Historical Notes on the Portuguese Fortress of Malacca (1511-1641)

Rui Manuel Loureiro

Within maritime Asia, Malacca was a most strategic port-city, which, in the words of Portuguese 16th century apothecary and geographer Tomé Pires, was placed "at the end of the monsoons". Its outstanding geographic position, at the connecting point of the Indian Ocean with the South China Sea, meant that Malacca was a crossroads for the most important Asian maritime routes. Well aware of this fact, the Portuguese, after their arrival in India, soon began to cast

covetous eyes on the Malayan port that soon was to play a vital role in their overseas empire. For 130 years, the Portuguese *Estado da Índia* controlled the port-city of Malacca, since its conquest by Afonso de Albuquerque in 1511 until its fall to the Dutch in 1641.² Portuguese supremacy in Malacca was due, in large part, to the powerful fortress that for decades was one of the most impressive strongholds in maritime Southeast Asia. On the basis of several Portuguese drawings produced in the 16th and 17th centuries, it is possible to outline the history of *A Famosa*, as this mighty fortress was styled in early modern European sources.

THE DRAWING BY GASPAR CORREIA, C.1530

In 1506 the Portuguese Crown was already planning the occupation of Malacca, because a letter

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Plate 1. Malay cannon in Lisbon's Military Museum.

from King Manuel I in that year mentions that he was sending from Lisbon to India "half of a wooden fort", to be mounted in Malacca, along with sundry pieces of artillery; this incomplete fortification to be closed "with a good ditch and some strong ramparts". As to the location of the stronghold, the Portuguese monarch mentioned that the captains in charge should choose a proper spot, "strong and healthy, with a good harbour", and "with

water within or close by". The emplacement of the fort, furthermore, "should allow the commerce of merchandise". The Portuguese ships would reach Malacca for the first time only three years later. But King Manuel I was certainly planning ahead, trying to accomplish his Oriental project of establishing a Portuguese network of factories and fortresses throughout maritime Asia, in order to interfere with the main routes trading in luxurious commodities.

The first concrete news about Malacca was collected by the expedition of Diogo Lopes de Sequeira, which visited the Malay sultanate in 1509. After initial peaceful contacts, however, there were confrontations, and the Portuguese ships withdrew, leaving some prisoners behind. Rui de Araújo was one of these men, and he was soon sending information about Malacca to the Portuguese in India, specifically about the size of the city, its trading communities and the activities of the population. "There are more or less 10000 houses in Malacca", he wrote, stating that about 500 were made of stone and clay, while all the others were made of vegetable materials. There were about 4000 fighting men in Malacca, but their weapons were not very impressive,

consisting mainly of swords, bows, and zarbatanes, while the existing cannons [plate 1] were very primitive. A Rui de Araújo also stressed the extraordinary commercial importance of Malacca, calling attention to the most valuable commodities that were transacted there, originating from such different places as China, Borneo, Java, Sumatra, Siam, Cambodia, Pegu and Bengal.

The representatives of the Portuguese Crown in India soon decided to make a second run for Malacca, and a powerful expedition of 16 ships and 1600 men arrived there in July 1511 under the command of Afonso de Albuquerque. After a violent and swift military campaign, the Malacca Sultan, with his entourage, fled to the southern parts of the Malay Peninsula, and the Portuguese were left in control of the famous port-city. Albuquerque immediately decided to occupy Malacca, and have a fortress built on the most appropriate spot, since his plans included the establishment of Portuguese strongholds in the most strategic locations within maritime Asia, such as Hormuz, Goa, and Malacca proper. The construction of a fortress was dependent on a series of factors. First of all, there was the local topography. Then, there was the question of available materials and available manpower. The kind of relations that had been established with local policies was also important. Lastly, the military capabilities of potential enemies had to be taken into consideration. The Portuguese, in most instances, were building their overseas fortresses by the sea, in order to be able to receive support and supplies from their powerful ships.⁵ Also, if the ships were protected by the fortresses' guns, they could be safely loaded and unloaded. Furthermore, since the takeover of Malacca had been a violent one, some sort of fortification had to be built to guarantee the safe-guard of the Portuguese garrison that was going to be left behind.

European contemporary sources include a few details about the building of *A Famosa* (or The Famous), as the Malacca fortress would later become known. Giovanni da Empoli, the Italian factor who worked with the Portuguese and took part in the conquest of the Malay city, in a letter to his father dated 1514 mentions, as an eye-witness, the building of the fortress: "The Captain-general [he is alluding to Albuquerque] with some of the men, with great haste by day, and by night with torches, built a fort with wooden planks with many heavy logs around it and much artillery, and in a month made it strong. As soon as it was strong enough, we set

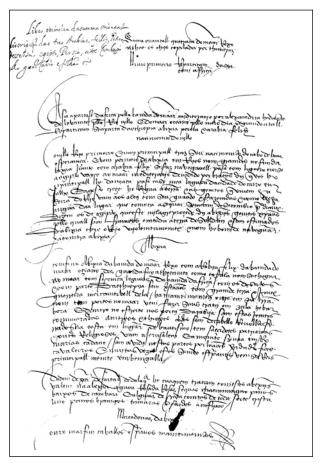


Plate 2. Tomé Pires's, Suma Oriental.

about making one of stone, which we built by pulling down the houses of the Moors and the mosques and other buildings of theirs. It was a difficult task carrying the stones on our backs, and every man was labourer, bricklayer and stonemason,6 and while we were doing this there was much noisy activity from the enemy, and almost every day they attacked us, first from one side, then from the other, now from the sea, now from the land. The fort was built with our arms always beside us in an unbearable heat of the sun".7 The building of a wooden fortress, a sort of palisade where the men could be protected from assaults by the enemy, was common practice for the Portuguese, and had been done before, in other Asian locations. Sometimes, and this was probably the case with Malacca (as seen before), a part of the wooden stronghold was carried on board the Portuguese ships, with the pieces already cut and prepared, which only had to be assembled at the chosen spot. The speed of the construction assured the Portuguese a precious advantage over possible assailants.

Rui de Brito Patalim, first Portuguese captain of Malacca, was in charge of finishing the fortification and organizing Malacca's return to normal life. He mentions the fortress in several of his letters to the Portuguese authorities. In a letter to King Manuel I (6-01-1514), he stated: "Work is being done at the fortress. The tower is quite high and large, with handsome houses of fine wood. Each storey has 21-22 palms [palmos, about 4.8 meters]. I intend to build a 5 storey tower, 130 palms high [about 28 meters], with battlements [ameias], in order that the sea will be seen over the hill".8 In another letter to Afonso de Albuquerque (6-01-1514), he further added that "The pointed roof [corucheo] in the middle is 55 palms high [about 12 meters]; and the trusses [asnas] are 60 palms [about 13.2 meters] wide". The several floors of the tower were very high, made with very long and straight wood that came from a place called "Caçam", about 2 leagues (10 km) from Malacca. In three months time the Portuguese captain expected to have the tower finished. The tower was so high in order to be used as a watch point towards the sea. The roof of the tower was to be covered with melted lead.9 Tomé Pires, who lived in Malacca between 1512 and 1515, in his Suma Oriental [plate 2] also mentions the "famous fortress", which was built "on the site of the great mosque", with walls of "great width" and a tower of "five storeys". He states that on "one side the sea washes against it, and on the other the river".10

Further details about the fortress built by the engineer Tomás Fernandes, under the orders first of Afonso de Albuquerque and then of Rui de Brito Patalim, only emerge later on, in the several Portuguese chronicles that were written by the middle of the 16th century. Perhaps the most trustworthy of all is that of Gaspar Correia, who was a personal secretary to Albuquerque and who lived in India for half a century. Until his demise around 1563, Correia compiled his monumental Lendas da Índia (Legends of India), a history of Portuguese activities in the East since the days of Vasco da Gama. But the work was only published in modern times. He probably didn't go to Malacca with Albuquerque, but he collected trustworthy information from the men on the spot. In chapter 29 of his 'Legend of Albuquerque', events surrounding the conquest of Malacca are dealt with at great length. Apparently, the Portuguese finished their wooden fort using many junks that were anchored in the harbour and which were torn apart, along with wooden casks, filled with earth. Only afterwards, when there was

some sort of protection from enemy assaults, did the Portuguese set about building the stone fortress.

The chosen spot was by the waterfront, at the mouth of the Malacca River. The foundations for the tower were deep, and 20 feet wide, while the foundations for the walls of the fortress were 12 feet wide. At each corner of the fortress there was a square tower, with a wooden ceiling, level with the walls of the fortress. The laying of the foundations took two months. Since there was a lack of stone for the walls, Albuquerque hired 300 local men to tear apart "a great mosque of masonry, and other smaller ones, and many tombs of Muslims, where there was plenty of stone". In the next four months, another 700 men were in charge of making lime [cal], from the shells of the abundant shellfish, and of laying the walls of the fortress, that were lifted gradually all around the designated space near the beach, "up to the height of a man" (although it seems a bit low for a fortress wall). Apparently, the work had to be interrupted for one and a half months



The "torre de menagem" (or dungeon tower), as Gaspar Correia styles it, was four storeys high: the first floor was 20 feet high; the second, 15 feet; the third, 12 feet; and the last, 8 feet. The ceilings were made of very strong and long wooden beams, 40 feet wide, for such was the measure of the square tower at ground level. "Each floor had four windows, all equipped with heavy pieces of artillery, and on top there was a terrace, from where it was possible to fire falcons. The tower was covered with mortar [argamassada] on its sides; on top there was a very high pointed roof [corucheo] and four smaller pyramidal ornaments [corucheos] at the corners, all [five of them] covered in lead and tin paste". The captain and the officers were going to live in the tower, while the soldiers settled in the houses that were built inside the fortress. Gaspar Correia states that the fortress was approximately square, the inside space being "300 fathoms [braças] wide" [probably a mistake for 30 fathoms, which means 66 meters], 11 and that there were two wells excavated inside. On the wall that ran along the beach there was "a small door, like the one in a regular house", two fathoms [braças] high above ground level,12 with a narrow stair, only large enough for a man. Above this door there was a stone with the Portuguese coat of arms, a cross above it, and two armillary spheres on both sides. "On the river side there was a smaller door".13

Gaspar Correia's descrition is in itself quite graphic. But he further adds to his Lendas da Índia the only known drawing of the Malacca fortress [plate 3] in the first half of the 16th century, a bird's-eye view of A Famosa, which is kept at the Arquivo Nacional da Torre

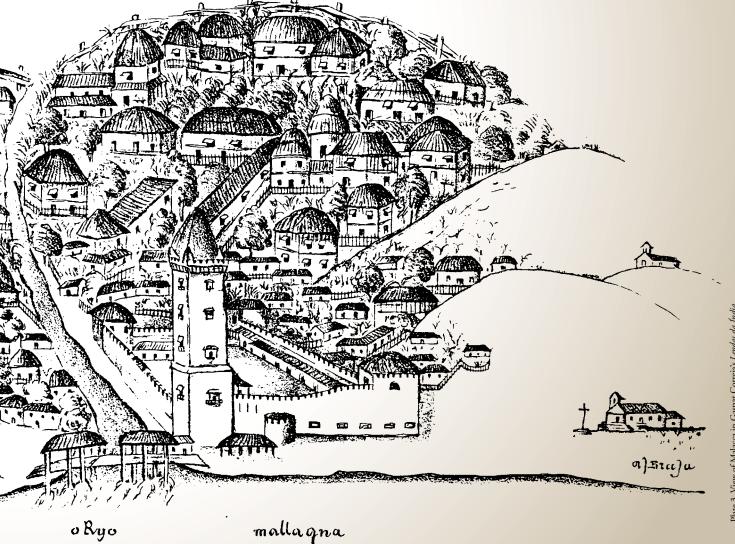


Plate 3. View of Malacca in Gaspar Correia's *Lendas da Índ*

do Tombo, in Lisbon. There is no doubt that he was the draughtsman, but three questions remain: Did he actually see the fortress? Did he depict the town correctly? And when was the drawing made? The drawing seems to correspond to the description of the fortress, and it is probably an accurate enough depiction of



Plate 4. Fernão Lopes de Castanheda's História do Descobrimento e Conquista da Índia pelos Portugueses.

the first Malacca stronghold. But, judging from later representations of Malacca, it appears that the fortress is not correctly placed on the local topography, being slightly turned clockwise. And this could only have happened if Correia did not visit Malacca in his

Plate 5. João de Barros's Décadas da Ásia.



lifetime, but rather did his drawing based on hear-say or on sketches made by someone else. As to the actual size of the city, it has been argued that the representation of Malacca does not correspond to 16th century descriptions, some of which claim the city had close to 100,000 inhabitants. Probably, the demography of

Malacca has to be reconsidered, since the Portuguese sources were usually exaggerated, because the local officers were always trying to attract the attention of higher authorities to the importance of their own work. Whatever the case, since he probably never saw Malacca with his own eyes, Gaspar Correia was trying to depict the sort of constructions that his informants had told him about.

As to the dating, it is very difficult to guess, since it seems clear that there were no significant improvements to the original design of the fortress in the first half of the 16th century. The Portuguese stronghold was strong enough as it was, taking into consideration the existing threats. Local polities that antagonised Malacca, at least until 1550, did not have available the kind of artillery, and the kind of military expertise, that was necessary to defeat such a fortification. Most confrontations took place in other points of the Malay Peninsula or in the waters of the Straits of Malacca, the Portuguese usually having the upper hand, thanks to their superior fire-power and naval capabilities. The only significant reference that can be used is the request made in 1546 by the Portuguese King João III to his Governor in India, that he "would like to see the drawings of the main fortresses" he possessed in Asia, requesting that some local expert immediately set about compiling this work. 14 Maybe Gaspar Correia was chosen to carry out such a task, since his Lendas da Índia are illustrated with 11 drawings of important Asian port-cities. But, most probably, the drawing represents Malacca as it was in the early 1520s (as will be evident later).

Other 16th century chronicles of Portuguese activities in Asia were published in the middle of the 16th century, such as the *História do Descobrimento e Conquista da Índia pelos Portugueses* (Coimbra, 1551-1554), by Fernão Lopes de Castanheda; the *Décadas da Ásia* (Lisbon, 1552-1563), by João de Barros; and the *Comentários de Afonso de Albuquerque* (Lisbon, 1556), by his son Brás de Albuquerque. They all include details about the conquest of Malacca and about the construction of the Portuguese fortress, which can complete the sketch drawn by Gaspar Correia.

- Lopes de Castanheda [plate 4], who lived in India but never visited Malacca, mentions that the walls were "8 feet thick, all in ashlar [cantaria]" and that the foundations of the fortress were "as deep as half a war lance" [maybe 1.5 meters]. He stressed that the fortress was built by the beach so "the watch tower could receive help from the sea". 15
- João de Barros [plate 5], who never visited Asia, mentions the use by Albuquerque of "ambarajas" [the hamba raja, or royal slaves] in the construction of the fortress, and also the use of elephants to move heavy stones.¹⁶
- Brás de Albuquerque [plate 6] mentions the great mosque which stood at the emplacement of the fortress, implying that the materials of the building were reused by the Portuguese. He also alludes to a curious detail. His father had a stone engraved with the names of the most important Portuguese captains who participated in the conquest of Malacca, raising the protests of those not mentioned. So, Albuquerque ordered the flagstone should be placed above the door of the fortress, but with the names turned inside; and on the side of the stone that was showing he had some words engraved: "Lapidem, quem reprobaverunt edificantes", a quote from the Bible meaning "The stone that the builders despised".17

THE 1568 ANONYMOUS DRAWING

A curious and little known bird's-eye view of Malacca [plate 7] was drawn in 1568 by an anonymous Portuguese cartographer living in that city. It is today kept at the Biblioteca Nacional, in Rio de Janeiro (Brazil). The drawing represents the great siege of the

Malacca fortress in 1568, by the armies of Aceh. This sultanate in the northern tip of Sumatra had been steadily expanding its territories, and was receiving military support from the Ottomans, in the form of guns and military advisers, thus becoming in the second half of the 16th century the most serious enemy of Portuguese Malacca.¹⁸ Part of the caption on the lower left side reads: "Sultan Allaharadim ['Ala ad-Din Ri'ayat Syah], ruler of Acheh and other kingdoms, came to lay siege on the city of Malacca . . . with 300 ships and 15,000 fighting men, including many Turks and mercenaries of other nations". And it also states that the Portuguese captain, Leonis Pereira, who was in service from 1567 to 1570, "defended the fortress with 200 Portuguese . . . and succeeded in overcoming the siege".19

As one commentator noticed, "the sharpness and extreme precision of the draughtsman's hand and his mastery of perspectives gives this drawing a professional touch which is unmatched by other known depictions of the city". ²⁰ This is certainly a very faithful representation of Malacca, notably of the area *intra-muros* (within

Plate 6. Brás de Albuquerque's Comentários de Afonso de Albuquerque.



the walls), the Portuguese settlement, since the several kampongs around the city walls seem to be reduced in relative proportions. The general urban features are well designed, and the streets are well sketched, details of many buildings are clearly visible, such as the different shapes of roofs or the second storeys of some houses that appear to be made of wood, while "some more durable material was used for their ground floors". 21 It is possible to identify and locate the strategic buildings, from the point of view of urban organization [plate 8], such as: the São Domingos Church and Convent (b); the Customs House or alfândega (c); the Bishop's Palace (d); the Nossa Senhora da Assunção Cathedral (e); the Municipal Council and Prison (f); the Pauper's Hospital (g); the Misericórdia or Confraternity of Mercy (h); the Bell Tower (i); the Church of Nossa Senhora da Anunciada and Jesuit College (j); and the Royal Hospital (k).

Most notably, the outlines and many details of the Portuguese fortress are visible, transmitting a clear idea of its evolution since the days of Gaspar Correia's drawing. Several characteristics are worthwhile mentioning. First, there is the dungeon tower, which is square and has five storeys, being oriented in a slightly different manner than in the drawing included in the Lendas da Índia. The overall picture shows that from the top of the tower, as contemporary texts claim, it would be possible to see the shoreline over Malacca Hill. Then, secondly, the fortified protections of Malacca have increased enormously, since the original fortress is now only a small part of the Portuguese settlement, which has grown significantly. The city is almost completely surrounded by a wall, with powerful bastions in several corners. The characteristics of the walls can be gathered from several Portuguese sources. Apparently, only during the captaincy of Dom

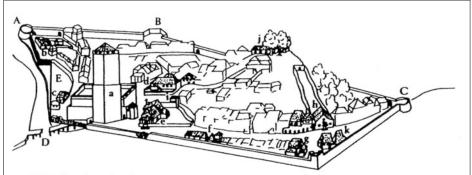
Plate 7. View of Malacca drawn in 1568 by an anonymous Portuguese cartographer.



Estevão da Gama, the son of Vasco da Gama, who ruled Malacca between 1534 and 1538, the Portuguese town was encircled with "taipa walls (that is of earth and pebbles beaten together with pestles)".22 This addition was made after the first Acehnese attack on Malacca in 1537, when the existing scattered palisades were substituted by strong taipa walls. The palisades can still be seen in Gaspar Correia's drawing, which means that it must be dated before 1537.

In the 1568 anonymous drawing, the Malacca walls seem to be made of different materials. The stretch along the River, starting near the tower, appears to be a simple wooden palisade, for this

was probably the less likely area from which an attack would be launched on the town. Then, there is a large round bastion, which was named Baluarte de São Domingos (A). What appears to be a stone wall continues to another bastion, known as Baluarte da Madre de Deus (B), which is wide open. After that, the wall encircles Malacca Hill, all the way to the Baluarte de Santiago (C). Later sources mention another bastion, the Baluarte das Onze Mil Virgens [Eleven Thousand Virgins], which in the drawing under consideration is hidden behind the Hill. Finally, there is a continuous stone wall, along the beach, all the way to the River. The first known document to mention the bastions by name is a letter written in 1568 by Lourenço Peres, a Jesuit Father who witnessed the siege of Malacca. In his account, he adds some interesting information, namely that the bastion of the Madre de Deus (B) was built of taipa, and because enemy artillery was destroying it, the Portuguese immediately "built a very strong stone wall in the interior [of the bastion], which thus became safe".23 This means that by 1568, and contrary to what has been assumed, this part of the fortress was not made



- A São Domingos bastion
- B Madre de Deos bastion
- C São Tiago bastion and neighbouring gate [The Onze Mil Virgens bastion is hidden by Melaka Hill]
- D Bridge over the Melaka River
- E Riverside slip (ribeira)
- a A Famosa fortress
- b São Domingos Church and Convent
- c Customs House (alfandega)
- d Bishop's Palace
- e N.S. da Asumpção Cathedral
- f Municipal Council and prison (câmara and aljube)
- g Pauper Hospital
- h Misericórdia (Church and seat of the Confraternity of Mercy)
- i Bell tower
- j Church of N.S. da Anunciada and Jesuit College
- k Royal Hospital

Plate 8. Pierre-Yves Manguin, "Of Fortress and Galleys: The 1568 Acehnese Siege of Melaka, after a Contemporary Bird's-eye View". *Modern Asian Studies*, vol. 22, no. 3, 1988.

of stone. Another witness of the siege, whose testimony is reproduced by the 16th century chronicler Diogo do Couto, claimed that the "Fortress had all around 1,000 fathoms [2,200 meters], with no more than three bastions and one rampart [*cubelo*]".²⁴

The stone walls, so it seems, were erected during the captaincy of Dom Diogo de Meneses (1564-1567), following orders from Portuguese authorities in India, alarmed at the repeated attacks on Malacca originating from Aceh and from other Muslim polities in the Straits of Malacca, and also aware that many of these Muslim rulers were receiving military advice and artillery supplies from the Ottomans, all the way from the Red Sea.²⁵ And the fortifications were finished just in time to counter the great Acehnese assault of 1568, which was successfully repelled by captain Dom Leonis Pereira (1567-1570), although the Acehnese brought more than 200 bronze cannons, according to Portuguese sources. Besides its stone walls, Malacca had also just recently received artillery reinforcements from Goa. "The completion around the whole Portuguese settlement of a solid, fortified wall made of



Plate 9. Portrait of D. Sebastião by Cristóvão de Morais, 1572.

durable materials was no doubt a radical innovation in Southeast Asian warfare".²⁶

MANUEL GODINHO DE ERÉDIA'S MATERIALS

The 1580s brought paramount changes to the Portuguese enterprises in India. After young King Sebastião [plate 9] disappeared at the battle of Ksarel-Kebir, in Morocco in 1578, the vacant Portuguese Crown was claimed, and occupied, by Felipe II (I of Portugal), mighty ruler of Spain and its worldwide empire. And the Iberian Union, which was to last until 1640, immediately brought about a more organized and efficient administration to Portugal and its overseas empire. King Felipe and his advisers urgently wanted to know exactly how things stood, and pressing inquiries were dispatched to Goa, to find out the veritable extent of Portuguese assets in the East and the real situation of its human and material resources. After all, the gathering of basic intelligence had to be on the basis of royal directives concerning the management of such a large empire.27 Detailed reports were sent back to Madrid, and among these the anonymous manuscript Livro das Cidades e Fortalezas que a Coroa de Portugal tem nas Partes da India [Book of the cities and fortresses that the Crown of Portugal possesses in the Indies], which presented a detailed and up-to-date description of Portuguese possessions in the vast regions comprised between the Cape of Good Hope and the archipelago of Japan.

This important report, prepared in 1582, gathered valuable information about Portuguese fortresses and their personnel, together with data on the expenses and revenues of each one of these outposts. Furthermore, the political and military situation of each fortress was clearly assessed, with information being added about the local or regional contexts. Malacca, of course, was also part of this anonymous report, which claimed, with some exaggeration, that the Luso-Malayan port "was the biggest and richest emporium in the world, where there was more flux and trade of all sorts of merchandises". About Malacca's defences, the author claimed that it was "encircled all around by walls of stone and lime and taipa, with very strong bastions", and that it had a "dungeon tower so high, that it overlooked the top of the nearby hill". In the wall's bastions, which were plain [rasos], there were many ordnance pieces, that could fire in all directions.²⁸ Curiously enough, this source confirms the diversified nature of the walls of Malacca fortress.

Plate 10. Manuel Godinho de Erédia's self-portrait, 1615.



One of the reactions of the Iberian Crown to the materials received from Goa was to dispatch to India Giovanni Battista Cairati (or João Batista Cairato, as he is known in Portuguese sources), charged with the urgent task of surveying and rebuilding the most strategic of the Portuguese fortresses. The Italian architect sailed from Lisbon in 1585 and for several years had his hands full, travelling from one Portuguese settlement to the next, all across the Indian Ocean, drawing plans for new fortresses, consolidating existing structures, and directing the building of new ones. He was responsible for the effective introduction in the Eastern Portuguese settlements of new Italian models of fortification, adapted to most recent technological developments in the field of warfare. It is not clear if Cairati ever went to Malacca before his demise in 1596. A letter from the Iberian Crown to the Portuguese authorities in India, dated January 1588, ordered Cairati to proceed to Malacca immediately, in order to inspect the reconstructions being done at the fortress there and to take care of any innovations that were deemed necessary. None of Cairati's drawings have been found. A letter written in 1595 by the chronicler Diogo do Couto, who was then keeper of the Goa archives, states that Giovanni Battista was heading back to Portugal in that year's India fleet, and that he was carrying back a written "report", illustrated with "drawings of the fortifications" he had planned, inspected or rebuilt. However, he had kept those materials secret, whishing to present "everything" to the King before he allowed any copies to be made.²⁹

Like any other master-architect, Cairati was assisted by draughtsmen recruited in India. And one of his collaborators was Manuel Godinho de Erédia [plate 10] well-known Luso-Malay cosmographer, born in Malacca in 1563, and who studied with the Goan Jesuits, showing particular aptitudes in the fields of mathematics and drawing.³⁰ Godinho de Erédia is the author of a number of important iconographic documents about Malacca, a place were he spent his childhood. On the orders of the Portuguese authorities in India, he embarked in 1601 in the fleet of André Furtado de Mendonça, which was bound for Malacca, from whence came alarming news of military distress, caused not only by serious and persistent attacks of Asian foes, but also by the unexpected and repeated arrival of Dutch ships to those parts. One of the direst consequences of the Iberian Union was that the

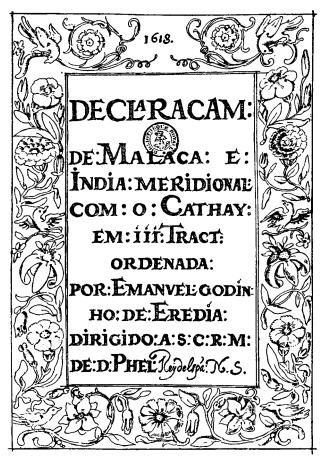
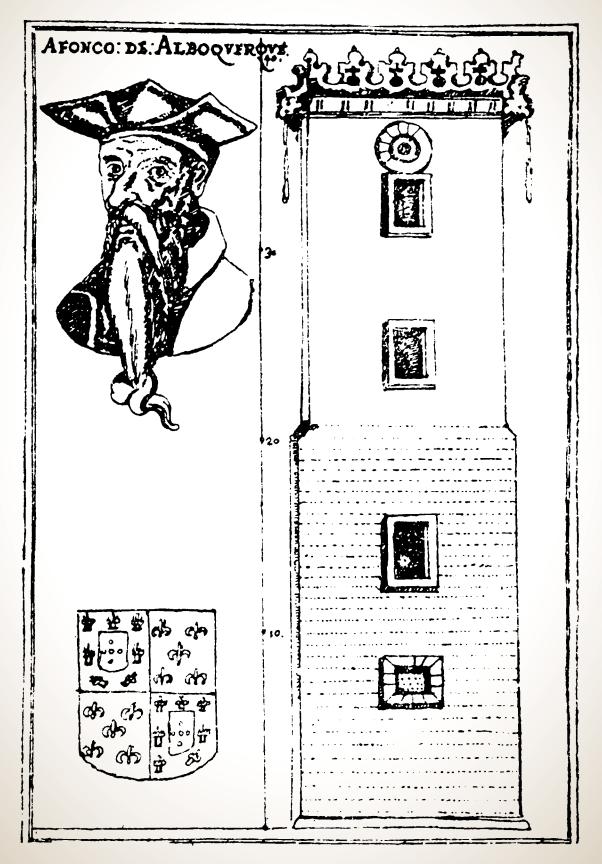


Plate 11. Frontispiece of Declaraçam de Malaca, 1613.

European enemies of Felipe II, and namely the English and the Dutch, immediately launched naval campaigns against Portugal's and Spain's overseas empires.³¹ The Dutch fleets, after their first successful voyage to Java in 1595-1596, concentrated their attentions on acquiring strategic positions in the Malayan Peninsula and in the Indonesian Archipelago, trying to overcome the Portuguese as intermediaries in the trade of precious Asian commodities.

So, for several years, Erédia was kept busy by the Portuguese Crown's officers, patrolling the Straits of Malacca and Singapore, planning and building fortresses, and undertaking geological surveys. During his wanderings through the Malayan Peninsula, Erédia fell ill with beriberi, and in 1606 he was forced to travel back to Goa to recover. He took with him several maps, surveys and sketches of Malacca, which in later years he included in his many cartographic atlases and in his famous *Declaraçam de Malaca* [plate 11].³² This was Erédia's most ambitious and most extensive work,



ate 12. The dungeon tower

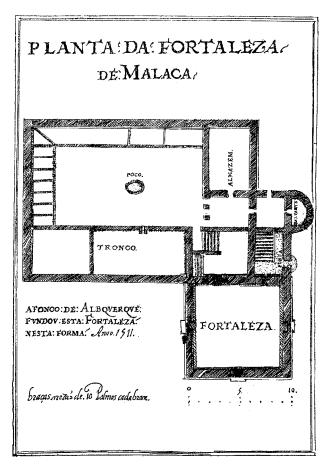


Plate 13. Plan of the Malacca fort.

which was concluded in 1613 in Goa. The first part is dedicated to "Malaca e seu destricto", and includes a thorough description of Malacca and its hinterland, illustrated with maps, portraits of people, drawings of plants, animals and ships. Several of the drawings deserve attention.

First, there is the drawing of the dungeon tower [plate 12], five storeys high, "in shape a quadrilateral, of which each side measured 10 fathoms [braças]; its height was 40 fathoms".³³ Certainly, Erédia's *braças*, or fathoms, are smaller than the ones mentioned in other sources. Otherwise, the fortress would have a base of 22 meters and a height of 88 meters. One guess is that Erédia's braça was 70 cm long, and that the measures he mentions could be 20 fathoms for the base (which is a possible reading of the original manuscript) and 40 fathoms for the height. Curiously enough, Erédia's representation of the tower, besides a portrait of Afonso de Albuquerque, includes measurements of the several storeys, which can be compared to Gaspar Correia's

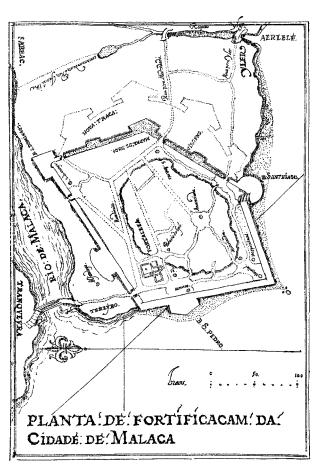


Plate 14. Another plan of the Malacca fortress.

indications. The next interesting drawing is an elaborate plan of the Malacca fort [plate 13], showing the inside distribution of space. This plan, in a smaller scale, is included in another drawing, representing the complete Portuguese fortress [plate 14]. The text of the *Declaraçam* gives some references to the fort, namely that "there is a wall of stone and lime all around, and to the east, and inside [the fort], there is a well of water, to be used in times of disturbance or war".³⁴ Erédia's designs, when associated with Gaspar Correia's drawing, offer a realistic image of the original fortress built by Albuquerque, including details about the tower, about the entrance, and about the interior distribution of space.

Then, there is the complete depiction of the Portuguese fortress, a bird's-eye view entitled "Fabrica da Cidade de Malaca Intramuros Anno 1614" [plate 15], together with a list of captions.³⁵ The representation of Malacca does not seem to be totally accurate, since the perspective is irregular, emphasizing certain features of the urban space. But when compared with the

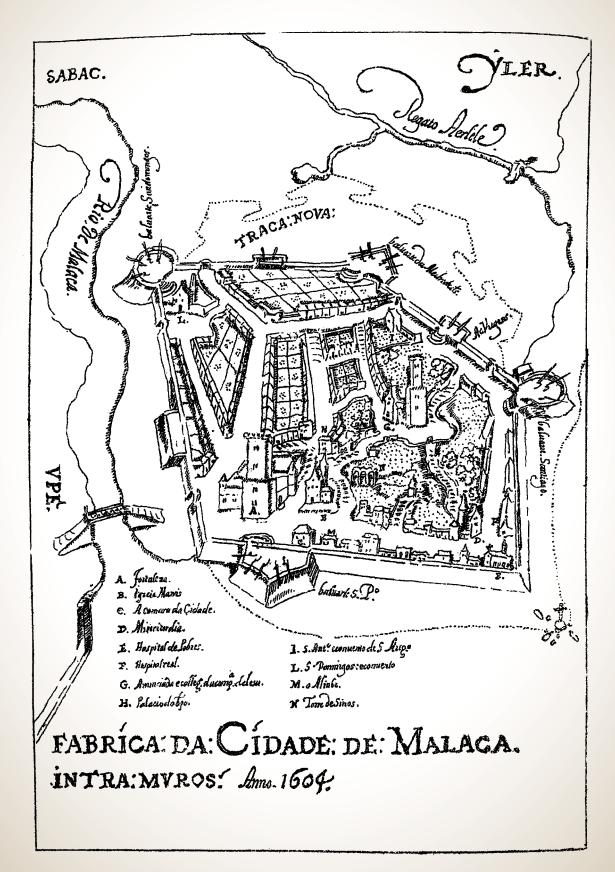


Plate 15. "Fabrica da Cidade de Malaca Intramuros Anno 1614".

anonymous 1568 drawing, there are some substantial differences. The walls appear to be completely made of stone all around, including the stretch of wall along the river, where a rectangular rampart was added, perhaps to protect the Customs House. The bastion of As Virgens appears clearly drawn, having also a rectangular form. And, most notably, a new bastion was built on the seafront, the Baluarte de São Pedro, in some sources styled as the Couraça, which was certainly meant to reinforce the security of the harbour, in face of incoming threats from Dutch shipping. The polygonal bastion had a platform, where guns were mounted. Meanwhile, several doors are shown on the walls of the fortress. The captions identify the main constructions within the Portuguese walled town: a) Fortress; b) Main Church; c) Municipality; d) House of Mercy; e) Pauper Hospital; f) Royal Hospital; g) Jesuit Church and College; h) Bishop's Palace; i) Augustinian Convent; j) Dominican Convent; m) Prison; n) Bell Tower. It will be noticed that the Jesuit Church and College, where Erédia studied in his youth, and which were completed around 1579, are clearly emphasized, by their dimensions.

Erédia's drawing is complemented by a textual description of the fortifications, which can be used to check his iconographic representation. First he mentions the "right angle" made by the walls near the water front, stating that the wall curtains made of stone and lime follow straight lines, one northwards to the mouth of the River, 130 fathoms [braças] long, the other "towards sunrise, with 75 fathoms", to the round Bastion of Santiago. Then the wall, also of stone and lime, follows the River for a distance of 150 fathoms, up to São Domingos' bastion, which is also round. Beyond the wall, which is now made of earth [he uses the word "matte"], stretches for 100 fathoms in the direction of the Madre de Deus, a new polygonal bastion. From here, another wall of earth runs for a distance of 100 fathoms until Santiago's, completing the fortress walls, in "such a manner that the full circle of the walls stretches for 655 fathoms, of 10 palms [palmos] each fathom". Erédia further adds that the "architect major João Baptista [Cairato]" designed plans for new stone walls, which in his drawing are identified as "Traça Nova" [New Design], but these were never finished.³⁶ The project of the fortification is also seen in another of Erédia's drawings, also included in the Declaracam de Malaca.

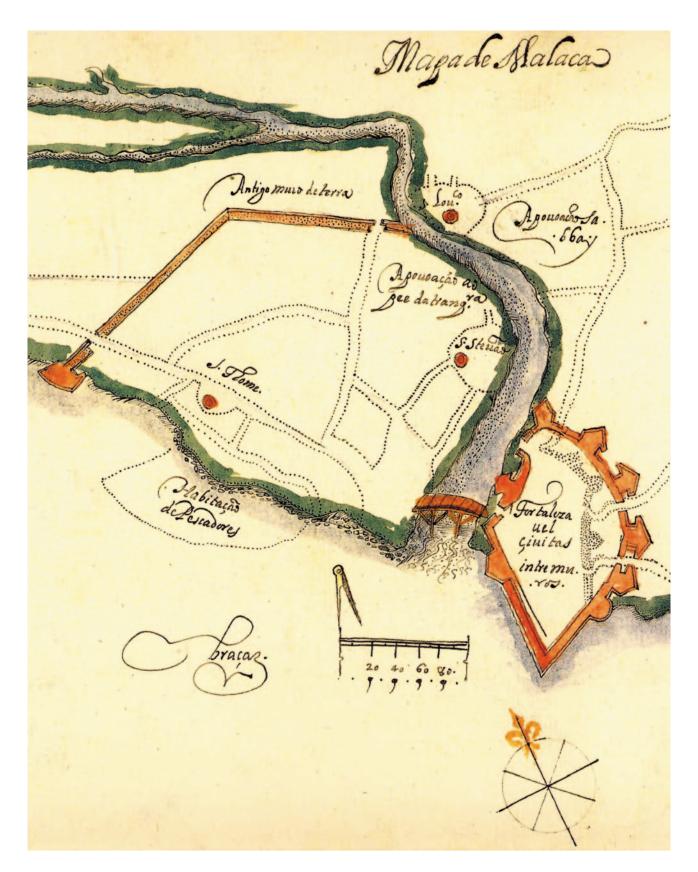
The transformations in Malacca fortress apparent in Erédia's drawing most probably reflected the

improvements done when Cairati was there, around 1588-1589, and also some reconstruction done in the 1590s. In fact, in 1596 the walls of Malacca were again in need of repair, since this request appears in letters from the local Municipality to the Iberian Crown, who answers in March of that same year about the "haste needed in the reconstruction of the walls of the city of Malacca".³⁷ The bastion of São Domingos was in a particularly dire condition, since it could not stand any artillery pieces. Judging from the look of this bastion in Erédia's drawing, it was certainly repaired before 1604, although, as Cairati had meant, it was not modernised to a polygonal shape.

By 1610, Portuguese Asia was beginning to endure some of the direst consequences of the Iberian Union. The Dutch Vereenigde Oostindische Compagnie, or VOC, founded in 1602, was concentrating its operations on Southeast Asia and on the South China Sea,³⁸ trying to establish bases in strategic places and trying to wrestle from the Portuguese fair shares of the lucrative Eastern trades. The times were, in fact, changing, and the Iberian Crown urgently requested sound intelligence regarding the existing Oriental fortresses, in order to be able to take defensive measures against the assaults of European rivals. Manuel Godinho de Erédia was the right man in the right place. He was stationed at Goa, he had travelled widely in the Indian Ocean, and he had precious mathematical and drawing skills. In the following years he produced sundry cartographic and topographic materials, dealing with the Portuguese fortifications in the East. Between 1610 and 1622 he produced two atlases, including dozens and dozens of maps, charts, plans, drawings, and many corresponding texts, which are generally titled Plans of the Fortresses of the Estado da Índia, in answer to the requests coming from Lisbon and Madrid. The atlases, of course, include lightly wash-coloured drawings of Malacca [plates 16 and 17], which is pictured from a bird's-eye view, where the overall image of the fortress is more important than any specific details about the town.

THE WATERCOLOURS OF PEDRO BARRETO RESENDE

Elsewhere in maritime Asia, European rivals kept their pressure on Portuguese positions. And so, the Iberian Crown kept demanding Goa for detailed intelligence about the situation in the Orient. In





Plates 16 and 17 (overleaf). Malacca, in Erédia's Lyvro de Plantafoma das Fortalezas da India.

1632, and again the following year, the Iberian King wrote to the Portuguese Viceroy in India, asking for "descriptions of all the coasts, ports, bays and anchorages in the Estado [da Índia]". The Count of Linhares immediately answered, declaring that he had entrusted the task to António Bocarro, one of his most trusted collaborators, who was then the official chronicler and keeper of the Goa archives. In answer to the Viceroy's command, António Bocarro prepared a lengthy *Livro das Plantas de todas as Fortalezas, Cidades e Povoações do Estado da Índia Oriental* [Book of the Plans of all the Fortresses, Towns and Villages of the East Indies], two copies of which were dispatched to Lisbon and Madrid in 1635.³⁹

Bocarro's work was extremely thorough, including all sorts of interesting and important data about

Portuguese establishments in the Orient, from East Africa to South China, including the condition of the Portuguese fortresses, the available resources in men, artillery, and military supplies, the local political contexts, the movements of trade and the customs' revenues, the most relevant institutions, and also the organics of the busiest maritime routes. There was a chapter on Malacca, with details about the Portuguese fortress. He mentioned that the town was "encircled with a stone and lime wall 20 feet high", which was "12 palms [palmos] wide at the bottom and 7 palms wide on the top". There were "six bastions, including the one they name the Couraça, each one with its name, all of them with platforms". Bocarro further added that the total circuit of the Malacca fortress was "410 paces [paços]".



Plate 18. The fortress of Malacca in António Bocarro's Livro das Plantas de todas as Fortalezas, Cidades e Povoações do Estado da Índia Oriental.

Other sources mention that since 1615 Malacca had a special 'war captain', which was António Pinto da Fonseca, who was in charge of maintaining the city's defence operations. He was notably responsible for the improvements made to the defensive systems, which were described by António Bocarro: two outer walls [contra muros], one that ran from the corner of the Hospital to the São Domingos bastion, the other that ran from Santiago bastion to the Madre de Deus one. Between the inner and the outer walls there was a space "14 palms wide, filled with rubble". Finally, Bocarro also mentions the tower where the captain lived, "five storeys high", square, 20 paces wide. Around it there was a wall, with its platform, "the same height and width as the city walls".40

António Bocarro was diligent enough to include in his *Livro das Plantas* several dozens of watercolour drawings of the fortresses he described, and also the coloured portraits of 44 governors and viceroys of the Portuguese *Estado da Índia*. He did not care

to reveal the name of his valuable collaborator, but contemporary sources identify this man as one Pedro Barreto de Resende, a Portuguese civil servant also based in Goa. In 1635 he had agreed to lend his drawings to António Bocarro, in exchange for the chronicler's textual information, and the complete *Livro das Plantas* was sent to Lisbon and Madrid, for the eyes of the Iberian King. One of the watercolours represents Malacca [plate 18], a bird's-eye view produced on the basis of information collected in Goa, since it is almost certain that Barreto de Resende did not visit the Malay Peninsula. He either received sketches made on sight by third parties, or he proceeded on the basis of oral or written information he could gather.

The fortress drawing is rather naïf and, although it is not geometrically accurate, it seems to combine a keen artistic interest with an eminently pragmatic purpose. Barreto de Resende probably used a geometric ground plan, which he then reshaped into a view with a vanishing point. As topographical paintings, and once

they were combined with the textual descriptions of António Bocarro, the drawings certainly would convey to the Iberian Crown the necessary intelligence about the location and the characteristics of the Portuguese fortifications, as well as the scale of the fortresses in relation to the surrounding urban environments. The bird's-eye views were intended to convey the idea of realistic cities. In the case of Malacca, the drawing shows a heavily fortified city, with a complete set of powerful stone walls. Curiously enough, most of the ordnance was concentrated on the in-land walls and ramparts, from where, apparently, dangerous menaces were expected. The walls facing the sea were not so heavily defended, since the Portuguese could use their ships to counter any attack coming from that side. Around the main fortress, several wooden palisades can be seen, protecting some of the kampongs.

The iconography of fortresses became a dominant feature of Portuguese cartography at the turn of the 16th century and during the first half of the 17th century. On the one hand, administrative reasons were at the basis of the production of sundry *Livros de fortalezas*, since the Iberian royal bureaucracy was interested in surveying the veritable resources of the *Estado da Índia*, in order to take them into account in its imperial policy-

making. On the other hand, political and military circumstances, dictated by the overseas expansion of the English and the Dutch, made all intelligence about Portuguese material resources in the East of paramount importance. The overall strategy of the Iberian Crown had to take into account the means of defence that the *Estado da Índia* could muster to face new challenges.

All in all, the reviewed iconographic material presents a rather detailed image of the evolution of Malacca fortress throughout the Portuguese period. Since its early days, A Famosa suffered regular improvements and reconstructions that were meant not only to secure Portuguese interests in the Malacca Strait, but also to adapt existing defence conditions to the evolution of warfare tactics and technologies. The fall of Malacca to the Dutch, in 1641, was brought about by a multitude of political, economic and military factors. But it certainly wasn't caused by a lack of military defences in the Portuguese held stronghold. Malacca fortress, as far as it is possible to assess from surviving textual and iconographic materials, was regularly maintained by Portuguese authorities, in order to face constant military challenges, coming first from local Asian policies, and later from European competitors. RC

NOTES

- 1 Cortesão, vol. 1, p. 228.
- 2 Vd. Thomaz, 2000, passim.
- 3 Rego, vol. 1, pp. 10-11.
- 4 Rego, vol. 1, p. 21.
- 5 Vd. Parker, pp. 198-2007.
- The original Italian has: "manovale, muratore e scharpellino".
- 7 Noonan, p. 199.
- 8 "Nas obras da fortaleza se trabalha; ha torre he em formosa altura e largura, de fermosas casas, bem amadeiradas; cada sobrado faço de 21 e 22 palmos; tenho determinado fazer a torre de cinquo sobrados de altura, com as ameas de cento e trinta palmos, por tal que, por çima do outeiro, descubra o mar." (Rego, vol. 1, p. 74).
- 9 "O corucheo he, no meio, de cincoenta e cinquo palmos, pelas asnas, sam sesemta" (Rego, vol. 1, p. 62).
- 10 Cortesão, vol. 2, p. 281.
- 11 The Portuguese *braça*, usually translated as fathom, is supposed to be equivalent to 2.22 meters.
- 12 This is a strange measurement, for the door would be 4.4 meters above the ground level.
- 13 Correia, vol. 1, pp. 250-252.
- 14 Garcia, p. 110.
- 15 "A grossura do muro era doyto pés todo de cantaria"; "era a fortaleza entulhada em altura de meã lança darmas" [Castanheda, vol. 1, p. 681].

- 16 Barros, 2-6-6, pp. 282-283.
- 17 Albuquerque, vol. 2, pt. 3, p. 156.
- 18 Vd. Alves, passim.
- "Reinando, elRey dom Sebastião, primeiro deste nome, E gouernando, ho estado da India ho viso Rey dom Antão de Noronha Soltão, allaharadim Rey do dachem e doutros Reinos, veio cercar esta cidade de Malaca sendo capitão della dom lionis pereira, o qual lha defendeo có dozetos portugueses; trazendo o ymiguo trezentas vellas e quinze mjl homes de peleja, em que entrauão muitos turquos e arreneguados, e outras gentes de diuersas nações E dez mil homes de seruiço E o capitão lhe fez aleuantar o cerquo co lhe matar el Rey de Aruu Seu filho mais velho, e quatro mjl hoes, os principais capitães e soldados do seu exercito, e lhe tomou alguuas peças dartilharia." [Iria, Studia 7, p. 109).
- 20 Manguin, p. 612.
- 21 Manguin, p. 616.
- 22 Manguin, p. 613.
- Wicki, vol. 7, p. 524: "Yão-lhe derribando algumas ameas e, porque era de taypa, fizerão-lhe hum contra-muro de pedra muy forte por dentro e asi ficou seguro".
- 24 Couto, p.143.
- 25 Vd. Thomaz, 1995, pp. 481-519.
- 26 Manguin, p. 625. About warfare methods in Southeast Asia, vd. Reid, vol. 2, pp. 219-233.

- 27 Vd. Loureiro, 2007, pp. 66-80.
- 28 Luz, fls. 59-60: "está cercada em roda com muros de pedrae cal e de taipa, com seus baluartes muito fortes".
- 29 Caminha, p. 88. One of the ships of that year's fleet, perhaps the one where Cairati embarked, was lost at sea (cf. Maldonado, p. 98).
- 30 Loureiro, 2008, pp. 15-63.
- 31 Vd. Valladares, passim.
- 32 Loureiro, 2007, pp. 66-80.
- 33 Mills, p. 17.
- 34 Erédia, fl. 5: "com hua cerca de muros de pedra e cal na parte do nacente, e dentro hum poço de agoa: pera quando se offerecer
- reboliços e alteração de guerras". Mills' translation is somehow different: "on the east there was a circle formed by walls of stone and mortar: there was a well in the middle: so that in times of disturbance or war" (p. 17).
- 35 Mills, pp. 205-206.
- 36 Erédia, fl. 5.
- 37 Iria, Studia 5, p. 101: "brevidade com que se necessita fazer a obra dos muros da cidade de Malaca".
- 38 Vd. Loureiro, 2005, pp. 166-187.
- 39 Bocarro, 1992, passim.
- 40 Bocarro, vol. 2, p. 251.

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