operaie, sede della Scuola di declamazione, biblioteca circolante e sala di lettura, divenendo in tal modo un vero e proprio centro culturale polivalente”.



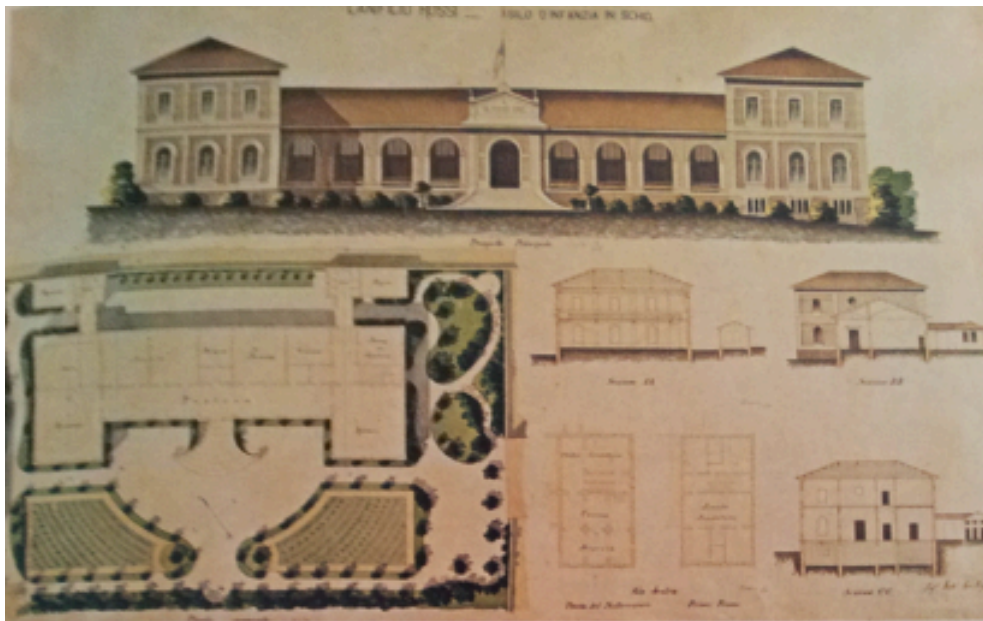
B.24.



B.25.

Image B.24 – Theater Jacquard. Plans designed by A. Caregaro Negrin in 1869.

Image B.25 – Theater Jacquard. Sections plans designed by A. Caregaro Negrin in 1869.



B.26.



B.27.



B.28.

Image B.26 – Nursery for children of Rossi Factory, built in 1872.

Image B.27 – Image of the interior of the building of Nursery for children of Rossi Factory, built in 1872.

Image B.28 – Images of the interior of the building of Nursery for children of Rossi Factory, built in 1872.

Another collective building that was built by Rossi in 1872 was the school for Kindergarten. In 1881, this building had the capacity to house 500 children. According to the

regulations of the institution, the children had to be compulsorily children of the workers of the factory Rossi and only from 1876 that the municipality of Schio allows the school to be attended by children who were not necessarily children of the workers.

In the same year of the construction of the school kindergarten, Rossi hired the architect Antonio Caregaro Negrin to design the master plan of workers village. In his proposal, Negrin suggested the recovery of public spaces and enhancement of the landscaped to follow a plan design more irregular which, according to Fontana¹⁷⁵, resembling the layout of the garden city: “(...) the project of Negrin impresses on the immediate evocation to the Garden City. Since has been written about the architect, it is not a result of the tackled social issues; is, therefore, much more logical to trace a particular setting on the experiences of the architect in design gardens. The project, in fact, has read as one of the gardens designed by Negrin, where, inside of flowerbeds, are placing more dwellings with a garden and a vegetable garden well designed. This is not to be a narrow interpretation but rather an approach to the design process that led to the drafting of a project particularly valuable”.

For dwellings, Negrin planned to build homes in typologies classified according to the hierarchy of positions in the company: in the habitation of the employees of senior positions, the residences are isolated in the plot of land and gained a landscaped area around it; most popular buildings in the gardens were located in the frontal area of the plot of land and the houses are terraced.

Concerning of the dwellings, it is important to mentioning that the master plan of Negrin in 1872 predicted an location privileged of the high office workers houses, more close of the factory, compared with the dwellings of other workers. According the illustrations designed by the architect Negrin, it is possible observe that the distribution of housing had a classification into four different categories: the first-class residences that were located closer to the factory important avenues; second-class residences that were closer to the first-class;

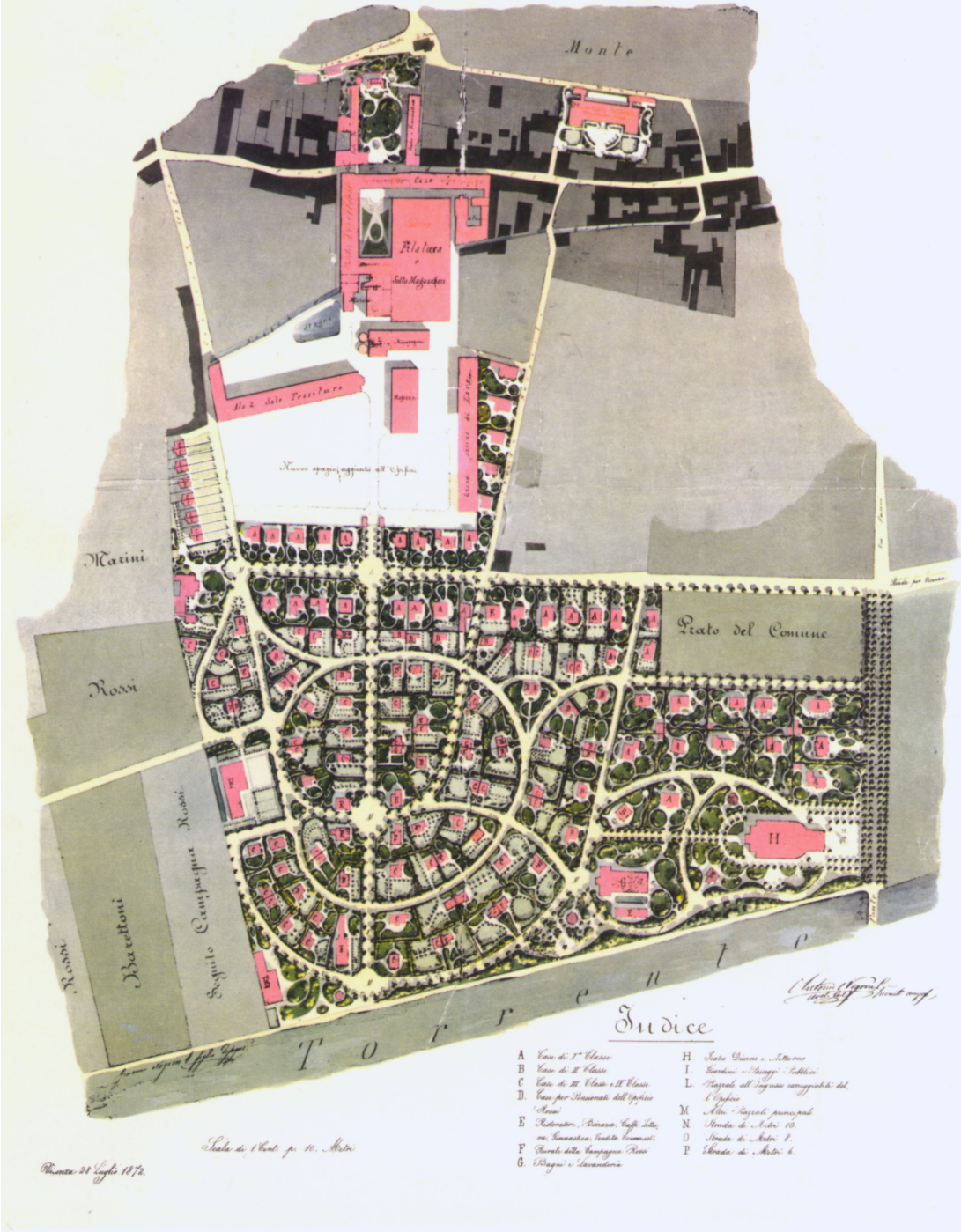
¹⁷⁵ FONTANA, Giovanni Luigi. *Schio e Alessandro Rossi: imprenditorialità, politica, cultura e paesaggi sociali del Secondo Ottocento*. Roma: Edizioni di Storia e Letteratura, 1985. p. 341. Translation of the original text: il progetto del Negrin colpisce subito per l'immediata evocazione della città-giardino. Da quanto si è scritto sull'architetto non risulta che abbia affrontato tematiche sociali; è pertanto molto più logico far risalire la particolare impostazione alla sua esperienza nella progettazione dei giardini. Il progetto, in effetti, si presenta alle lettura come uno dei giardini disegnati dal Negrin, in cui, all'interno delle aiuole, trovano sistemazione più abitazioni con giardino e orto ben disegnati. Non vuol essere questa una interpretazione riduttiva quanto invece un approccio al processo di ideazione che ha condotto alla stesura di un progetto particolarmente valido”.

TAV. III

del Progetto in esecuzione

Progetto del nuovo Quartiere
da eseguirsi nella Città di Schio
sopra fondi di a cura
del Senatore
ALESSANDRO ROSSI

PLANIMETRIA GENERALE



Indice

- A Via di S. Vito
- B Via di S. Vito
- C Via di S. Vito e S. Vito
- D Via per S. Vito del S. Vito
- E S. Vito, S. Vito, S. Vito
- F S. Vito, S. Vito, S. Vito
- G S. Vito e S. Vito
- H S. Vito S. Vito e S. Vito
- I S. Vito e S. Vito S. Vito
- L S. Vito all'ingrosso congegna di S. Vito
- M S. Vito S. Vito S. Vito
- N S. Vito di S. Vito S. Vito
- O S. Vito di S. Vito S. Vito
- P S. Vito di S. Vito S. Vito

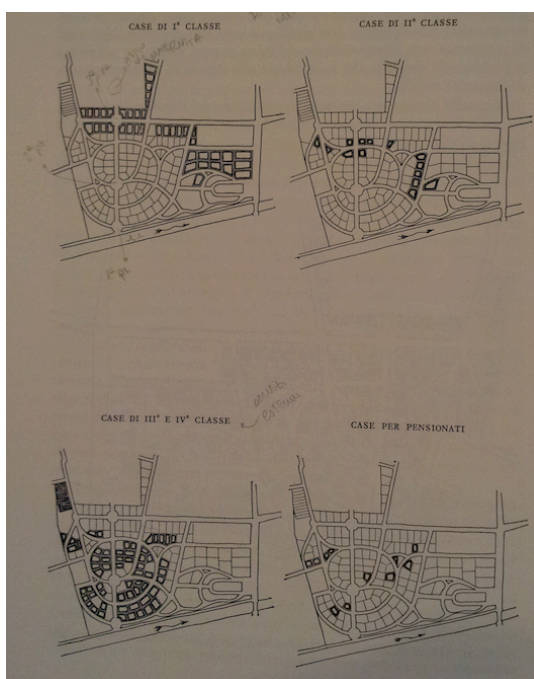
Scalato di 1:1000 p. 10. Schio
Roma, 20 Luglio 1872.

B. 29.

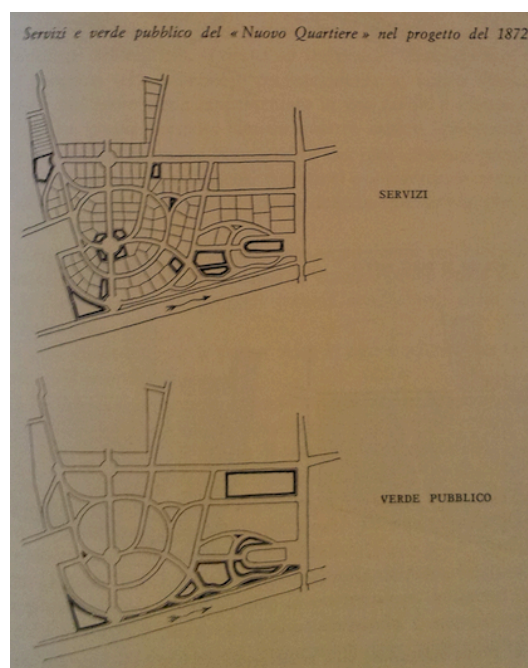
Image B.29 - Plan of the Company Town in Schio of Alessandro Rossi – Design by the architect Antonio Caregato Negrin

the third class that were distributed over the remaining blocks and finally the fourth, the boarding residences / hostels, that was located together the third-class.¹⁷⁶

As for collective buildings, the architect sought to implement activities less concentrated, he distributed the activities throughout the village and created a central area with activities of greatest need. Already the public green areas were more concentrated to the southwest. In accordance with Fontana¹⁷⁷, “(...) the services are in the central square, which is one of the main poles; there are provided, as I said, four points of sale and restaurants. Another area of concentration is the southeast corner, while it draws the stream and built is placed in a curtain of greenery crossed by a driveway. The core includes restaurant, brewery, cafe-reading, gyms and selling edible, totalling 12 neighbourhood services, while services to the urban scale are bathrooms and laundry, nursery, maternity and theatre “.



B. 30.



B. 31.

Image B.30 – Plan of Company Town of Schio designed by Negrin, 1872 – first project: location of the houses according the Negrin’s classification

Image B.31 - Plan of Company Town of Schio designed by Negrin, 1872 – first project: location of the collective buildings and green areas.

¹⁷⁶ FONTANA, Giovanni Luigi. *Schio e Alessandro Rossi: imprenditorialità, politica, cultura e paesaggi sociali del Secondo Ottocento*. Roma: Edizioni di Storia e Letteratura, 1985. p. 342.

¹⁷⁷ FONTANA, Giovanni Luigi. *Schio e Alessandro Rossi: imprenditorialità, politica, cultura e paesaggi sociali del Secondo Ottocento*. Roma: Edizioni di Storia e Letteratura, 1985. p. 345. Translation of the original text: “i servizi trovano nella piazza centrale uno dei poli principali; vi sono previsti, come detto, quattro punti di vendita e ristoro. Altra zona di concentrazione è l’angolo sud-est, mentre tra il torrente e l’edificato viene posta una cortina di verde attraversata da un vialetto. Il nucleo comprende ristorante, birreria, caffè-lettura, ginnastica e vendita commestibili per complessivi 12 servizi di quartiere, mentre i servizi a scala urbana sono bagni e lavanderia, asilo di maternità e teatro”.

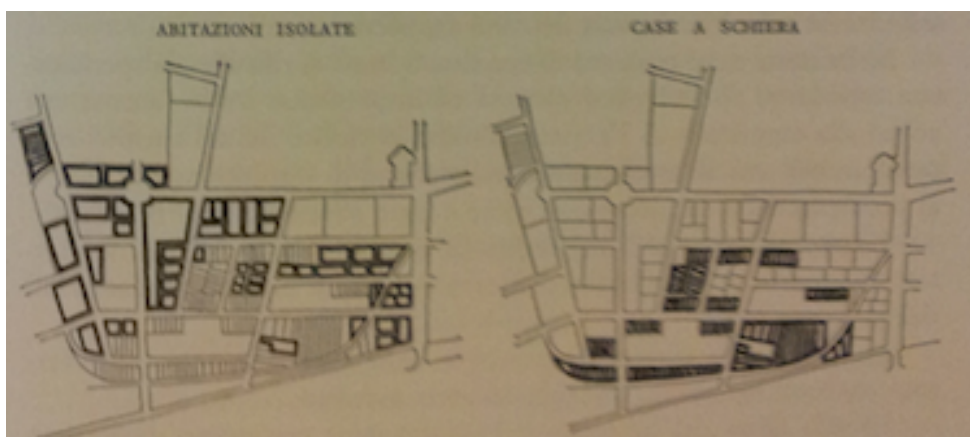
However, implementation of the project was carried out only partially due to the high cost of housing for the first class workers. In 1873, according to the available documentation about the implementation of the project, the streets Tessitori and Maraschin were built with the first-class dwellings and faithfully have followed the first project designed by Negrin.

Due this economic problems design changes were necessary and the architect Negrin started a new phase of producing: created projects more consistent with the economic conditions of that time. Thus, the new block built follows a more linear urban planning, however, with some similar features in the differentiation of housing according the hierarchy of company employees: for employees of senior positions, the architect proposed the isolated houses and, for the other workers, sets of terraced houses. The services were distributed relatively evenly, allowing easy access to all residents.¹⁷⁸



B. 32.

Image B.32 - Plan of Company Town of Schio designed by Negrin, 1896. First image is the plan of the city built and the second image is the location of services.



B.33.

Image B.33 - Plan of Company Town of Schio designed by Negrin, 1896. Plans with the location of the terraces houses and the detached houses.

¹⁷⁸ FONTANA, Giovanni Luigi. *Schio e Alessandro Rossi: imprenditorialità, politica, cultura e paesaggi sociali del Secondo Ottocento*. Roma: Edizioni di Storia e Letteratura, 1985. pp. 348-349.

During the visit tour in 2014¹⁷⁹, it was possible to conduct a visit to the interior of one of the affordable housing - the terraced dwellings. The built set is in excellent condition and it can be observed that the characteristics of its construction were still held. In the case of the visited building, it can be seen that still maintains the original features as the front garden, the original windows and doors, the paving stone that gives access to residence through the front door, the funds with little house and water tank and finally the elements as railings and metal roofing. According to the owner of that house, all the reforms and restoration of the buildings must be approved by the city council and must strictly follow the specifications of the catalogue developed by Franco Mancuso in partnership with an interdisciplinary team linked to City Hall.

In 1873, when Rossi started the construction of New Schio, he built two Elementary Schools, the main building, two year later, was amplified for receive the separate area for girls and boys. According Fontana¹⁸⁰, this institution was for the children between 7 and 11 years old and in the same time that Rossi has finished the schools for his workers' family, Rossi built also the "*l'asilo di maternità*" (Primary School) in 1878, designed by A. Caregaro Negrin. This building was design as one pure example of neoclassical architecture and it was built to assist the children between 3 and 5 years old. This building was demolished in the decade of 1930 for the continuation of Maraschin Street.



B. 34



B. 35.

Image B.34 – Elementary school built between 1873 and 1875 and the primary school, built in 1878.

Image B. 35 - The primary school, built in 1878.

The set of housing and services intended for the company town of Schio is a very interesting architectural ensemble and still maintain its original features construction. When performing a brief comparison with the dwellings and the set of services observed in the

¹⁷⁹ Visit during the course of TPTI.

¹⁸⁰ FONTANA, Giovanni Luigi. *Schio e Alessandro Rossi: imprenditorialità, politica, cultura e paesaggi sociali del Secondo Ottocento*. Roma: Edizioni di Storia e Letteratura, 1985. vol II. Notes about the image number 509.

company-towns of Noisiel in France and Schio in Italy, it is possible understand that both cities keep typical characteristics that remains a desire for social organization and control. In both cases it is clear the company's desire to build structures for urban lifestyles fully aligned with the interests of the company as the way that the both cases organized and created the buildings for the services to the education of children of the workers and the buildings associated with activities for the recreation.

3.3. The Village of São Domingos and the mine, Portugal

The mine of Santo Domingo lies about 20 km from Mértola, on the left bank of the Guadiana, near the border with Spain, district of Beja in Portugal, and was characterized by a region rich in minerals such as copper, gold and silver. In 1858, the British mining company "Mason & Barry" started its copper exploration activities, which lasted until 1965 with the depletion of the ore copper and the mine closure.

To facilitate its operations and to keep the prices competitive in the market, the company has developed a number of strategies regarding the occupation of territory and the infrastructure development in the region in order to minimize the outsourcing of activities related to the extraction and processing of ore copper. According Alves¹⁸¹, "(...) dedicated to this market, the company was building all its industrial infrastructure along the railway line of 18 km, which was connecting the line to Pomarão and the river port built in place previously determined by its seaworthiness of Chança River and Guadiana towards the ocean. Until the 60s of the twentieth century the utility company not only maintained its private railway (opening it up to passengers and freight), but also was in charge of the dredging of river corridors between Pomarão and the bar (port input) of the Vila Real de Santo António. The control of the flow path through the possession of all the material necessary to the movement of rail and waterway - notably through the acquisition and maintenance of locomotives and

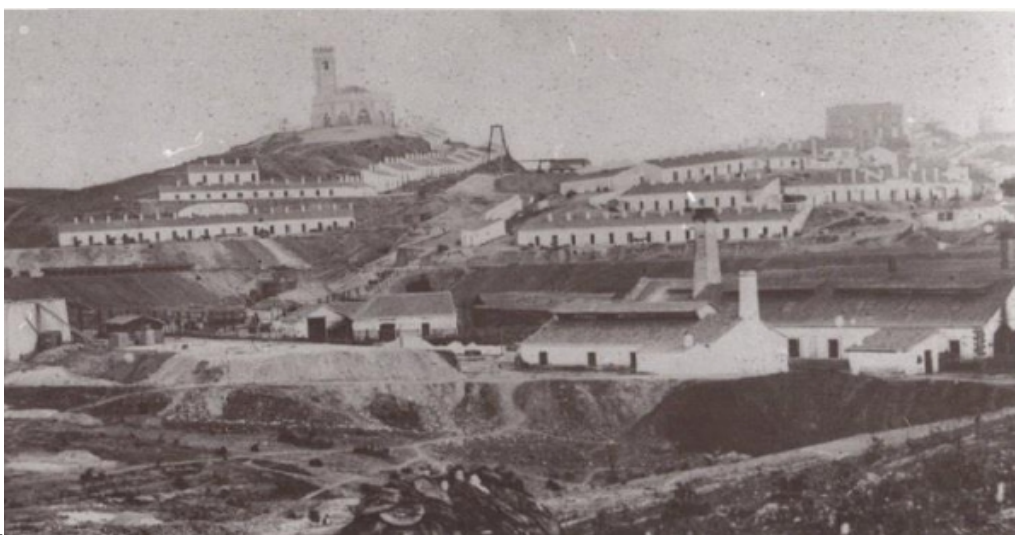
¹⁸¹ ALVES, Helena. *Mina de S. Domingos: Breve Historial In: Memória Alentejana – CEDA (Centro de Estudos Documentais do Alentejo – Memória Coletiva e Cidadania). Ministério da Cultura Direção Regional Cultura Alentejo. Outono-Inverno nº21/22, 2007. p. 30. Translation of the original text: “vocacionada para este mercado, a companhia faz construir todas as suas infraestruturas industriais ao longo da linha de caminho de ferro de 18 km a ligar a linha ao Pomarão, o porto fluvial construído em local previamente determinado pelas suas condições de navegabilidade do rio Chança e Guadiana em direção ao oceano. Até a década de 60 do século XX a Empresa concessionária não só mantinha o seu caminho de ferro privativo (abrindo-o a passageiros e mercadorias), como também se encarregava da dragagem dos corredores fluviais entre Pomarão e a barra (entrada do porto) de Vila Real de Santo António. O controle da via de escoamento, através da posse de todo o material necessário à circulação da via férrea e via fluvial – nomeadamente através da aquisição e manutenção de locomotivas e fragatas – permitia otimizar o preço de transporte e, concomitantemente, da sua venda, mantendo-o competitivo no mercado internacional ao longo de um século, ininterruptamente”.*

frigates - allowed the optimization of the transport price and, concomitantly, sold, kept itself competitive in the international market over a century without interruption”.

3.3.1. The Workers' Village of São Domingos

The company of São Domingos Mine promoted the development of the small town of São Domingos with the construction of workers' houses and buildings of collective interest as the primary school, the theater, the Republican center, the sports association (São Domingos Football Club) and the Soccer Field of Cross Brown, the hospital, an oven for baking bread, latrines and finally the construction of the English cemetery (cemetery intended for Protestants known as "English"). According to Alves¹⁸², the town was organized as the social and professional hierarchies in the company, thus the areas of concentration of dwellings were distributed as the positions of the employees of the company, as well as different types of housing were designed according to different categories of employees and services rendered.

It is worth mentioning that the ancient village, which was built during the first decades of the company's implementation, was demolished to make place for new exploration areas given its strategic location. In the local archive of the city, current Mineiro Museum, it is possible to find some images of the ancient village and it is possible to see the workers' dwellings and the ancient church (picture below).



B.36.

Image B.36 - Ancient Village (1870) destroyed by the Company to amplify the area of exploitation.

¹⁸² ALVES, Helena. *Mina de S. Domingos: Breve Historial In: Memória Alentejana – CEDA (Centro de Estudos Documentais do Alentejo – Memória Coletiva e Cidadania). Ministério da Cultura Direção Regional Cultura Alentejo. Outono-Inverno nº21/22, 2007. p. 32.*

After the demolition of the first city, the company decided to organize a new city with a new church, some collective buildings and finally the dwellings according to its different categories of workers. According to Alves, the neighbourhood for miners were organized with the simplest houses. These houses had one room and presented only the front access door as the unique possibility of lighting and ventilation. These houses followed also the type of the semi-detached houses and were devoid of fireplaces. For a second category of employees as blacksmiths, electricians and craftsmen, the houses had a second room, had a fireplace and were located in the Violeta neighbourhood. Finally, for administrative staff and engineers, the houses were the type of detached houses and better than other categories especially because these dwellings were benefited by sanitary facilities. The remaining types were devoid of such infrastructure, hence, it was necessary the creation of collective latrines. The housing build set to the third group was located in the district more close to the beneficiation area of the copper exploitation. In this district, called English District, the dwellings were oriented around a large tree-lined square provided of bandstand and tennis court.

Besides, along to the services and housing area, the spaces have also been developed for agricultural use. For Alves ¹⁸³, “(...) this building set was completed for an agricultural labour pole near to the residential complex of senior management, was equipped with water distribution network piped to watering, dispensed from an iron winch”.

The materials used in the construction were followed an architecture quite characteristic of the Alentejo region: simple single-storey houses without ornamentation, covering in earthenware tiles and a greatly simplified organization of internal space. All the buildings, externally, were painted by white, feature also observed in other cities of the region.

As can be seen in the picture below, the housing district is divided into sectors according to the different workers communities. The buildings of collective interest such as school, hospital, church, cine-theater and the football field were located near the main set of traffic routes.

¹⁸³ ALVES, Helena. *Mina de S. Domingos: Breve Historial In: Memória Alentejana – CEDA (Centro de Estudos Documentais do Alentejo – Memória Coletiva e Cidadania)*. Ministério da Cultura Direção Regional Cultura Alentejo. Outono-Inverno nº21/22, 2007. p. 35. Translation of the original text: “esse conjunto completava-se com um polo de trabalho agrícola perto do conjunto residencial dos quadros superiores, dotado de rede de distribuição de água canalizada para regas, distribuída a partir de um malacate de ferro” .



B.37.

Image B.37 - Plan with the location of the collective buildings of The Mine São Domingos.

Analysing set built of the plant of 1870, it can observe that the English District, designed for the administrative staff and engineers, was located close to mining beneficiation activities. Known as the British neighbourhood, was built from 1868 and housed the Engineer's director of Mina Palace, houses the technical and administrative staff, the garden and finally the tennis court. In the centre of the neighbourhood, it is located the garden demarcated by a line of trees and the bandstand in the centre, near the garden's southernmost there is the tennis court. Around the square and the tennis court, the homes of officials working were built. According to the information collected on site (information board)¹⁸⁴, "the urban space of the S. Domingos Mine translating a sharp social separation of existing communities. On the one hand the miners and their families housed in cramped rooms without any comfort conditions; across the "English" and its spacious cottages have with electricity, toilets and running water".

¹⁸⁴ Translation of the original text found "in loco": "*o espaço urbano da Mina de S. Domingos traduzia uma acentuada separação social das comunidades existentes. De um lado os mineiros e as suas famílias alojados em quartos exíguos sem qualquer condições de conforto; do outro lado os "ingleses" e suas espaçosas cottages já com eletricidade, sanitários e água canalizada*" April 2015



B.38.



B.39.

Image B.38 – English Garden of the Archive of the Mine

Image B.39 – English Garden of the Archive of the Mine nowadays.

Inside of this set the Palace of the mine's management was located. Also known as "Mason Palace" because of James Mason (director and first engineer responsible for the entire mining project of São Domingos between the years 1858 and 1873), this building was firstly built in the Sierra de Santo Domingo (now known as the Cota zone) and then, after being demolished in 1870, it was rebuilt in 1875 in the British neighbourhood. It had function to shelter the activities linked to the directive services of the mine, the lab and the drawing room. After the closure of the mine in 1966 and after decades of neglect, the building was restored and, in 2006, transformed in a hotel.



B.40.

Image B.40 - Facade of the Palace of Administration – James Mason's house before 1873.

Source: CUSTÓDIO, Jorge. "James Mason: construção da imagem da Misa de São Domingos" *In* *Mineração no Baixo Alentejo*. Câmara Municipal de Castro Verde. p. 223.

Following the main street to the central area of the village, it can identify other buildings of collective interest as the Soccer Field of "Brown Cross", the Cineteatro, the church, the police and the Republican Center.

According to local documentation center of the São Domingos Mine, between the recreational activities organized in the village, is worth mentioning the history of local football that began in the 20s of the twentieth century with the founding of two important clubs: the Guadiana Football Club and the S. Domingos Football Club. Both clubs have trained and played in the current soccer field of "Brown Cross", which owes its name to Sir Arthur Brown (head of Transport and workshops of Barry Mason & Services and member of St. Dominic Football Club in 1928). Besides these clubs, three more clubs were founded later: the Cuanhama (name of Sport Club of São Domingos mine), the Unidos and the National.

The Cine-theatre was built during the height of the production and exploitation of copper, working until the 1980s, and was characterized by a dynamic cultural activity thanks its exhibitions: firstly with silent movies and later with the first movies with sound recordings. According the information collected “in loco”, the cine-theatre was known as the first cinema in Alentejo region that used the machine of Éclan, the “Cinemascope”. Nowadays, the edification shelters the Exhibition core of the Archive Center of S. Domingos Mine.



B.41.



B.42.

Image B.41 – photo of the façade of “Cine- theatre” took by Aicha Mockline in April 2015

Image B.42 – photo of the interior of the building. Source: Centro de Estudos da Mina de São Domingos. Site: <http://cemsd.minadesdomingos.com>

Other important building, which houses the local festivities, is the Republican center. The festivities were organized by The Recreational of São Domingos and - according to the work done in 2002 by Helena Gomes Association, João Reis and Luis Baltazar to the University of Lisbon - Faculty of Letters, Department of Geography - this center promoted special events like the event in 1907, in which the Village was visited by the King Carlos I and the Queen Amelia. Another important event was the centennial commemoration of the

mine in 1960. It is important comment that the association also had a philharmonic band that worked every week in the public garden of the Village. Besides, it is still held some festivities like the annual festival in August in which it promotes the meeting of ancient miners and their families, keeping alive the religious traditions and cultural sites.

Another significant institution created by The Mason & Barry Company was the private police. Created in 1875, this institution defended the heritage of the company and controlled the successive conflicts that existed as a result of the deplorable conditions of life and work. Throughout the history of the mine working, the claims followed one another, forcing sometimes, the permanence of army garrisons and the frequent action of the police body of the company.

4. Results

In the previous chapter, it was presented the characteristics of each company town selected as the case of study in France, Italy and Portugal, respectively. As previously reported, this study sought to examine the buildings and community facilities in the context of the city, considering its architectural features and the ideas that inspired the architecture built. In the first two cases presented, the presence of the architect designer in developing the projects of housing and the city project as a whole, it demonstrates that there was a clear intention to urban and social transformation. Even before the construction of the city, it is clear that there were intentions from the company / industry to establish a close relationship between the company and the lives of their workers.

According to Carlson¹⁸⁵, in a Company Town, the owners “(...) wanted to create a better life for his employees: decent housing, good schools and a morally uplifting society. In return, they expected stable, hard-working employees who would eschew the evils of drink and, most important, not fall prey to the blandishments of union organizers”. In this sense, the production of quality buildings in Noisiel and Schio and the great interest in the creation of elementary and primary schools gained an important role to create concepts and ideas allied to paternalism of these industries. In the first two cases, Menier and Rossi have worked to create schools that could provide assistance to the children of their workers. Menier dedicated hard years of his life to establish a curriculum that saw fit to his community.

On the other hand the Portuguese case showed a particularly different from other cases. It can be observed that, the Company Town of São Domingos, regarding the architectural aspects, features a greatly simplified architecture as in the internal spatial organization of collective and individual buildings as in the decorations and adornments promoted. Both of the cases, Noisiel and Schio, were cases of cities designed and built to provide to employees quality of life regarding to spatial quality. In the Portuguese case, however, the company's goals seem to be different path, that is much more targeted to address issues of basic necessities, more aligned to the survival of the village that the promotion of a housing style and quality of life. The buildings in the village of São Domingos were being held as the need for its population and the interests of the company, especially considering that the company wanted to minimize the conflicts with the miners given the poor quality of life in which they were submitted. The buildings, following a vernacular architecture,

¹⁸⁵ CARLSON, Linda. *Company towns of the Pacific Northwest*. U. of Washington Press, 2014, p. 190

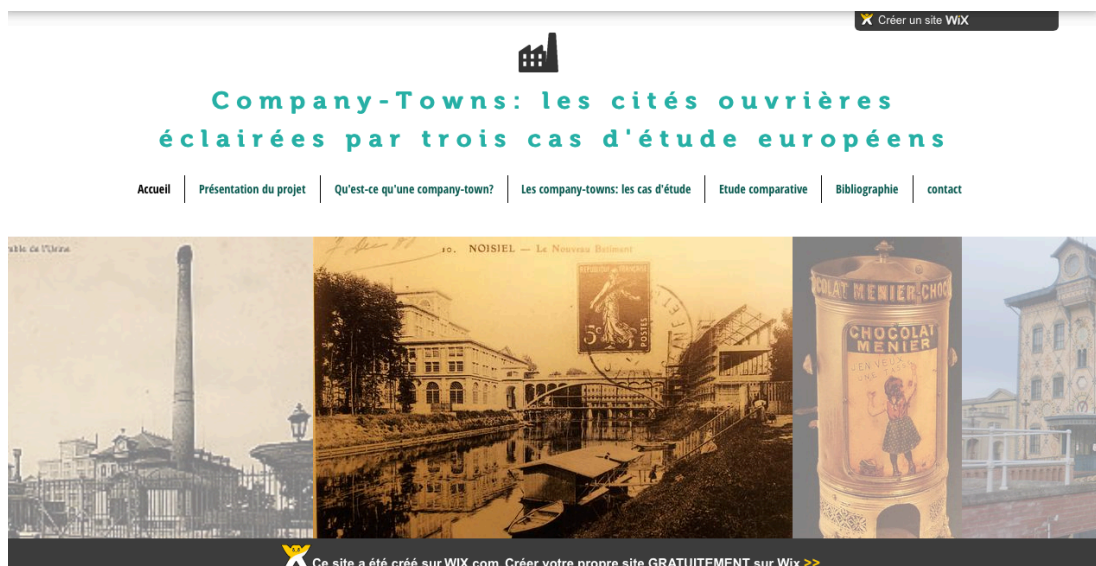
apparently were not project and designed for the same purposes promoted by Menier and Rossi in their workers' villages.

Therefore, as mentioned in the first part of this work, creating to a website to present these three cases showed relevant precisely because they deal with cases of company town created in similar historical moment and, in the same time, were built and projected in a very different way. The Portuguese case, although characterized as an important case of company town in the country, following very similar characteristics of the buildings of other Portuguese operatives neighbourhoods, such as the district of Alcantara in Lisbon. Despite being the result of only one company, its architecture has not received the same attention in which can be observed in the cases of the France and the Italy. Maybe this whole process is also a result of a later industrialization and issues related to the rights of workers perhaps were still nascent in the country, which may explain the lack of interest in creating a special quality of buildings and collective spaces of the city in the case of the Village of São Domingos.

5. Conclusion

As a conclusion of this work, it developed a virtual exhibition to allow the general public access the information grouped in this project. Thus, the site was structured to primarily provide general information about the job, scoring what is meant by Company Town, the criteria that the group considered for the selection of each case of study in each host country and finally released the special sections to better address the difference of lines of research according the areas of knowledge of each member of the group.

In addition, to minimize the possible expenses related to the development of the website, the group selected a free online platform that is easily accessible to the members of the group and had no major difficulties in using the tools to develop the site. The platform used for this purpose was the “www.wix.com”. It is a creation of web pages platform that provides easy to use tools for creating websites. Thus, the group arranged the activities in such a way as two members (Renata and Valentine) primarily engaged in the site's organization with regard to details, layout, user interface, etc. and the rest of the group was in charge of verifying the quality of the texts and do the translations. The official language selected for display the website texts was French, precisely because it is the official language of TPTI course. However, for the introductory text versions, were also available texts in English in order to further expand the target audience.



B. 43.

Image B.43 - Interface of the website – main page. Access June 2015.

Finally, observing the contents of the site, it was possible to understand that this work proved relevant precisely because it enables new investigations into the cases selected for this search. Researchers and people interested in the theme Company Towns can access the material available in the website and this allows new possibilities of investigations. Thanks the multidisciplinary group, the investigations available in the website are not focus on issues related only in the fields of History and Architecture, but also allows the visitor to observe different analyses in different perspectives according each point of view of each person of the this group, which makes this project so peculiar and unique.

However, this collective project is just a small contribution for the researches in this theme, precisely because is a one part of activities developed in the Master TPTI. Besides, this project proved to be a major challenge, specially thanks to the differences in the areas of knowledge of each member and also the cultural differences, since the members have different backgrounds and bring with them different approaches and experiences. Thus, as the differences may be favourable to the expansion of knowledge and bring out new ways of thinking and research, at times they appear as major challenges to find solutions in mutual agreement.

6. Bibliography

ALVES, Helena. *Mina de S. Domingos: Breve Historial In: Memória Alentejana – CEDA* (Centro de Estudos Documentais do Alentejo – Memória Coletiva e Cidadania). Ministério da Cultura Direção Regional Cultura Alentejo. Outono-Inverno nº21/22, 2007.

BITOUN, Eric. Documentaire *L'Histoire Fondante du Chocolat Menier*. Skopia Films. 1 DVD 5 - duration: 61 minutes, 2013.

CARLSON, Linda. *Company towns of the Pacific Northwest*. U. of Washington Press, 2014

CIUFFETTI, Augusto. *Casa e Lavoro: Dal Paternalismo aziendale alle ‘Comunità Globale’ – villaggi e quartieri operai in Italia tra Otto e Novecento*. Centro Ricerche Ambiente Cultura Economia, CRACE , 2004.

CUSTÓDIO, Jorge. *Reflexos da Industrialização na fisionomia e vida da cidade. In: O Livro de Lisboa*. Lisboa: Livros Horizonte, 1994, pp. 435-492.

DOREL-FERRÉ, Gracia. *Le Patrimoine de l'habitat ouvrier, un sujet de recherches : architecture, idéologie et rapports sociaux*. Les Actes du CRESAT 2005-2006, numéro 4, Février 2007.

FONTANA, Giovanni Luigi. *Schio e Alessandro Rossi: imprenditorialità, politica, cultura e paesaggi sociali del Secondo Ottocento*. Roma: Edizioni di Storia e Letteratura, 1985.

FRANÇA, José-Augusto. *Lisboa: Urbanismo e Arquitectura*. 4a Edição. Lisboa: Livros Horizonte, Dezembro 2000.

GARNER, John S. *The Company Town: Architecture and Society in the Early Industrial Age*. Oxford: Oxford University Press, 1992.

HERVIER, Dominique et JANTZEN, Hélène (direction). Inventaire Général des Documents et des Richesses Artistiques de la France / Service Régional de l'Inventaire Ile-de-France. *Noisiel: la chocolaterie Menier – Seine-et-Marne*. Association pour le Patrimoine d'Ile-de-France, 1994.

HOWARD, Ebenezer. *Cidades-jardins de Amanhã*. Editora AnnaBlume, São Paulo, 1996.

MARQUES, Beatriz Rosa de Abreu Pereira. *O vale de Alcântara como caso de estudo: evolução da morfologia urbana*. Dissertação de Mestrado em Arquitetura – Instituto Superior Técnico – Universidade Técnica de Lisboa. Maio 2009.

MORANGUEIRA, Vanderlice de Souza. *Vila Maria Zélia: visões de uma Vila Operária em São Paulo – 1917-1940*. Dissertação de Mestrado. Universidade de São Paulo, 2006

PEREIRA, António Francisco da Fonseca, et alli. *Sacavém e as suas lutas*. Junta de Freguesia de Sacavém, 1991.

VERONA, Antonio Folquito. *Pacto Social e Luta Operária em Schio*. Revista Brasileira de História. Vol. 17, numero 34 São Paulo, 1997.

Website: <http://new-altovicentino.prestoweb.it/it/index.html> access in July, August and September 2014.

7. List of Images – picture credits

Image B.1 - Bust of marble of Emile-Justin Menier

Source: Visit at Noisiel 07/12/2013 - image took by Renata P. C. Monezzi

Image B.2 - Plan of Noisiel area with indication of industrial area and the village.

Source: Google Maps access June 2015.

Image B.3 - indication of the position of the collective buildings as City Hall, main Squares with the restaurants, primary school, hotels and below of image the nurse house.

Source: Google Maps access June 2015.

Image B.4 - Plan of the buildings of the School Group.

Source: *Inventaire Général des Documents et des Richesses Artistiques de la France - Noisiel: la chocolaterie Menier – Seine-et-Marne. P-68.*

Image B.5 - Facades and Sections of the buildings of School Group.

Source: *Inventaire Général des Documents et des Richesses Artistiques de la France - Noisiel: la chocolaterie Menier – Seine-et-Marne. P-68.*

Image B.6 - the model of school desk

Source: *Inventaire Général des Documents et des Richesses Artistiques de la France - Noisiel: la chocolaterie Menier – Seine-et-Marne. P-68 e 69*

Image B.7 - the image took in 1900 in front of the School group with the configuration that can be seen nowadays

Source: *Inventaire Général des Documents et des Richesses Artistiques de la France - Noisiel: la chocolaterie Menier – Seine-et-Marne. P-68 e 69*

Image B.8 - the image took during the visit in 07/12/2013.

Source: *Image took during the visit guide in 07/12/2013 – Renata P. C. Monezzi*

Images B.9 – Ground Floor Plan of the Subsistence Building

Source: *Inventaire Général des Documents et des Richesses Artistiques de la France - Noisiel: la chocolaterie Menier – Seine-et-Marne. P-64*

Image B.10 – Elevation Plan - Facades of the Subsistence Building.

Source: *Inventaire Général des Documents et des Richesses Artistiques de la France - Noisiel: la chocolaterie Menier – Seine-et-Marne. P-64*

Image B.11 – Ground Floor Plan of Restaurants for the workers.

Source: *Inventaire Général des Documents et des Richesses Artistiques de la France - Noisiel: la chocolaterie Menier – Seine-et-Marne. P-65.*

Image B.12 – Elevation and Section Plan of Restaurants for the workers.

Source: *Inventaire Général des Documents et des Richesses Artistiques de la France - Noisiel: la chocolaterie Menier – Seine-et-Marne. P-65.*

Image B.13 – the ancient image of the hotel for workers between 1885 and 1887.

Source: *Inventaire Général des Documents et des Richesses Artistiques de la France - Noisiel: la chocolaterie Menier – Seine-et-Marne. P-66.*

Image B.14 – the hotel in South of square.

Source: the image was taken in the visit guided at 21/12/2013.

Image B.15 – the hotel in North of square.

Source: the image was taken in the visit guided at 21/12/2013.

Image B.16 – image of the main facade of the City Hall building

Source: *Inventaire Général des Documents et des Richesses Artistiques de la France - Noisiel: la chocolaterie Menier – Seine-et-Marne. P-72*

Image B.17 – Ground Floor Plan with elevation and section plan of the Project

Source: *Inventaire Général des Documents et des Richesses Artistiques de la France - Noisiel: la chocolaterie Menier – Seine-et-Marne. P-72*

Image B.18 – image of the main façade of the Nursing Home

Source: *Inventaire Général des Documents et des Richesses Artistiques de la France - Noisiel: la chocolaterie Menier – Seine-et-Marne. P-74.*

Image B.19 – image of the building set of the Village.

Source: *Inventaire Général des Documents et des Richesses Artistiques de la France - Noisiel: la chocolaterie Menier – Seine-et-Marne. P-74.*

Image B.20 – Plan of the Garden Jacquard

Source: FONTANA, Giovanni Luigi. *Schio e Alessandro Rossi: imprenditorialità, politica, cultura e paesaggi sociali del Secondo Ottocento*. Roma: Edizioni di Storia e Letteratura, 1985. p. 493 (vol II)

Image B.21 – Photo took during the visit in March 2014 by Renata Monezzi

Source: Renata Monezzi

Image B.22 – Theater Jacquard, photo took by Renata Monezzi in March 2014.

Source: Renata Monezzi

Image B.23 – Theater Jacquard

Source: FONTANA, Giovanni Luigi. *Schio e Alessandro Rossi: imprenditorialità, politica, cultura e paesaggi sociali del Secondo Ottocento*. Roma: Edizioni di Storia e Letteratura, 1985. p. 492 (vol II)

Image B.24 – Theater Jacquard. Plans designed by A. Caregaro Negrin in 1869.

Source: FONTANA, Giovanni Luigi. *Schio e Alessandro Rossi: imprenditorialità, politica, cultura e paesaggi sociali del Secondo Ottocento*. Roma: Edizioni di Storia e Letteratura, 1985. pp. 496-497 (vol II)

Image B.25 – Theater Jacquard. Sections plans designed by A. Caregaro Negrin in 1869.

Source: FONTANA, Giovanni Luigi. *Schio e Alessandro Rossi: imprenditorialità, politica, cultura e paesaggi sociali del Secondo Ottocento*. Roma: Edizioni di Storia e Letteratura, 1985. pp. 496-497 (vol II)

Image B.26 – Nursery for children of Rossi Factory, built in 1872.

Source: FONTANA, Giovanni Luigi. *Schio e Alessandro Rossi: imprenditorialità, politica, cultura e paesaggi sociali del Secondo Ottocento*. Roma: Edizioni di Storia e Letteratura, 1985. pp. 496-497 (vol II) image 449.

Image B.27 – Image of the interior of the building of Nursery for children of Rossi Factory, built in 1872.

Source: FONTANA, Giovanni Luigi. *Schio e Alessandro Rossi: imprenditorialità, politica, cultura e paesaggi sociali del Secondo Ottocento*. Roma: Edizioni di Storia e Letteratura, 1985. pp. 496-497 (vol II) image 500.

Image B.28 – Images of the interior of the building of Nursery for children of Rossi Factory, built in 1872.

Source: FONTANA, Giovanni Luigi. *Schio e Alessandro Rossi: imprenditorialità, politica, cultura e paesaggi sociali del Secondo Ottocento*. Roma: Edizioni di Storia e Letteratura, 1985. pp. 496-497 (vol II) images 502-503

Image B.29 - Plan of the Company Town in Schio of Alessandro Rossi – Design by the architect Antonio Caregaro Negrin

Source: FONTANA, Giovanni Luigi. *Schio e Alessandro Rossi: imprenditorialità, politica, cultura e paesaggi sociali del Secondo Ottocento*. Roma: Edizioni di Storia e Letteratura, 1985.

Image B.30 – Plan of Company Town of Schio designed by Negrin, 1872 – first project: location of the houses according the Negrin's classification

Source: FONTANA, Giovanni Luigi. *Schio e Alessandro Rossi: imprenditorialità, politica, cultura e paesaggi sociali del Secondo Ottocento*. Roma: Edizioni di Storia e Letteratura, 1985.

Image B.31 - Plan of Company Town of Schio designed by Negrin, 1872 – first project: location of the collective buildings and green areas.

Source: FONTANA, Giovanni Luigi. Schio e Alessandro Rossi: imprenditorialità, política, cultura e paesaggi sociali del Secondo Ottocento. Roma: Edizioni di Storia e Letteratura, 1985.

Image B.32 - Plan of Company Town of Schio designed by Negrin, 1896. First image is the plan of the city built and the second image is the location of services.

Source: FONTANA, Giovanni Luigi. Schio e Alessandro Rossi: imprenditorialità, política, cultura e paesaggi sociali del Secondo Ottocento. Roma: Edizioni di Storia e Letteratura, 1985.

Image B.33 - Plan of Company Town of Schio designed by Negrin, 1896. Plans with the location of the terraces houses and the detached houses

Source: FONTANA, Giovanni Luigi. Schio e Alessandro Rossi: imprenditorialità, política, cultura e paesaggi sociali del Secondo Ottocento. Roma: Edizioni di Storia e Letteratura, 1985.

Image B.34 – Elementary school built between 1873 and 1875 and the primary school, built in 1878.

Source: FONTANA, Giovanni Luigi. Schio e Alessandro Rossi: imprenditorialità, política, cultura e paesaggi sociali del Secondo Ottocento. Roma: Edizioni di Storia e Letteratura, 1985. Vol. II. Image 509.

Image B. 35 - The primary school, built in 1878.

Source: FONTANA, Giovanni Luigi. Schio e Alessandro Rossi: imprenditorialità, política, cultura e paesaggi sociali del Secondo Ottocento. Roma: Edizioni di Storia e Letteratura, 1985. Vol. II. Image 511.

Image B.36 - Ancient Village (1870) destroyed by the Company to amplify the area of exploitation.

Source: Centro de Estudos da Mina de São Domingos. Site: <http://cemsd.minadesdomingos.com>

Image B.37 - Plan with the location of the collective buildings of The Mine São Domingos.

Source: Helena Gomes, João Reis e Luís Baltazar à Universidade de Lisboa – Faculdade de Letras, Departamento de Geografia. “*Mina de São Domingos*”. 2002.

Images B.38 – English Garden of the Archive of the Mine

Source: Centro de Estudos da Mina de São Domingos. Site: <http://cemsd.minadesdomingos.com>

Image B.39 – English Garden of the Archive of the Mine nowadays.

Source: image took by Aicha Mockline in April 2015

Image B.40 - Facade of the Palace of Administration – James Mason’s house before 1873.

Source: CUSTÓDIO, Jorge. “James Mason: construção da imagem da Misa de São Domingos” *In* Mineração no Baixo Alentejo. Câmara Municipal de Castro Verde. p. 223.

Image B.41 – photo of the façade of “Cine- theatre” took by Aicha Mockline in April 2015

Source: Aicha Mockline

Image B.42 – photo of the interior of the building.

Source: Centro de Estudos da Mina de São Domingos. Site: <http://cemsd.minadesdomingos.com>

Image B.43 - Interface of the website – main page. Access June 2015.

Source: Renata Monezzi