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COIMBRA

Regina da Luz Ferreira da Silva Campinho

MODERNIZING MACAO
PUBLIC WORKS AND URBAN PLANNING
IN THE IMPERIAL NETWORK, 1856-1919

VOLUME 2 - FIGURES

Tese no âmbito do Doutoramento em Patrimónios de Influência Portuguesa, ramo de Arquitectura e Urbanismo, orientada pelas Professoras Doutoradas Maria Luísa Pires do Rio Carmo Trindade, Hélène Vacher e Marta Maria Peters Arriscado Oliveira e apresentada ao Instituto de Investigação Interdisciplinar da Universidade de Coimbra.

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Instituto de Investigação Interdisciplinar
da Universidade de Coimbra

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A note on the organization of the Figures

One of the main goals of this research has been to assemble a consistent body of primary sources by which to buttress the historical narratives and interpretations made throughout the thesis on the urban modernization process of Macao. These written and drawn primary sources were the base, and necessary complement, of the interpretative work of mapping which I have produced in order to illustrate the history of urban transition in Macao. In this sense, this thesis is both a written and graphic manuscript, aiming at establishing a more integrated perspective over the urban transitions at hand, be it in terms of social, political, or techno-scientific intent. The present Volume 2 compiles the graphic part of this endeavor.

As outlined in the “Mapping urban transition” section of the Introduction (Volume 1), this study relied on a vast collection of documentation on public works from the 1830s to the 1920s, gathered as thoroughly as possible. This included contemporary written sources, published and unpublished, such as correspondence, survey and individual project reports, legislation, public speeches, to cite a few. Within the written sources, though, the drawings definitely took center stage: topographical and cadastral surveys provided information on the stages of evolution of the urban morphology throughout the transformation process; rough drawings and project plans inform on how the same transformation process was being envisioned. Frequently complemented by written reports, these plans were key to unveiling the techno-scientific experts’ convictions in terms of urban intervention. Cross-referencing the successive surveys with the projects allowed us to reflect on the often difficult and contradictory process of adapting the technicians’ urban theories to the physical and social reality of the city. Contemporary photography was also an indispensable source for cross-referencing survey maps. For instance, when a particular stage of evolution was absent from the available contemporary cartography, I have resorted, through cross-referencing historical photography and written information, to recreate its probable morphological configuration on plan.

In order to achieve a consistent degree of precision in the exercise of reconstituting the past urban form, I have relied on a method of graphic interpretation based on the role of drawing as an exploratory instrument to produce a sort of reverse engineering of the city. This included superimposing the information contained in the historical maps with the present-day vector general map (2015), so as to interpret the city design at different times under common morphological baselines, deconstructing the project intents at each phase, and reconstructing its evolution.¹ This

¹ For more on this method of graphic interpretation, see the “Mapping urban transition” section of the Introduction (Volume 1).

method of synthesizing the cross-referencing work of the primary sources through drawing was also useful to reconstitute a dependable chronological timeline, through which it became possible to attribute dates and authorships to different types of sources that hitherto have remained undated or anonymous. The same reasoning was applied, for example, to certain public works or housing projects which, once coherently placed in this reconstituted timeline, could be plausibly attributed to a particular authorship and/or production date.

This Volume debuts with an introductory set of illustrations pertaining to the Macao peninsula general geographical location in the nineteenth century (Figs. 1 to 4). A compilation of the above-mentioned selected general historical maps follows. The choice of these maps was guided by the intention of illustrating, with an important level of morphological detail, significant stages of evolution in regard to the transformations at hand. Therefore, the selection starts with the 1838 topographical map of the Macao peninsula by Cândido António Ozório (Fig. 5), marking the ‘before’ stage or, in other words, the urban configuration immediately before the start of the modernizing process. This is followed by the ‘mapping of transition’ through the 1866 land and sea survey by W. A. Read (Fig. 6),² the 1884 inner harbor improvement project by Adolfo Loureiro, which is based on an original 1880 city survey by Demétrio Cinatti (Fig. 7),³ the 1889 published survey by António Heitor (Fig. 8), and the also published 1912 survey by the Macao cartography committee (Fig. 9). Rounding up this map collection is the 2015 vector general map of the Macao peninsula by the SAR government public works department (Fig. 10), which served as the reference plan for the interpretative mapping work.

The subsequent collection regroups precisely the transposition of the morphological information emerging from each of the historical maps into the 2015 reference map. The cartography thus produced is named ‘interpretation’, in order to convey the required stages of appropriating the morphological information and restituting it through the drawing process, both conducted as rigorously as possible. As a sort of visual ‘table of contents’, it features the location of the districts whose transformations will be detailed in the chapters of the thesis, such as the Chinese Bazaar, setting for Chapters I, II and IV (Figs. 11 to 15), the Horta da Mitra, Volong and S. Lázaro suburbs, as well as the Patane district, respectively the settings for Chapters III and V (Figs. 13 to 15). In this collection is also introduced the color code which I have adapted throughout the thesis’ mapping work: the color red represents urban transformation and expansion; the color blue represents urban and infrastructural projects.

After a final introductory collection dedicated to the 2005 Historic Center of Macao’s inscription on the World Heritage List, which we will detail in the next section, the subsequent collections of

² For more on Figures 5 and 6, see Chapter I (Volume 1).

³ For more on Figure 7, see Chapter V (Volume 1).

figures are organized by chapter. As each of the five chapters is focused on a particular district or improvement project, I have opted for producing separate specific sets of detail maps depicting the stages of each individual transformation process. In the first three chapters, this set of maps is featured at the top of the respective collection of figures, laid out on the same page in a chronological sequence, with the purpose of conveying, at a glance, a clear and integral picture of the urban transformation discussed in that chapter (see, for instance, the chronological board for Chapter I regrouping Figs. 19 to 22). At the scale of the detail map, I have engaged in producing what I have called ‘configuration hypotheses’, depicting some of the key intermediary stages of the transformation process which aren’t featured in the historical cartography. This original mapping work is primarily based on the comparative ‘interpretation’ of the selected historical maps, with which is cross-referenced the information from other primary sources. The typical chronological board is thus composed of excerpts from the afore-mentioned general interpretation reference maps, which are dated accordingly, and of these ‘configuration hypotheses’, which are dated as ‘circa the specific year’, to stress their intermediary character.

In what concerns Chapters IV and V, however, as their respective topics pertain more to the analysis of successive restructuring projects than to continuous processes of morphological evolution, I have abandoned this introductory chronological board format in favor of the linear organization of the figures in the order they are mentioned in the main text. In these latter chapters, the mapping work had to do mainly with transposing the morphological information emerging from the projects themselves, both in terms of restructuring intentions and of underlying cadaster surveys, into a common reference, in order to facilitate a comparative analysis. The final cartography often resulted in new ‘cadastral and restructuring configuration hypotheses’ based on the interpretation of the projects, cross-referenced with the appropriate general interpretation maps, themselves based on the 2015 general map. A heavy layering of morphological information, to be sure, but which hopefully resulted in an expressive production of original cartography illustrating ‘the forms’ of urban modernity in Macao.

The general purpose of this organization, as well as of the accent put on the mapping work, is that the Volume 2 - Figures may stand on its own, not just serving as an appendix for the main text, but constituting rather a visual narrative of urban transformation in its own right.

List of Figures

General Location Maps

Fig. 1. General location map of the cities of Macao and Canton in the sixteenth century South China Sea, based on Pedro Dias, *A Urbanização e a Arquitectura dos Portugueses em Macau, 1557-1911* (Lisboa: Portugal Telecom, 2005), 17.

Fig. 2. General location map of the cities of Macao, Hong Kong and Canton in the 1850s, based on “Overview of Theatres of the Opium War, 1839-42,” in Julia Lovell, *The Opium War: Drugs, Dreams and the Making of China* (London: Picador, 2011), xix.

Fig. 3. General location map of the cities of Macao, Hong Kong and Canton in the 1800s Pearl River Delta, “Carta dos Canais entre Macau e Cantão,” [18–], Sociedade de Geografia de Lisboa, 3-G-13, in *Macau: a cidade e o porto* (Lisboa: Comissão Nacional para a Comemoração dos Descobrimentos Portugueses, 1997), ficha cartográfica n°5.

Fig. 4. General location map of the Macao province in 1912, comprising the Macao peninsula as well as the islands of Taipa and Coloane, “Macao e Territórios Vizinhas,” Atlas de Macau, Comissão de Cartografia, Ministério das Colónias, 1912, Biblioteca Nacional, Lisbon, Portugal.

Historical General Maps of the Macao Peninsula

1838

Fig. 5. “Planta Topográfica da Cidade de Macau Levantada em 1831 e Reformada em 1838 por Cândido António Ozório,” Arquivo do Gabinete de Estudos Arqueológicos da Engenharia Militar, Lisbon, Portugal.

1866

Fig. 6. “Macao com as Ilhas e Costas Adjacentes feita por Mr. W. A. Read, C.E. 1865-6,” Bibliothèque Nationale de France, Paris, France.

1884

Fig. 7. “Planta da Península e Porto de Macau com as sondagens levantadas em 1884 e com o projecto do cais interior, molhe da Taipa, docas da Ilha Verde e Praia Grande, Dique da Taipa e revestimento marginal entre a Ilha Verde e Pac-siac,” in Adolfo Ferreira de Loureiro, *O porto de Macau. Ante-projecto para o seu melhoramento* (Coimbra: Imprensa da Universidade, 1884).

1889

Fig. 8. “Planta da Península de Macau na escala de 1 por 500. Macau, 15 de Março de 1889, reduzida e desenhada por António Heitor, condutor civil O.P. Província de Macau,” Biblioteca Nacional, Lisbon, Portugal.

1912

Fig. 9. “Planta da Cidade de Macau,” Atlas de Macau, Comissão de Cartografia, Ministério das Colónias, 1912, Biblioteca Nacional, Lisbon, Portugal.

2015 General Map of the Macao Peninsula

Fig. 10. City of Macao vector general map, 2015, Direcção dos Serviços de Solos, Obras Públicas e Transportes, Governo da Região Administrativa Especial (RAE) de Macau.

Interpretations of the General Historical Maps

Fig. 11. The Macao peninsula in 1838. Interpretation of the 1838 historical map superimposed on the 2015 general map. Location of the Chinese Bazaar, setting for Chapter I.

Fig. 12. The Macao peninsula in 1866. Interpretation of the 1866 historical map superimposed on the 2015 general map. Location of the Chinese Bazaar, setting for Chapters I and II.

Fig. 13. The Macao peninsula in 1884. Interpretation of the 1884 historical map superimposed on the 2015 general map (featuring, in blue, Adolfo Loureiro's 1884 inner harbor improvement project). Location of the Chinese Bazaar, setting for Chapters I and II, as well as of the Horta da Mitra, Horta de Volong and S. Lázaro districts, setting for Chapter III, and of the Patane district, setting for Chapter V.

Fig. 14. The Macao peninsula in 1889. Interpretation of the 1889 historical map superimposed on the 2015 general map. Location of the Chinese Bazaar, setting for Chapter IV, as well as of the Horta da Mitra, Horta de Volong and S. Lázaro districts, setting for Chapter III, and of the Patane district, setting for Chapter V.

Fig. 15. The Macao peninsula in 1912. Interpretation of the 1912 historical map superimposed on the 2015 general map. Location of the Chinese Bazaar, setting for Chapter IV, as well as of the Horta da Mitra, Horta de Volong and S. Lázaro districts, setting for Chapter III, and of the Patane district, setting for Chapter V.

Historic Center of Macao: Inscription on the World Heritage List, 2005

Fig. 16. Historic Center of Macao: "Protected buildings, protected areas and buffer zones," in The State Administration of Cultural Heritage of the People's Republic of China, "The Historic Monuments of Macao. Nomination for Inscription on the World Heritage List. Supplementary Document," whc.unesco.org, 2004.

Fig. 17. Historic Center of Macao: "Evolution of the Macao peninsula and delineation of buffer zones," in The State Administration of Cultural Heritage of the People's Republic of China, "The Historic Monuments of Macao. Nomination for Inscription on the World Heritage List. Supplementary Document," whc.unesco.org, 2004.

Fig. 18. Historic Center of Macao: "Protected buildings and other classified heritage in Macao," in The State Administration of Cultural Heritage of the People's Republic of China, "The Historic Monuments of Macao. Nomination for Inscription on the World Heritage List. Supplementary Document," whc.unesco.org, 2004.

Chapter I

Chronological board

Fig. 19. The Chinese Bazaar in 1838. Interpretation of the 1838 historical map superimposed on the 2015 general map.

Fig. 20. The Chinese Bazaar circa 1860. Configuration hypothesis based on the comparative interpretation of the 1838 and 1866 historical maps superimposed on the 2015 general map.

Fig. 21. The Chinese Bazaar in 1866. Interpretation of the 1866 historical map superimposed on the 2015 general map.

Fig. 22. The Chinese Bazaar circa 1875. Configuration hypothesis based on the comparative interpretation of the 1866 and 1884 historical maps superimposed on the 2015 general map.

Fig. 23. "Habitations de Pauvres. Port Intérieur de Macao," in *Sketches of China and the Chinese, from drawings by Auguste Borget* (London: Tilt and Bogue, 1842).

Fig. 24. View of Largo do Pagode c.1900, in Grace Lei, Connie Kong and Roy Sit, *A Journey Through Light and Shadow. The Invention of Photography and the Earliest Photographs of Macao, China* (Macao: Cultural Affairs Bureau, 2009).

Fig. 25. "Inner harbor circa 1880," in Cecília Jorge and Rogério Beltrão Coelho, *Álbum Macau: Memória da Cidade* (Macao: Livros do Oriente, 2005), 37.

Fig. 26. The Macao inner harbor in the 1900s. AM, in archives.gov.mo.

Fig. 27. The Macao inner harbor in the 1900s. AM, in archives.gov.mo.

Fig. 28. The Macao inner harbor in the 1973, by Karsten Petersen, in cq2.tumblr.com.

Figs. 29, 30 and 31. Macao inner harbor, 2018.

Fig. 32. Macao, Praça Ponte e Horta, 2018.

Fig. 33. Casa do Ópio, Praça da Ponta e Horta, in culturalheritage.mo.

Fig. 34. "Planta topográfica do Bazar de Macau por M. de Castro Sampaio," in Manuel de Castro Sampaio, *Os Chins de Macau* (Hong Kong: Noronha e Filhos, 1867).

Fig. 35. Rua da Felicidade, Macao SAR, PRC, in macaulifestyle.com.

Fig. 36. Travessa da Felicidade in 1929, National Library of Australia, Canberra, Australia. Cheng Peng Theater can be seen at the end of the street.

Fig. 37. "Chinese Bazaar, circa 1900," in Cecília Jorge and Rogério Beltrão Coelho, *Album Macau 3: People, Places and Experiences* (Macao: Livros do Oriente, 1993).

Fig. 38. Chinese Bazaar in Macao, 2018.

Fig. 39. The Chinese Bazaar circa 1875. Cadaster configuration hypothesis based on the interpretation of the 1903 Bazaar historical map "Projecto de construção de uma Avenida do Largo do Senado ao porto interior e melhoramento de várias ruas do Bazar China," c. 1903, AM, MNL.03.09.Cart.

Fig. 40. Beco da Felicidade, 2018.

Fig. 41. Shophouse in Kaiming Lane, Canton Bazaar district, Hong Kong, in Osbert Chadwick, *Report on the Sanitary Condition of Hong Kong* (London: Colonial Office, 1882), sheet I.

Fig. 42. Map of Taipingshan district, Hong Kong, in 1895. "Taipingshan Resumption. Plan of area previous to resumption," in "Insanitary Properties Resumptions," *Hong Kong Sessional Papers* (Hong Kong: Noronha & Co., 1905).

Fig. 43. The New Bazaar, Macao, circa 1875. Cadaster configuration hypothesis based on the interpretation of the 1903 Bazaar historical map “Projecto de construção de uma Avenida do Largo do Senado ao porto interior e melhoramento de várias ruas do Bazar China,” c. 1903, AM, MNL.03.09.Cart.

Figs. 44 and 45. Taipingshan district, Hong Kong, in the 1870s and 1880s, in Joseph S. P. Ting and Nai-kwan Wong, *City of Victoria. A Selection of the Museum's Historical Photographs* (Hong Kong: Urban Council of Hong Kong, 1994), 58-59.

Fig. 46. Taipingshan district, Hong Kong, 1894. Desinfection team at work during the 1894 bubonic plague epidemic, in Joseph S. P. Ting and Nai-kwan Wong, *City of Victoria. A Selection of the Museum's Historical Photographs* (Hong Kong: Urban Council of Hong Kong, 1994), 60.

Fig. 47. Hong Kong, 1889. Based on “Plan of the City of Victoria, Hong Kong, 1889,” in Hal Empson, *Mapping Hong Kong. A Historical Atlas* (Hong Kong: Government Information services, 1992), 162-163.

Figs. 48 and 49. “Plan and section of a new block of buildings abutting on Queen’s Road,” Aberdeen Street, Sheung Wan district, Hong Kong, in Osbert Chadwick, *Report on the Sanitary Condition of Hong Kong* (London: Colonial Office, 1882), respectively sheets VI and VII.

Figs. 50 and 51. Sheung Wan district, Hong Kong, in the 1880s and 1890s, in Joseph S. P. Ting and Nai-kwan Wong, *City of Victoria. A Selection of the Museum's Historical Photographs* (Hong Kong: Urban Council of Hong Kong, 1994), 56-57.

Chapter II

Fig. 52. 1863 project for the construction of a dock on Praia do Manduco bay. AHU, AHU-ACL-SEMU-DGU-CU-01, Pt.39 - 1859.

Chronological board

Fig. 53. The Chinese Bazaar circa 1875. Configuration hypothesis based on the comparative interpretation of the 1866 and 1884 historical maps superimposed on the 2015 general map.

Fig. 54. The Chinese Bazaar in 1884. Interpretation of the 1884 historical map superimposed on the 2015 general map.

Fig. 55. “The Central District reclamation works at the completion stage,” Hong Kong, 1890-1904, in Joseph S. P. Ting and Nai-kwan Wong, *City of Victoria. A Selection of the Museum's Historical Photographs* (Hong Kong: Urban Council of Hong Kong, 1994), 42.

Fig. 56. “Projecto para a construção da fachada principal do 1º quarteirão no aterro da R. Marginal,” October 1879, AM, MNL.03.18.Cart (AM, MO/AH/AC/SA/01/00278).

Fig. 57. “Projecto para a construção do 1º quarteirão no aterro da R. Marginal do porto interior,” October 1881, AM, MNL.03.18a.Cart (AM, MO/AH/AC/SA/01/00278).

Fig. 58. Macao inner harbor in the 1880s, based on “Largo da Caldeira,” in Cecília Jorge and Rogério Beltrão Coelho, *Album Macau 3: People, Places and Experiences* (Macao: Livros do Oriente, 1993).

Fig. 59. Macao inner harbor in the 1920s. AHU, in archives.gov.mo.

Fig. 60. “The inner harbor ca. 1900,” based on in Cecília Jorge and Rogério Beltrão Coelho, *Album Macau 3: People, Places and Experiences* (Macao: Livros do Oriente, 1993).

Fig. 61. Rua do Visconde de Paço de Arcos (Macao inner harbor) in the 1880s, based on Nuno Soares, ed., *The Inner Harbour. Background Document on the Revitalization of Macau's Vernacular Heritage* (Macao: Nuno Soares, 2014).

Figs. 62 and 63. Macao inner harbor, 2018.

Fig. 64. Macao inner harbor, 2018.

Fig. 65. Miguel Ayres da Silva's Chinese Bazaar reclamation in 1884. Interpretation of the 1884 historical map superimposed on the 2015 general map. Cadaster configuration hypothesis based on the interpretation of the 1903 Bazaar historical map “Projecto de construção de uma Avenida do Largo do Senado ao porto interior e melhoramento de várias ruas do Bazar China,” c. 1903, AM, MNL.03.09.Cart.

Chapter III

Chronological board

Fig. 66. The Horta da Mitra, Horta de Volong and S. Lázaro districts in 1884. Interpretation of the 1884 historical map superimposed on the 2015 general map.

Fig. 67. The Horta da Mitra, Horta de Volong and S. Lázaro districts in 1889. Interpretation of the 1889 historical map superimposed on the 2015 general map.

Fig. 68. The Horta da Mitra, Horta de Volong and S. Lázaro districts circa 1900. Configuration hypothesis based on the comparative interpretation of the 1889 and 1912 historical maps superimposed on the 2015 general map.

Fig. 69. Horta da Mitra, Horta de Volong and S. Lázaro districts in 1912. Interpretation of the 1912 historical map superimposed on the 2015 general map.

Fig. 70. Cadastral survey of the S. Lázaro district, June 1883. “Planta do Bairro de S. Lázaro na escala de 0,002 por 1 metro, Junho de 1883, [selo] Direcção das Obras Públicas de Macau.” AM, MO/AH/AC/SA/01/00470, Document 2 (MNL.04.05.CART).

Fig. 71. Chinese dwellings by George Chinnery, c. 1835/1838, in Pedro Dias, *A Urbanização e a Arquitectura dos Portugueses em Macau, 1557-1911* (Lisboa: Portugal Telecom, 2005), 195.

Fig. 72. View of Macao from Monte da Guia c.1884: a. the Horta da Mitra district before restructuring. Based on Cecília Jorge and Rogério Beltrão Coelho, *Album Macau: Sítios, Gentes e Vivências* (Macao: Livros do Oriente, 1991).

Fig. 73. View of Macao from Monte da Guia c.1889: a. New Market at Horta da Mitra after restructuring; b. and c., respectively, the Horta de Volong and S. Lázaro districts before restructuring. Based on Cecília Jorge and Rogério Beltrão Coelho, *Album Macau 3: Sítios, Gentes e Vivências* (Macao: Livros do Oriente, 1993).

Fig. 74. New Market and surrounding shophouses at Horta da Mitra, 1934/35. AHU, 60.2 1G MU.

Fig. 75. View of Macao from Monte da Guia c.1900: a. New Market at Horta da Mitra after restructuring. b. the new Horta de Volong under construction. c. S. Lázaro district before restructuring. Based on: Grace Lei, Connie Kong and Roy Sit, *A Journey Through Light and Shadow. The Invention of Photography and the Earliest Photographs of Macao, China* (Macao: Cultural Affairs Bureau, 2009).

Fig. 76. View of Macao from Monte da Guia c.1900: The new Horta de Volong under construction. Based on: Grace Lei, Connie Kong and Roy Sit, *A Journey Through Light and Shadow. The Invention of Photography and the Earliest Photographs of Macao, China* (Macao: Cultural Affairs Bureau, 2009).

Fig. 77. Residential units in Horta de Volong, by Lego Chan Chon Kit, *LAR201: Tutorial 'The Buildings of Macau'*, University of Saint Joseph, 2015/2016. Courtesy of Prof. Francisco Vizeu Pinheiro.

Fig. 78. Residential units in the S. Lázaro district, following the housing model developed for the 1895/1896 new Horta de Volong (the latter having all but disappeared under present-day property development), 2018.

Figs. 79 and 80. Some of the last remaining residential units in the former Horta de Volong, 2018.

Fig. 81. View of Macao from Monte da Guia c.1965: b. Horta de Volong. c. S. Lázaro district. Based on: Cecília Jorge and Beltrão Coelho, *Álbum Macau 3: Sítios, Gentes e Vivências* (Macao: Livros do Oriente, 1993).

Fig. 82. Residential units in the S. Lázaro district, by Lego Chan Chon Kit, *LAR201: Tutorial 'The Buildings of Macau'*, University of Saint Joseph, 2015/2016. Courtesy of Prof. Francisco Vizeu Pinheiro.

Fig. 83. Residential units in the S. Lázaro district, 2018.

Fig. 84. The Horta de Volong and S. Lázaro districts' restructuring plan, published as Fig. 81 in William John Simpson, *The Principles of Hygiene as applied to tropical and subtropical climates and the principles of personal hygiene in them as applied to Europeans* (London: John Bale, Sons and Danielsson, 1908), 300.

Fig. 85. S. Lázaro residential units, published as Fig. 82 in William John Simpson, *The Principles of Hygiene as applied to tropical and subtropical climates and the principles of personal hygiene in them as applied to Europeans* (London: John Bale, Sons and Danielsson, 1908), 302.

Fig. 86. The Horta de Volong and S. Lázaro districts in 1884.

Fig. 87. The 1894 Horta de Volong and S. Lázaro districts' restructuring plan. Interpretations of the map published as Fig. 81 in William John Simpson, *The Principles of Hygiene as applied to tropical and subtropical climates and the principles of personal hygiene in them as applied to Europeans* (London: John Bale, Sons and Danielsson, 1908).

Fig. 88. Tap-seac/Lin-tin-chin cadastral survey and Rua do Campo northward extension plan, August 9, 1895, published in Armando Azenha Cação, "Sankiu," *Revista de Cultura*, 35/36 (1998): 135.

Fig. 89. New S. Lázaro district westward extension plan, 1899. AM, MNL.04.05a.CART.

Fig. 90. S. Lázaro district residential units, 1902-1924. AM, MNL.10.01j.CART.

Fig. 91. S. Lázaro district residential units, 1902-1924. AM, MNL.10.01a.CART.

Fig. 92. S. Lázaro district residential units, 1902-1924. AM, MNL.10.01g.CART.

Fig. 93. S. Lázaro district residential units, 1902-1924. AM, MNL.10.01c.CART.

Fig. 94. S. Lázaro district residential units, 1902-1924. AM, MNL.10.01.CART.

Fig. 95. Reconstitution of the Rua Nova de S. Lázaro/Calçada da Igreja de S. Lázaro/Rua do Volong block in the S. Lázaro district, by Lego Chan Chon Kit, *LAR201: Tutorial 'The Buildings of Macau'*, University of Saint Joseph, 2015/2016. Courtesy of Prof. Francisco Vizeu Pinheiro.

Chapter IV

Fig. 96. The Chinese Bazaar in 1903. Interpretation of the 1889 historical map superimposed on the 2015 general map. Partial cadastral configuration hypothesis based on the interpretation of the 1903 Bazaar historical map "Projecto de construção de uma Avenida do Largo do Senado ao porto interior e melhoramento de várias ruas do Bazar China," c. 1903, AM, MNL.03.09.CART.

Fig. 97. The S. Domingos Market in 1836. Drawing of the Largo de S. Domingos by George Chinnery, in Cecília Jorge and Rogério Beltrão Coelho, *Viagem por Macau, Volume III - Século XIX - II Parte* (Macao: Livros do Oriente, 2014), 154.

Fig. 98. "Plano Geral da Cidade de Lisboa em 1826." Based on: Raquel Henriques da Silva (ed.), *Lisboa de Frederico Ressano Garcia, 1874-1909* (Lisboa: Câmara Municipal de Lisboa, 1989), Fig. 2.

Fig. 99. "Planta de Lisboa limitada pela linha de cintura e melhoramentos projectados, incluindo as zonas em que a Camara projecta as novas avenidas, ruas e parques da capital, 1891." Based on: Raquel Henriques da Silva (ed.), *Lisboa de Frederico Ressano Garcia, 1874-1909* (Lisboa: Câmara Municipal de Lisboa, 1989), Fig. 3.

Fig. 100. "Planta Geral da Cidade com todos os estudos que dizem respeito a este anteprojecto [Plano Geral de Melhoramentos da Capital]. O Engenheiro Director Geral Chefe da 3ª Repartição Frederico Ressano Garcia, 1903." Raquel Henriques da Silva (ed.), *Lisboa de Frederico Ressano Garcia, 1874-1909* (Lisboa: Câmara Municipal de Lisboa, 1989), Fig. 76.

Fig. 101. "Planta Redonda de 1813, por George Balck, com as intervenções almadinas destacadas." Adapted from the original 1813 Porto general plan at Arquivo Histórico e Municipal do Porto. Based on: Ricardo Figueiredo, Clara Pimenta do Vale and Rui Tavares, *Avenida dos Aliados e Baixa do Porto. Memória, realidade e permanência* (Porto: Porto Vivo SRU, 2013), Fig. 20.

Fig. 102. "A Praça de D. Pedro como centro do sistema de espaços públicos da cidade." Based on: Ricardo Figueiredo, Clara Pimenta do Vale and Rui Tavares, *Avenida dos Aliados e Baixa do Porto. Memória, realidade e permanência* (Porto: Porto Vivo SRU, 2013), Fig. 53.

Fig. 103. "Carta Topográfica da cidade do Porto que foi mandada levantar na escala de 1:500 por ordem da Câmara Municipal da mesma cidade referida ao ano de 1892." Adapted from the original 1892 Porto general plan by Gerardo Telles Ferreira. Based on: Ricardo Figueiredo, Clara Pimenta do Vale and Rui Tavares, *Avenida dos Aliados e Baixa do Porto. Memória, realidade e permanência* (Porto: Porto Vivo SRU, 2013), Fig. 60.

Fig. 104. "Projecto de Embelezamento da Cidade de Porto para servir à edificação dos novos Paços do Concelho e outros edificios públicos. Oferecido à Ex.a Câmara Municipal pelo Engenheiro Civil Carlos de Pézerat. Porto, aos 30 de Novembro de 1889." Adapted from the original plan. Ricardo Figueiredo, Clara Pimenta do Vale and Rui Tavares, *Avenida dos Aliados e Baixa do Porto. Memória, realidade e permanência* (Porto: Porto Vivo SRU, 2013), Fig. 81.

Fig. 105. "Projecto de uma Avenida ligando as Praças da Liberdade e Trindade, realizado pela 3ª repartição da Câmara municipal do Porto, 1915." Ricardo Figueiredo, Clara Pimenta do Vale and Rui Tavares, *Avenida dos Aliados e Baixa do Porto. Memória, realidade e permanência* (Porto: Porto Vivo SRU, 2013), Fig. 83.

Fig. 106. Richard Barry Parker's second project for the Avenida da Liberdade in Porto, 1915. Ricardo Figueiredo, Clara Pimenta do Vale and Rui Tavares, *Avenida dos Aliados e Baixa do Porto. Memória, realidade e permanência* (Porto: Porto Vivo SRU, 2013), Fig. 86.

Fig. 107. "Parker and Unwin's original plan of Garden City, as first published, April 1904." Letchworth original plan.

Fig. 108. "Wren's Plan of London traced from *A History of Renaissance Architecture in England*." Raymond Unwin, *Town Planning in Practice. An Introduction to the Art of Designing Cities and Suburbs* (London and Leipsic: T. Fisher Unwin, 1909), 78.

Fig. 109. Coimbra, Quinta de Santa Cruz General Improvement Plan, by Mondego and Barra da Figueira Public Works Director Adolfo Loureiro, 1885. Margarida Relvão Calmeiro, *Urbanismo Antes dos Planos: Coimbra 1834-1934* (Doctoral thesis in Architectural Theory and History, Universidade de Coimbra, Portugal, 2014), 255.

Figs. 110 and 111. Pangim c. 1851-1864 and c. 1920-1926. Configuration hypotheses by Alice Santiago Faria, in *Architecture Coloniale Portugaise à Goa. Le Département des Travaux Publics, 1840-1926* (Saarbrücken: Presses Académiques Francophones, 2014), 129.

Fig. 112. Pangim in 1929. “Direcção dos Serviços da Agrimensura do Estado da Índia. Carta de Pangim,” in Alice Santiago Faria, *Architecture Coloniale Portugaise à Goa. Le Département des Travaux Publics, 1840-1926* (Saarbrücken: Presses Académiques Francophones, 2014), 121.

Fig. 113. Vasco da Gama in 1930. In Alice Santiago Faria, *Architecture Coloniale Portugaise à Goa. Le Département des Travaux Publics, 1840-1926* (Saarbrücken: Presses Académiques Francophones, 2014), 186.

Figs. 114 and 115. Vasco da Gama c. 1906-1910 and c. 1925. Configuration hypotheses by Alice Santiago Faria, in *Architecture Coloniale Portugaise à Goa. Le Département des Travaux Publics, 1840-1926* (Saarbrücken: Presses Académiques Francophones, 2014), 187.

Fig. 116. “Planta do porto, cidade e arredores de Dili. Levantada pelo condutor civil António Heitor, Chefe interino da secção [?] de Timor. Dili, 15 de Junho de 1893.” In Isabel Maria Guterres Boavida, *Urbanografia de Dili no Tempo da Administração Portuguesa* (Dissertação de Mestrado Integrado em Arquitectura, Departamento de Arquitectura da Faculdade de Ciência e Tecnologia da Universidade de Coimbra, 2011), 38.

Fig. 117. Plan of Lourenço Marques c. 1887. Configuration hypothesis by Lisandra Franco de Mendonça, in “As Obras de Saneamento e o Traçado das Primeiras Avenidas em Lourenço Marques, Moçambique.” *Pós. Revista do programa de Pós-Graduação em Arquitectura e Urbanismo da FAUUSP* Vol. 25, 45 (2018): 135.

Fig. 118. Plan of Lourenço Marques c. 1887-1888, superimposed with the 1887 António José de Araújo city extention plan. Configuration hypothesis by Lisandra Franco de Mendonça, in “As Obras de Saneamento e o Traçado das Primeiras Avenidas em Lourenço Marques, Moçambique.” *Pós. Revista do programa de Pós-Graduação em Arquitectura e Urbanismo da FAUUSP* Vol. 25, 45 (2018): 137.

Fig. 119. Lourenço Marques in 1937, in delagoabayworld.wordpress.com.

Fig. 120. 1903 Abreu Nunes Chinese Bazaar Improvement Project (a). “Projecto de construção de uma Avenida desde o Largo do Senado à rua marginal do porto interior e de alargamento das ruas dos Mercadres, do Mastro, Aterro Novo e Travessa da Cordoaria. Planta Geral. Macau, 11 de Fevereiro de 1903.” AM, MNL.05.27.Cart.

Fig. 121. 1903 Abreu Nunes Chinese Bazaar Improvement Project (a). Extract based on “Projecto de construção de uma Avenida desde o Largo do Senado à rua marginal do porto interior e de alargamento das ruas dos Mercadres, do Mastro, Aterro Novo e Travessa da Cordoaria. Planta Geral. Macau, 11 de Fevereiro de 1903.” AM, MNL.05.27.Cart.

Fig. 122. 1903 Abreu Nunes Chinese Bazaar Improvement Project (b). “Ante-projecto de aproveitamento do local onde existe o Convento de S. Domingos para alargamento do mercado,” March 18, 1903, option 1. AHU, 251-2G-1S-SEMU-DGU ex.

Fig. 123. 1903 Abreu Nunes Chinese Bazaar Improvement Project (b). “Ante-projecto de aproveitamento do local onde existe o Convento de S. Domingos para alargamento do mercado,” March 18, 1903, option 2. AHU, 251-2G-1S-SEMU-DGU ex.

Fig. 124. 1903 Abreu Nunes Chinese Bazaar Improvement Project (b). Based on “Ante-projecto de aproveitamento do local onde existe o Convento de S. Domingos para alargamento do mercado,” March 18, 1903, option 1. AHU, 251-2G-1S-SEMU-DGU ex.

Fig. 125. 1903 Abreu Nunes Chinese Bazaar Improvement Project (b). The Chinese Bazaar in 1903. Cadaster configuration hypothesis based on the interpretation of the 1903 Bazaar historical map “Projecto de construção de uma Avenida do Largo do Senado ao porto interior e melhoramento de várias ruas do Bazar China,” c. 1903, AM, MNL.03.09.Cart.

Fig. 126. 1903 Abreu Nunes Chinese Bazaar Improvement Project (b). “Projecto de construção de uma Avenida do Largo do Senado ao porto interior e melhoramento de várias ruas do Bazar China,” c. 1903, AM, MNL.03.09.Cart.

Fig. 127. 1903 Abreu Nunes Chinese Bazaar Improvement Project (b). Configuration hypothesis based on the interpretation of the 1903 Bazaar historical map “Projecto de construção de uma Avenida do Largo do Senado ao porto interior e melhoramento de várias ruas do Bazar China,” c. 1903, AM, MNL.03.09.Cart.

Fig. 128. 1903 Abreu Nunes Chinese Bazaar Improvement Project (a). Configuration hypothesis based on the interpretation of the 1903 Bazaar historical map “Projecto de construção de uma Avenida desde o Largo do Senado à rua marginal do porto interior e de alargamento das ruas dos Mercadres, do Mastro, Aterro Novo e Travessa da Cordoaria. Planta Geral. Macau, 11 de Fevereiro de 1903,” AM, MNL.05.27.Cart.

Fig. 129. “Planta do Mercado de S. Domingos. José Ferreira Cidade, Encarregado da Direcção, 11 de Julho de 1904.” AHU, 251-2G-1S-SEMU-DGU ex.

Fig. 130. Plan for the S. Domingos market site, based on Macao Public Works acting director José Ferreira Cidade’s July 11th 1904 site plan, AHU, 251-2G-1S-SEMU-DGU ex.

Fig. 131. 1905 Faria e Maia Chinese Bazaar Improvement Project. “Projecto de construção de uma Avenida do Largo do Senado ao Porto Interior e melhoramento de várias ruas do Bazar China.” May 5, 1905. AHU, 251-2G-1S-SEMU-DGU ex.

Fig. 132. 1905 Faria e Maia Chinese Bazaar Improvement Project. Configuration hypothesis based on the interpretation of the 1905 Bazaar historical map “Projecto de construção de uma Avenida do Largo do Senado ao Porto Interior e melhoramento de várias ruas do Bazar China,” May 5, 1905, AHU, 251-2G-1S-SEMU-DGU ex.

Fig. 133. “Planta do Mercado de S. Domingos. Raúl Machado de Faria e Maia.” June 15, 1905. AHU, 251-2G-1S-SEMU-DGU ex.

Figs. 134 and 135. The S. Domingos market in the 1920s. AHU, in archives.gov.mo.

Fig. 136. 1907 Miranda Guedes Chinese Bazaar Improvement Project. “Cidade de Macau. Projecto de Melhoramentos no Bairro do Bazar.” November 30, 1907. AHU, 251-2G-1S-SEMU-DGU ex.

Fig. 137. 1907 Miranda Guedes Chinese Bazaar Improvement Project. Extract based on “Cidade de Macau. Projecto de Melhoramentos no Bairro do Bazar.” November 30, 1907. AHU, 251-2G-1S-SEMU-DGU ex.

Fig. 138. 1907 Miranda Guedes Chinese Bazaar Improvement Project. Configuration hypothesis based on the interpretation of the 1907 Bazaar historical map “Cidade de Macau. Projecto de Melhoramentos no Bairro do Bazar,” November 30, 1907, AHU, 251-2G-1S-SEMU-DGU ex.

Fig. 139. 1908 Miranda Guedes Patane Improvement Project. Based on “Cidade de Macau. Projecto de Melhoramentos nos Bairros de Patane, Tarrafeiro, Sakong, S. Paulo e Sto. António. Macau, Setembro de 1908, António Pinto de Miranda Guedes, Engenheiro Director.” AHU, 251-2G-1S-SEMU-DGU ex.

Fig. 140. 1907 Miranda Guedes Chinese Bazaar Improvement Project. “Cidade de Macau. Novo Bairro Sankiu. Planta Geral. Macau, 2 de Dezembro de 1907, António Pinto de Miranda Guedes, Engenheiro Director.” AHU, 251-2G-1S-SEMU-DGU ex.

Fig. 141. 1909 Miranda Guedes Sankiu and Tap-seac Improvement Project. Based on “Cidade de Macau. Projecto de Melhoramentos nos Bairros de Sankiu, Lin-tin-chin, Seac-lu-tau, Tap-seac, S. Miguel, Volong e S. Lázaro. António Pinto de Miranda Guedes, Engenheiro Director.” March 9, 1909. AHU, 251-2G-1S-SEMU-DGU cx.

Fig. 142. 1910 Chinese Bazaar New Avenue first operational section project, from Largo do Senado to Rua dos Mercadores. Configuration hypothesis based on the interpretation of the 1903 Abreu Nunes and 1907 Miranda Guedes Bazaar historical maps (AHU, 251-2G-1S-SEMU-DGU cx), as well as on information contained in AM, MO/AH/AC/SA/01/02814, Letter n°12 from the president of the Chinese Bazaar Improvement Committee to the Government acting Secretary-General, regarding the Bazaar resumption plan for the year 1910, September 3, 1910.

Fig. 143. The Avenida Almeida Ribeiro (former Chinese Bazaar New Avenue) in 1932. AHU, 2923 1A MU.

Fig. 144. The Chinese Bazaar in 1903. Interpretation of the 1889 historical map superimposed on the 2015 general map. Partial cadaster configuration hypothesis based on the interpretation of the 1903 Bazaar historical map “Projecto de construção de uma Avenida do Largo do Senado ao porto interior e melhoramento de várias ruas do Bazar China,” c. 1903, AM, MNL.03.09.Cart.

Fig. 145. 1903 Abreu Nunes Chinese Bazaar Improvement Project (a). Interpretation of the 1889 historical map superimposed on the 2015 general map. Partial cadaster and restructuring project configuration hypothesis based on the interpretation of the 1903 Bazaar historical map “Projecto de construção de uma Avenida desde o Largo do Senado à rua marginal do porto interior e de alargamento das ruas dos Mercadores, do Mastro, Aterro Novo e Travessa da Cordoaria. Planta Geral. Macau, 11 de Fevereiro de 1903,” AM, MNL.05.27.Cart.

Fig. 146. 1903 Abreu Nunes Chinese Bazaar Improvement Project (b). Interpretation of the 1889 historical map superimposed on the 2015 general map. Partial cadaster and restructuring project configuration hypothesis based on the interpretation of the 1903 Bazaar historical map “Projecto de construção de uma Avenida do Largo do Senado ao porto interior e melhoramento de várias ruas do Bazar China,” c. 1903, AM, MNL.03.09.Cart.

Fig. 147. 1905 Faria e Maia Chinese Bazaar Improvement Project. Interpretation of the 1889 historical map superimposed on the 2015 general map. Partial cadaster and restructuring project configuration hypothesis based on the interpretation of the 1905 Bazaar historical map “Projecto de construção de uma Avenida do Largo do Senado ao Porto Interior e melhoramento de várias ruas do Bazar China,” May 5, 1905, AHU, 251-2G-1S-SEMU-DGU cx.

Fig. 148. 1907 Miranda Guedes Chinese Bazaar Improvement Project. Interpretation of the 1889 historical map superimposed on the 2015 general map. Partial cadaster and restructuring project configuration hypothesis based on the interpretation of the 1907 Bazaar historical map “Cidade de Macau. Projecto de Melhoramentos no Bairro do Bazar,” November 30, 1907, AHU, 251-2G-1S-SEMU-DGU cx.

Fig. 149. The Chinese Bazaar in the 1930s. Interpretation of the 1889 historical map superimposed on the 2015 general map. Partial cadaster and restructuring works configuration hypothesis based on the interpretation of the 1903 Abreu Nunes and 1907 Miranda Guedes Bazaar historical maps (AHU, 251-2G-1S-SEMU-DGU cx), as well as on the 2015 general map.

Fig. 150. Avenida Almeida Ribeiro in the 1950s, in macauantigo.blogspot.com.

Fig. 151. Avenida Almeida Ribeiro in the 1950s, in macauantigo.blogspot.com.

Fig. 152. Avenida Almeida Ribeiro in the 1930s, in macauantigo.blogspot.com.

Fig. 153. Avenida Almeida Ribeiro in the 1960s, in macauantigo.blogspot.com.

Fig. 154. Avenida Almeida Ribeiro in the 1960s, in notenotavaicontra.wordpress.com.

Fig. 155. Advancement of the 1909 Miranda Guedes Macao General Sanitation Plan in 1927. Based on “Planta Geral da Cidade e Novo Porto de Macau. 1927. Escala 1:4000,” João Carlos Alves, Director Interino das Obras dos Portos e João Barbosa Pires, Cefe da Secção de Propaganda do Porto, publicado pela Direcção das Obras do Porto de Macau, Maio de 1927, Biblioteca Nacional, Lisbon, Portugal.

Chapter V

Fig. 156. Satellite imagery of the Pearl River Delta with the Hong Kong-Zhuhai-Macao Bridge site in 2015, in “Major construction of world’s longest cross-sea bridge completed,” September 27 2016, cranemarket.com.

Fig. 157. “Planta de Macau levantada por Demétrio Cinatti,” c. 1880, AM, MNL.05.09.CART, in *Macau: a cidade e o porto* (Lisboa: Comissão Nacional para a Comemoração dos Descobrimentos Portugueses, 1997), ficha cartográfica n°11.

Fig. 158. “Planta da Península e Porto de Macau com as sondagens levantadas em 1884 e com o projecto do cais interior, molhe da Taipa, docas da Ilha Verde e Praia Grande, Dique da Taipa e revestimento marginal entre a Ilha Verde e Pac-siac,” in Adolfo Ferreira de Loureiro, *O porto de Macau. Ante-projecto para o seu melhoramento* (Coimbra: Imprensa da Universidade, 1884).

Fig. 159. The 1884 Adolfo Loureiro Inner Harbor Improvement Project. Interpretation of the 1884 historical map superimposed on the 2015 general map. Focus on the Patane docks and reclamation complex.

Fig. 160. “Esboço da planta servindo só para indicar a disposição geral do muro cais projectado no porto interior, das docas do Patande e do bairro operário a construir nos terrenos que se conquistarem ao mar. Escala 1:400,” Public Works Director Augusto César de Abreu Nunes, August 9, 1897, AHU, 451-1H-SEMU-DGU mç.

Fig. 161. The 1897 Abreu Nunes Inner Harbor Improvement Project. Interpretation of the August 9, 1897 Abreu Nunes plan (Fig. 160) superimposed on the 2015 general map.

Figs. 162 and 163. Plan and sections for the Inner Harbor new piers on the Chinese Bazaar riverfront by Public Works Director Augusto César de Abreu Nunes, May 2, 1901, AHU, AHU-ACL-SEMU-DGU-3R-002, Cx.0002.

Fig. 164. “Projecto de Melhoramento do Porto de Macau. Planta Geral. Escala 1:2000,” Public Works Director Augusto César de Abreu Nunes, September 24, 1903, AHU, 760-1I-SEMU-MU-DGU mç.

Fig. 165. “Ante-Projecto de Melhoramentos do Porto de Macau. Cais e Rectificação Marginal. Lisboa, 31 de Maio de 1909, A. de Vasconcelos Porto,” AHU, 760-1I-SEMU-MU-DGU mç.

Fig. 166. “Porto de Macau. Planta geral da península e Porto de Macau, canais de acesso e ilhas próximas, extraída de uma ampliação da carta do almirantado inglês datada de 1881. Comissão de estudos do Porto de Macau. Lisboa, 17 de Fevereiro de 1912, José Emílio de Santana da Cunha Castel Branco, General, Alfredo Augusto Lisboa de Lima, Capitão de Engenharia,” in José Emílio de Santana da Cunha Castel Branco, *Projecto das obras a executar no Porto de Macau. Memória descritiva e justificativa precedida duma resenha histórica e seguida dum projecto de caderno de encargos e mais documentos para a execução das obras por empreitada* (Lisboa: Imprensa Nacional, 1913).

Fig. 167. “Porto de Macau. Planta geral da península e Porto Interior de Macau com a indicação das obras a executar na área abrangida pela planta. Escala 1:10.000. Comissão de estudos do Porto de Macau. Lisboa, 17 de Fevereiro de 1912, José Emílio de Santana da Cunha Castel Branco, General, Alfredo Augusto Lisboa de Lima, Capitão de Engenharia,” in José Emílio de Santana da Cunha Castel Branco, *Projecto das obras a executar no Porto de Macau. Memória descritiva e justificativa precedida duma resenha histórica e seguida dum projecto de caderno de encargos e mais documentos para a execução das obras por empreitada* (Lisboa: Imprensa Nacional, 1913).

Fig. 168. The 1912 Castel Branco Inner Harbor Improvement Project. Interpretation of the February 17, 1912 Castel Branco plan (Fig. 167), as well as of the 1912 historical map, superimposed on the 2015 general map. Focus on the Patane docks and reclamation complex.

Figs. 169 and 170. Photographs showing the first Patane reclamations being constructed along the Ilha Verde dam avenue. AHU, 2536-1B-MU-DGFTO mç., Harbor Works report from December 2, 1915, to May 31, 1916, by Administrative Council delegate Raúl Machado de Faria e Maia, May 31, 1916.

Figs. 171 and 172. Photographs showing the first Patane reclamations being constructed along the former riverside road leading to Portas do Cerco, corresponding to the allocated area for the future Macao-Canton railway (Fig. 168). AHU, 2536-1B-MU-DGFTO mç., Harbor Works report from December 2, 1915, to May 31, 1916, by Administrative Council delegate Raúl Machado de Faria e Maia, May 31, 1916.

Figs. 173, 174 and 175. Photographs showing the Patane shipyards. AHU, 2536-1B-MU-DGFTO mç., Harbor Works report from July 1914 to June 1917 by Administrative Council delegate Raúl Machado de Faria e Maia, June 1917.

Fig. 176. “Obras dos Portos de Macau. Esboço das linhas gerais do plano de obras da Missão de Melhoramentos dos Portos de Macau,” in Hugo Carvalho de Lacerda, *Porto Artificial na Rada de Macau. Anteprojecto. Discussões a que deu lugar e resumo de documentos principais que lhe dizem respeito até a sua aprovação definitiva* (Macao: Conselho de Administração das Obras dos Portos de Macau, 1921).

Fig. 177. “Obras dos Portos de Macau. Esboço do plano do porto artificial ao sul da península de Macau,” in Hugo Carvalho de Lacerda, *Porto Artificial na Rada de Macau. Anteprojecto. Discussões a que deu lugar e resumo de documentos principais que lhe dizem respeito até a sua aprovação definitiva* (Macao: Conselho de Administração das Obras dos Portos de Macau, 1921).

Fig. 178. Ilha Verde c.1920, in Cecília Jorge and Rogério Beltrão Coelho, *Álbum Macau: Sítios, Gentes e Vivências* (Macao: Livros do Oriente, 1991).

Fig. 179. The Patane bay c.1970, AM, MNL.01.01.011.f.

Fig. 180. “Planta Geral da Cidade e Novo Porto de Macau. 1927. Escala 1:4000,” João Carlos Alves, Director Interino das Obras dos Portos e João Barbosa Pires, Cefe da Secção de Propaganda do Porto, publicado pela Direcção das Obras do Porto de Macau, Maio de 1927, Biblioteca Nacional, Lisbon, Portugal.

Fig. 181. 1941 aerial photograph of the Macao peninsula. “Mosaico fotográfico de Macau, montado em 1952, com fotografias realizadas em Março de 1941,” in Filipe Jorge and Francisco Figueira, *Macao Visto do Céu* (Lisboa: Argumentum, 1999), 17.

Fig. 182. The Macao Inner Harbor in the 1930s. Interpretation of the 1912 historical map, superimposed on the 2015 general map. Focus on the Patane docks and reclamation complex. Partial cadaster and restructuring works configuration hypothesis based on the interpretation of the 1941 aerial photograph of the Macao peninsula (Fig. 181).

Figures

General Location Maps



Fig. 1. General location map of the cities of Macao and Canton in the sixteenth century South China Sea, based on Pedro Dias, *A Urbanização e a Arquitectura dos Portugueses em Macau, 1557-1911* (Lisboa: Portugal Telecom, 2005), 17.

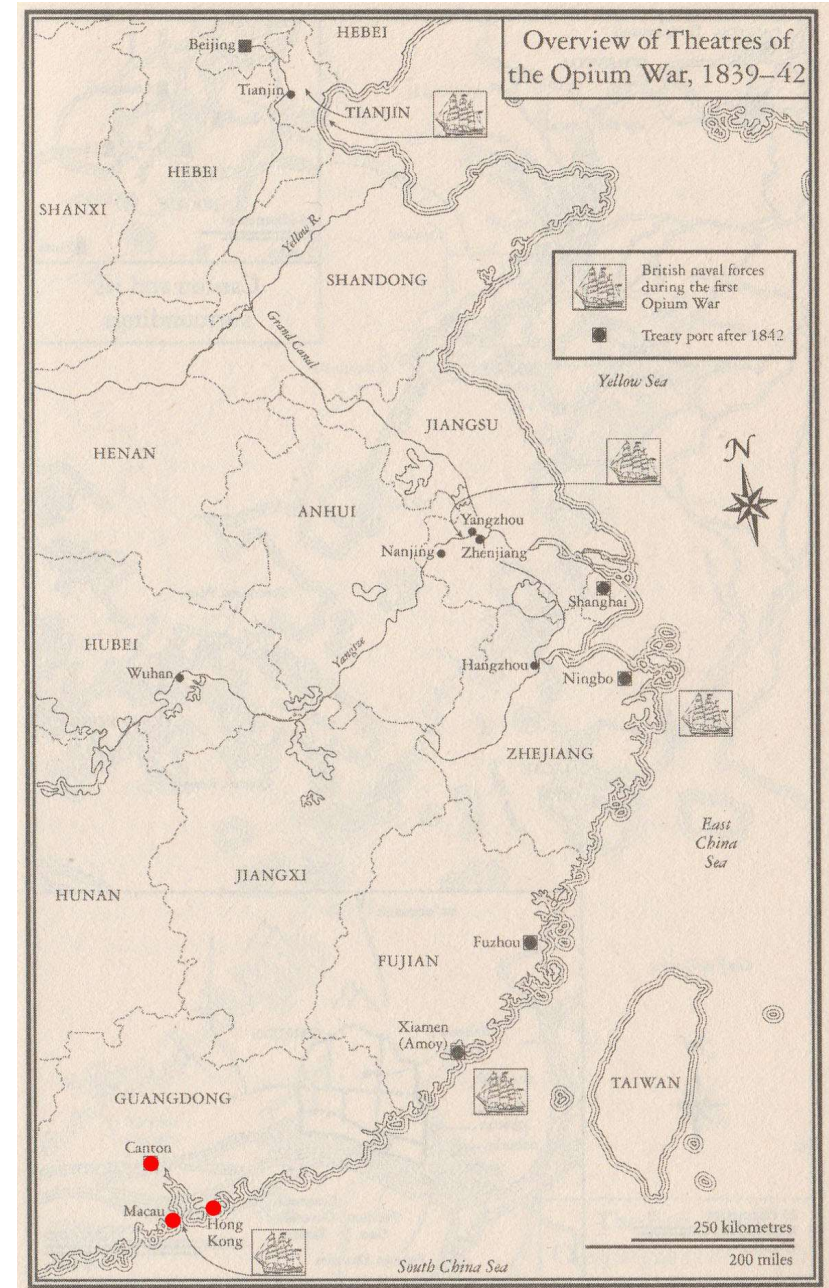


Fig. 2. General location map of the cities of Macao, Hong Kong and Canton in the 1850s, based on "Overview of Theatres of the Opium War, 1839-42," in Julia Lovell, *The Opium War: Drugs, Dreams and the Making of China* (London: Picador, 2011), xix.

Fig. 3. General location map of the cities of Macao, Hong Kong and Canton in the 1800s Pearl River Delta, “Carta dos Canais entre Macau e Cantão,” [18--], Sociedade de Geografia de Lisboa, 3-G-13, in *Macao: a cidade e o porto* (Lisboa: Comissão Nacional para a Comemoração dos Descobrimentos Portugueses, 1997), ficha cartográfica n°5.

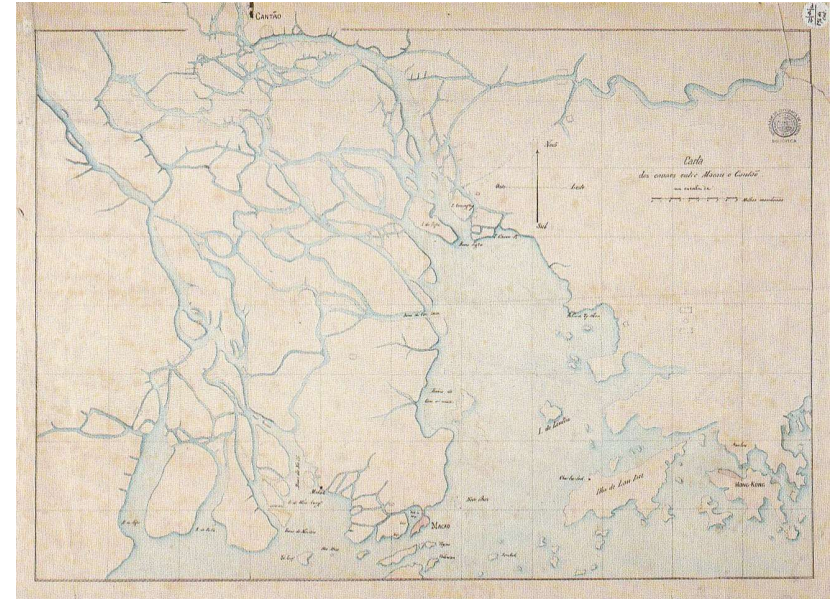




Fig. 4. General location map of the Macao province in 1912, comprising the Macao peninsula as well as the islands of Taipa and Coloane, “Macao e Territórios Vizinhos,” Atlas de Macau, Comissão de Cartografia, Ministério das Colónias, 1912, Biblioteca Nacional, Lisbon, Portugal.

Historical General Maps of the Macao Peninsula

1838



Fig. 5. “Planta Topográfica da Cidade de Macau Levantada em 1831 e Reformada em 1838 por Cândido António Ozório,” Arquivo do Gabinete de Estudos Arqueológicos da Engenharia Militar, Lisbon, Portugal.

1866



Fig. 6. “Macau com as Ilhas e Costas Adjacentes feita por Mr. W. A. Read, C.E. 1865-6,” Bibliothèque Nationale de France, Paris, France.

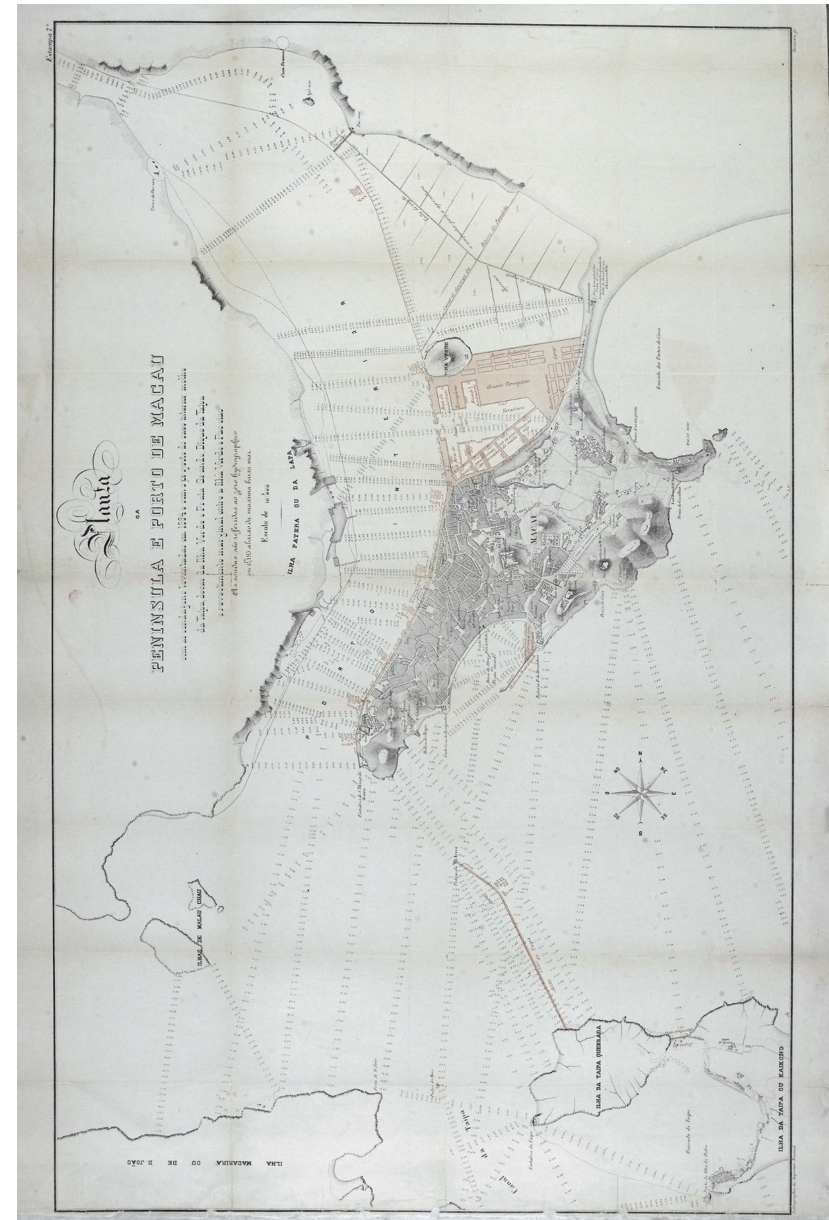


Fig. 7. “Planta da Península e Porto de Macau com as sondagens levantadas em 1884 e com o projecto do cais interior, molhe da Taipa, docas da Ilha Verde e Praia Grande, Dique da Taipa e revestimento marginal entre a Ilha Verde e Pac-siac,” in Adolfo Ferreira de Loureiro, *O porto de Macau. Ante-projecto para o seu melhoramento* (Coimbra: Imprensa da Universidade, 1884).

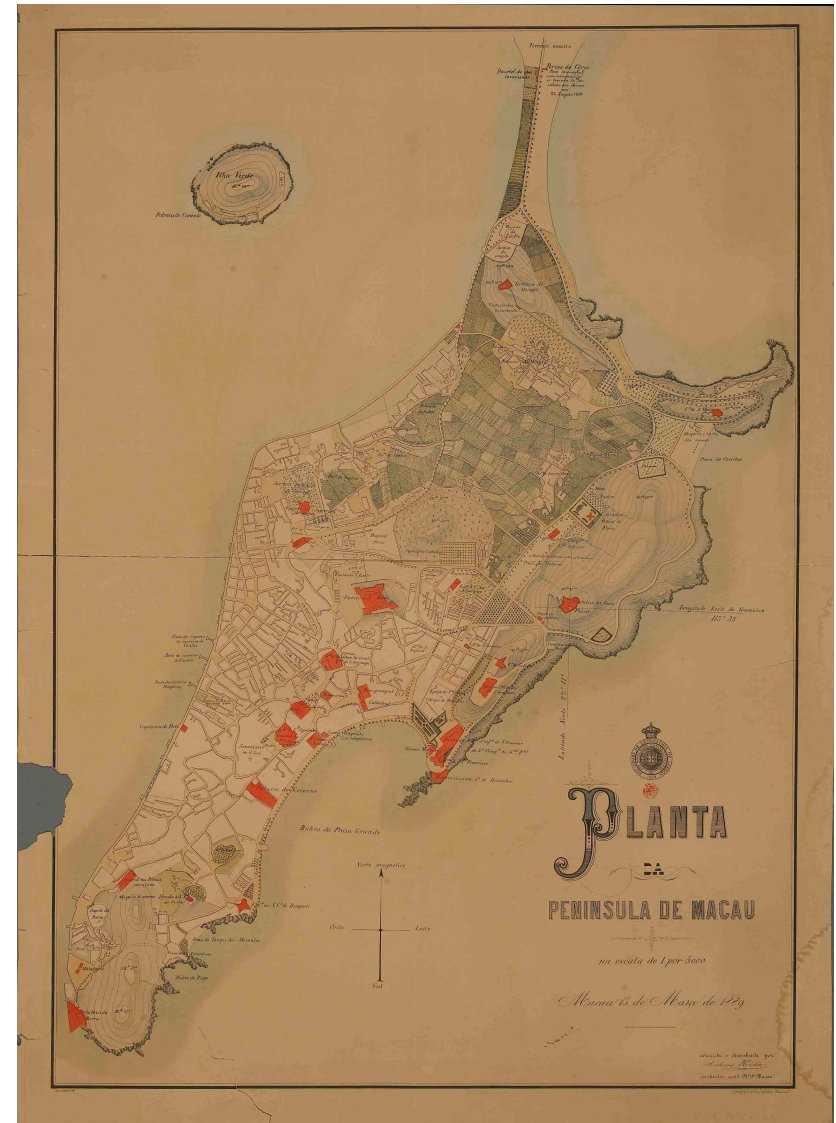


Fig. 8. “Planta da Península de Macau na escala de 1 por 500. Macau, 15 de Março de 1889, reduzida e desenhada por António Heitor, condutor civil O.P. Província de Macau,” Biblioteca Nacional, Lisbon, Portugal.

1912

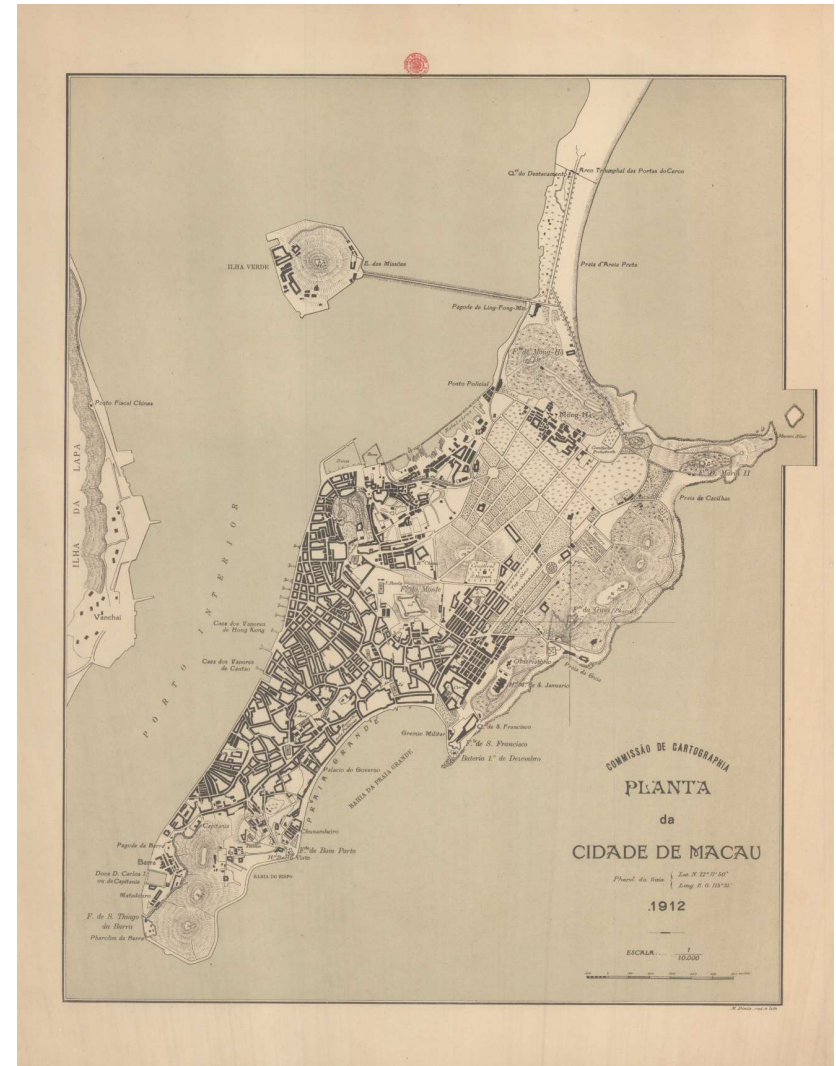


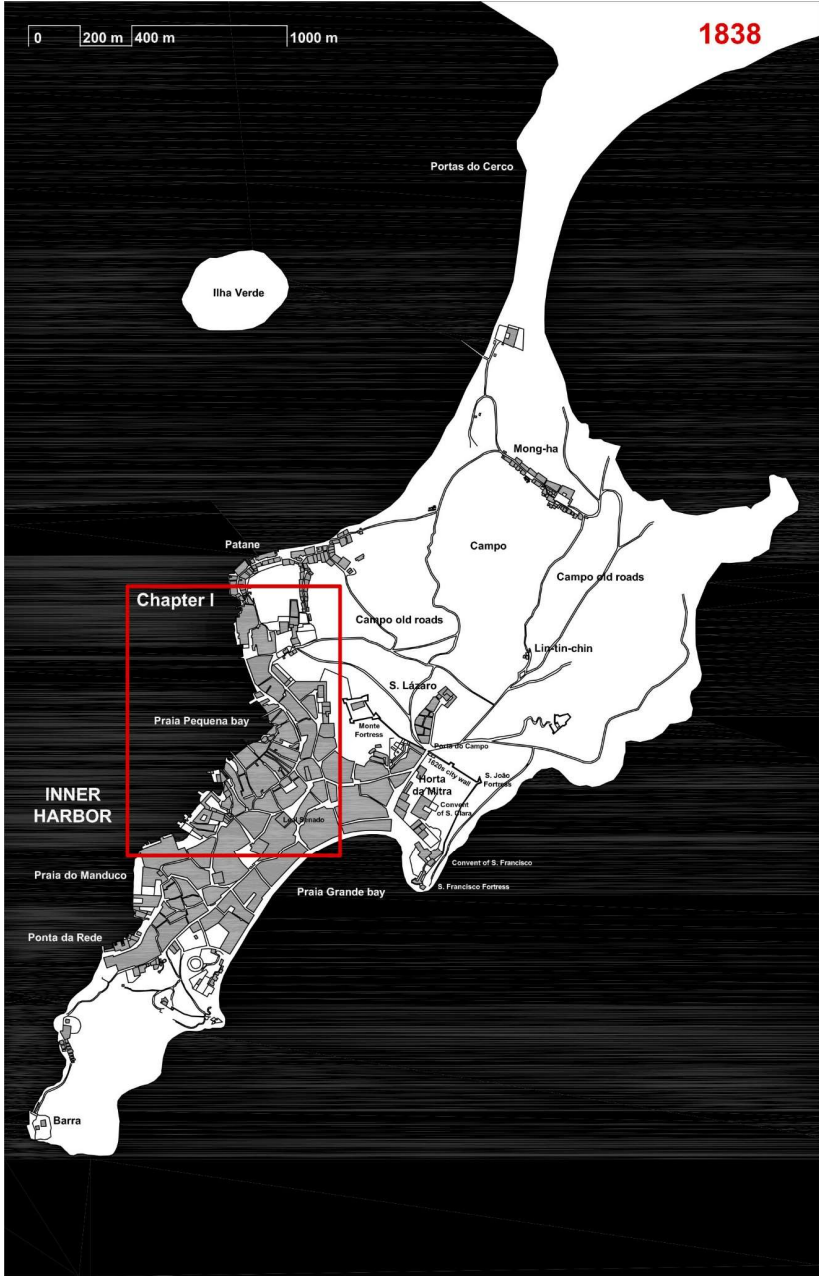
Fig. 9. "Planta da Cidade de Macau," Atlas de Macau, Comissão de Cartografia, Ministério das Colónias, 1912, Biblioteca Nacional, Lisbon, Portugal.

2015 General Map of the Macao Peninsula



Fig. 10. City of Macao vector general map, 2015, Direcção dos Serviços de Solos, Obras Públicas e Transportes, Governo da Região Administrativa Especial (RAE) de Macau.

Interpretations of the General Historical Maps



Note on the color code applying to all original mappin work; the color red represents urban transformation and expansion; the color blue represents urban and infrastructural projects.

Fig. 11. The Macao peninsula in 1838. Interpretation of the 1838 historical map superimposed on the 2015 general map. Location of the Chinese Bazaar, setting for Chapter I.



Fig. 12. The Macao peninsula in 1866. Interpretation of the 1866 historical map superimposed on the 2015 general map. Location of the Chinese Bazaar, setting for Chapters I and II.

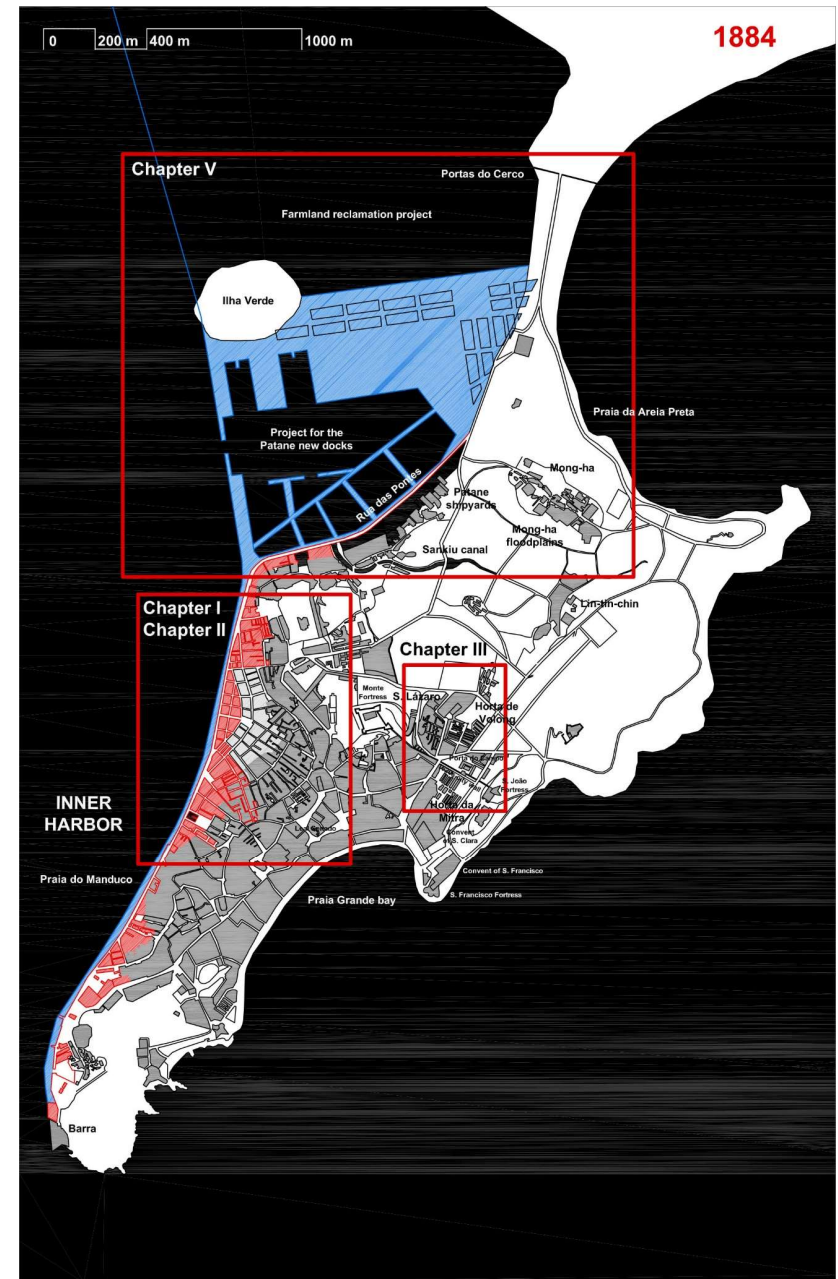


Fig. 13. The Macao peninsula in 1884. Interpretation of the 1884 historical map superimposed on the 2015 general map (featuring, in blue, Adolfo Loureiro's 1884 inner harbor improvement project). Location of the Chinese Bazaar, setting for Chapters I and II, as well as of the Horta da Mitra, Horta de Volong and S. Lázaro districts, setting for Chapter III, and of the Patane district, setting for Chapter V.

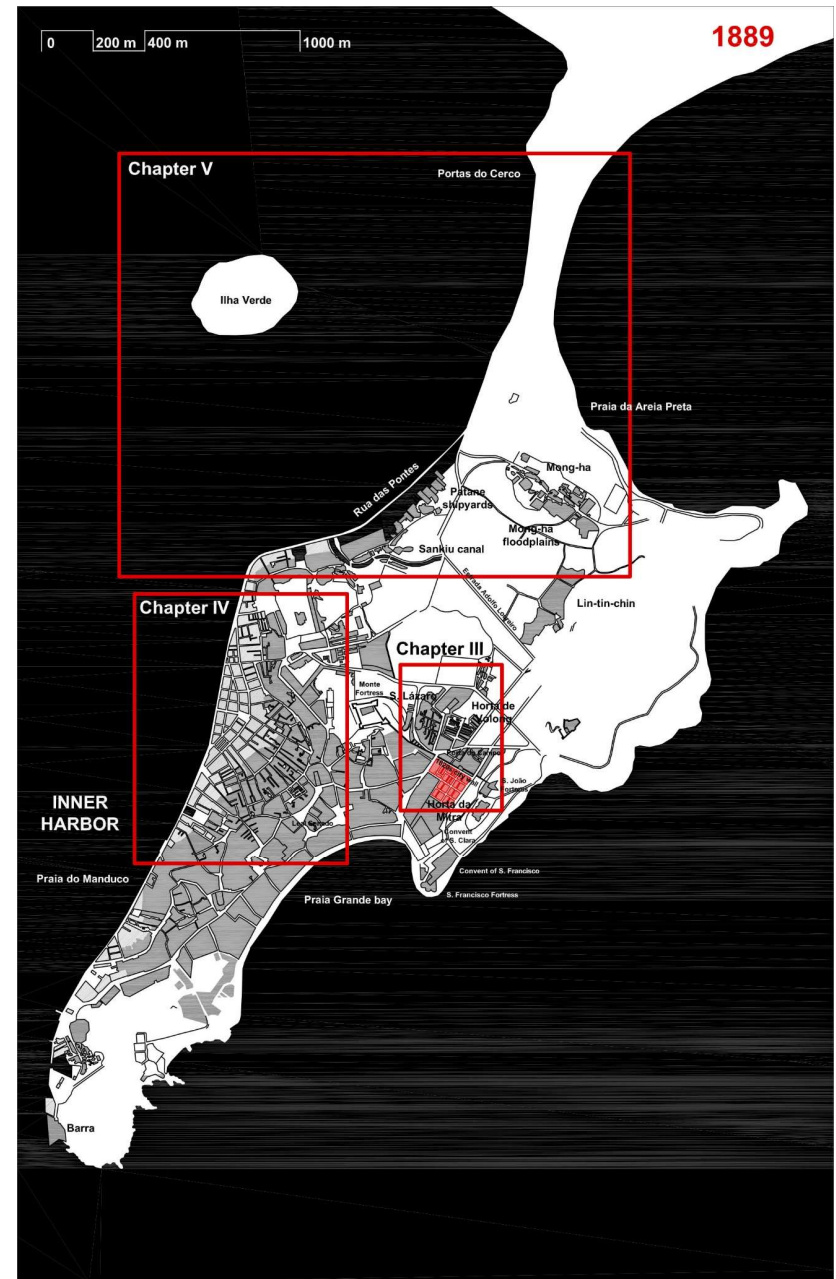


Fig. 14. The Macao peninsula in 1889. Interpretation of the 1889 historical map superimposed on the 2015 general map. Location of the Chinese Bazaar, setting for Chapter IV, as well as of the Horta da Mitra, Horta de Volong and S. Lázaro districts, setting for Chapter III, and of the Patane district, setting for Chapter V.

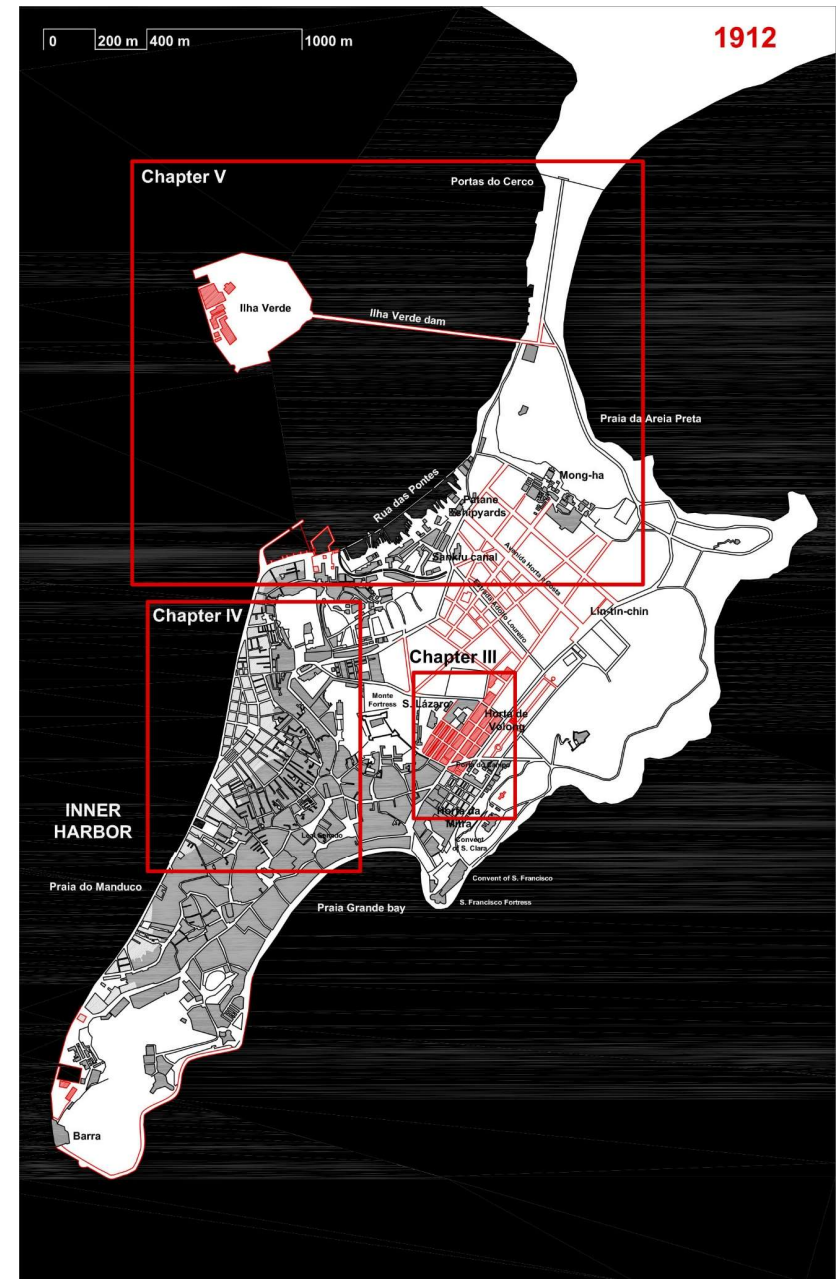


Fig. 15. The Macao peninsula in 1912. Interpretation of the 1912 historical map superimposed on the 2015 general map. Location of the Chinese Bazaar, setting for Chapter IV, as well as of the Horta da Mitra, Horta de Volong and S. Lázaro districts, setting for Chapter III, and of the Patane district, setting for Chapter V.

Historic Center of Macao: Inscription on the World Heritage List, 2005

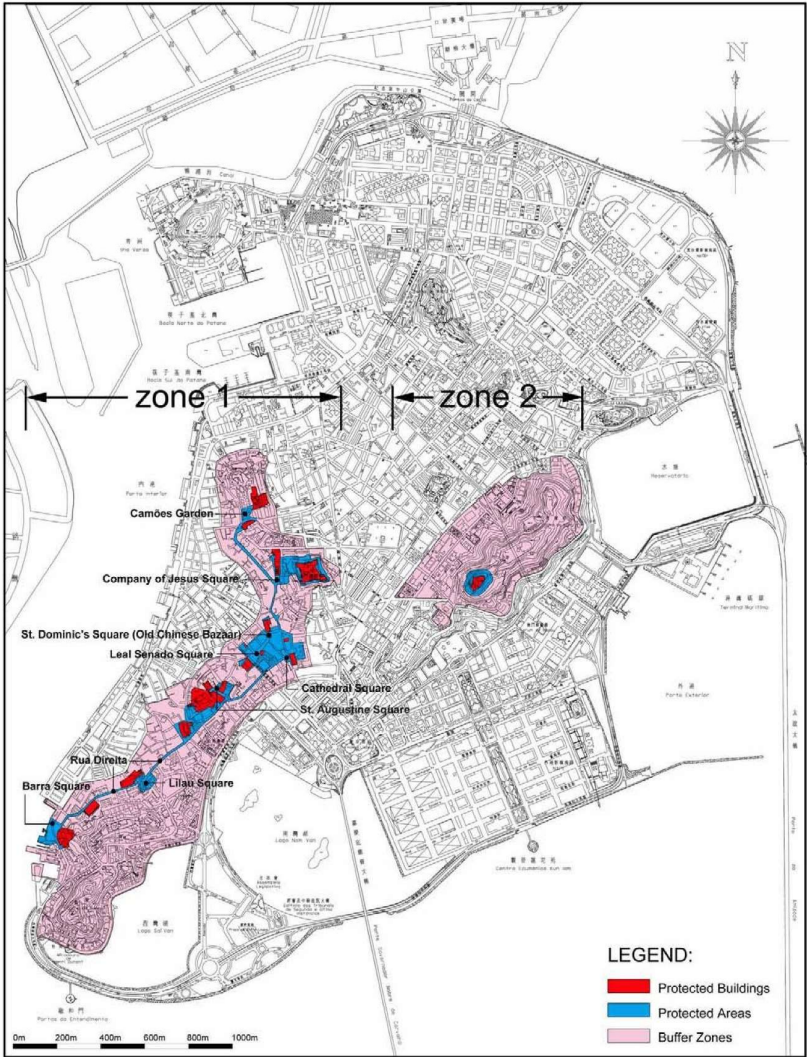


Fig. 16. Historic Center of Macao: “Protected buildings, protected areas and buffer zones,” in The State Administration of Cultural Heritage of the People’s Republic of China, “The Historic Monuments of Macao. Nomination for Inscription on the World Heritage List. Supplementary Document,” whc.unesco.org, 2004.

Fig. 17. Historic Center of Macao: “Evolution of the Macao peninsula and delineation of buffer zones,” in The State Administration of Cultural Heritage of the People’s Republic of China, “The Historic Monuments of Macao. Nomination for Inscription on the World Heritage List. Supplementary Document,” whc.unesco.org, 2004.

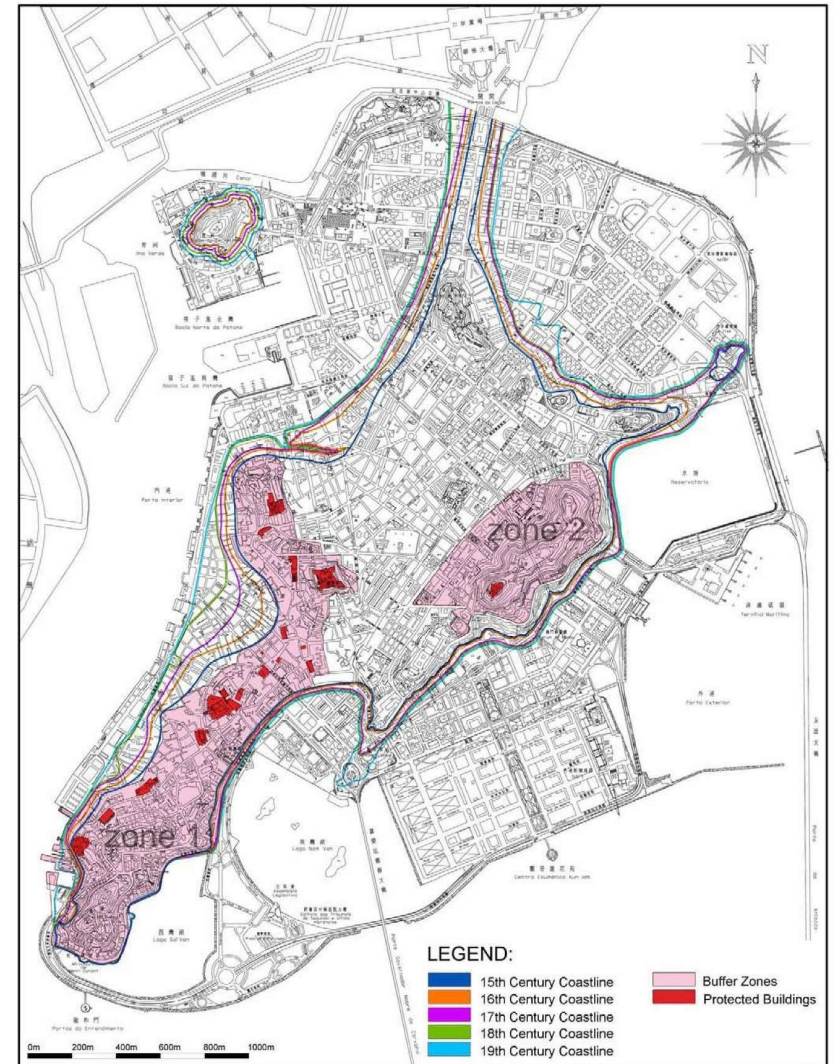
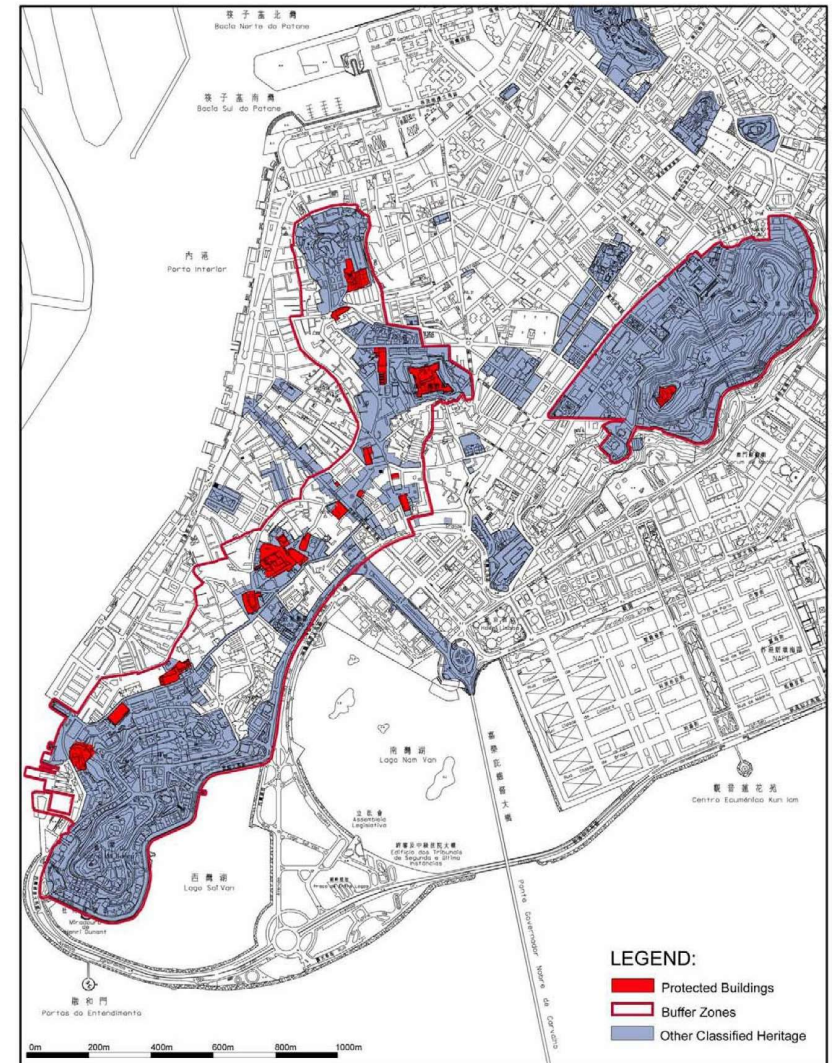
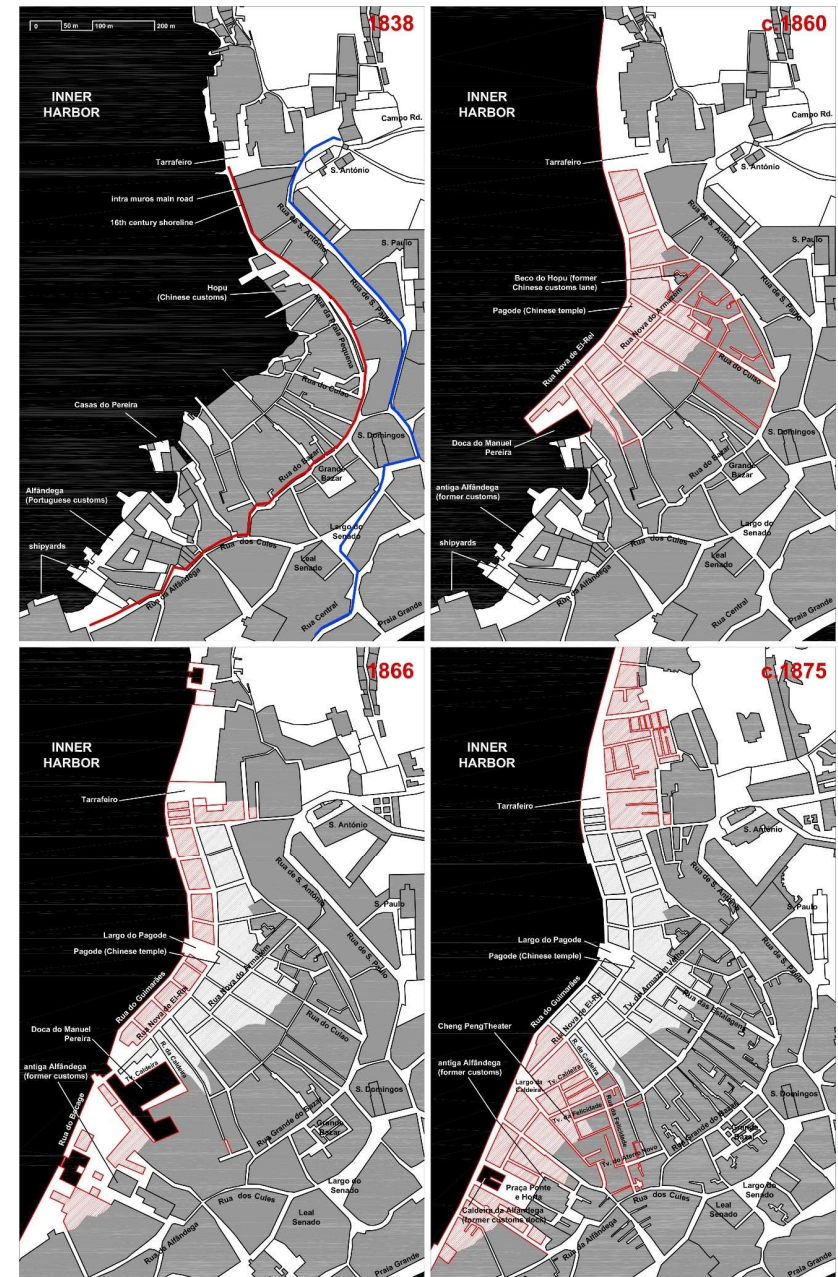


Fig. 18. Historic Center of Macao: “Protected buildings and other classified heritage in Macao,” in The State Administration of Cultural Heritage of the People’s Republic of China, “The Historic Monuments of Macao. Nomination for Inscription on the World Heritage List. Supplementary Document,” whc.unesco.org, 2004.



Chapter I



Chronological board

To locate the transformation of the Chinese Bazaar (1856-1875) on the Macao peninsula general map, see Figures 11 to 13.

Fig. 19. The Chinese Bazaar in 1838. Interpretation of the 1838 historical map superimposed on the 2015 general map. The red line represents the sixteenth century shoreline; the blue line represents the historical intra muros main road.

Fig. 20. The Chinese Bazaar circa 1860. Configuration hypothesis based on the comparative interpretation of the 1838 and 1866 historical maps superimposed on the 2015 general map.

Fig. 21. The Chinese Bazaar in 1866. Interpretation of the 1866 historical map superimposed on the 2015 general map.

Fig. 22. The Chinese Bazaar circa 1875. Configuration hypothesis based on the comparative interpretation of the 1866 and 1884 historical maps superimposed on the 2015 general map.

Fig. 23. “Habitations de Pauvres. Port Intérieur de Macao,” in *Sketches of China and the Chinese*, from drawings by Auguste Borget (London: Tilt and Bogue, 1842).



Fig. 24. View of Largo do Pagode c.1900, in Grace Lei, Connie Kong and Roy Sit, *A Journey Through Light and Shadow. The Invention of Photography and the Earliest Photographs of Macao, China* (Macao: Cultural Affairs Bureau, 2009).



Fig. 25. “Inner harbor circa 1880,” in Cecília Jorge and Rogério Beltrão Coelho, *Álbum Macau: Memória da Cidade* (Macau: Livros do Oriente, 2005), 37.

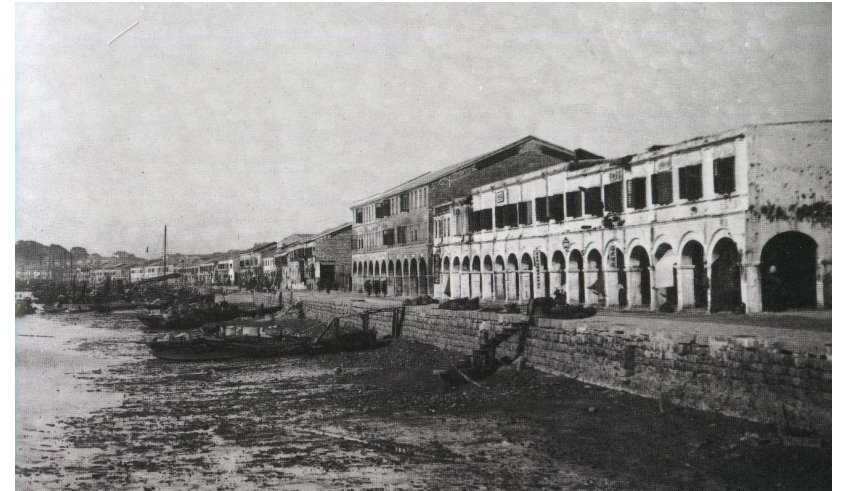


Fig. 26. The Macao inner harbor in the 1900s. AM, in archives.gov.mo.

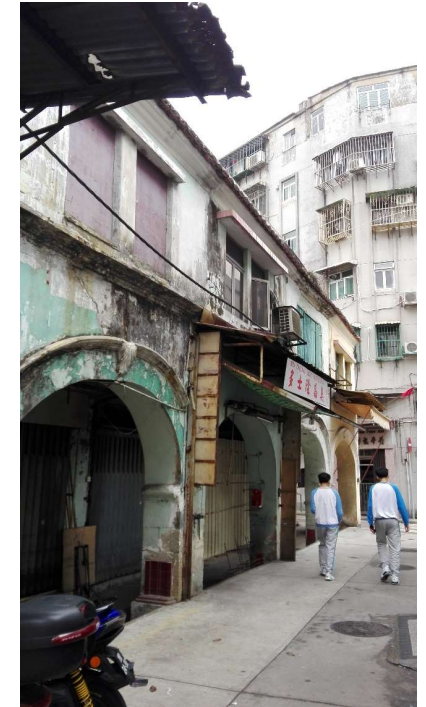


Fig. 27. The Macao inner harbor in the 1900s. AM, in archives.gov.mo.



Fig. 28. The Macao inner harbor in the 1973, by Karsten Petersen, in cq2.tumblr.com.



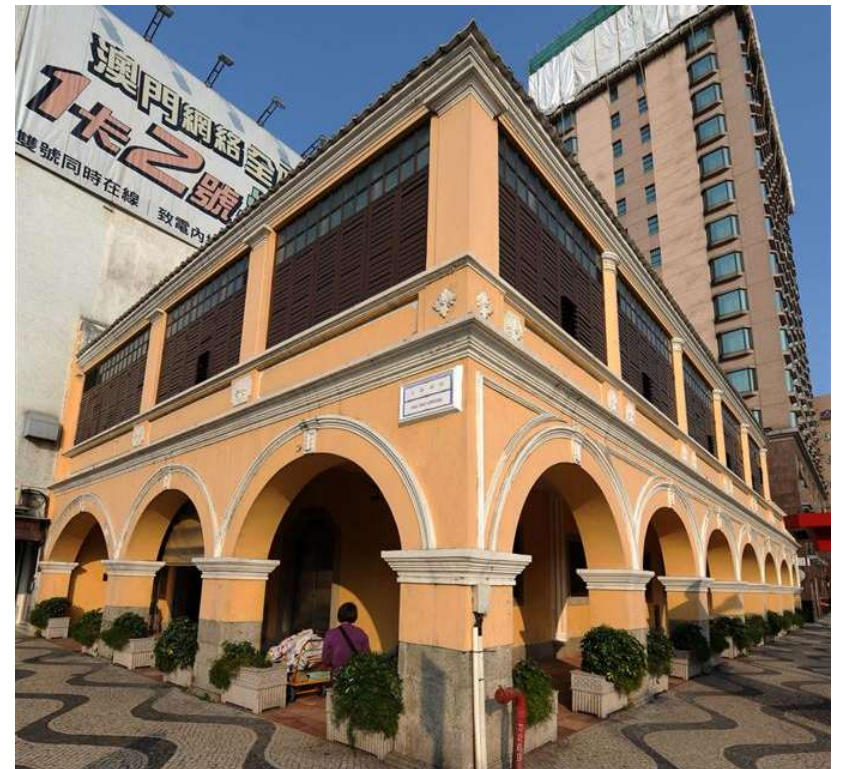


Figs. 29, 30 and 31. Macao inner harbor, 2018. Some of the last remaining shophouses in the inner harbor riverside street having preserved their 1867 original arcades.

Fig. 32. Macao, Praça Ponte e Horta, 2018. The so-called Casa do Ópio, situated at the northern angle of Praça da Ponta e Horta with the inner harbor riverside street, is the square's last remaining building having preserved its 1867 original arcades.



Fig. 33. Casa do Ópio, Praça da Ponta e Horta, in culturalheritage.mo.



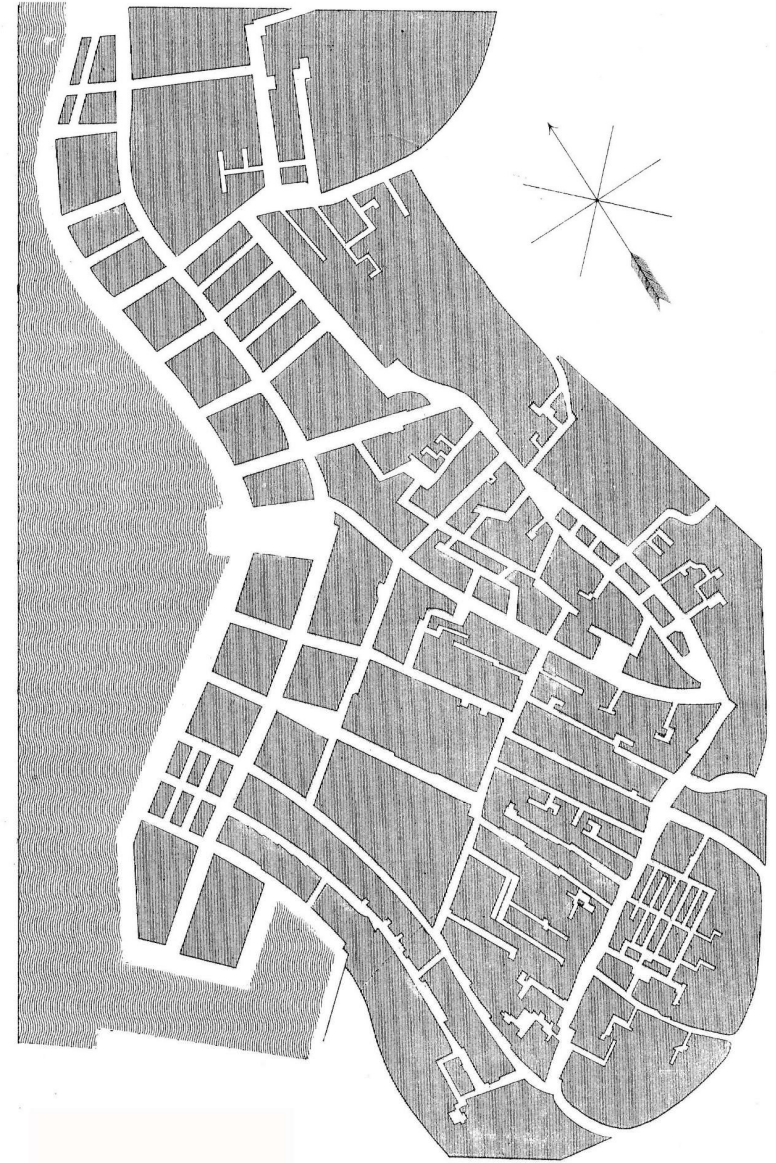


Fig. 34. “Planta topográfica do Bazar de Macau por M. de Castro Sampaio,” in Manuel de Castro Sampaio, *Os Chins de Macau* (Hong Kong: Noronha e Filhos, 1867).

Fig. 35. Rua da Felicidade, Macao SAR, PRC, in macaulifestyle.com.



Fig. 36. Travessa da Felicidade in 1929, National Library of Australia, Canberra, Australia. Cheng Peng Theater can be seen at the end of the street.



Fig. 37. "Chinese Bazaar, circa 1900," in Cecília Jorge and Rogério Beltrão Coelho, *Album Macau 3: People, Places and Experiences* (Macau: Livros do Oriente, 1993).



Fig. 38. Chinese Bazaar in Macao, 2018. Some of the last remaining 1850s/1860s shophouses in Rua do Guimarães.



Fig. 39. The Chinese Bazaar circa 1875. Cadaster configuration hypothesis based on the interpretation of the 1903 Bazaar historical map “Projecto de construção de uma Avenida do Largo do Senado ao porto interior e melhoramento de várias ruas do Bazar China,” c. 1903, AM, MNL.03.09.Cart.

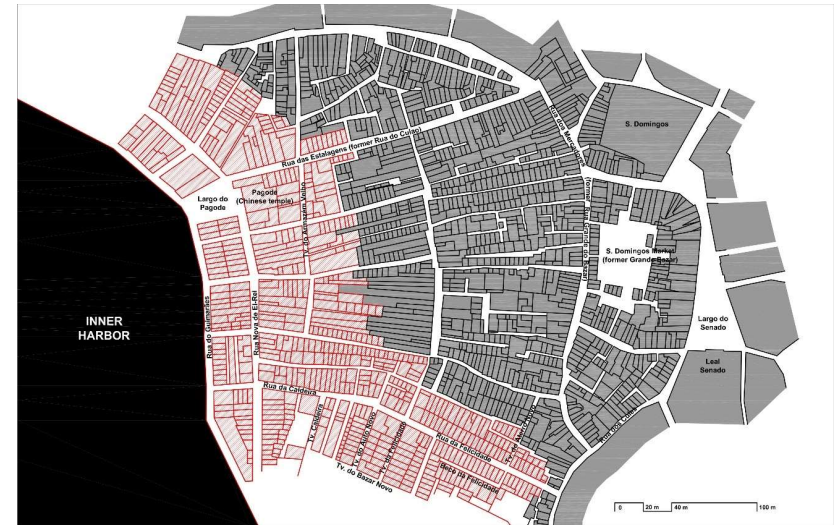


Fig. 40. Beco da Felicidade, 2018. On the left, we can see the back façades of the Rua da Felicidade shophouses. On the right, the main façades of the Beco shophouses.



Fig. 41. Shophouse in Kaiming Lane, Canton Bazaar district, Hong Kong, in Osbert Chadwick, *Report on the Sanitary Condition of Hong Kong* (London: Colonial Office, 1882), sheet I.

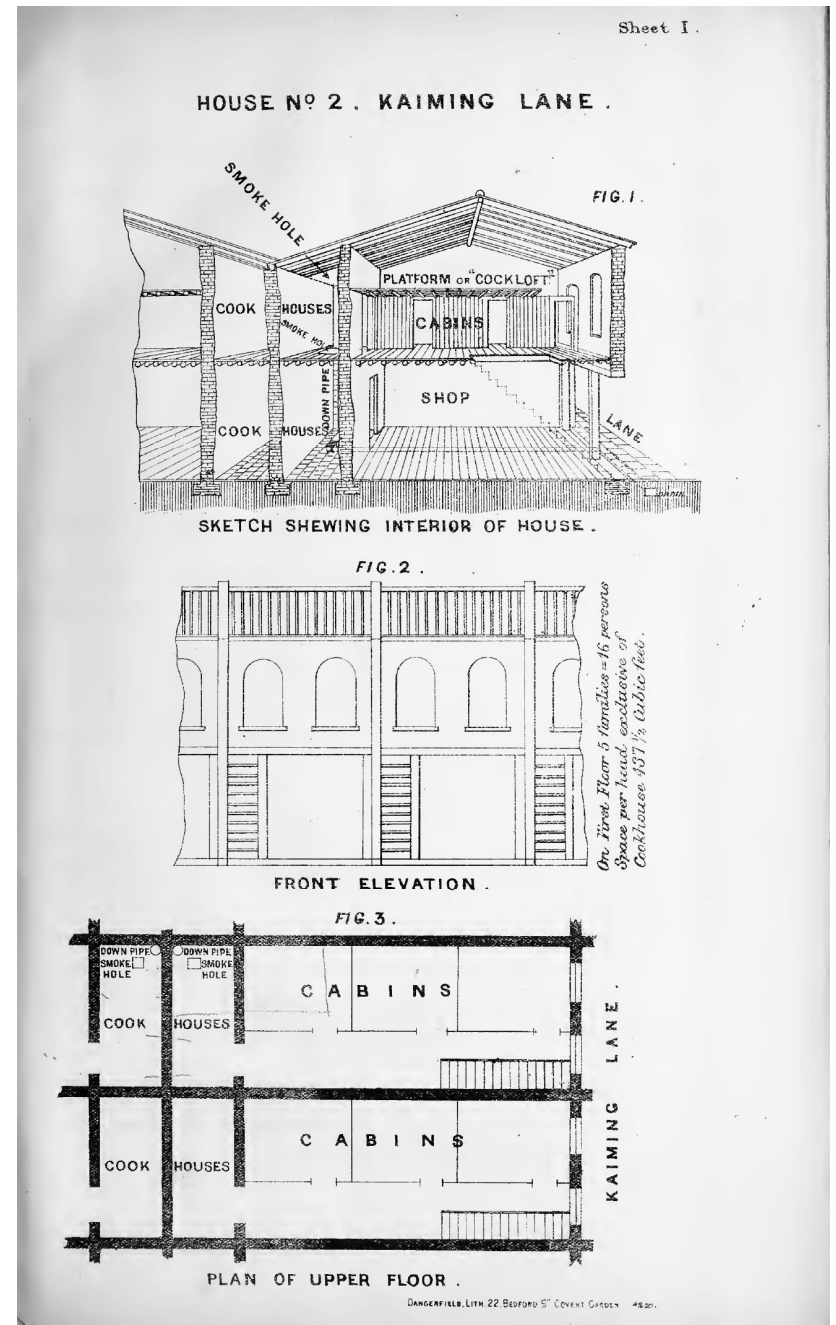


Fig. 42. Map of Taipingshan district, Hong Kong, in 1895. “Taipingshan Resumption. Plan of area previous to resumption,” in “Insanitary Properties Resumptions,” *Hong Kong Sessional Papers* (Hong Kong: Noronha & Co., 1905).

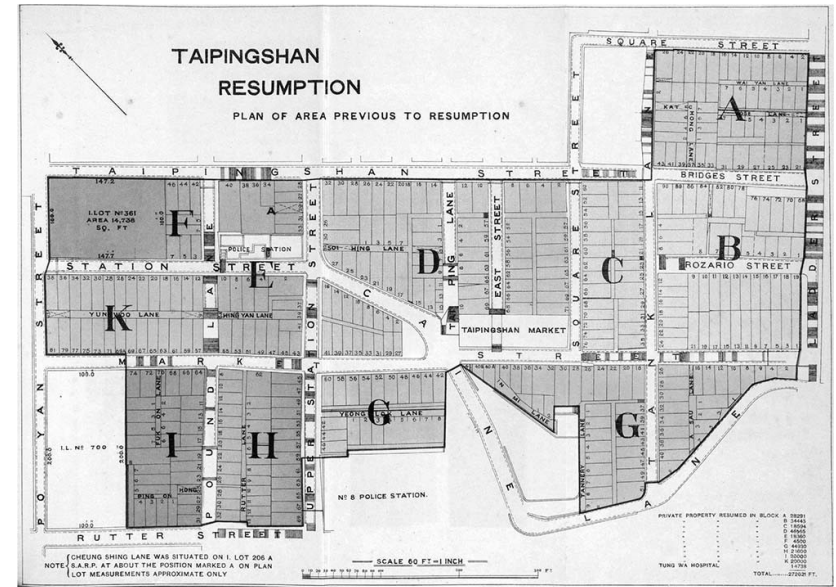


Fig. 43. The New Bazaar, Macao, circa 1875. Cadaster configuration hypothesis based on the interpretation of the 1903 Bazaar historical map “Projecto de construção de uma Avenida do Largo do Senado ao porto interior e melhoramento de várias ruas do Bazar China,” c. 1903, AM, MNL.03.09.Cart.



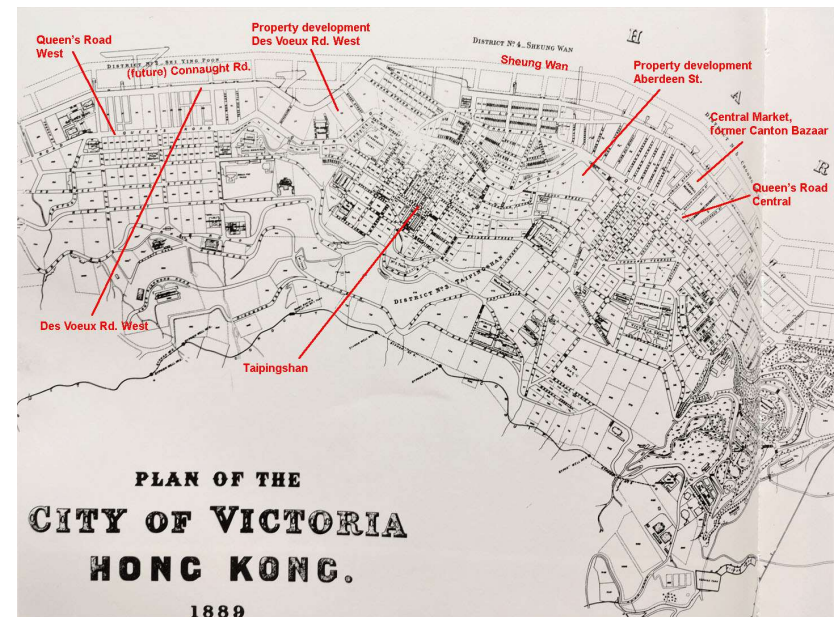


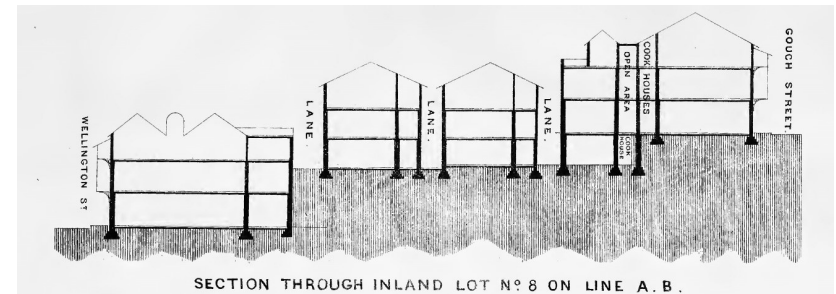
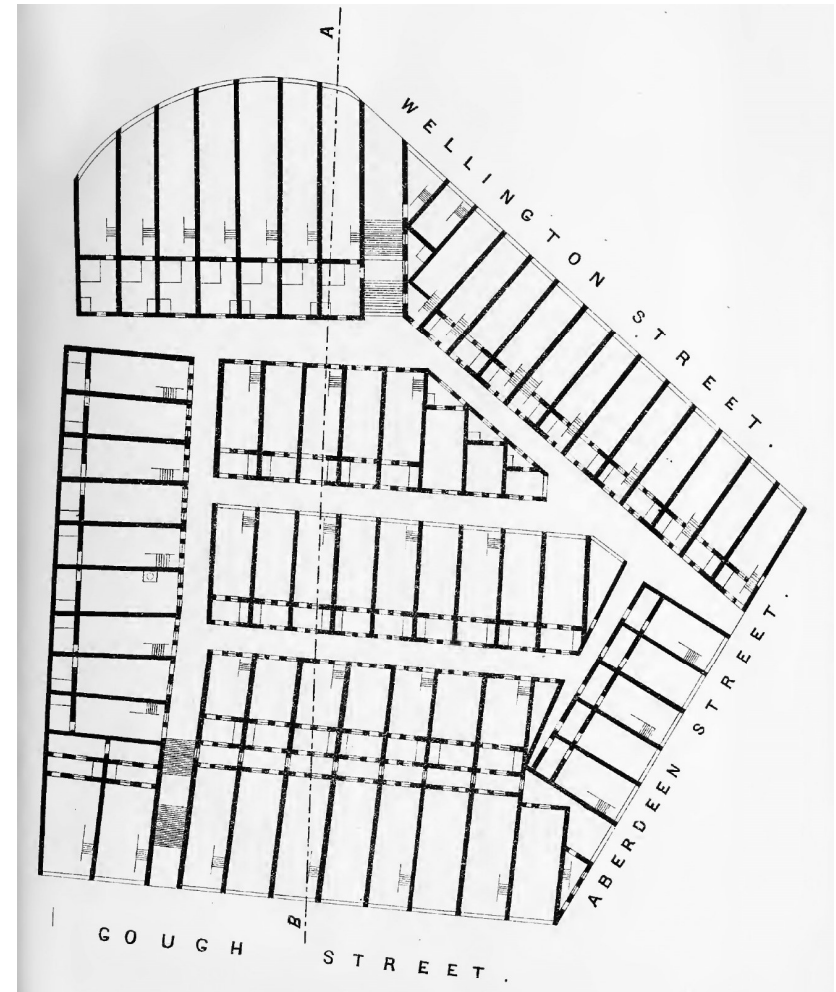
Figs. 44 and 45. Taipingshan district, Hong Kong, in the 1870s and 1880s, in Joseph S. P. Ting and Nai-kwan Wong, *City of Victoria. A Selection of the Museum's Historical Photographs* (Hong Kong: Urban Council of Hong Kong, 1994), 58-59.

Fig. 46. Taipingshan district, Hong Kong, 1894. Desinfection team at work during the 1894 bubonic plague epidemic, in Joseph S. P. Ting and Nai-kwan Wong, *City of Victoria. A Selection of the Museum's Historical Photographs* (Hong Kong: Urban Council of Hong Kong, 1994), 60.



Fig. 47. Hong Kong, 1889. Based on "Plan of the City of Victoria, Hong Kong, 1889," in Hal Empson, *Mapping Hong Kong. A Historical Atlas* (Hong Kong: Government Information services, 1992), 162-163.





Figs. 48 and 49. "Plan and section of a new block of buildings abutting on Queen's Road," Aberdeen Street, Sheung Wan district, Hong Kong, in Osbert Chadwick, *Report on the Sanitary Condition of Hong Kong* (London: Colonial Office, 1882), respectively sheets VI and VII.



Figs. 50 and 51. Sheung Wan district, Hong Kong, in the 1880s and 1890s, in Joseph S. P. Ting and Nai-kwan Wong, *City of Victoria. A Selection of the Museum's Historical Photographs* (Hong Kong: Urban Council of Hong Kong, 1994), 56-57.

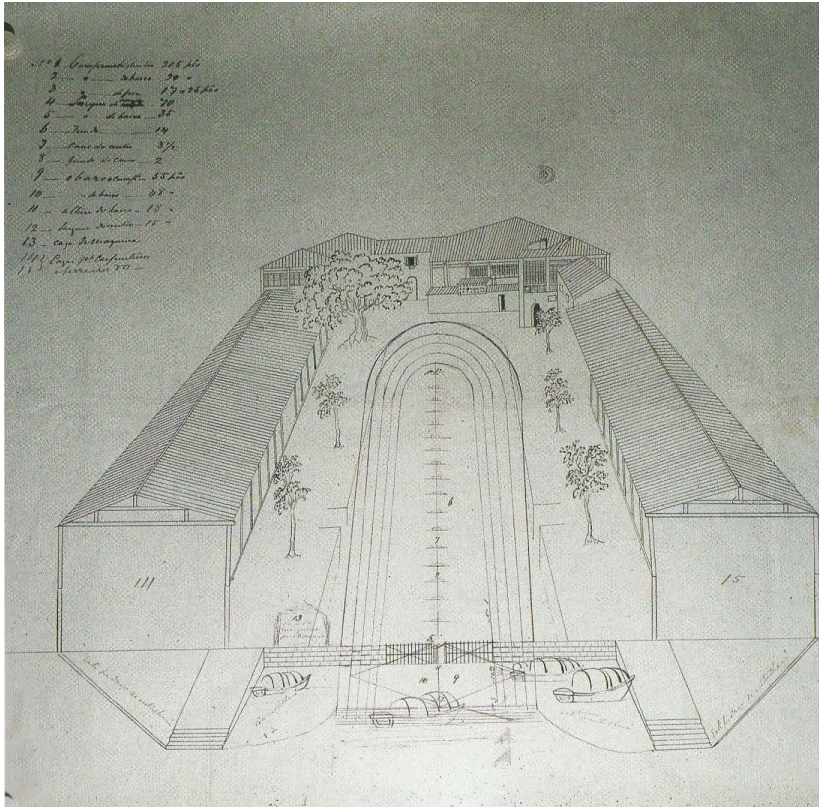


Fig. 52. 1863 project for the construction of a dock on Praia do Manduco bay. AHU, AHU-ACL-SEMU-DGU-CU-01, Pl.39 - 1859.

Fig. 56. "Projecto para a construção da fachada principal do 1º quarteirão no aterro da R. Marginal," October 1879, AM, MNL.03.18.Cart (AM, MO/AH/AC/SA/01/00278).

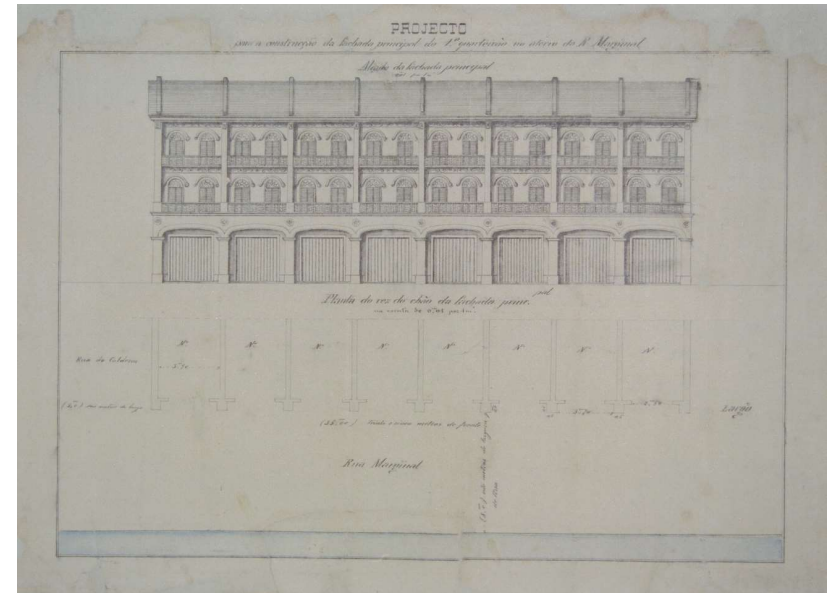


Fig. 57. "Projecto para a construção do 1º quarteirão no aterro da R. Marginal do porto interior," October 1881, AM, MNL.03.18a.Cart (AM, MO/AH/AC/SA/01/00278).

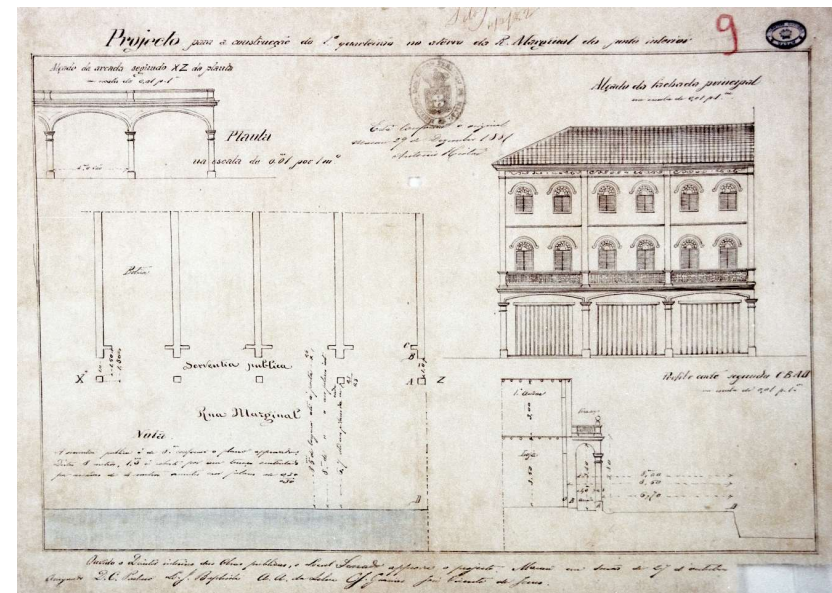


Fig. 58. Macao inner harbor in the 1880s, based on “Largo da Caldeira,” in Cecília Jorge and Rogério Beltrão Coelho, *Album Macau 3: People, Places and Experiences* (Macao: Livros do Oriente, 1993). Location of Miguel Ayres da Silva’s reclamation (see map on Fig. 63 for reference). On the right foreground, we can see the beginning of the old reclamation arcades.

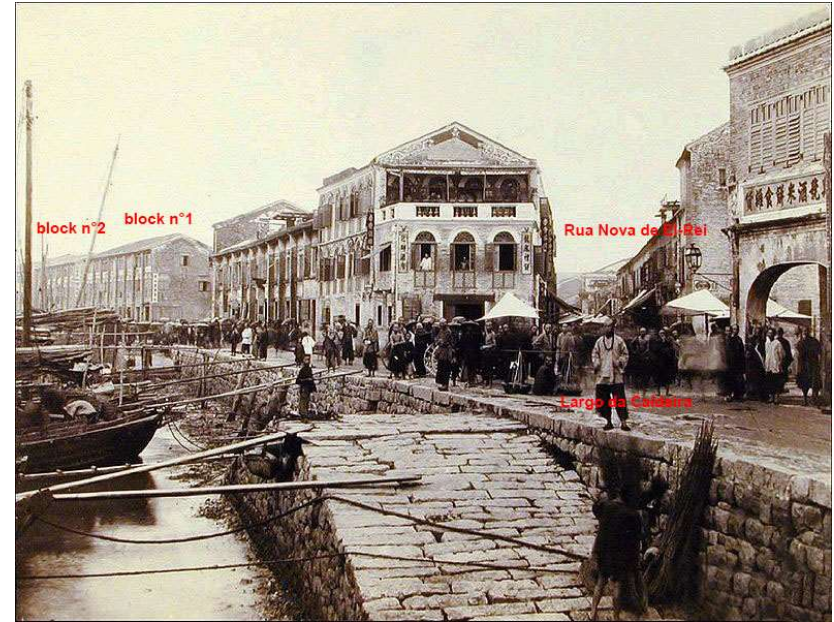


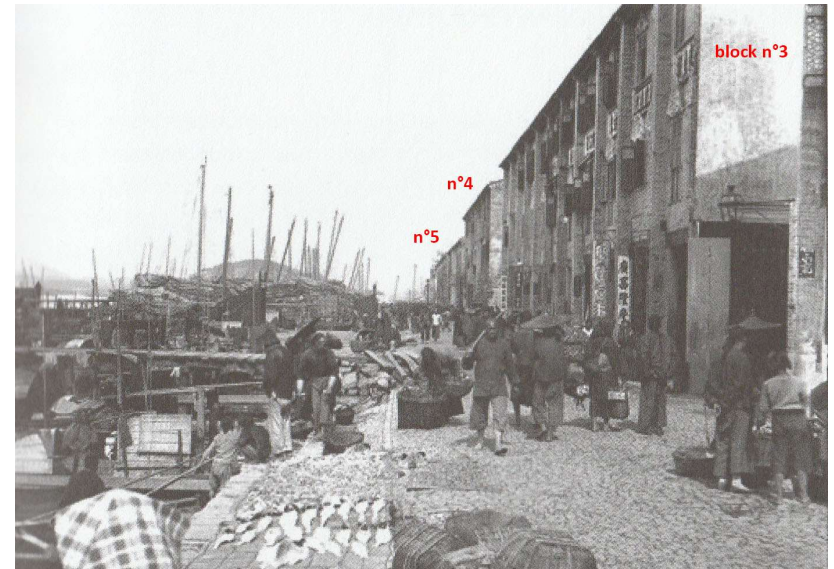
Fig. 59. Macao inner harbor in the 1920s. AHU, in archives.gov.mo. The Largo da Caldeira is in the central foreground, with the old reclamation arcades on the right foreground, and the first block of Rua do Guimarães on the left (see map on Fig. 63 for reference).



Fig. 60. “The inner harbor ca. 1900,” based on in Cecília Jorge and Rogério Beltrão Coelho, *Album Macau 3: People, Places and Experiences* (Macau: Livros do Oriente, 1993). Location of Miguel Ayres da Silva’s reclamation (see map on Fig. 63 for reference).



Fig. 61. Rua do Visconde de Paço de Arcos (Macao inner harbor) in the 1880s, based on Nuno Soares, ed., *The Inner Harbour. Background Document on the Revitalization of Macau’s Vernacular Heritage* (Macau: Nuno Soares, 2014). Location of Miguel Ayres da Silva’s reclamation (see map on Fig. 63 for reference).





Figs. 62 and 63. Macao inner harbor, 2018. Some of the last remaining shophouses in the inner harbor riverside street belonging to Miguel Ayres da Silva's 1877-1884 reclamation project.

Fig. 64. Macao inner harbor, 2018. Some of the last remaining shophouses in Rua Nova do Comércio belonging to Miguel Ayres da Silva's 1877-1884 reclamation project.



Fig. 65. Miguel Ayres da Silva's Chinese Bazaar reclamation in 1884. Interpretation of the 1884 historical map superimposed on the 2015 general map. Cadaster configuration hypothesis based on the interpretation of the 1903 Bazaar historical map "Projecto de construção de uma Avenida do Largo do Senado ao porto interior e melhoramento de várias ruas do Bazar China," c. 1903, AM, MNL.03.09.Cart.

Chapter III



Chronological board

To locate the transformation of the Horta da Mitra, Volong and S. Lázaro districts (1885-1900) on the Macao peninsula general map, see Figures 13, 14 and 15.

Fig. 66. The Horta da Mitra, Horta de Volong and S. Lázaro districts in 1884. Interpretation of the 1884 historical map superimposed on the 2015 general map.

Fig. 67. The Horta da Mitra, Horta de Volong and S. Lázaro districts in 1889. Interpretation of the 1889 historical map superimposed on the 2015 general map.

Fig. 68. The Horta da Mitra, Horta de Volong and S. Lázaro districts circa 1900. Configuration hypothesis based on the comparative interpretation of the 1889 and 1912 historical maps superimposed on the 2015 general map.

Fig. 69. Horta da Mitra, Horta de Volong and S. Lázaro districts in 1912. Interpretation of the 1912 historical map superimposed on the 2015 general map.

Fig. 70. Cadastral survey of the S. Lázaro district, June 1883. “Planta do Bairro de S. Lázaro na escala de 0,002 por 1 metro, Junho de 1883, [selo] Direcção das Obras Públicas de Macau.” AM, MO/AH/AC/SA/01/00470, Document 2 (MNL.04.05.CART).

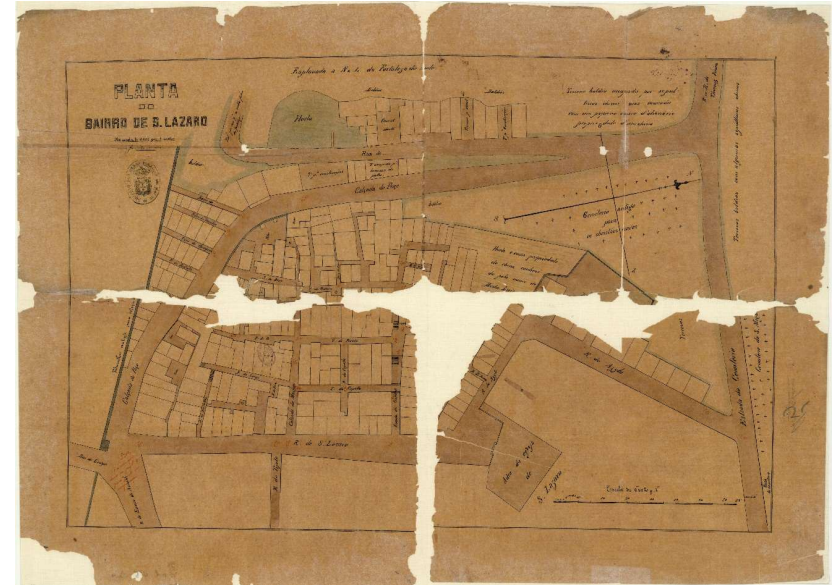


Fig. 71. Chinese dwellings by George Chinnery, c. 1835/1838, in Pedro Dias, *A Urbanização e a Arquitectura dos Portugueses em Macau, 1557-1911* (Lisboa: Portugal Telecom, 2005), 195. Although this view seems to have been drawn from Praia do Manduco, with the S. José Seminary church in the background, we may suppose that the early 1880s Horta da Mitra and Volong tenements could have resembled something like it.



Fig. 72. View of Macao from Monte da Guia c.1884: a. the Horta da Mitra district before restructuring. Based on Cecília Jorge and Rogério Beltrão Coelho, *Album Macau: Sítios, Gentes e Vivências* (Macau: Livros do Oriente, 1991).



Fig. 73. View of Macao from Monte da Guia c.1889: a. New Market at Horta da Mitra after restructuring; b. and c., respectively, the Horta de Volong and S. Lázaro districts before restructuring. Based on Cecília Jorge and Rogério Beltrão Coelho, *Album Macau 3: Sítios, Gentes e Vivências* (Macau: Livros do Oriente, 1993).





Fig. 74. New Market and surrounding shophouses at Horta da Mitra, 1934/35. AHU, 60.2 1G MU.



Fig. 75. View of Macao from Monte da Guia c.1900: a. New Market at Horta da Mitra after restructuring. b. the new Horta de Volong under construction. c. S. Lázaro district before restructuring. Based on: Grace Lei, Connie Kong and Roy Sit, *A Journey Through Light and Shadow. The Invention of Photography and the Earliest Photographs of Macao, China* (Macao: Cultural Affairs Bureau, 2009).



Fig. 76. View of Macao from Monte da Guia c.1900: The new Horta de Volong under construction. Based on: Grace Lei, Connie Kong and Roy Sit, *A Journey Through Light and Shadow. The Invention of Photography and the Earliest Photographs of Macao, China* (Macao: Cultural Affairs Bureau, 2009).

Fig. 77. Residential units in Horta de Volong, by Lego Chan Chon Kit, *LAR201: Tutorial 'The Buildings of Macau'*, University of Saint Joseph, 2015/2016. Courtesy of Prof. Francisco Vizeu Pinheiro.



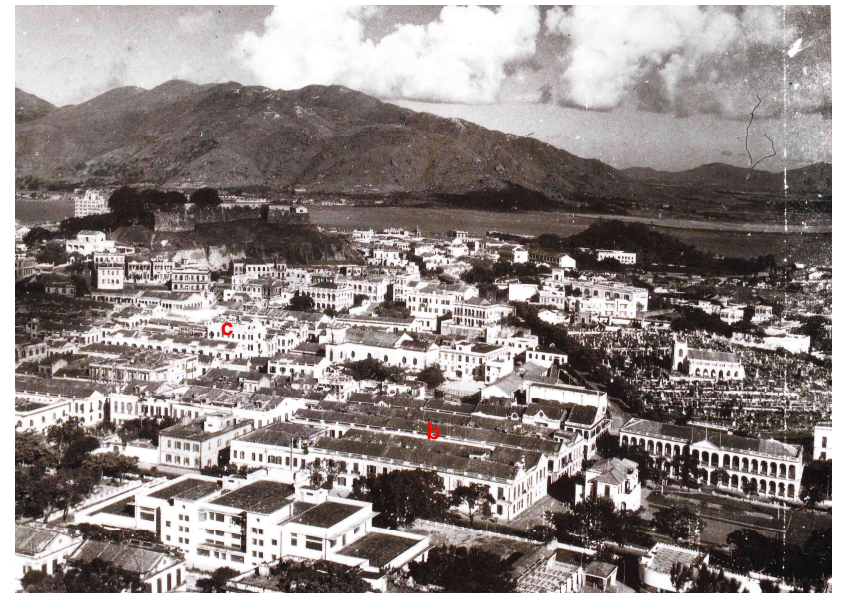
Fig. 78. Residential units in the S. Lázaro district, following the housing model developed for the 1895/1896 new Horta de Volong (the latter having all but disappeared under present-day property development), 2018.



Figs. 79 and 80. Some of the last remaining residential units in the former Horta de Volong, 2018.



Fig. 81. View of Macao from Monte da Guia c.1965: b. Horta de Volong. c. S. Lázaro district. Based on: Cecília Jorge and Beltrão Coelho, *Álbum Macau 3: Sítios, Gentes e Vivências* (Macao: Livros do Oriente, 1993).



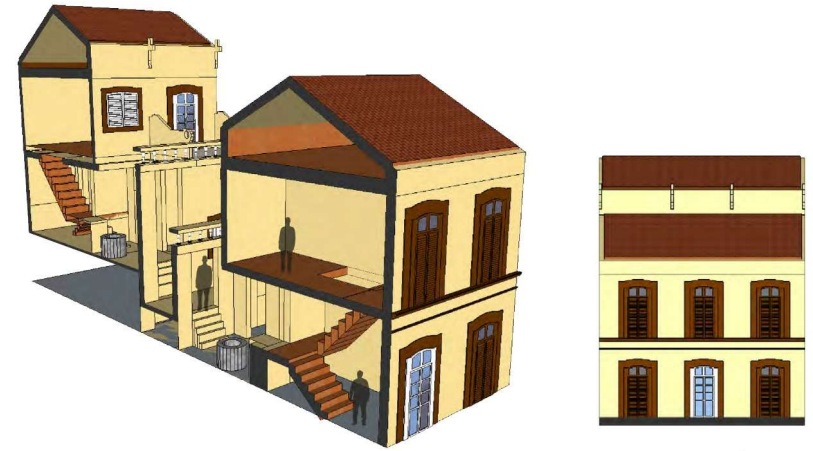


Fig. 82. Residential units in the S. Lázaro district, by Lego Chan Chon Kit, *LAR201: Tutorial 'The Buildings of Macau'*, University of Saint Joseph, 2015/2016. Courtesy of Prof. Francisco Vizeu Pinheiro.



Fig. 83. Residential units in the S. Lázaro district. Left: the back terraces framing the (former) back lane, 2018.

Fig. 84. The Horta de Volong and S. Lázaro districts' restructuring plan, published as Fig. 81 in William John Simpson, *The Principles of Hygiene as applied to tropical and subtropical climates and the principles of personal hygiene in them as applied to Europeans* (London: John Bale, Sons and Danielsson, 1908), 300.

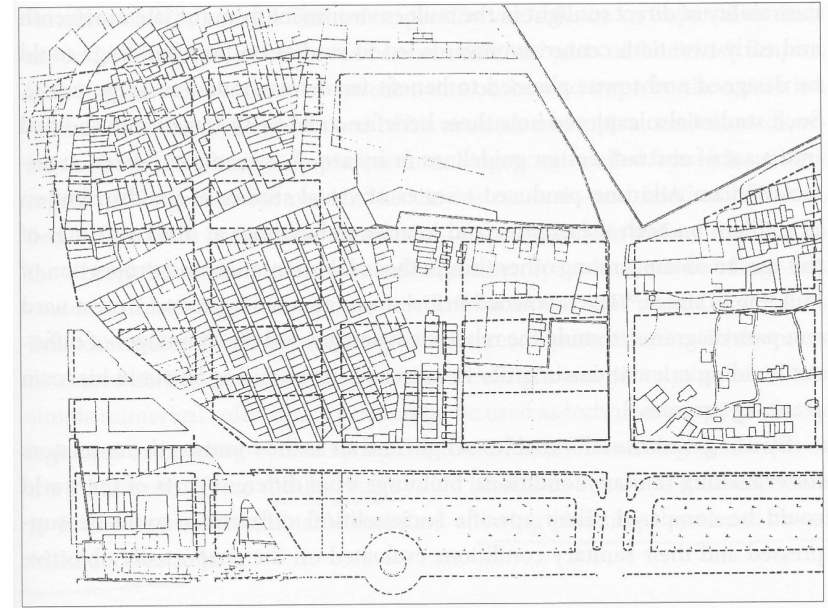


Fig. 85. S. Lázaro residential units, published as Fig. 82 in William John Simpson, *The Principles of Hygiene as applied to tropical and subtropical climates and the principles of personal hygiene in them as applied to Europeans* (London: John Bale, Sons and Danielsson, 1908), 302.

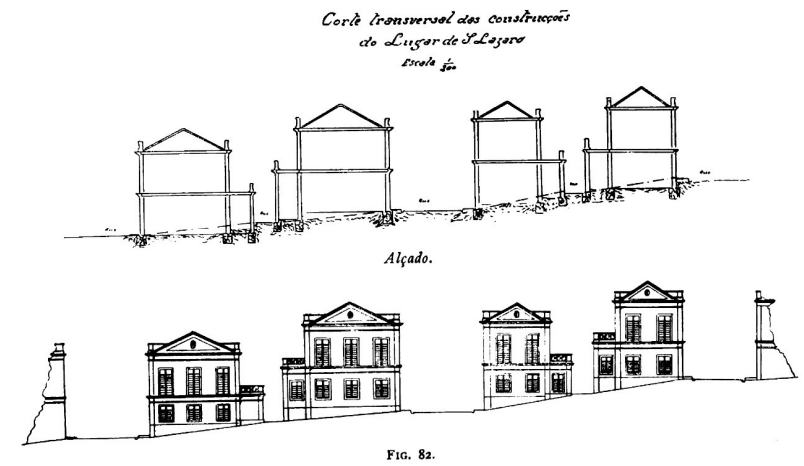




Fig. 86. The Horta de Volong and S. Lázaro districts in 1884.

Fig. 87. The 1894 Horta de Volong and S. Lázaro districts' restructuring plan. Interpretations of the map published as Fig. 81 in William John Simpson, *The Principles of Hygiene as applied to tropical and subtropical climates and the principles of personal hygiene in them as applied to Europeans* (London: John Bale, Sons and Danielsson, 1908).

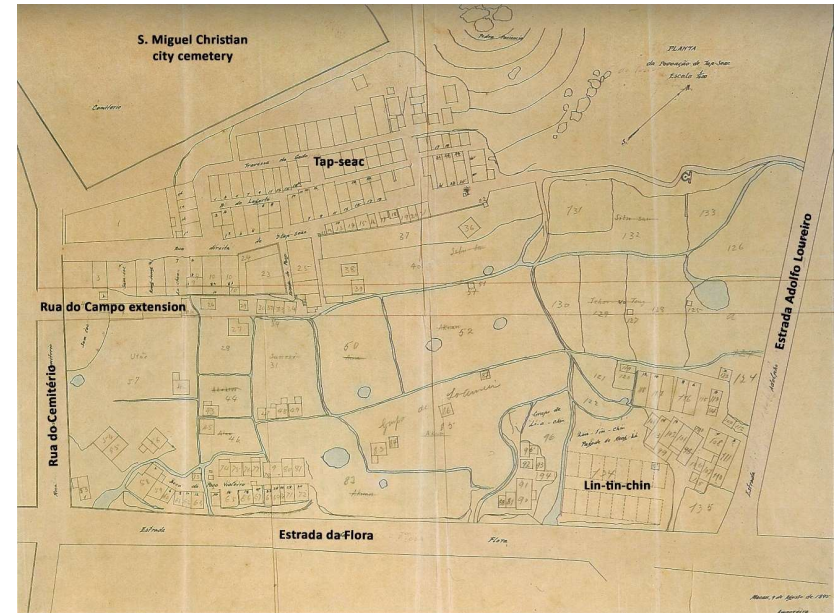


Fig. 88. Tap-seac/Lin-tin-chin cadastral survey and Rua do Campo northward extension plan, August 9, 1895, published in Armando Azenha Cação, "Sankiu," *Revista de Cultura*, 35/36 (1998): 135.

Fig. 89. New S. Lázaro district westward extension plan, 1899. AM, MNL.04.05a.CART.

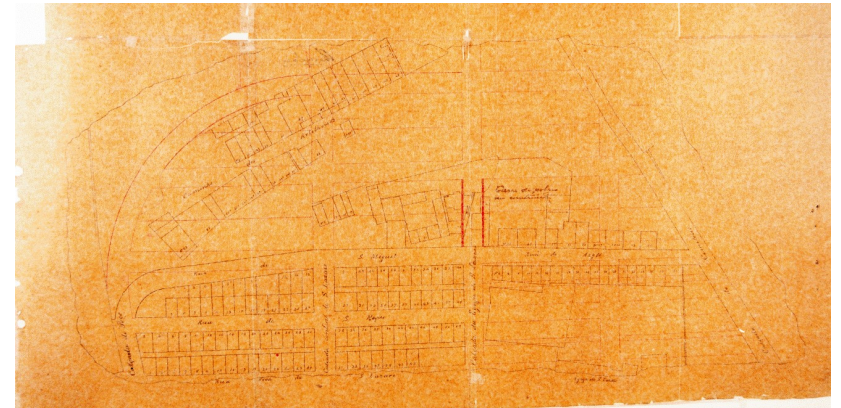


Fig. 90. S. Lázaro district residential units, 1902-1924. AM, MNL.10.01j.CART.

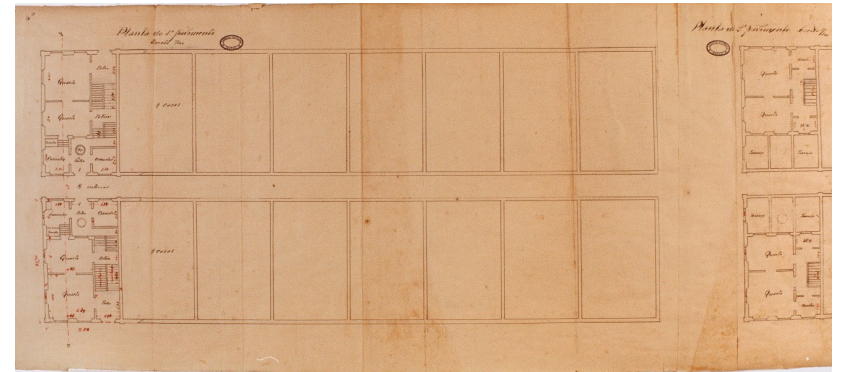
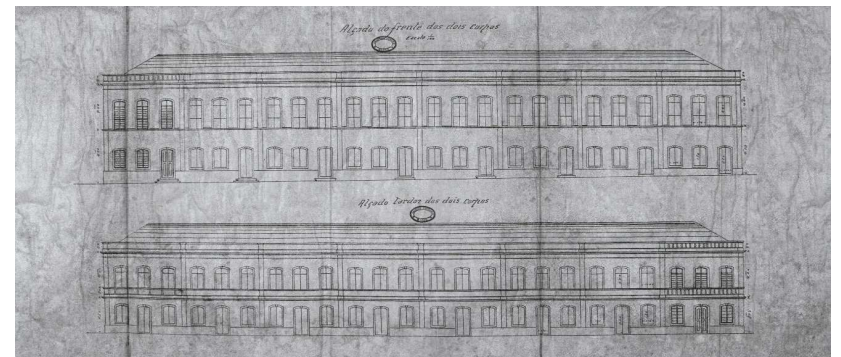


Fig. 91. S. Lázaro district residential units, 1902-1924. AM, MNL.10.01a.CART.



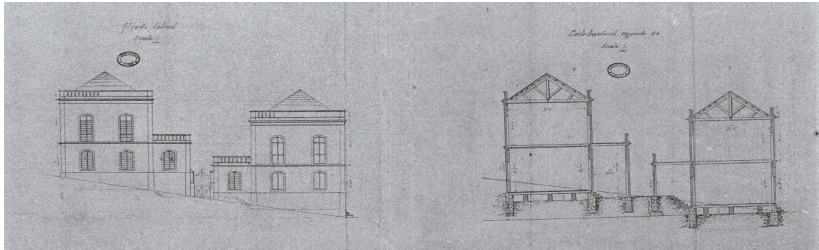


Fig. 92. S. Lázaro district residential units, 1902-1924. AM, MNL.10.01g.CART.

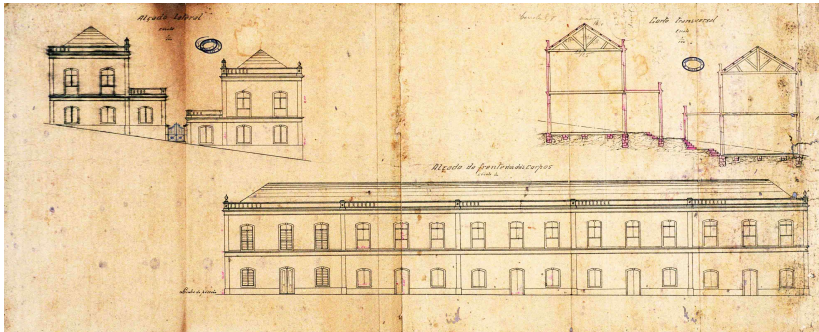


Fig. 93. S. Lázaro district residential units, 1902-1924. AM, MNL.10.01c.CART.

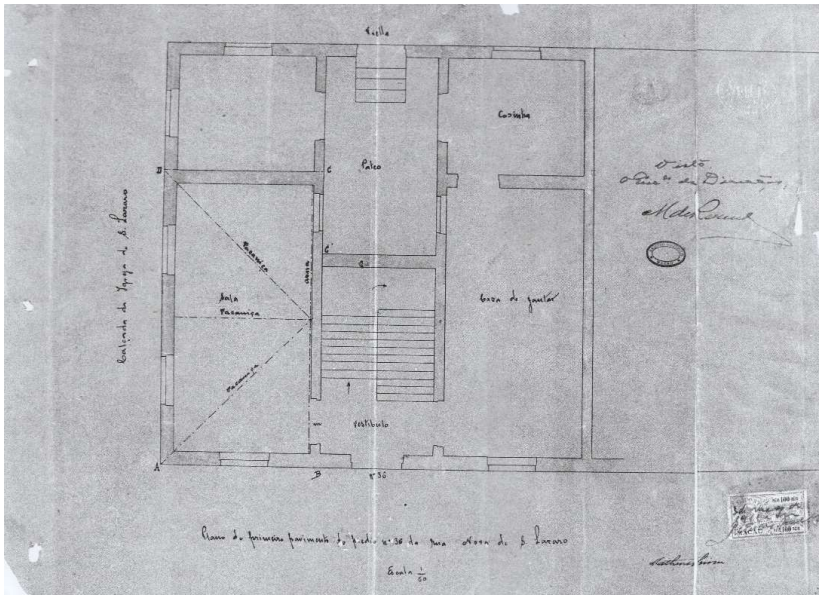
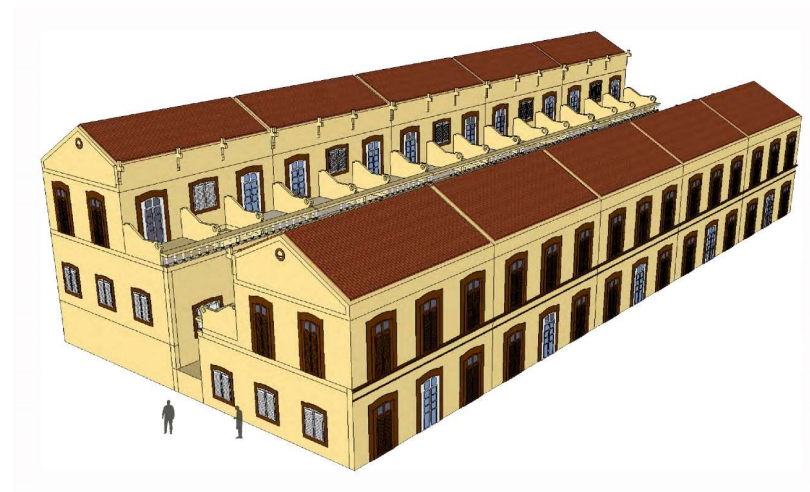


Fig. 94. S. Lázaro district residential units, 1902-1924. AM, MNL.10.01.CART.

Fig. 95. Reconstitution of the Rua Nova de S. Lázaro/Calçada da Igreja de S. Lázaro/Rua do Volong block in the S. Lázaro district, by Lego Chan Chon Kit, *LAR201: Tutorial 'The Buildings of Macau'*, University of Saint Joseph, 2015/2016. Courtesy of Prof. Francisco Vizeu Pinheiro.





To locate the transformation of the Chinese Bazaar, site of the New Avenue project (1903-1908), on the Macao peninsula general map, see Figures 14 and 15.

Fig. 96. The Chinese Bazaar in 1903. Interpretation of the 1889 historical map superimposed on the 2015 general map. Partial cadastral configuration hypothesis based on the interpretation of the 1903 Bazaar historical map “Projecto de construção de uma Avenida do Largo do Senado ao porto interior e melhoramento de várias ruas do Bazar China,” c. 1903, AM, MNL.03.09.Cart.

Fig. 97. The S. Domingos Market in 1836. Drawing of the Largo de S. Domingos by George Chinnery, in Cecília Jorge and Rogério Beltrão Coelho, *Viagem por Macau, Volume III - Século XIX – II Parte* (Macau: Livros do Oriente, 2014), 154. On the right foreground, the artist has drawn some ornamental columns belonging to the S. Domingos church façade. On the left, we can see the Grand Bazaar block shophouses, behind the street vendors' stalls. We may presume that the setting of the S. Domingos market wouldn't be much different than this one at the time of the 1893 fire.



Fig. 98. “Plano Geral da Cidade de Lisboa em 1826.” Based on: Raquel Henriques da Silva (ed.), *Lisboa de Frederico Ressano Garcia, 1874-1909* (Lisboa: Câmara Municipal de Lisboa, 1989), Fig. 2.

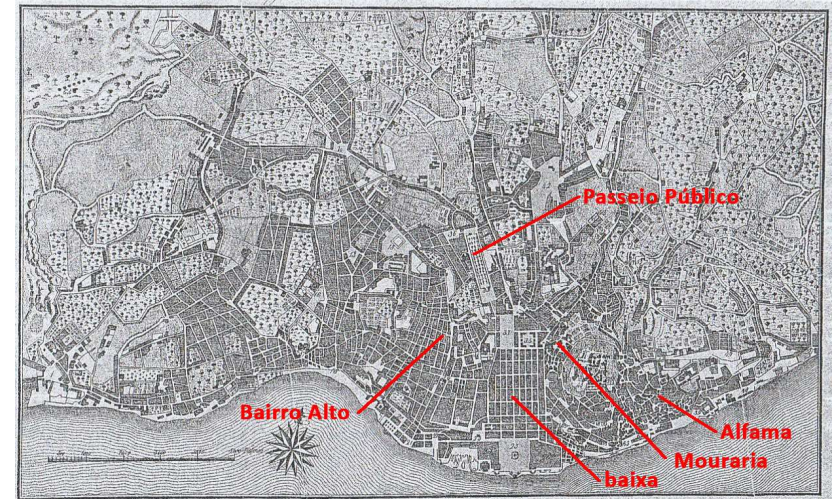


Fig. 99. “Planta de Lisboa limitada pela linha de cintura e melhoramentos projectados, incluindo as zonas em que a Camara projecta as novas avenidas, ruas e parques da capital, 1891.” Based on: Raquel Henriques da Silva (ed.), *Lisboa de Frederico Ressano Garcia, 1874-1909* (Lisboa: Câmara Municipal de Lisboa, 1989), Fig. 3.

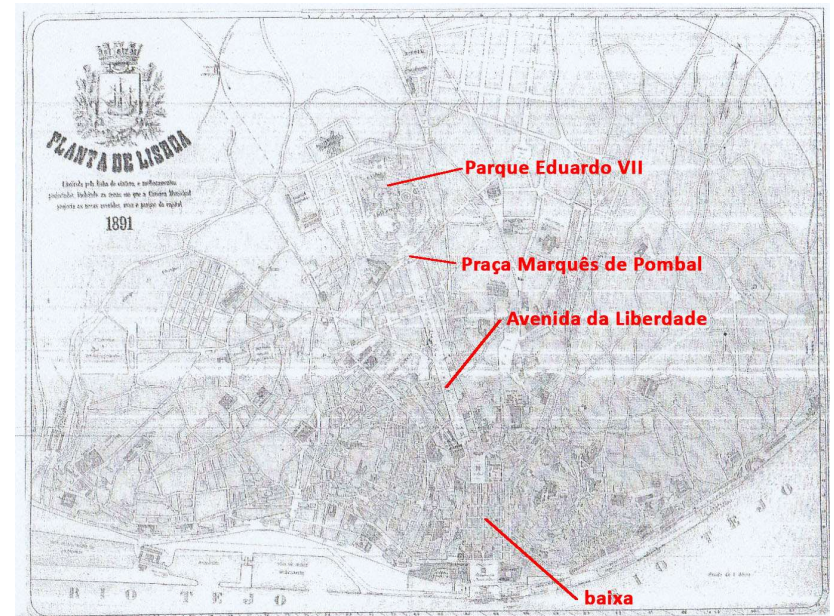
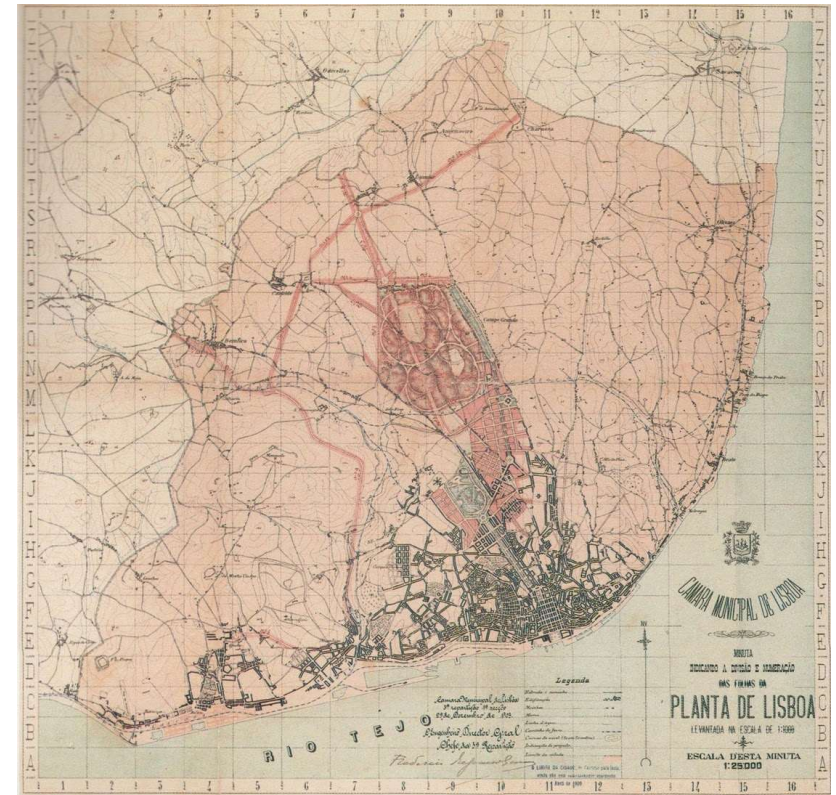


Fig. 100. “Planta Geral da Cidade com todos os estudos que dizem respeito a este anteprojecto [Plano Geral de Melhoramentos da Capital]. O Engenhrio Director Geral Chefe da 3ª Repartição Frederico Ressano Garcia, 1903.” Raquel Henriques da Silva (ed.), *Lisboa de Frederico Ressano Garcia, 1874-1909* (Lisboa: Câmara Municipal de Lisboa, 1989), Fig. 76.



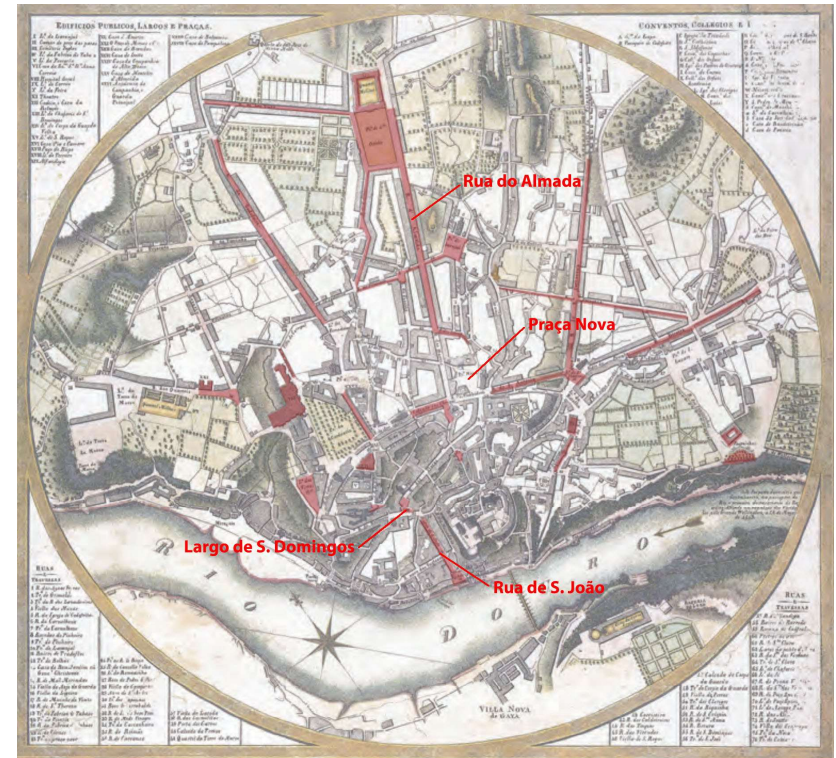


Fig. 101. “Planta Redonda de 1813, por George Balck, com as intervenções almadinas destacadas.” Adapted from the original 1813 Porto general plan at Arquivo Histórico e Municipal do Porto. Based on: Ricardo Figueiredo, Clara Pimenta do Vale and Rui Tavares, *Avenida dos Aliados e Baixa do Porto. Memória, realidade e permanência* (Porto: Porto Vivo SRU, 2013), Fig. 20.

Fig. 102. “A Praça de D. Pedro como centro do sistema de espaços públicos da cidade.” Based on: Ricardo Figueiredo, Clara Pimenta do Vale and Rui Tavares, *Avenida dos Aliados e Baixa do Porto. Memória, realidade e permanência* (Porto: Porto Vivo SRU, 2013), Fig. 53.

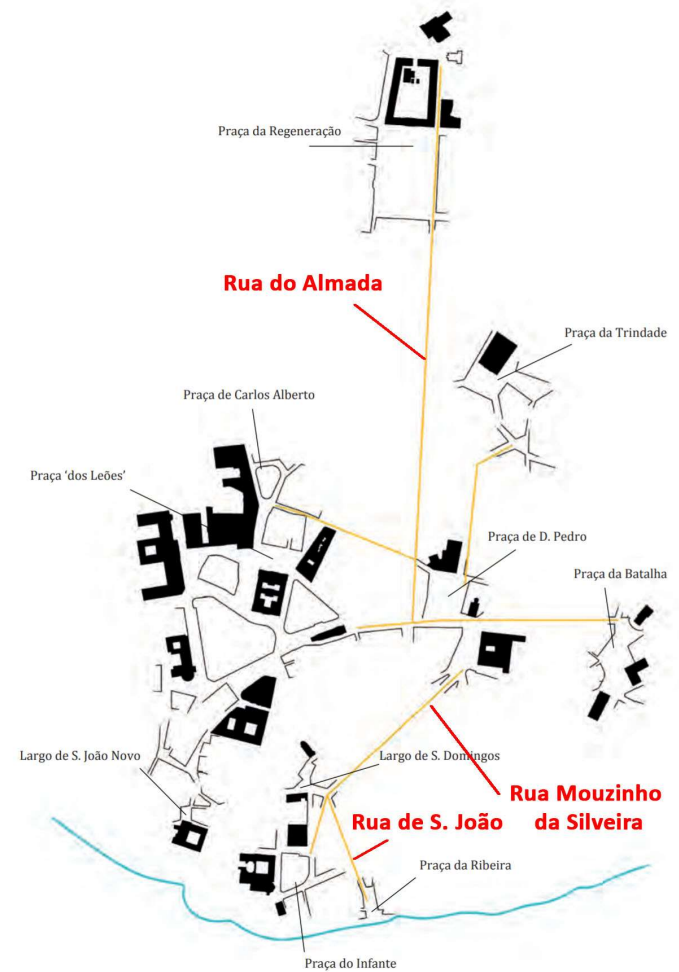


Fig. 103. “Carta Topográfica da cidade do Porto que foi mandada levantar na escala de 1:500 por ordem da Câmara Municipal da mesma cidade referida ao ano de 1892.” Adapted from the original 1892 Porto general plan by Gerardo Telles Ferreira. Based on: Ricardo Figueiredo, Clara Pimenta do Vale and Rui Tavares, *Avenida dos Aliados e Baixa do Porto. Memória, realidade e permanência* (Porto: Porto Vivo SRU, 2013), Fig. 60.

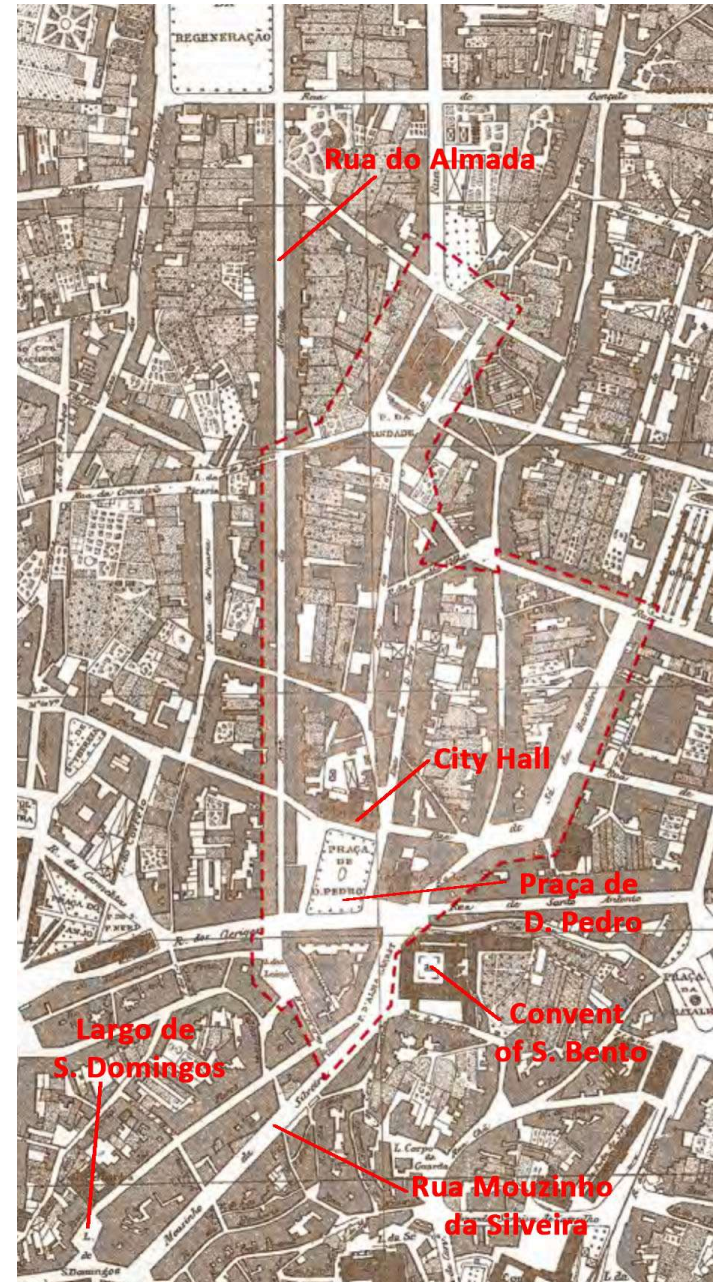


Fig. 104. “Projecto de Embelezamento da Cidade de Porto para servir à edificação dos novos Paços do Concelho e outros edificios públicos. Oferecido à Ex.a Câmara Municipal pelo Engenheiro Civil Carlos de Pézerat. Porto, aos 30 de Novembro de 1889.” Adapted from the original plan. Ricardo Figueiredo, Clara Pimenta do Vale and Rui Tavares, *Avenida dos Aliados e Baixa do Porto. Memória, realidade e permanência* (Porto: Porto Vivo SRU, 2013), Fig. 81.

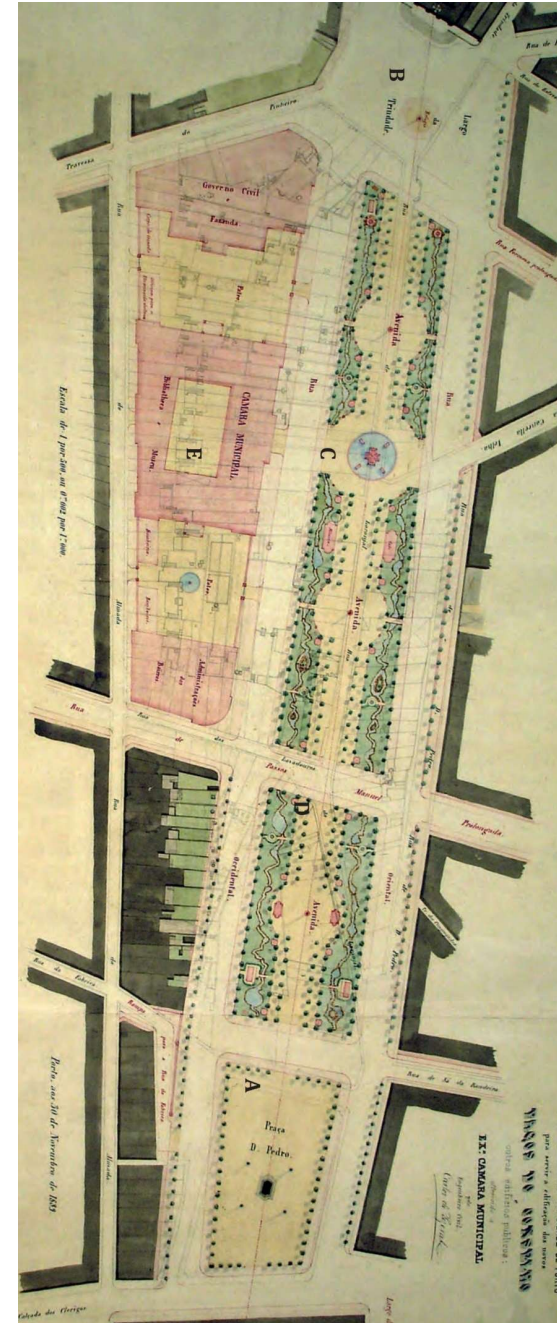


Fig. 105. “Projecto de uma Avenida ligando as Praças da Liberdade e Trindade, realizado pela 3ª repartição da Câmara municipal do Porto, 1915.” Ricardo Figueiredo, Clara Pimenta do Vale and Rui Tavares, *Avenida dos Aliados e Baixa do Porto. Memória, realidade e permanência* (Porto: Porto Vivo SRU, 2013), Fig. 83.



Fig. 106. Richard Barry Parker's second project for the Avenida da Liberdade in Porto, 1915. Ricardo Figueiredo, Clara Pimenta do Vale and Rui Tavares, *Avenida dos Aliados e Baixa do Porto. Memória, realidade e permanência* (Porto: Porto Vivo SRU, 2013), Fig. 86.

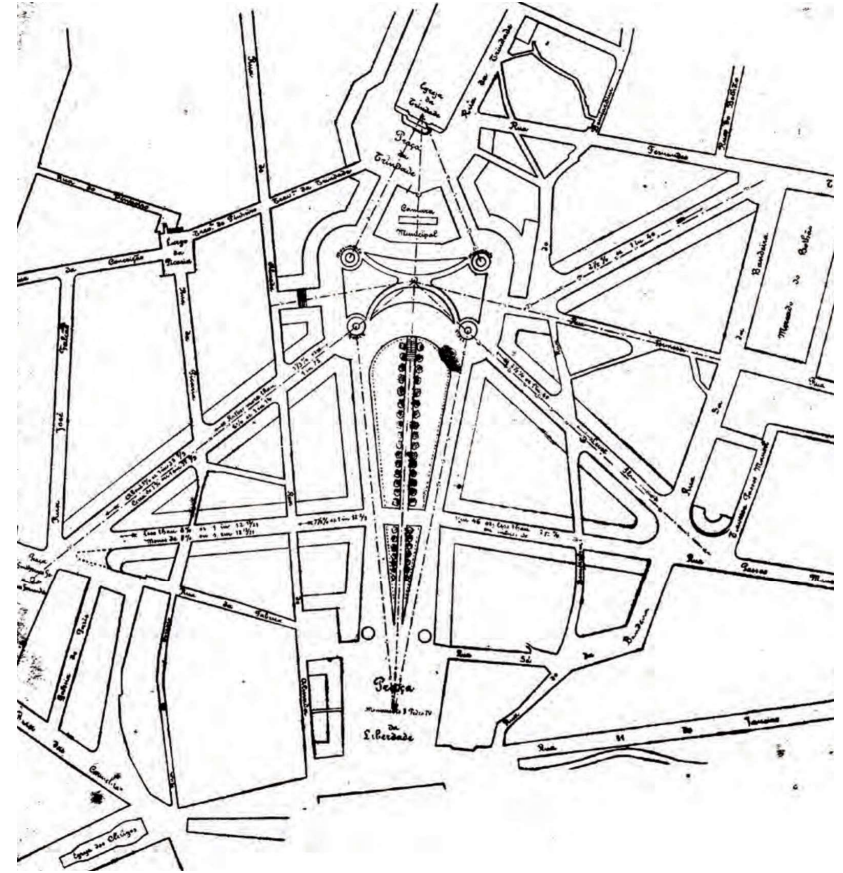


Fig. 107. "Parker and Unwin's original plan of Garden City, as first published, April 1904." Letchworth original plan.

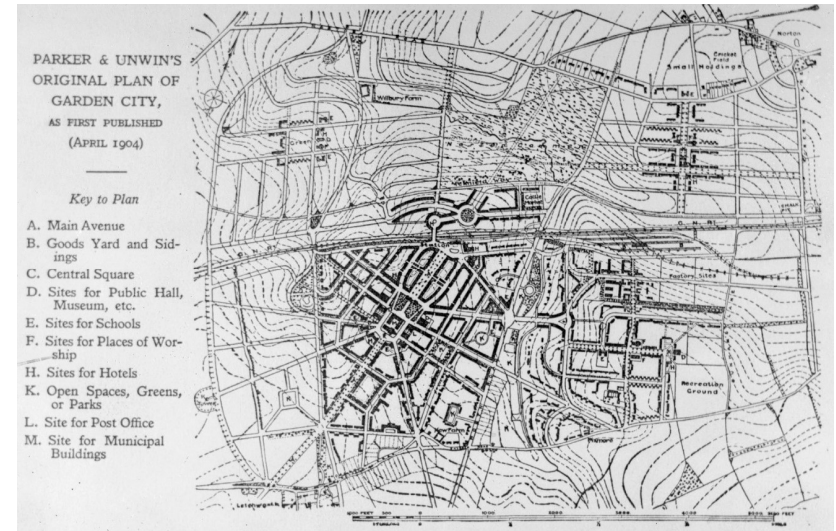
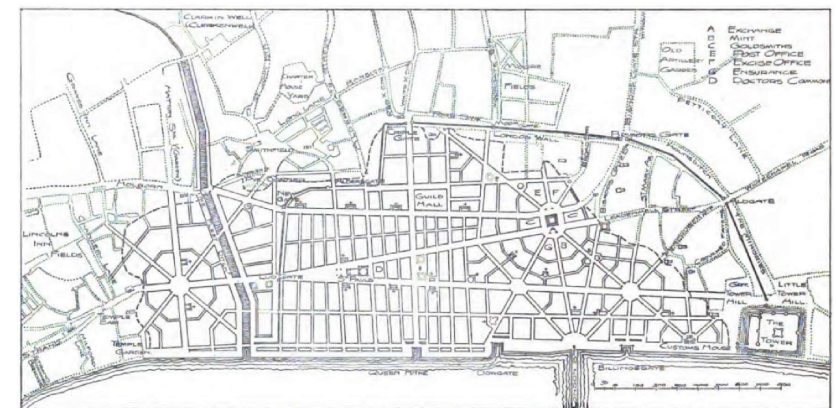
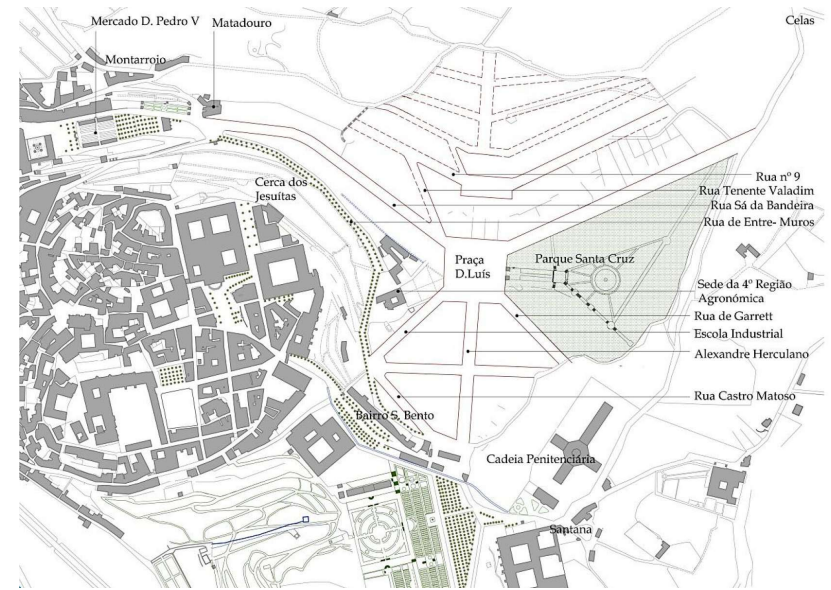


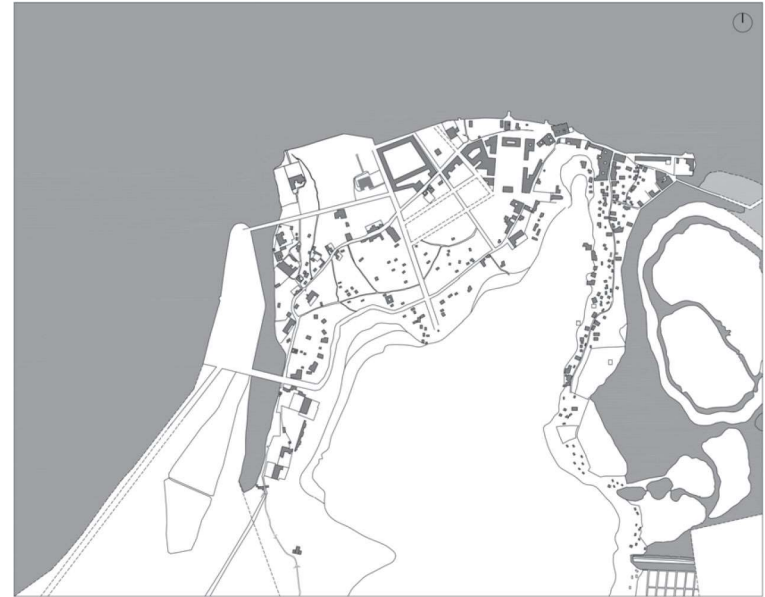
Fig. 108. "Wren's Plan of London traced from *A History of Renaissance Architecture in England*." Raymond Unwin, *Town Planning in Practice. An Introduction to the Art of Designing Cities and Suburbs* (London and Leipsic: T. Fisher Unwin, 1909), 78.



*Illus. 56.—Wren's Plan of London traced from "A History of Renaissance Architecture in England"
By kind permission of Mr. Reginald Blomfield, A.R.A.*

Fig. 109. Coimbra, Quinta de Santa Cruz General Improvement Plan, by Mondego and Barra da Figueira Public Works Director Adolfo Loureiro, 1885. Margarida Relvão Calmeiro, *Urbanismo Antes dos Planos: Coimbra 1834-1934* (Doctoral thesis in Architectural Theory and History, Universidade de Coimbra, Portugal, 2014), 255.





Figs. 110 and 111. Pangim c. 1851-1864 and c. 1920-1926. Configuration hypotheses by Alice Santiago Faria, in *Architecture Coloniale Portugaise à Goa. Le Département des Travaux Publics, 1840-1926* (Saarbrücken: Presses Académiques Francophones, 2014), 129.

Fig. 112. Pangim in 1929. “Direcção dos Serviços da Agrimensura do Estado da Índia. Carta de Pangim,” in Alice Santiago Faria, *Architecture Coloniale Portugaise à Goa. Le Département des Travaux Publics, 1840-1926* (Saarbrücken: Presses Académiques Francophones, 2014), 121.

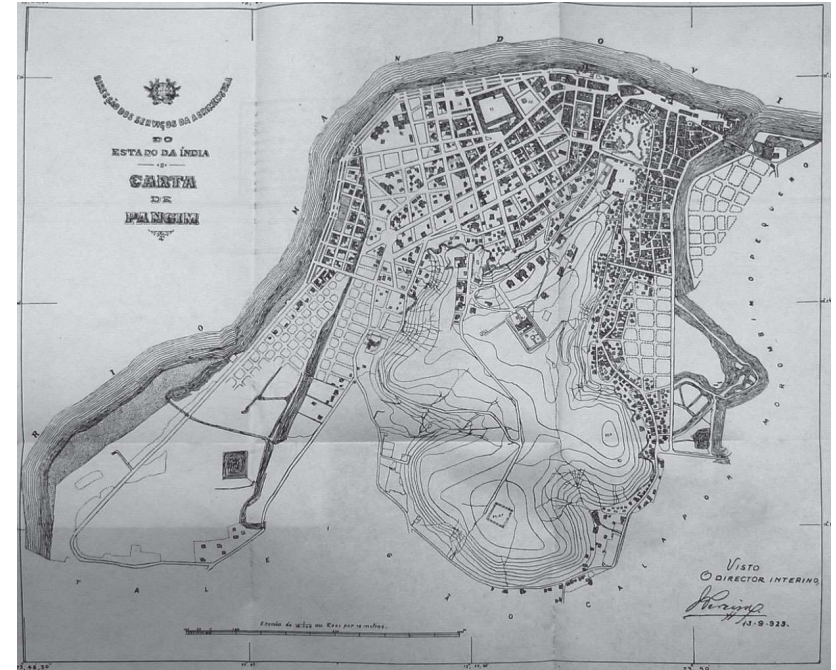
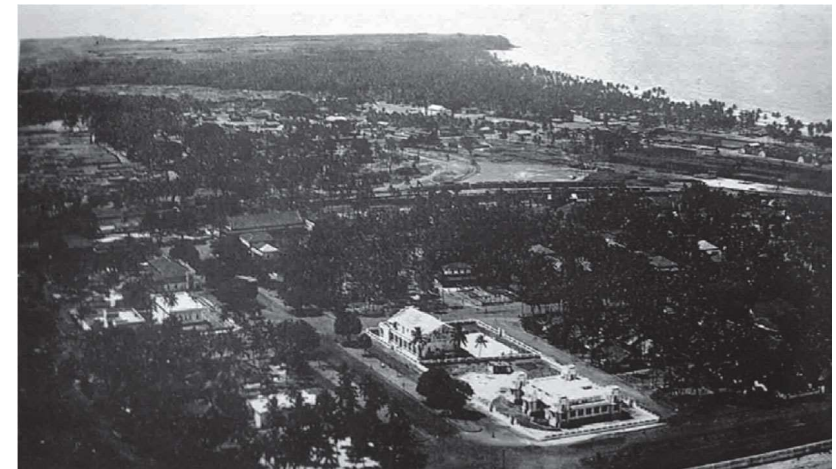
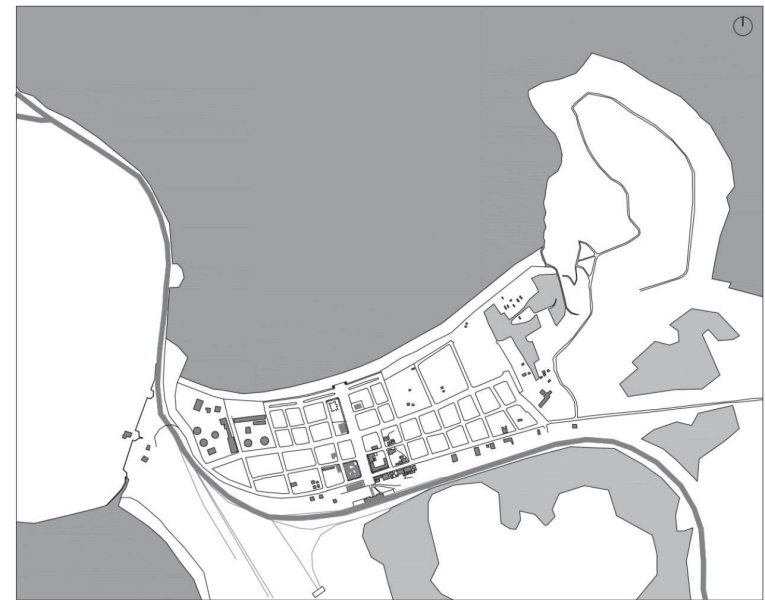


Fig. 113. Vasco da Gama in 1930. In Alice Santiago Faria, *Architecture Coloniale Portugaise à Goa. Le Département des Travaux Publics, 1840-1926* (Saarbrücken: Presses Académiques Francophones, 2014), 186.





Figs. 114 and 115. Vasco da Gama c. 1906-1910 and c. 1925. Configuration hypotheses by Alice Santiago Faria, in *Architecture Coloniale Portugaise à Goa. Le Département des Travaux Publics, 1840-1926* (Saarbrücken: Presses Académiques Francophones, 2014), 187.



Fig. 116. “Planta do porto, cidade e arredores de Dili. Levantada pelo condutor civil António Heitor, Chefe interino da secção [?] de Timor. Dili, 15 de Junho de 1893.” In Isabel Maria Guterres Boavida, *Urbanografia de Dili no Tempo da Administração Portuguesa* (Dissertação de Mestrado Integrado em Arquitectura, Departamento de Arquitectura da Faculdade de Ciência e Tecnologia da Universidade de Coimbra, 2011), 38.

Fig. 117. Plan of Lourenço Marques c. 1887. Configuration hypothesis by Lisandra Franco de Mendonça, in “As Obras de Saneamento e o Traçado das Primeiras Avenidas em Lourenço Marques, Moçambique.” *Pós. Revista do programa de Pós-Graduação em Arquitectura e Urbanismo da FAUUSP* Vol. 25, 45 (2018): 135.



Fig. 118. Plan of Lourenço Marques c. 1887-1888, superimposed with the 1887 António José de Araújo city extension plan. Configuration hypothesis by Lisandra Franco de Mendonça, in “As Obras de Saneamento e o Traçado das Primeiras Avenidas em Lourenço Marques, Moçambique.” *Pós. Revista do programa de Pós-Graduação em Arquitectura e Urbanismo da FAUUSP* Vol. 25, 45 (2018): 137.



Fig. 119. Lourenço Marques in 1937, in delagoabayworld.wordpress.com.



Fig. 120. 1903 Abreu Nunes Chinese Bazaar Improvement Project (a). “Projecto de construção de uma Avenida desde o Largo do Senado à rua marginal do porto interior e de alargamento das ruas dos Mercadres, do Mastro, Aterro Novo e Travessa da Cordoaria. Planta Geral. Macau, 11 de Fevereiro de 1903.” AM, MNL.05.27.Cart.



Fig. 121. 1903 Abreu Nunes Chinese Bazaar Improvement Project (a). Extract based on “Projecto de construção de uma Avenida desde o Largo do Senado à rua marginal do porto interior e de alargamento das ruas dos Mercadres, do Mastro, Aterro Novo e Travessa da Cordoaria. Planta Geral. Macau, 11 de Fevereiro de 1903.” AM, MNL.05.27.Cart.

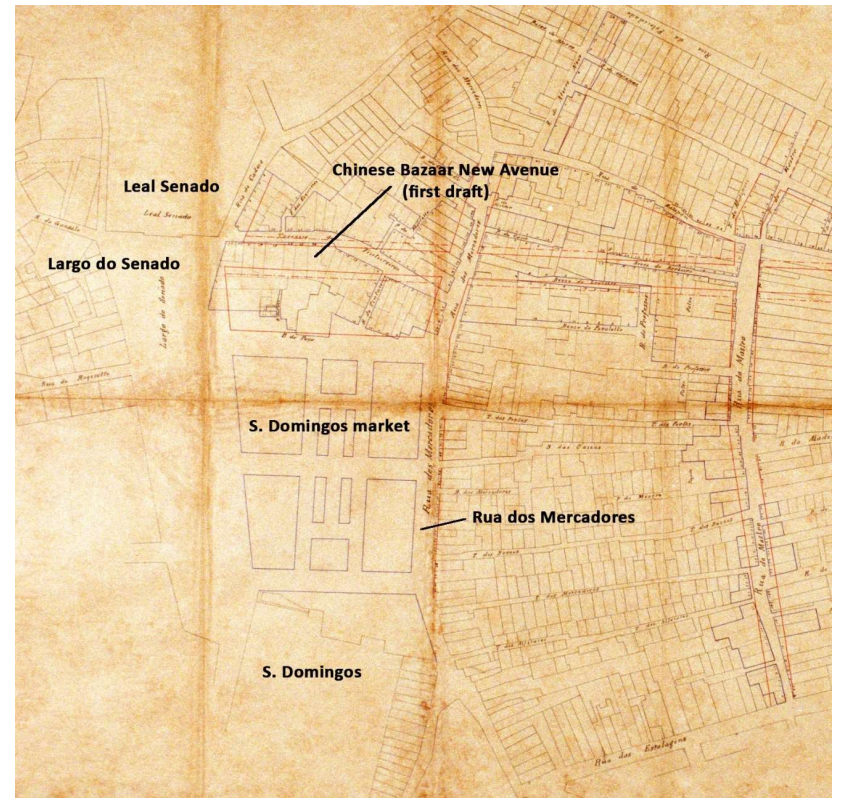


Fig. 122. 1903 Abreu Nunes Chinese Bazaar Improvement Project (b). “Ante-projecto de aproveitamento do local onde existe o Convento de S. Domingos para alargamento do mercado,” March 18, 1903, option 1. AHU, 251-2G-1S-SEMU-DGU cx.

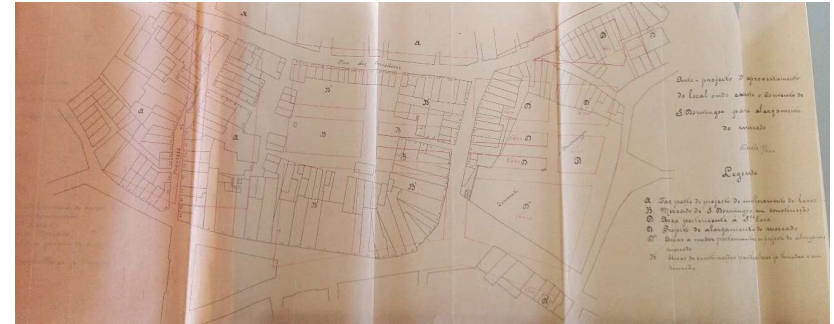


Fig. 123. 1903 Abreu Nunes Chinese Bazaar Improvement Project (b). “Ante-projecto de aproveitamento do local onde existe o Convento de S. Domingos para alargamento do mercado,” March 18, 1903, option 2. AHU, 251-2G-1S-SEMU-DGU cx.



Fig. 124. 1903 Abreu Nunes Chinese Bazaar Improvement Project (b). Based on “Ante-projecto de aproveitamento do local onde existe o Convento de S. Domingos para alargamento do mercado,” March 18, 1903, option 1. AHU, 251-2G-1S-SEMU-DGU cx. A. Part of the Bazaar Improvement Project. B. S. Domingos market under construction. B'. Areas for private buildings, already sold and under construction. D. Market extension project. D'. Areas to be sold as part of the market extension project.

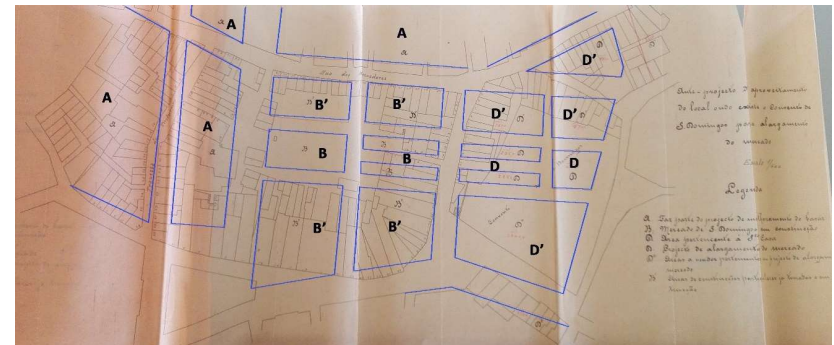


Fig. 125. 1903 Abreu Nunes Chinese Bazaar Improvement Project (b). The Chinese Bazaar in 1903. Cadaster configuration hypothesis based on the interpretation of the 1903 Bazaar historical map “Projecto de construção de uma Avenida do Largo do Senado ao porto interior e melhoramento de várias ruas do Bazar China,” c. 1903, AM, MNL.03.09.Cart.

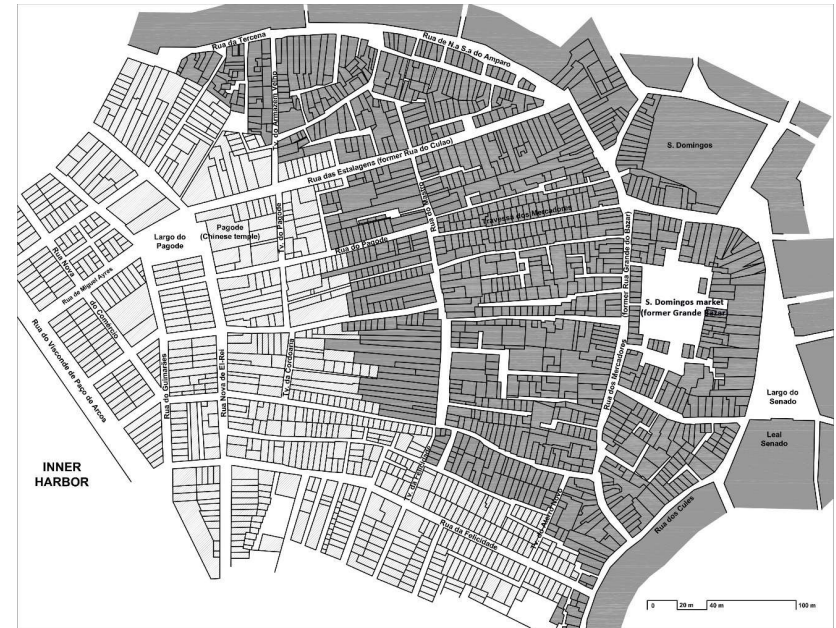


Fig. 126. 1903 Abreu Nunes Chinese Bazaar Improvement Project (b). “Projecto de construção de uma Avenida do Largo do Senado ao porto interior e melhoramento de várias ruas do Bazar China,” c. 1903, AM, MNL.03.09.Cart.



Fig. 127. 1903 Abreu Nunes Chinese Bazaar Improvement Project (b). Configuration hypothesis based on the interpretation of the 1903 Bazaar historical map “Projecto de construção de uma Avenida do Largo do Senado ao porto interior e melhoramento de várias ruas do Bazar China,” c. 1903, AM, MNL.03.09.Cart.

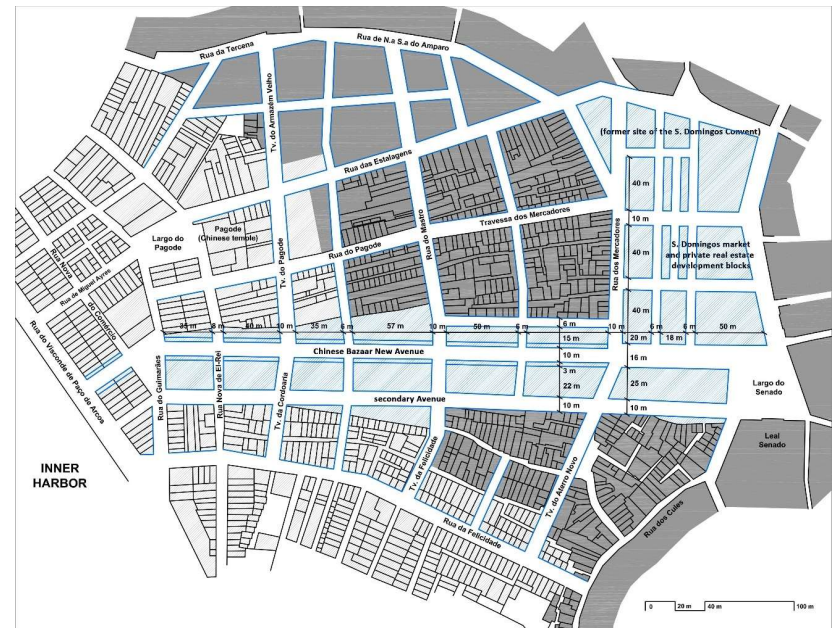
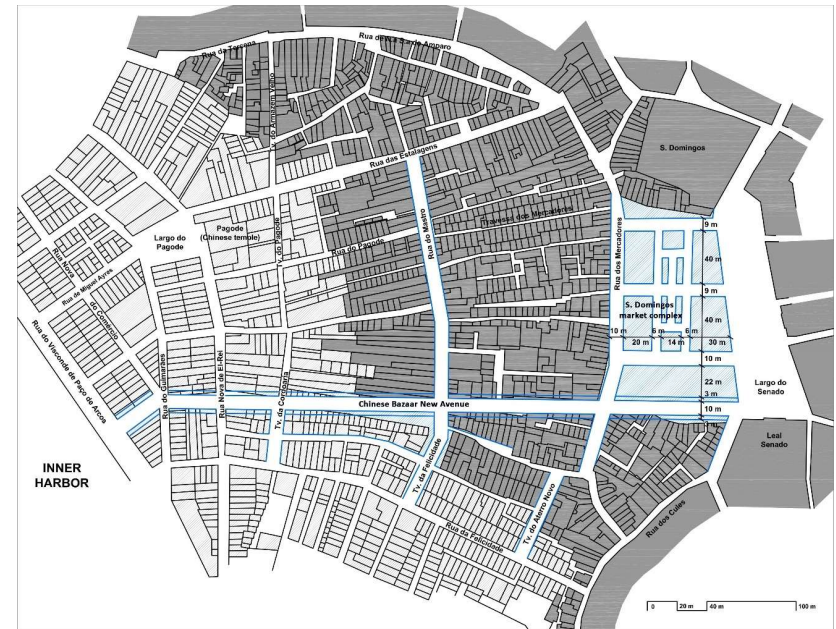


Fig. 128. 1903 Abreu Nunes Chinese Bazaar Improvement Project (a). Configuration hypothesis based on the interpretation of the 1903 Bazaar historical map “Projecto de construção de uma Avenida desde o Largo do Senado à rua marginal do porto interior e de alargamento das ruas dos Mercadres, do Mastro, Aterro Novo e Travessa da Cordoaria. Planta Geral. Macau, 11 de Fevereiro de 1903,” AM, MNL.05.27.Cart.



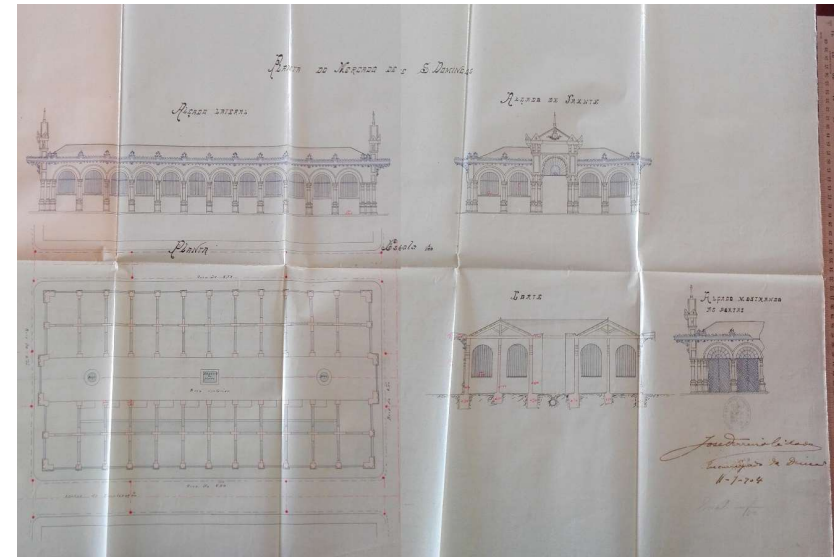


Fig. 129. “Planta do Mercado de S. Domingos. José Ferreira Cidade, Encarregado da Direcção, 11 de Julho de 1904.” AHU, 251-2G-1S-SEMU-DGU cx.

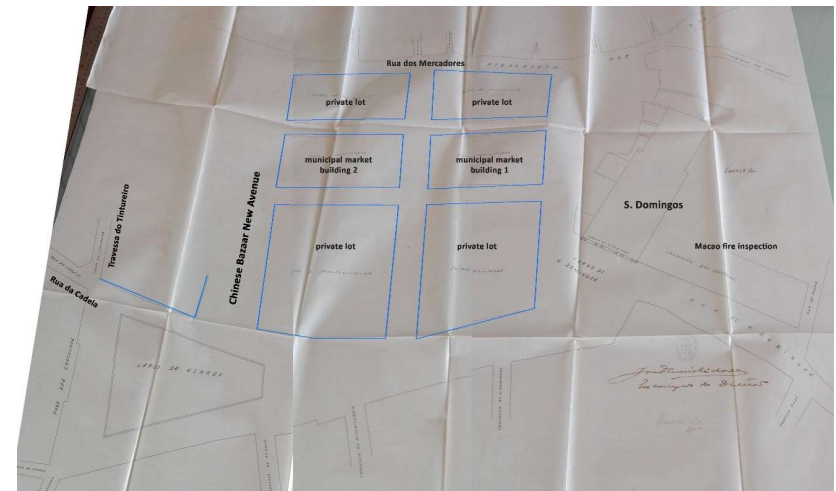


Fig. 130. Plan for the S. Domingos market site, based on Macao Public Works acting director José Ferreira Cidade’s July 11th 1904 site plan, AHU, 251-2G-1S-SEMU-DGU cx.

Fig. 131. 1905 Faria e Maia Chinese Bazaar Improvement Project. “Projecto de construção de uma Avenida do Largo do Senado ao Porto Interior e melhoramento de várias ruas do Bazar China.” May 5, 1905. AHU, 251-2G-1S-SEMU-DGU cx.

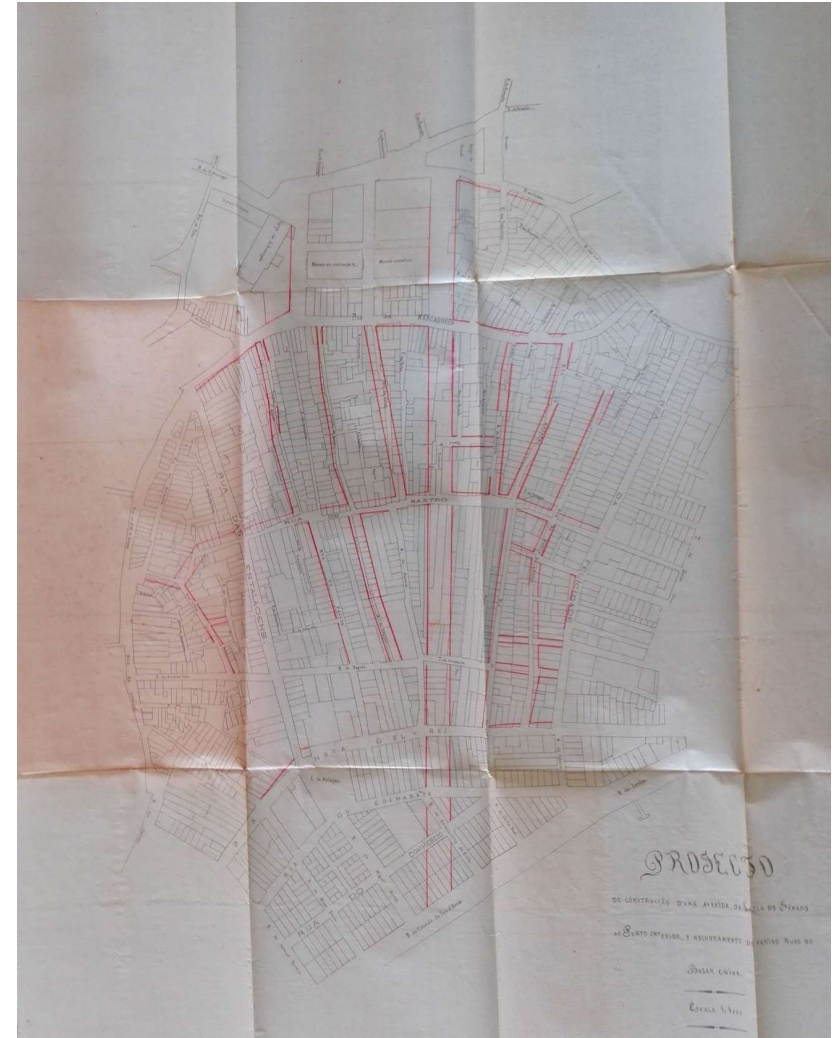


Fig. 132. 1905 Faria e Maia Chinese Bazaar Improvement Project. Configuration hypothesis based on the interpretation of the 1905 Bazaar historical map “Projecto de construção de uma Avenida do Largo do Senado ao Porto Interior e melhoramento de várias ruas do Bazar China,” May 5, 1905, AHU, 251-2G-1S-SEMU-DGU cx.

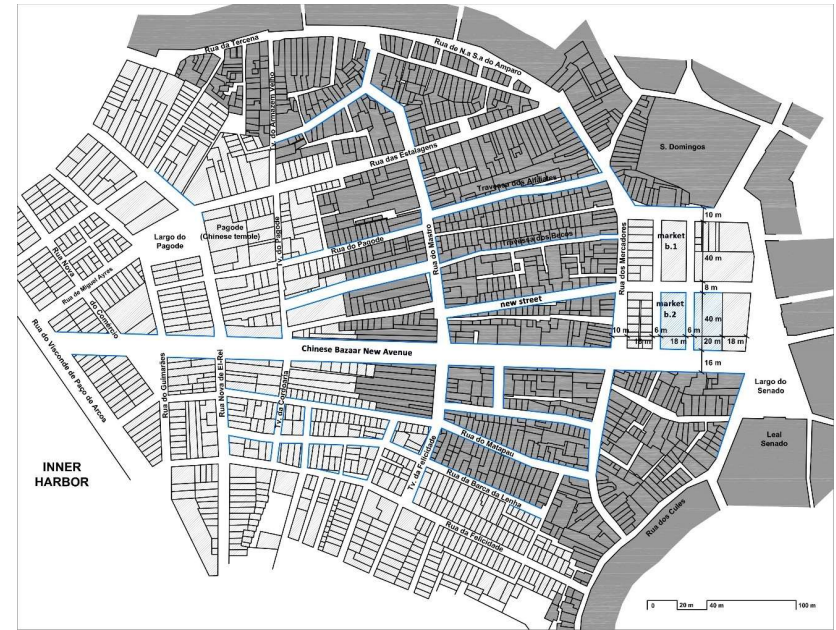
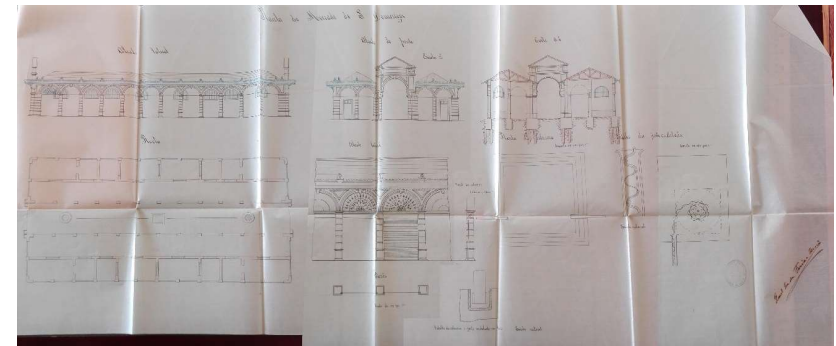


Fig. 133. “Planta do Mercado de S. Domingos. Raúl Machado de Faria e Maia.” June 15, 1905. AHU, 251-2G-1S-SEMU-DGU cx.





Figs. 134 and 135. The S. Domingos market in the 1920s. AHU, in archives.gov.mo.

Fig. 136. 1907 Miranda Guedes Chinese Bazaar Improvement Project. “Cidade de Macau. Projecto de Melhoramentos no Bairro do Bazar.” November 30, 1907. AHU, 251-2G-1S-SEMU-DGU cx.



Fig. 137. 1907 Miranda Guedes Chinese Bazaar Improvement Project. Extract based on “Cidade de Macau. Projecto de Melhoramentos no Bairro do Bazar.” November 30, 1907. AHU, 251-2G-1S-SEMU-DGU cx.

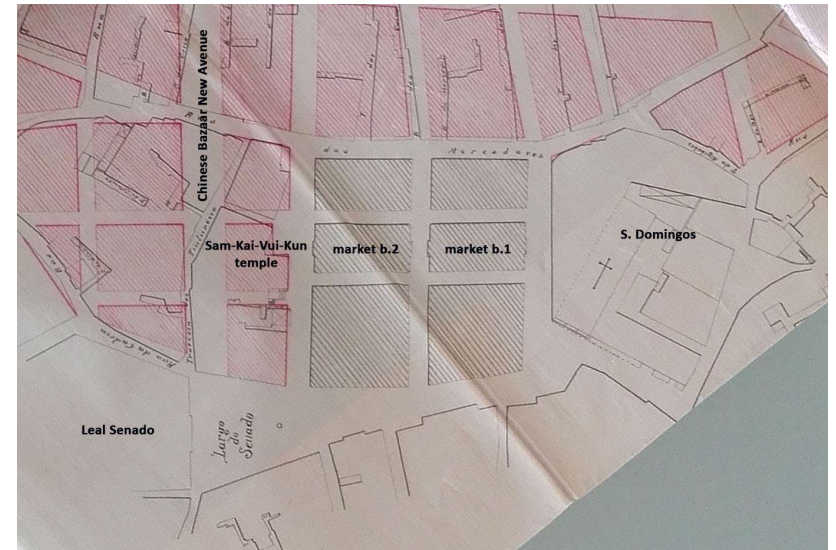


Fig. 138. 1907 Miranda Guedes Chinese Bazaar Improvement Project. Configuration hypothesis based on the interpretation of the 1907 Bazaar historical map "Cidade de Macau. Projecto de Melhoramentos no Bairro do Bazar," November 30, 1907, AHU, 251-2G-1S-SEMU-DGU cx.

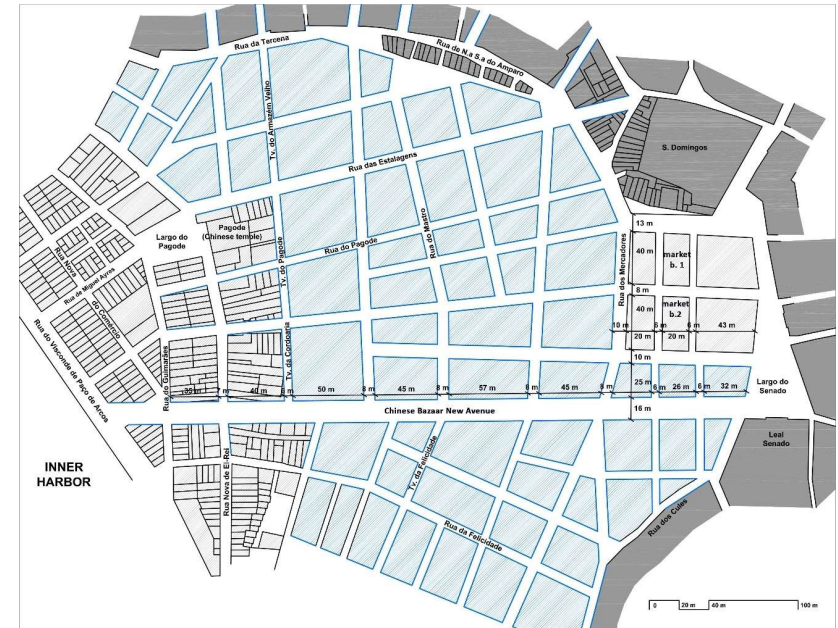


Fig. 139. 1908 Miranda Guedes Patane Improvement Project. Based on “Cidade de Macau. Projecto de Melhoramentos nos Bairros de Patane, Tarrafeiro, Sakong, S. Paulo e Sto. António. Macau, Setembro de 1908, António Pinto de Miranda Guedes, Engenheiro Director.” AHU, 251-2G-1S-SEMU-DGU ex.

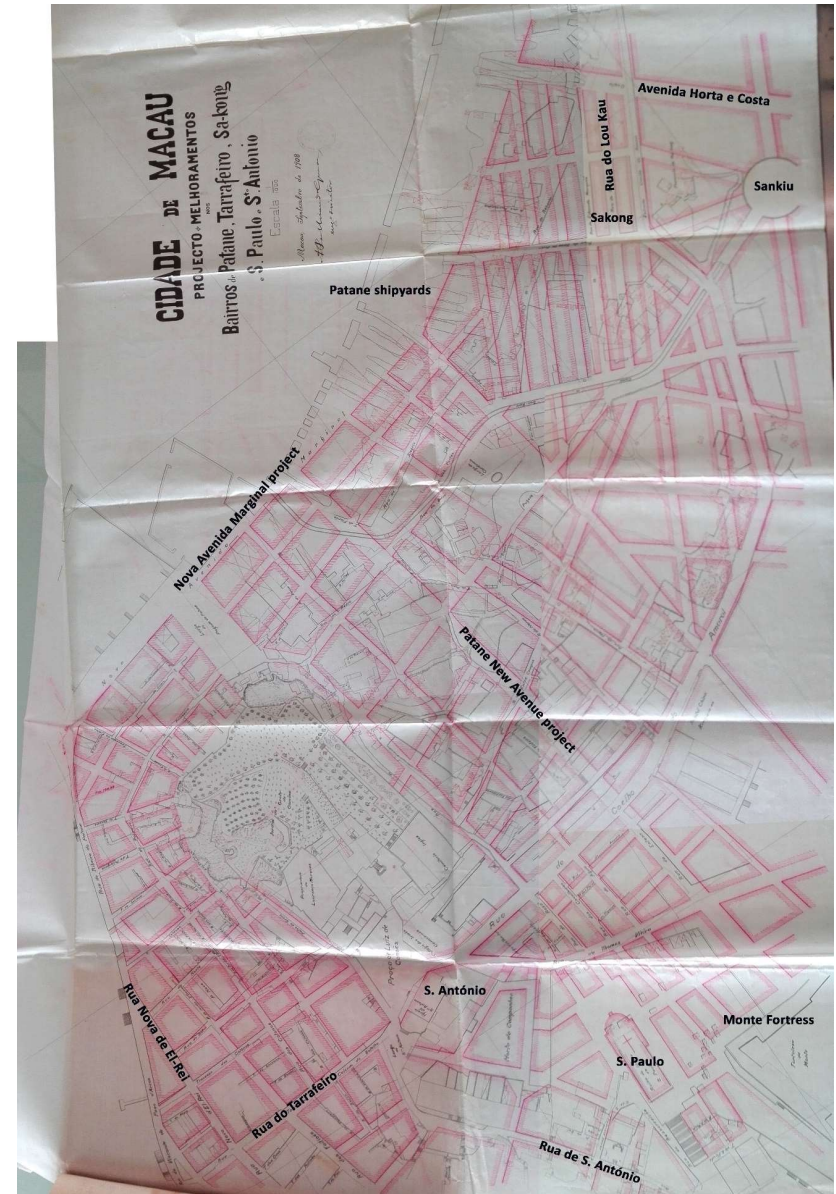
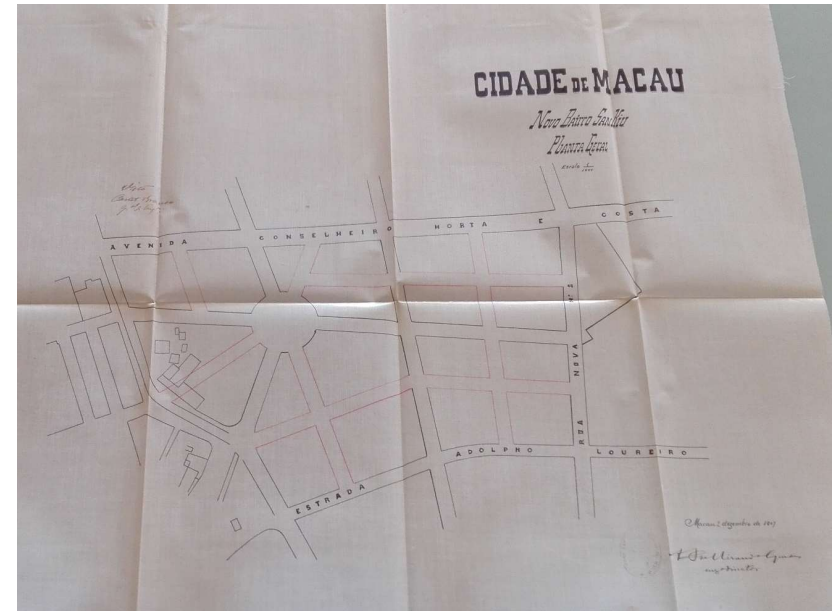


Fig. 140. 1907 Miranda Guedes Chinese Bazaar Improvement Project. “Cidade de Macau. Novo Bairro Sankiu. Planta Geral. Macau, 2 de Dezembro de 1907, António Pinto de Miranda Guedes, Engenheiro Director.” AHU, 251-2G-1S-SEMU-DGU ex.



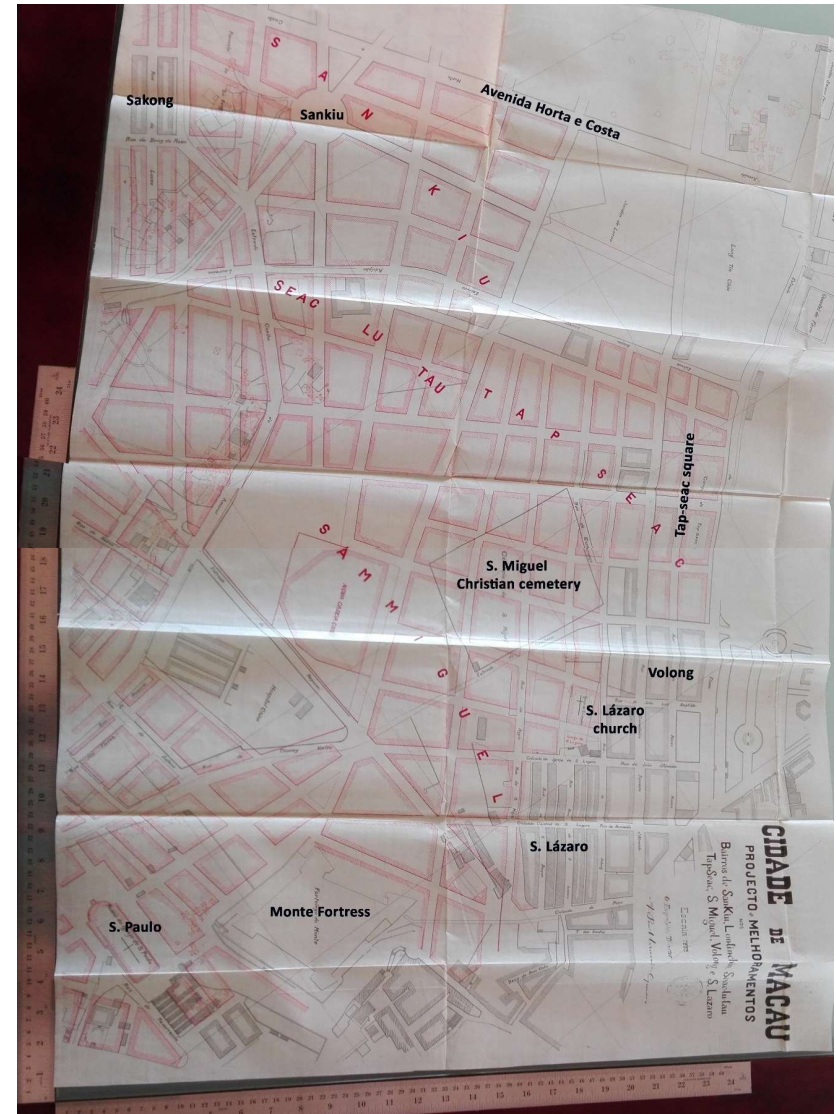


Fig. 141. 1909 Miranda Guedes Sankiu and Tap-seac Improvement Project. Based on “Cidade de Macau. Projecto de Melhoramentos nos Bairros de Sankiu, Lin-tin-chin, Seac-lu-tau, Tap-seac, S. Miguel, Volong e S. Lázaro. António Pinto de Miranda Guedes, Engenheiro Director.” March 9, 1909. AHU, 251-2G-1S-SEMU-DGU cx.

Fig. 142. 1910 Chinese Bazaar New Avenue first operational section project, from Largo do Senado to Rua dos Mercadores. Configuration hypothesis based on the interpretation of the 1903 Abreu Nunes and 1907 Miranda Guedes Bazaar historical maps (AHU, 251-2G-1S-SEMU-DGU cx), as well as on information contained in AM, MO/AH/AC/SA/01/02814, Letter n°12 from the president of the Chinese Bazaar Improvement Committee to the Government acting Secretary-General, regarding the Bazaar resumption plan for the year 1910, September 3, 1910. Green: first twelve demolished buildings; Red: second round of demolitions.



Fig. 143. The Avenida Almeida Ribeiro (former Chinese Bazaar New Avenue) in 1932. AHU, 2923 1A MU.

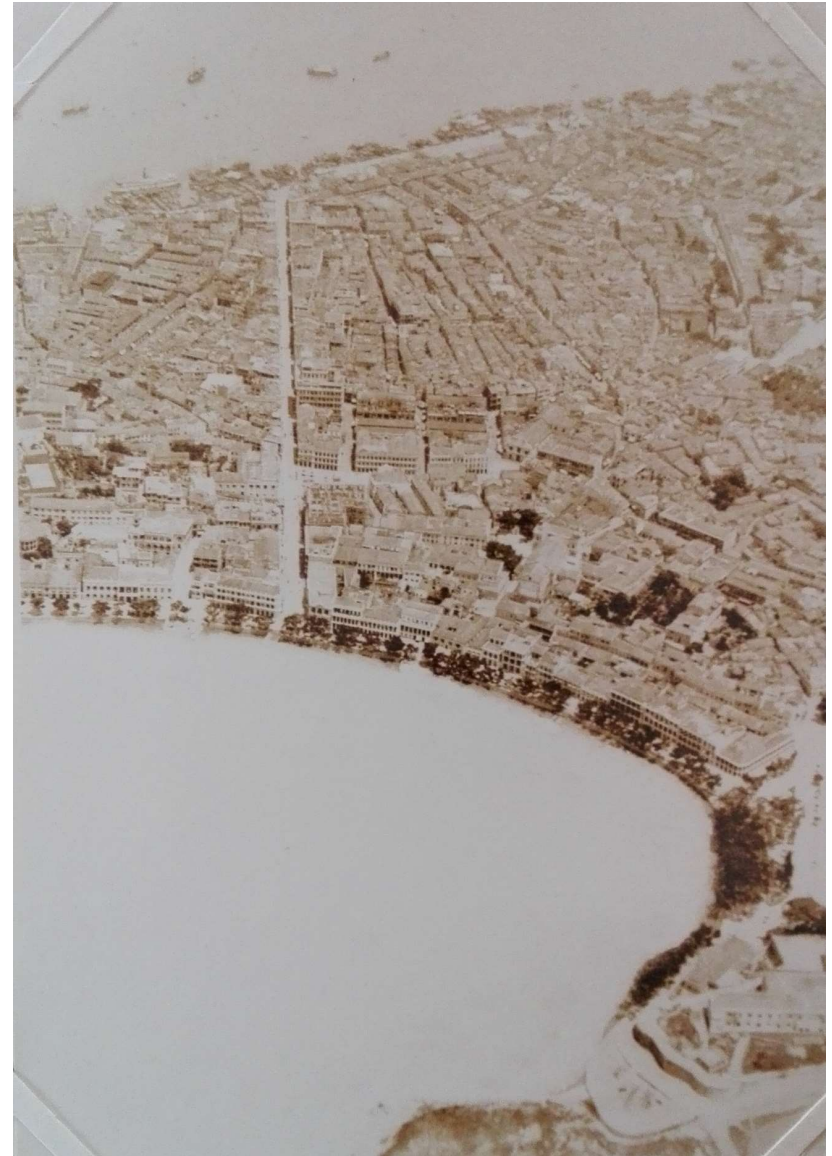




Fig. 144. The Chinese Bazaar in 1903. Interpretation of the 1889 historical map superimposed on the 2015 general map. Partial cadaster configuration hypothesis based on the interpretation of the 1903 Bazaar historical map “Projecto de construção de uma Avenida do Largo do Senado ao porto interior e melhoramento de várias ruas do Bazar China,” c. 1903, AM, MNL.03.09.Cart.



Fig. 145. 1903 Abreu Nunes Chinese Bazaar Improvement Project (a). Interpretation of the 1889 historical map superimposed on the 2015 general map. Partial cadaster and restructuring project configuration hypothesis based on the interpretation of the 1903 Bazaar historical map “Projecto de construção de uma Avenida desde o Largo do Senado à rua marginal do porto interior e de alargamento das ruas dos Mercades, do Mastro, Aterro Novo e Travessa da Cordoaria. Planta Geral. Macau, 11 de Fevereiro de 1903,” AM, MNL.05.27.Cart.



Fig. 146. 1903 Abreu Nunes Chinese Bazaar Improvement Project (b). Interpretation of the 1889 historical map superimposed on the 2015 general map. Partial cadaster and restructuring project configuration hypothesis based on the interpretation of the 1903 Bazaar historical map "Projecto de construção de uma Avenida do Largo do Senado ao porto interior e melhoramento de várias ruas do Bazar China," c. 1903, AM, MNL.03.09.Cart.

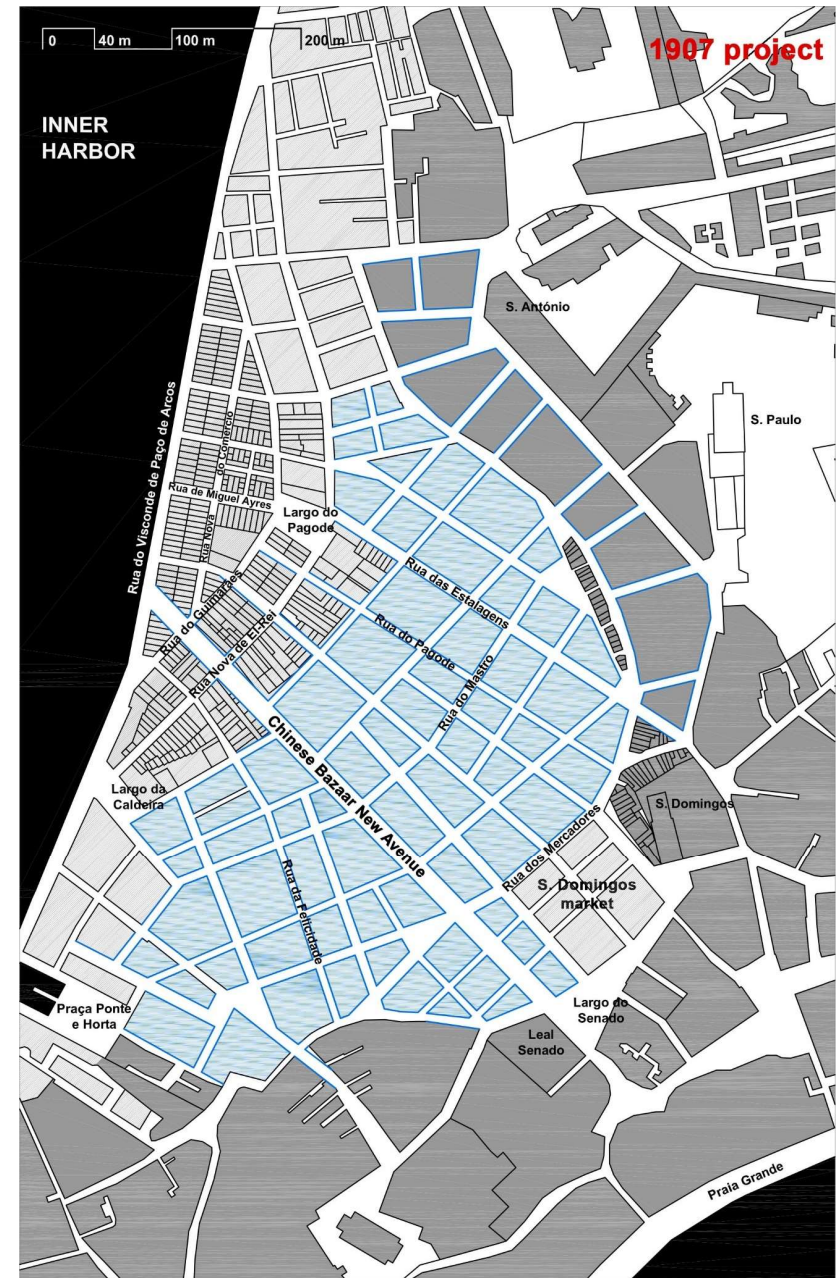


Fig. 148. 1907 Miranda Guedes Chinese Bazaar Improvement Project. Interpretation of the 1889 historical map superimposed on the 2015 general map. Partial cadaster and restructuring project configuration hypothesis based on the interpretation of the 1907 Bazaar historical map "Cidade de Macau. Projecto de Melhoramentos no Bairro do Bazar," November 30, 1907, AHU, 251-2G-1S-SEMU-DGU ex.

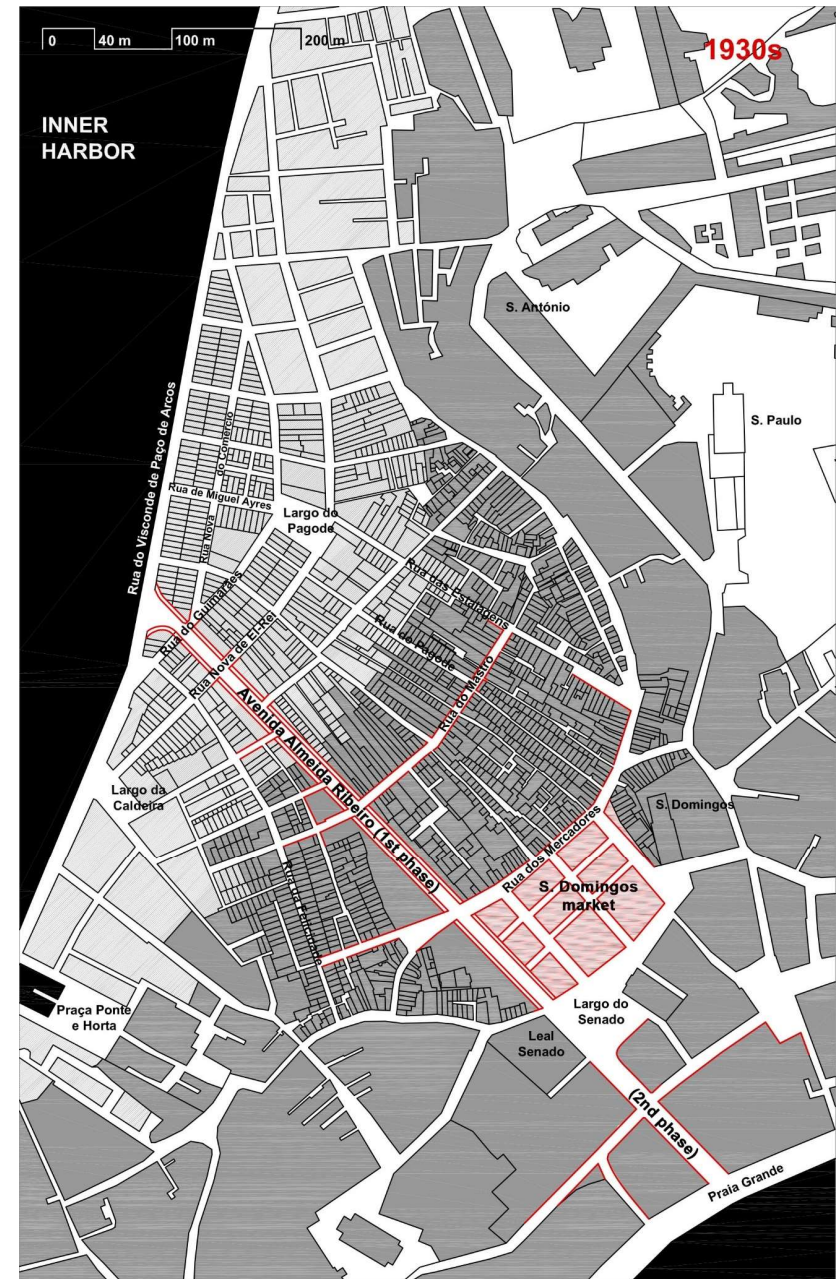


Fig. 149. The Chinese Bazaar in the 1930s. Interpretation of the 1889 historical map superimposed on the 2015 general map. Partial cadaster and restructuring works configuration hypothesis based on the interpretation of the 1903 Abreu Nunes and 1907 Miranda Guedes Bazaar historical maps (AHU, 251-2G-1S-SEMU-DGU cx), as well as on the 2015 general map.

Fig. 150. Avenida Almeida Ribeiro in the 1950s, in macauintigo.blogspot.com. Looking down the Avenue from Largo to Senado towards the inner harbor, with the Senate house in the left foreground.



Fig. 151. Avenida Almeida Ribeiro in the 1950s, in macauintigo.blogspot.com. Looking down the Avenue from Largo to Senado towards the inner harbor.



Fig. 152. Avenida Almeida Ribeiro in the 1930s, in macauantigo.blogspot.com. Looking down the Avenue from Largo to Senado towards the inner harbor.



Fig. 153. Avenida Almeida Ribeiro in the 1960s, in macauantigo.blogspot.com. Looking down the Avenue from Largo to Senado towards the inner harbor.



Fig. 154. Avenida Almeida Ribeiro in the 1960s, in nenotavaiconca.wordpress.com. Looking down the Avenue from the Praia Grande reclamations towards the inner harbor. In the second plan on the right, there is the neoclassical façade of the Banco Nacional Ultramarino building (1926), at the angle of the Avenida Almeida Ribeiro with the Praia Grande former seaside street. Further back, also on the right, we can see the Post Office building (1931) with its tower, at the angle of the Avenue with Largo do Senado.

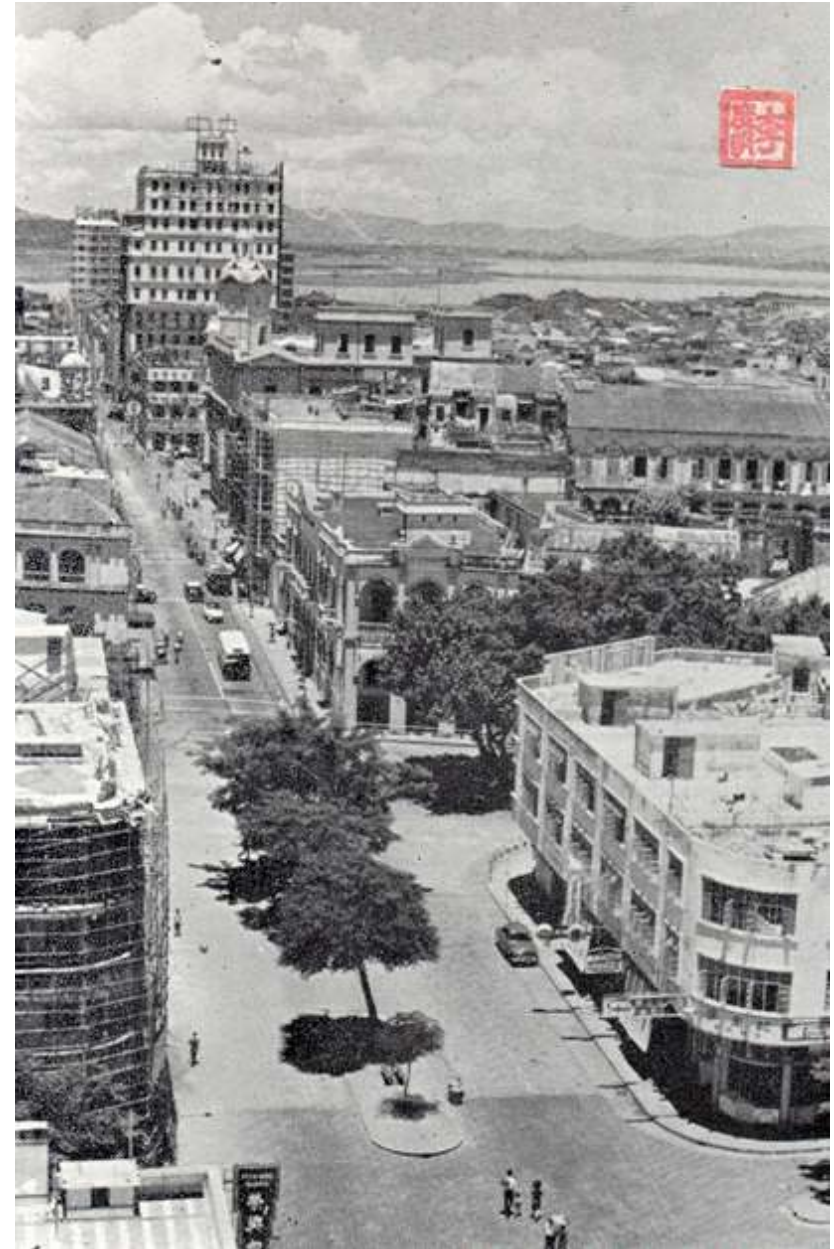




Fig. 155. Advancement of the 1909 Miranda Guedes Macao General Sanitation Plan in 1927. Based on “Planta Geral da Cidade e Novo Porto de Macau. 1927. Escala 1:4000,” João Carlos Alves, Director Interino das Obras dos Portos e João Barbosa Pires, Cefe da Secção de Propaganda do Porto, publicado pela Direcção das Obras do Porto de Macau, Maio de 1927, Biblioteca Nacional, Lisbon, Portugal.

Chapter V

To locate the transformation of the Patane district, site of the inner harbor improvement project (1884-1919), on the Macao peninsula general map, see Figures 13, 14 and 15.

Fig. 156. Satellite imagery of the Pearl River Delta with the Hong Kong-Zhuhai-Macao Bridge site in 2015. To this day, there is a noticeable difference between the deep blue waters surrounding the island of Hong Kong and the large extension of muddy and yellow waters, carrying sediment from the upstream provinces, in the midst of which stands the Macao peninsula (in “Major construction of world’s longest cross-sea bridge completed,” September 27 2016, cranemarket.com).

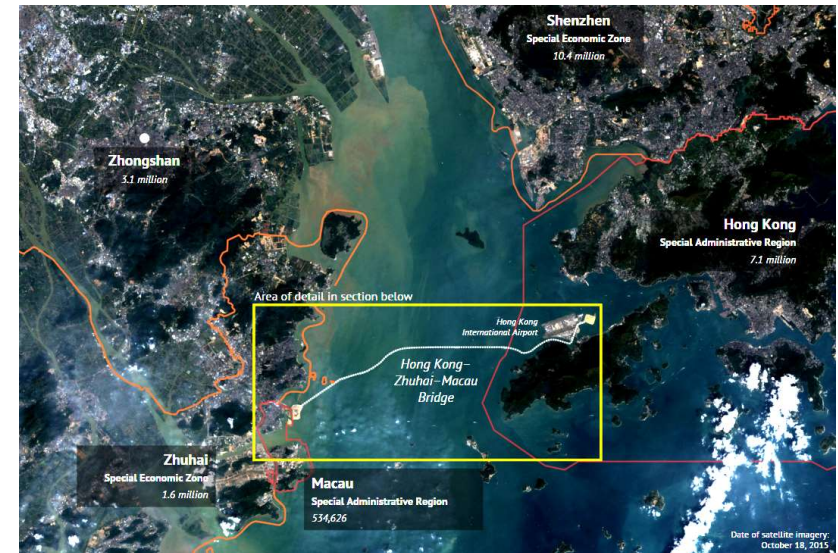
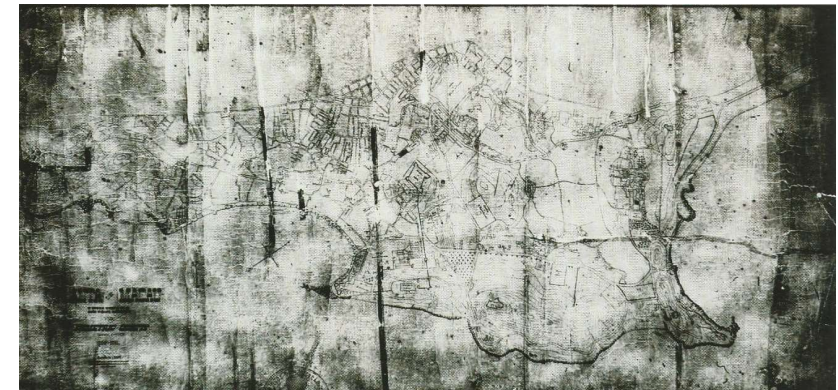


Fig. 157. “Planta de Macau levantada por Demétrio Cinatti,” c. 1880, AM, MNL.05.09.CART, in *Macao: a cidade e o porto* (Lisboa: Comissão Nacional para a Comemoração dos Descobrimientos Portugueses, 1997), ficha cartográfica n°11.



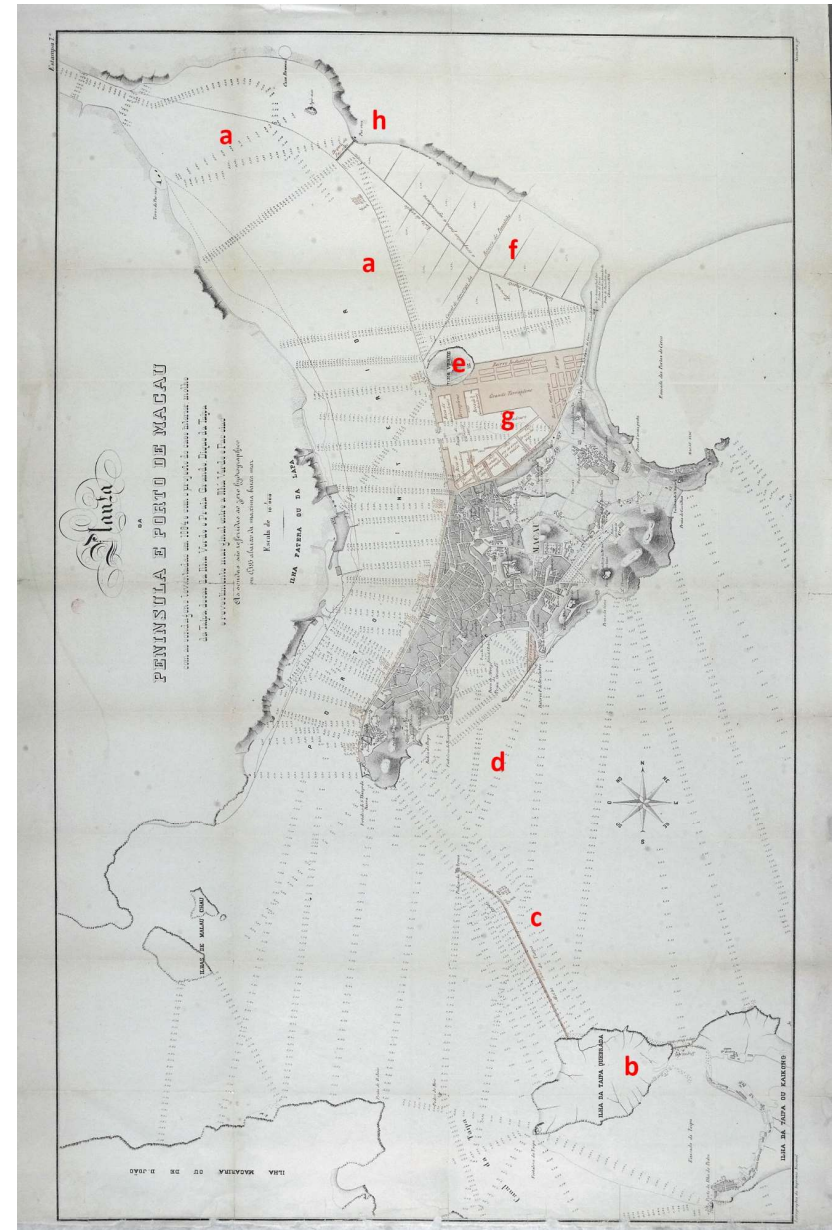


Fig. 158. “Planta da Península e Porto de Macau com as sondagens levantadas em 1884 e com o projecto dos cais interior, molhe da Taipa, docas da Ilha Verde e Praia Grande, Dique da Taipa e revestimento marginal entre a Ilha Verde e Pac-siac,” in Adolfo Ferreira de Loureiro, *O porto de Macau. Ante-projecto para o seu melhoramento* (Coimbra: Imprensa da Universidade, 1884). a. riverbank realignment; b. Taipa island; c. Taipa jetty; d. rada canal; e. Ilha Verde; f. new reclamations; g. Patane new docks; h. Pac Seac.

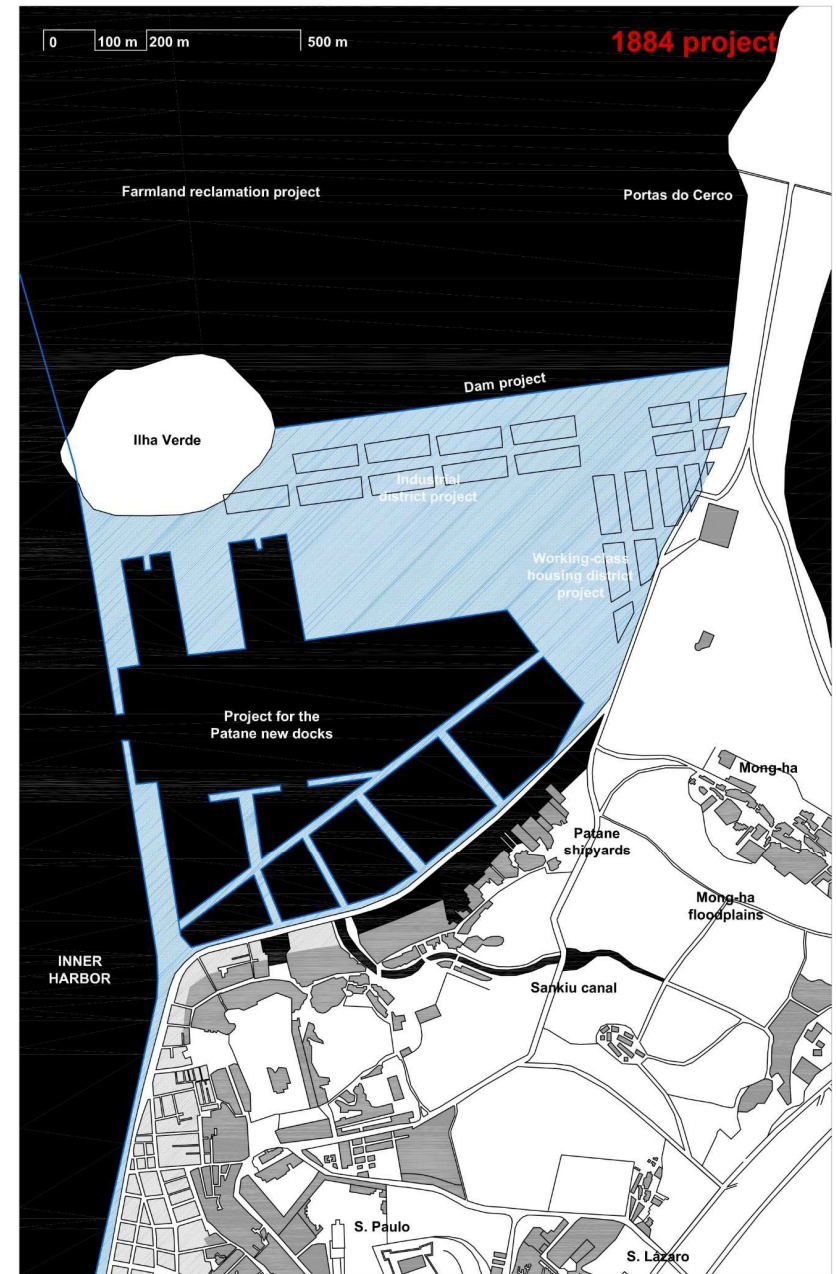
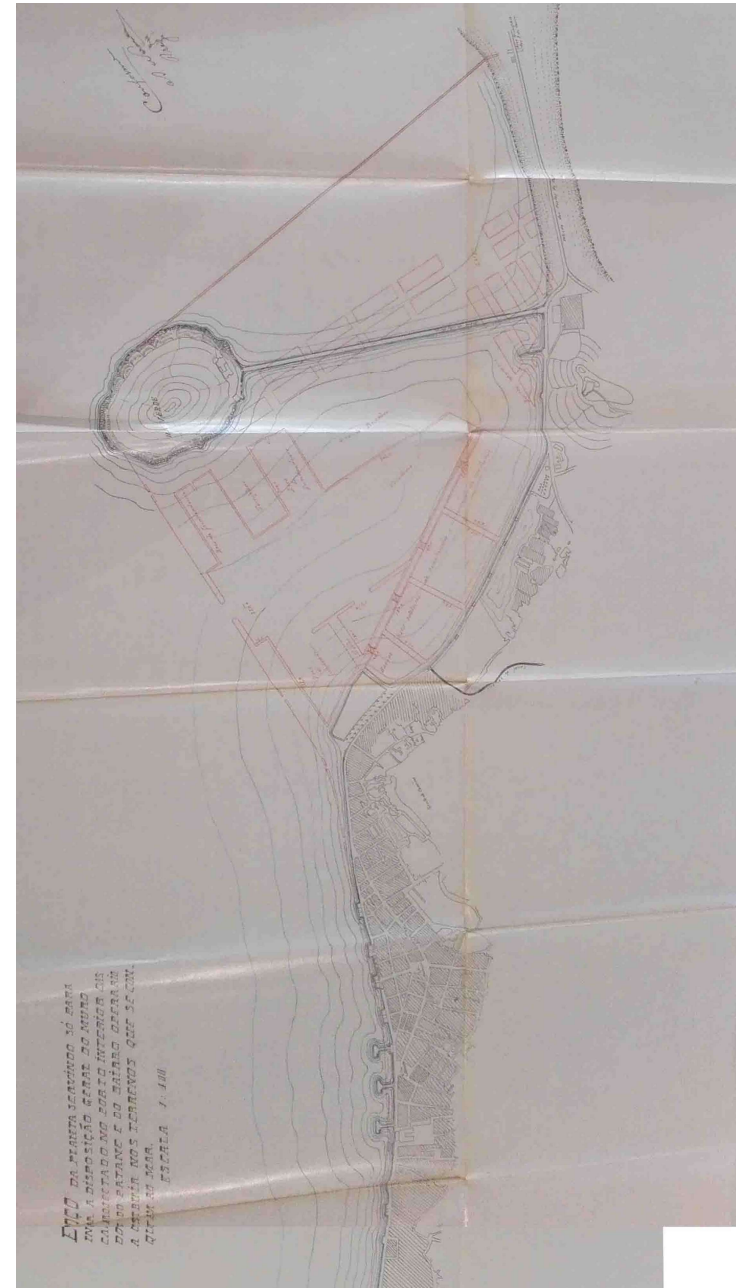


Fig. 159. The 1884 Adolfo Loureiro Inner Harbor Improvement Project. Interpretation of the 1884 historical map superimposed on the 2015 general map. Focus on the Patane docks and reclamation complex.

Fig. 160. “Esboço da planta servindo só para indicar a disposição geral do muro cais projectado no porto interior, das docas do Patande e do bairro operário a construir nos terrenos que se conquistarem ao mar. Escala 1:400,” Public Works Director Augusto César de Abreu Nunes, August 9, 1897, AHU, 451-1H-SEMU-DGU mç.



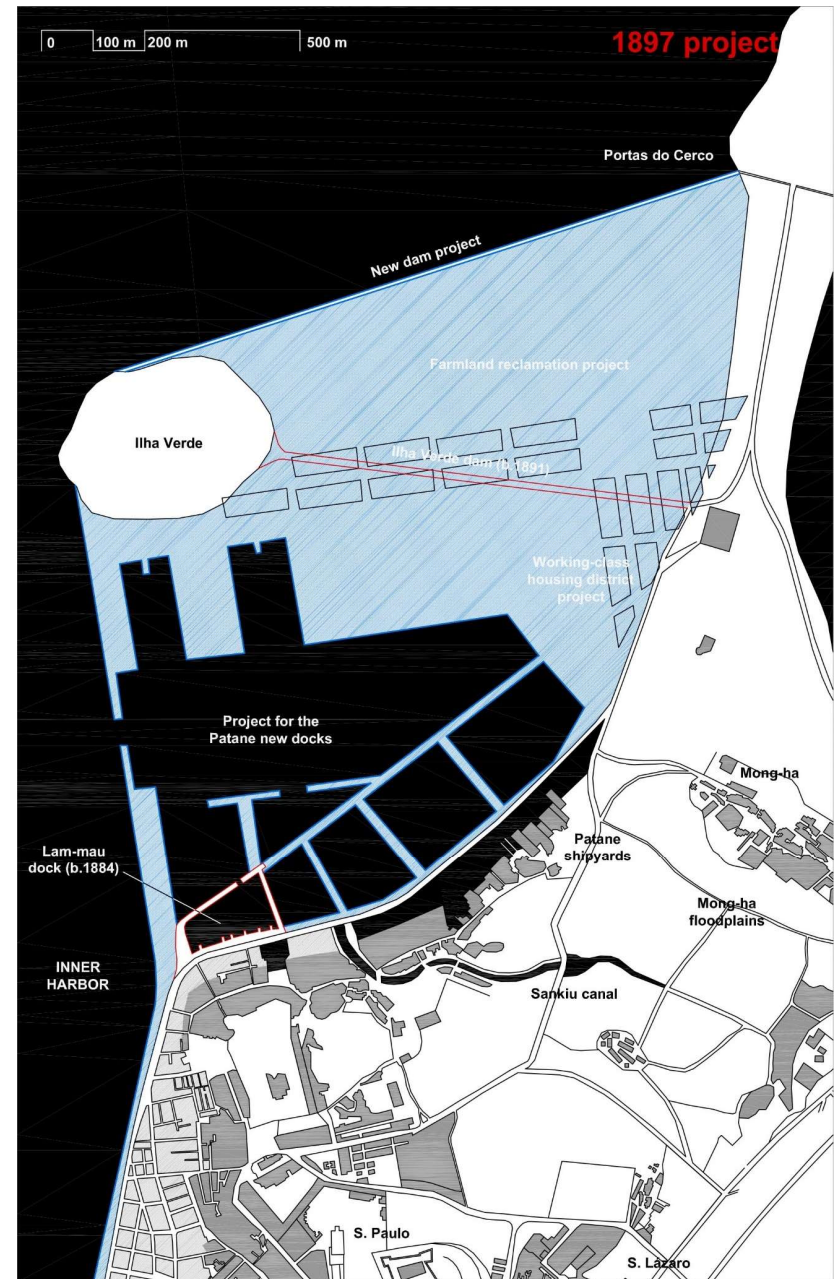
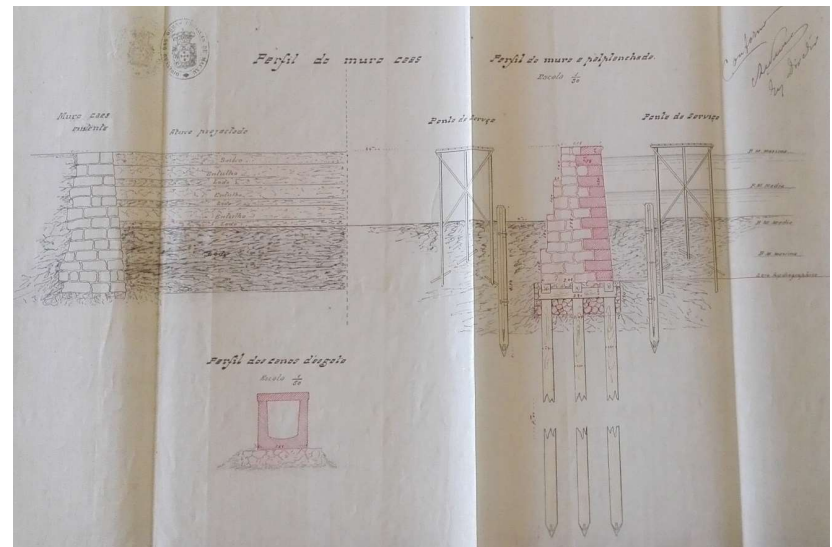
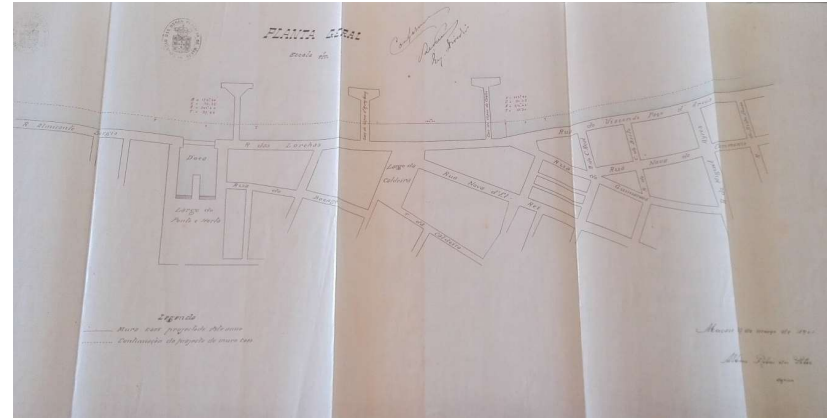


Fig. 161. The 1897 Abreu Nunes Inner Harbor Improvement Project. Interpretation of the August 9, 1897 Abreu Nunes plan (Fig. 160) superimposed on the 2015 general map. Focus on the Patane docks and reclamation complex.



Figs. 162 and 163. Plan and sections for the Inner Harbor new piers on the Chinese Bazaar riverfront by Public Works Director Augusto César de Abreu Nunes, May 2, 1901, AHU, AHU-ACL-SEMU-DGU-3R-002, Cx.0002.

Fig. 164. “Projecto de Melhoramento do Porto de Macau. Planta Geral. Escala 1:2000,” Public Works Director Augusto César de Abreu Nunes, September 24, 1903, AHU, 760-II-SEMU-MU-DGU mç.

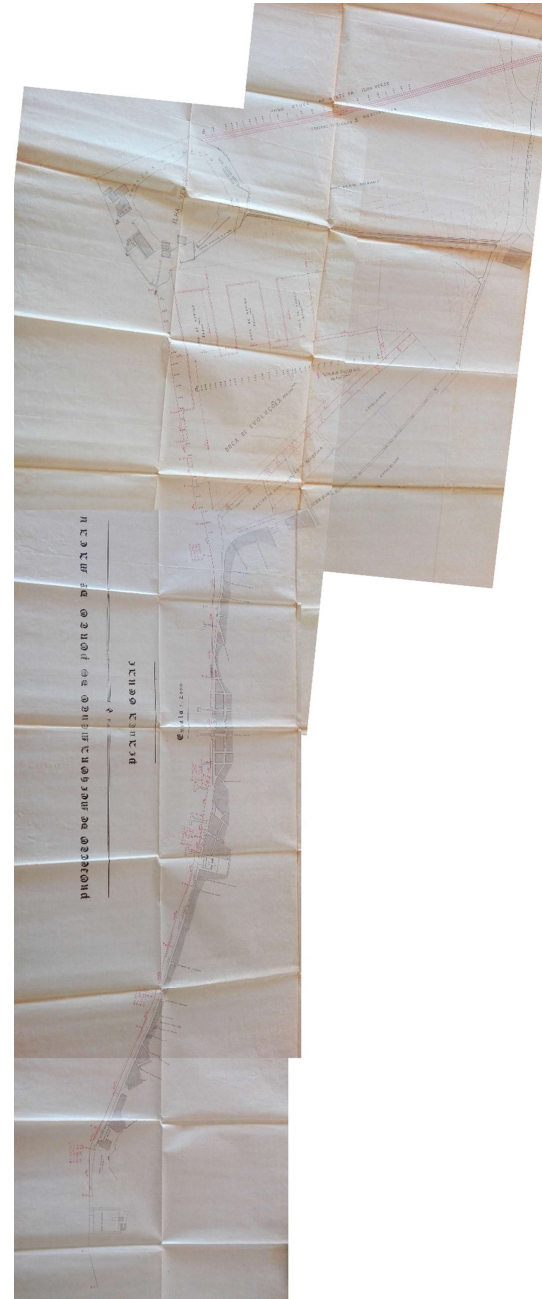


Fig. 165. “Ante-Projecto de Melhoramentos do Porto de Macau. Cais e Rectificação Marginal. Lisboa, 31 de Maio de 1909, A. de Vasconcelos Porto,” AHU, 760-II-SEMUMU-DGU mç.

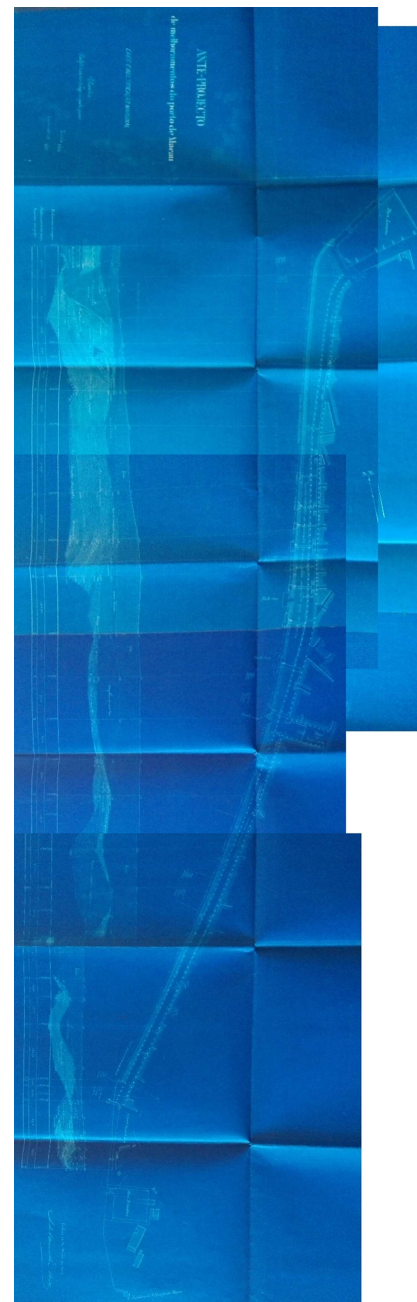


Fig. 166. “Porto de Macau. Planta geral da península e Porto de Macau, canais de acesso e ilhas próximas, extraída de uma ampliação da carta do almirantado inglês datada de 1881. Comissão de estudos do Porto de Macau. Lisboa, 17 de Fevereiro de 1912, José Emilio de Santana da Cunha Castel Branco, General, Alfredo Augusto Lisboa de Lima, Capitão de Engenharia,” in José Emilio de Santana da Cunha Castel Branco, *Projecto das obras a executar no Porto de Macau. Memória descritiva e justificativa precedida duma resenha histórica e seguida dum projecto de caderno de encargos e mais documentos para a execução das obras por empreitada* (Lisboa: Imprensa Nacional, 1913).

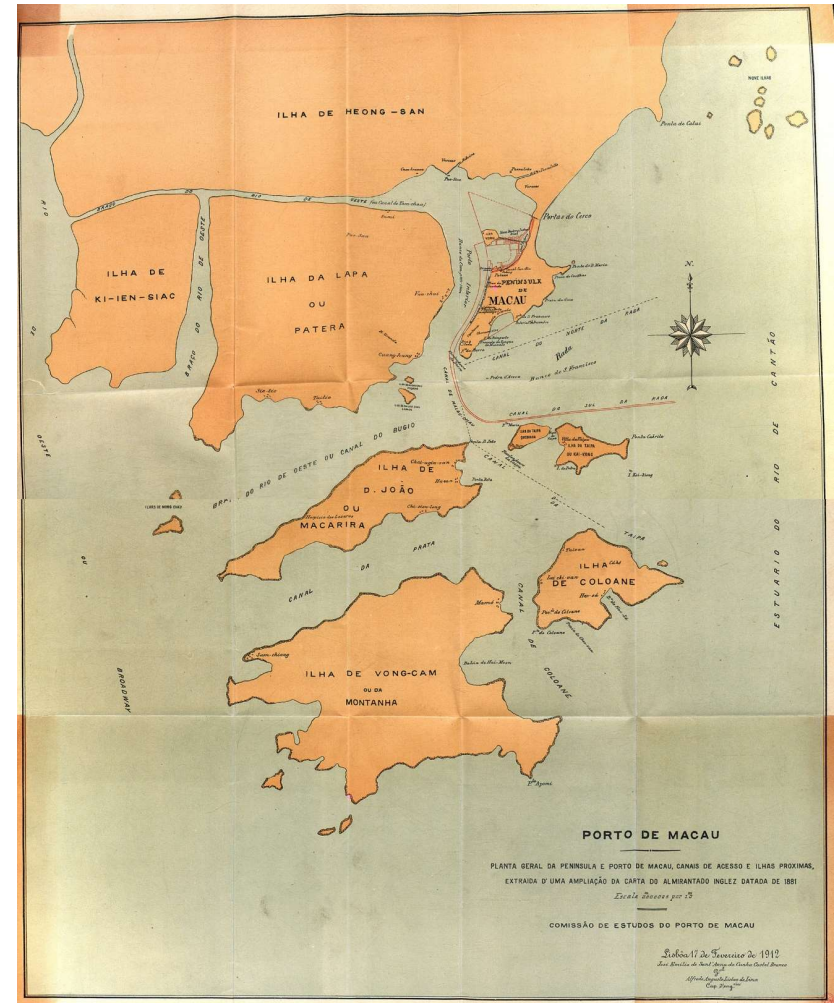
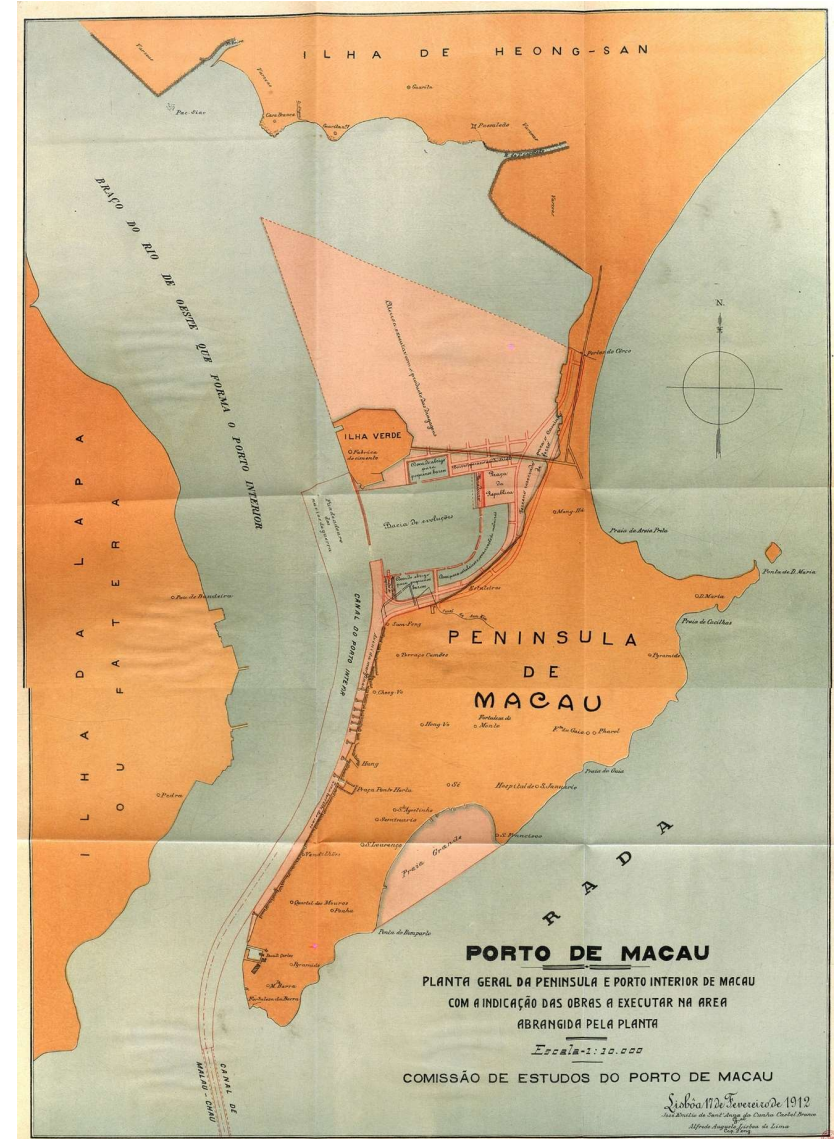


Fig. 167. “Porto de Macau. Planta geral da península e Porto Interior de Macau com a indicação das obras a executar na área abrangida pela planta. Escala 1:10.000. Comissão de estudos do Porto de Macau. Lisboa, 17 de Fevereiro de 1912, José Emilio de Santana da Cunha Castel Branco, General, Alfredo Augusto Lisboa de Lima, Capitão de Engenharia,” in José Emilio de Santana da Cunha Castel Branco, *Projecto das obras a executar no Porto de Macau. Memória descritiva e justificativa precedida duma resenha histórica e seguida dum projecto de caderno de encargos e mais documentos para a execução das obras por empreitada* (Lisboa: Imprensa Nacional, 1913).



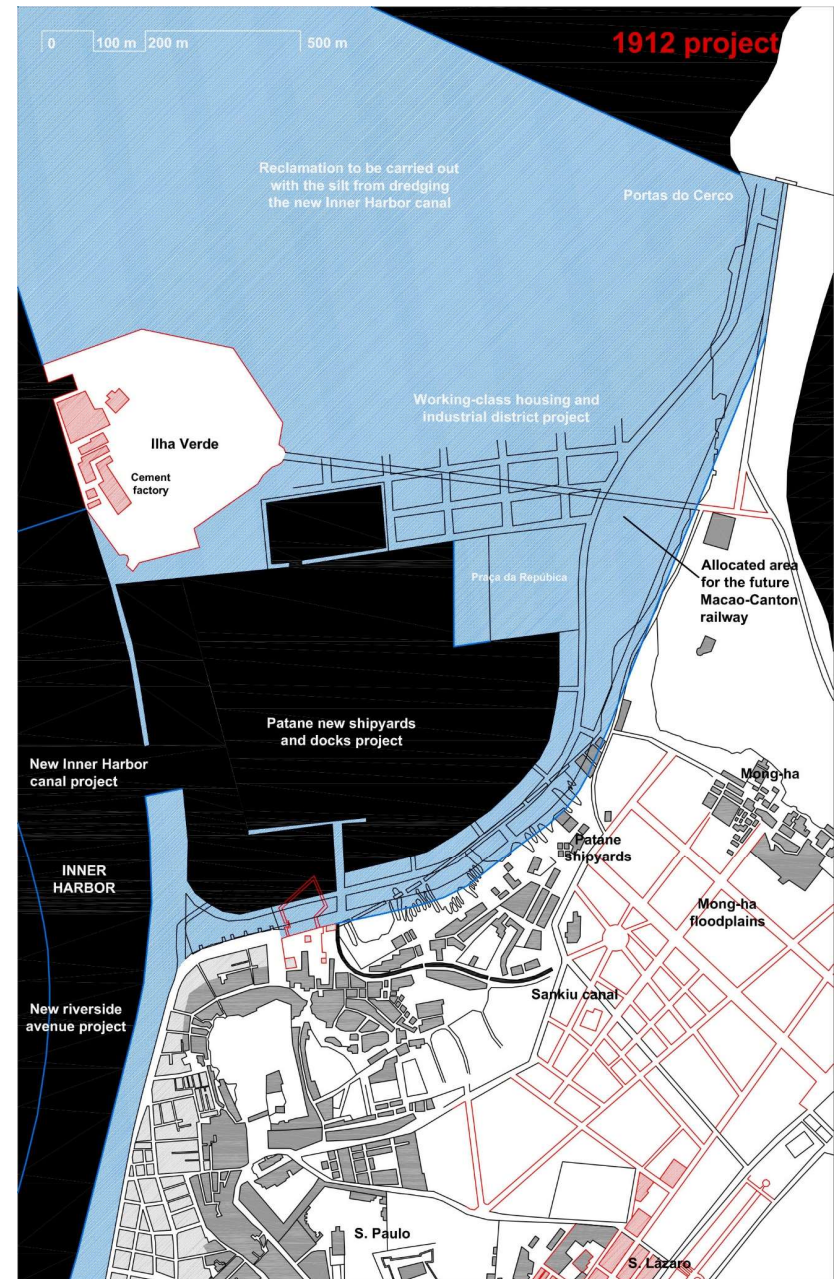
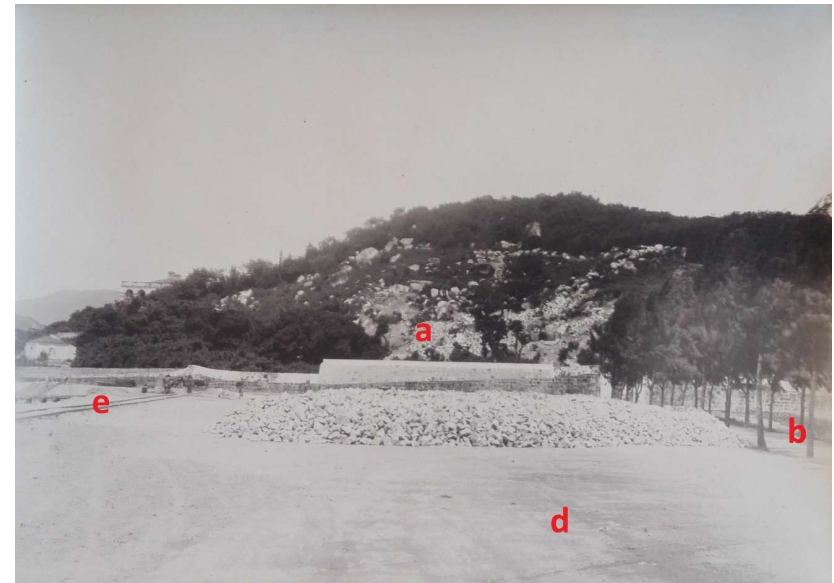
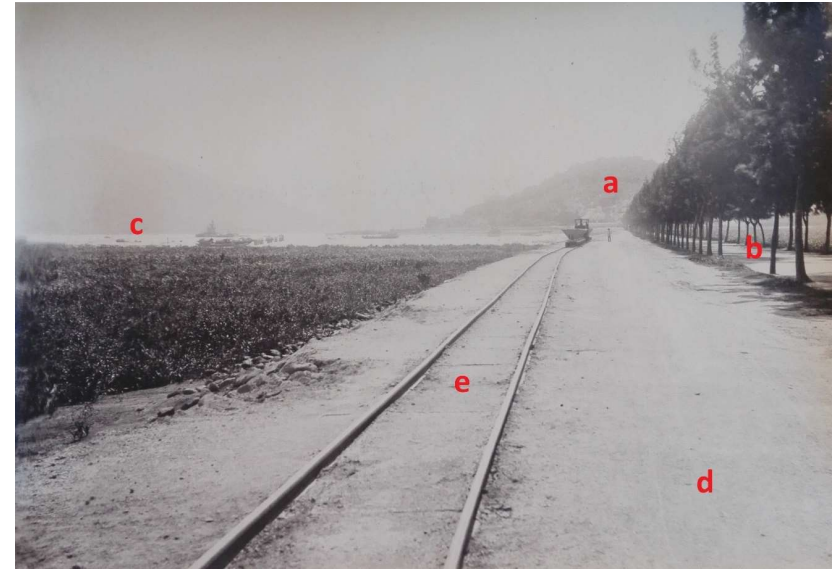
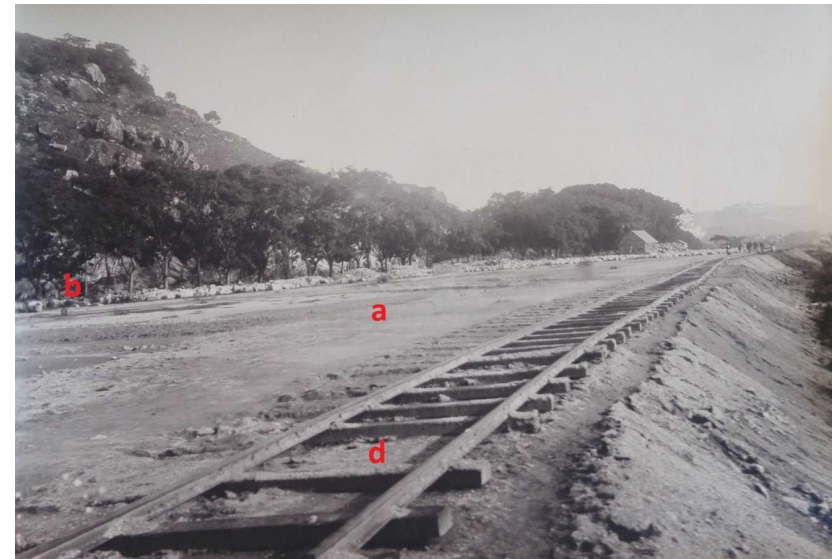


Fig. 168. The 1912 Castel Branco Inner Harbor Improvement Project. Interpretation of the February 17, 1912 Castel Branco plan (Fig. 167), as well as of the 1912 historical map, superimposed on the 2015 general map. Focus on the Patane docks and reclamation complex.



Figs. 169 and 170. Photographs showing the first Patane reclamations being constructed along the Ilha Verde dam avenue. AHU, 2536-1B-MU-DGFTO mç., Harbor Works report from December 2, 1915, to May 31, 1916, by Administrative Council delegate Raúl Machado de Faria e Maia, May 31, 1916. a. Ilha Verde; b. the 1891 dam avenue; c. Inner Harbor; d. new reclamation; e. construction site railway serving to transport the rocks that were being extracted directly from the island's quarry alongside the new reclamation to form its foundations.



Figs. 171 and 172. Photographs showing the first Patane reclamations being constructed along the former riverside road leading to Portas do Cerco, corresponding to the allocated area for the future Macao-Canton railway (Fig. 168). AHU, 2536-1B-MU-DGFTO mç., Harbor Works report from December 2, 1915, to May 31, 1916, by Administrative Council delegate Raúl Machado de Faria e Maia, May 31, 1916. a. new reclamation; b. former riverside road leading to Portas do Cerco; c. the 1891 dam avenue; d. construction site railway.



Figs. 173, 174 and 175. Photographs showing the Patane shipyards. AHU, 2536-1B-MU-DGFTO mç., Harbor Works report from July 1914 to June 1917 by Administrative Council delegate Raúl Machado de Faria e Maia, June 1917. a. Patane shipyards; b. Rua das Pontes; c. the Inner Harbor at low tide.

Fig. 176. "Obras dos Portos de Macau. Esboço das linhas gerais do plano de obras da Missão de Melhoramentos dos Portos de Macau," in Hugo Carvalho de Lacerda, *Porto Artificial na Rada de Macau. Anteprojecto. Discussões a que deu lugar e resumo de documentos principais que lhe dizem respeito até a sua aprovação definitiva* (Macau: Conselho de Administração das Obras dos Portos de Macau, 1921).

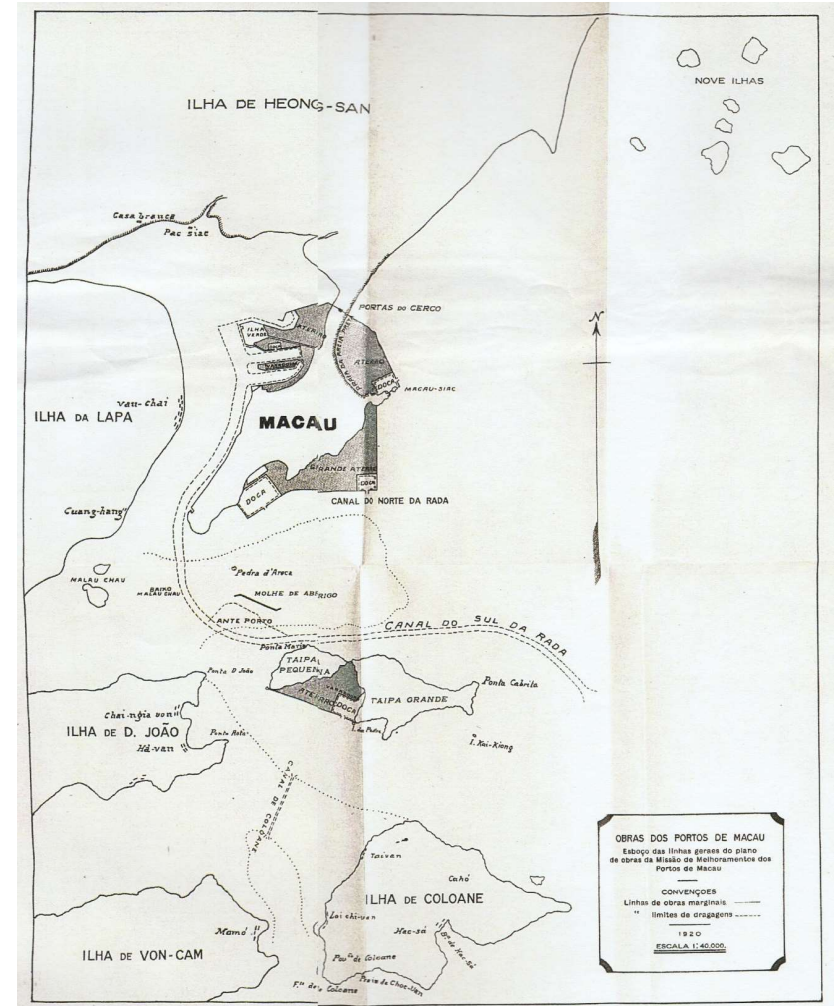


Fig. 177. “Obras dos Portos de Macau. Esboço do plano do porto artificial ao sul da península de Macau,” in Hugo Carvalho de Lacerda, *Porto Artificial na Rada de Macau. Anteprojecto. Discussões a que deu lugar e resumo de documentos principais que lhe dizem respeito até a sua aprovação definitiva* (Macau: Conselho de Administração das Obras dos Portos de Macau, 1921).

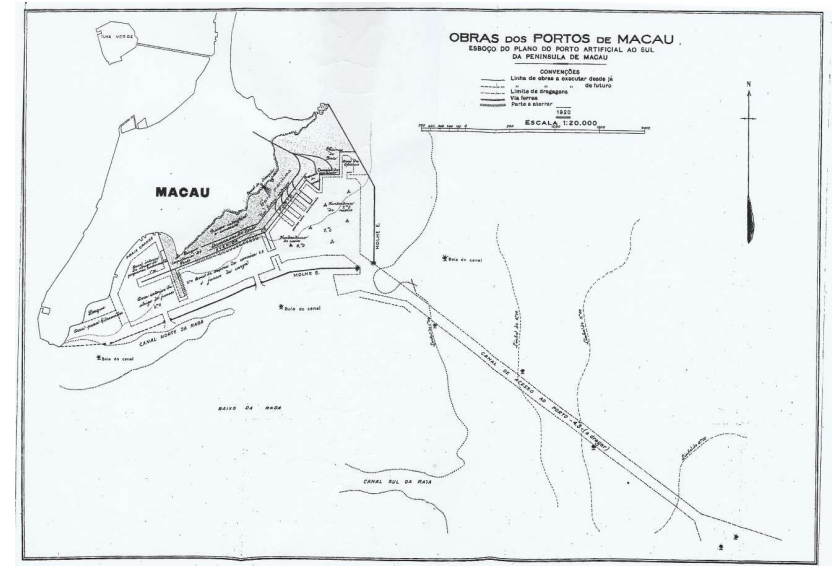


Fig. 178. Ilha Verde c.1920, in Cecília Jorge and Rogério Beltrão Coelho, *Álbum Macau: Sítios, Gentes e Vivências* (Macau: Livros do Oriente, 1991). a. Ilha Verde and its 1891 dam; b. reclamation conducted on the Patane bay until 1919; c. the Patane shipyards, as they were in the 1880s.

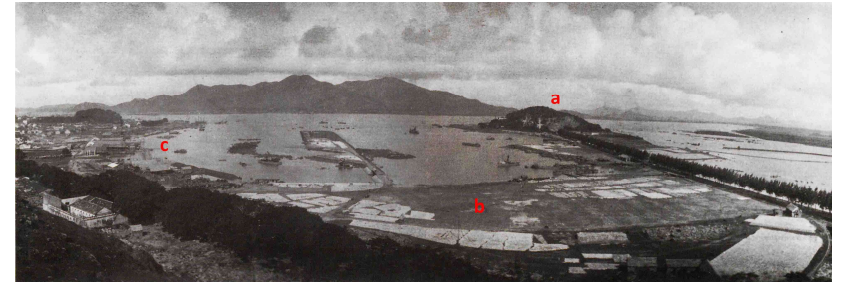


Fig. 179. The Patane bay c.1970, AM, MNL.01.01.011.f. a. the Patane shipyards; b. reclamation built in the middle of the bay, following the 1921 Hugo Carvalho de Lacerda revised docks complex and harbor improvement plan (Fig. 177).





Fig. 180. "Planta Geral da Cidade e Novo Porto de Macau. 1927. Escala 1:4000," João Carlos Alves, Director Interino das Obras dos Portos e João Barbosa Pires, Cefe da Secção de Propaganda do Porto, publicado pela Direcção das Obras do Porto de Macau, Maio de 1927, Biblioteca Nacional, Lisbon, Portugal.

Fig. 181. 1941 aerial photograph of the Macao peninsula. “Mosaico fotográfico de Macau, montado em 1952, com fotografias realizadas em Março de 1941,” in Filipe Jorge and Francisco Figueira, *Macao Visto do Céu* (Lisboa: Argumentum, 1999), 17.



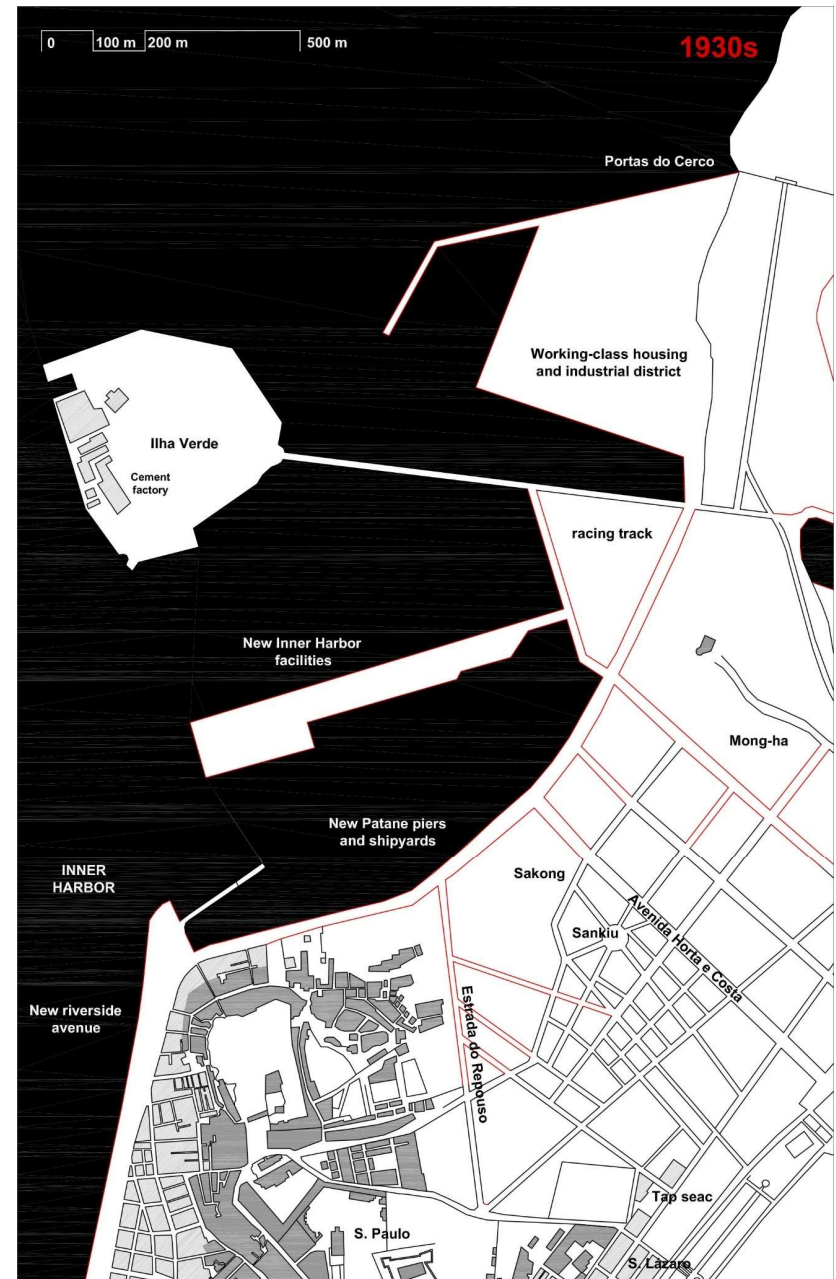


Fig. 182. The Macao Inner Harbor in the 1930s. Interpretation of the 1912 historical map, superimposed on the 2015 general map. Focus on the Patane docks and reclamation complex. Partial cadaster and restructuring works configuration hypothesis based on the interpretation of the 1941 aerial photograph of the Macao peninsula (Fig. 181).