

DOCUMENTS ON THE BUILDING OF VALLETTA

by

Quentin Hughes

Valletta must be unique. It is better documented, both with drawings and manuscripts, than almost any "new town" in history, and yet little attempt has been made to trace the development of the early building period of Valletta by correlating these references. The original recommendations for a serpentine plan (1), an innovatory suggestion in Renaissance town planning, and its supercision by the present grid-plan illustrated through several stages of development in the four original Laparelli drawings discovered by Professor Marconi (2), have already been described, but at the date when these were prepared and submitted — 18 June 1566 (3) — practically no buildings, with the exception of the church of Our Lady of Victory (4), had been begun. In fact, the Grand Master had forbidden the knights to work on their buildings until after the defensive enceinte had been completed and made safe (5).

However, the plans show Laparelli's ideas on both the layout of the streets and his suggestions for a variety of buildings to be developed once he had abandoned his proposal for streets of a gentle flowing nature and substituted a regular rectangular grid-plan over the whole city site. The grid-plan was certainly not his first intention but pressure may have been brought to bear on him by some of the knights, or by his superior, the eminent architect Gabrio Serbelloni, who had arrived from Rome. Alternatively, Laparelli having pointed out the irregular nature of the terrain of Mount Sceberras may have reluctantly reached the conclusion that the serpentine plan was just not practicable. On a confined peninsula it would have provided irregularly shaped plots difficult to develop for housing.

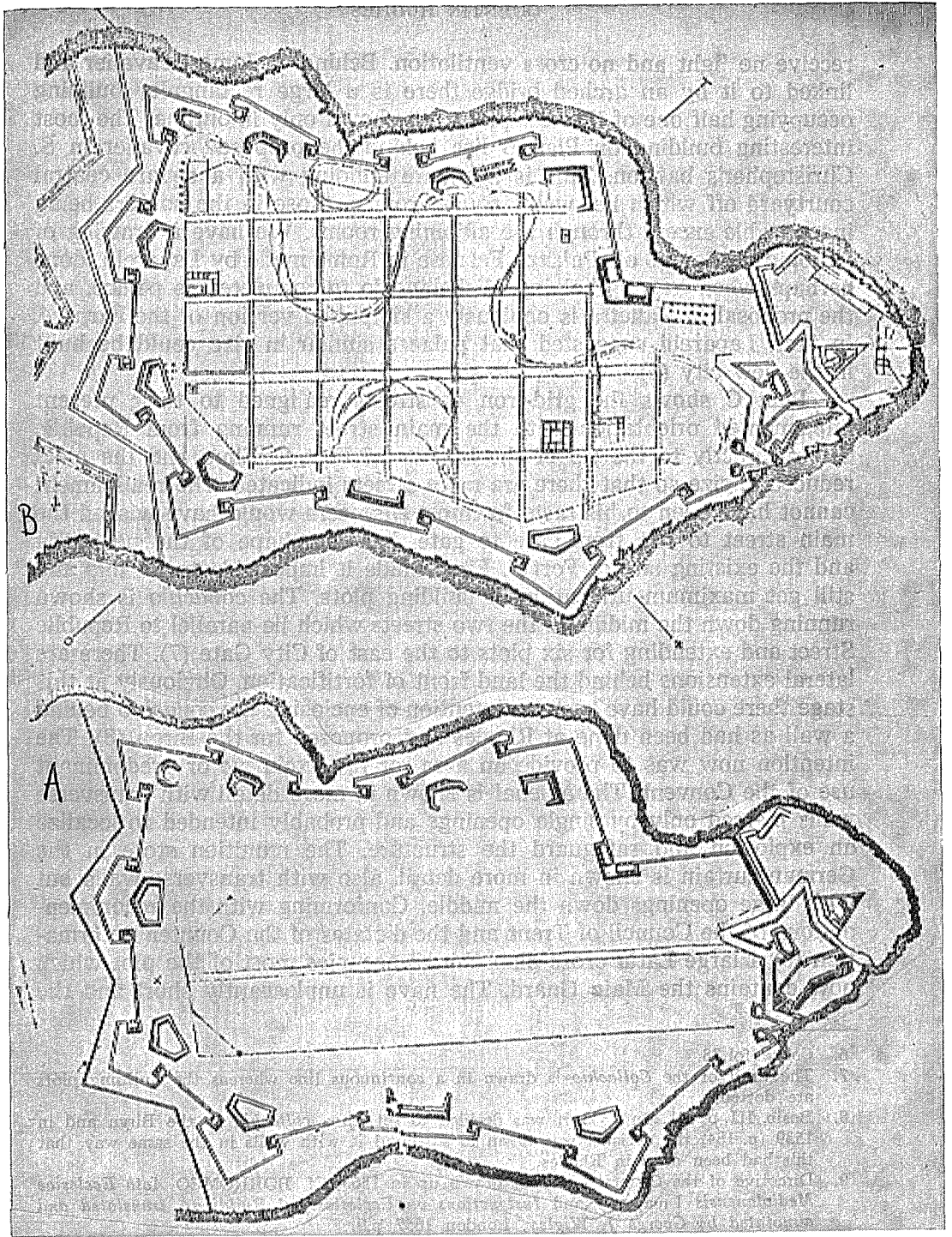
The plans are so definitive that they are worth studying in detail

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1. Hughes (Quentin) "City of the Knights" in *Architectural Review* vol. CXLVI No. 869 p.72. There are no extant drawings of the serpentine plan.
 2. Marconi (Paolo) "I progetti inediti della Valletta: dal Laparelli al Floriani", in *L'Architettura a Malta — Atti del XV Congresso di Storia dell'Architettura*, Rome 1970 p.358.
 3. *Codex of Francesco Laparelli da Cortona*, fo. 40v.
 4. Bosio III p. 792 1567 refers to the chapel of S.M. della Vittoria having been completed.
 5. Urb. Lat. 833 fol. 215 December 1568. The cavaliers on the land front were used to store munitions and to house slaves. Two companies of soldiers lived in a wooden building on the bastion of S. Barbara and there was also some temporary accommodation for knights engaged on building the fortifications.

and they are lettered in what appears to be the sequence in which they were prepared. Plan A deals mainly with the line of fortifications and shows the first suggestion for a main street. Plan D, the final one, shows the grid-iron layout in all its details as executed in the city of Valletta. As he begins to sketch in buildings, not only does Laparelli suggest unusual shaped plans, but he places them with an apparent arbitrariness within the controlled layout of his streets. A modern planner would be perplexed at his lack of strategic evaluation in the disposition of the major buildings he knew would be needed, and in the placement of the squares and open spaces both in relation to these buildings and to the street pattern. One is led to the conclusion that Laparelli, though eminent and competent in the field of military architecture, lacked that decisiveness and confidence that would be necessary to create a fine arrangement of civic buildings in a Baroque city. This is borne out by the conservative nature of the houses he had drawn earlier in the Borgo at Rome. Whether these were designs or survey drawings is not clear, for most of his studies of fortified cities in Italy fall into the second category, but the buildings he portrays are similar to many of those houses of *quattrocento* style which still stand in the Borgo Pio and the streets which intersect it — not particularly *avant-garde* architecture.

Of the four Laparelli town plans, Plan A shows the fortifications with an indication of the line for the main street running from City Gate to the gate of Fort S. Elmo. Plan B develops the street pattern, but changes the direction of the grid so that the main street runs from the back of S. James' cavalier, alongside the church of Our Lady of Victory, to the point of the western bastion of the fort. Besides drawing the plan of the church, the architect has roughly sketched in some other buildings. On the site of the proposed arsenal a long building of seven bays with central columns placed to support a vaulted roof was probably intended as a bombproof munition store or arsenal. There is a smaller building of a similar nature but with single span arches sketched in on the German curtain. Behind S. John's cavalier there are two strange buildings. On the north-western extremity of his street plan and projecting beyond it, Laparelli has drawn a rectangular block with a colonnade facing towards S. John's curtain, and behind S. James' curtain he has shown a rectangular building with a church occupying the outer corner of the site. If the space between the church and the series of rooms arranged en-suite was intended to be a courtyard, it would have been of an uncomfortable proportion.

One must assume that Laparelli intended placing other buildings adjoining it along the street frontages. If the space were not intended to be a courtyard, but was to be roofed over, these other rooms would



church is orientated to face south-east (10). The other buildings he proposes are more eccentric but, as he repeats them in Plan D, they can be described when discussing that plan in detail.

Plan D is probably the final proposal for it is nearest to the executed design of Valletta and includes the rectangular *manderaggio* as later partly excavated. More streets are shown and some of the plots are smaller. Some open spaces have been left for the city squares, but the periphery is still as unresolved as it is in the earlier plans as though Laparelli were at a loss to know how to reconcile the rectangular plots of a grid-iron plan with the irregular shore line of a rocky peninsula. Depressions in the site and the irregularities of the terrain are drawn in, and buildings are developed so that most are shown with double lines to indicate the thickness of the walls. The detail plan of the arsenal has been omitted but the ammunition store has been re-aligned to fit the grid and is drawn more carefully. The church is a better shape. The *collachio* has been reduced in size so that it goes no further than the boundary of the conventual church.

Let us now consider the other buildings in more detail. Laparelli makes proposals for two other buildings inside the *collachio* and two outside, one of which contains a church. A large building occupies almost half a plot behind City Gate and S. James' cavalier to which it is joined by a triple arched bridge, out of alignment both in relation to the rear wall of the cavalier and the street frontage (11). The rear wall of this building is kept just clear of the side wall of the Victory church, whose facade faces the cavalier. Thus the church is shown back to front to its present position (12). Laparelli has again drawn upon his memories of Rome and produced an E shaped plan, but with a strange distortion of the proportions so that the main block is too deep for a single set of rooms along the front, backed by a loggia opening into the court. If a central courtyard were intended it is certainly not shown. Also it is

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10. The main facade of S. John's now faces south-west. A true west facing front is not possible in Valletta if the walls of a church are to align with the grid-iron street pattern.
 11. It should be noticed that Ordnance Street does not run parallel to the other streets in this plan, but retains the direction indicated in Plan B when the grid was swung further to the north-south orientation. Why Laparelli did not straighten this street, which was later straightened, is not clear. At one end he was certainly conditioned by the rear wall of Victory church which was probably built when these plans were prepared. Behind S. John's curtain he may have needed the additional depth, which the askewing of Ordnance street would have given, in order to accommodate an extra street — South Street.
 12. Both cavaliers were heightened and extended to the rear in the 1580's Vat. Lat. 7776 fol. 42 dated 24 August 1574 and CAMPI (Scipione) *Report to the King of Spain* dated 17 July 1577 Chigi Q III fol. 20v. The church was given a new facade in 1752.

difficult to appreciate whether the adjoining plot, indicated by a solid line within the dotted line of the street pavement, was intended to be built upon. Presumably it was, for the architect normally indicates open space by omitting all lines, or by placing the building unsupported by other solid lines within the dotted site which defines the pattern of the streets. If the site were intended to be built up, how can one explain the large doorway carefully drawn on the eastern wall of this proposed palace? The plot opposite the front of this palace is shown with a single line contained within the dots of the street pattern, surely indicating another building, for the space between these two buildings is open, forming a long rectangular *piazza* which adjoins the place of arms behind City Gate. Immediately behind S. John's cavalier there is a small square building in which is written the number "45", and behind which is included an even smaller rectangular courtyard. The building does not come up to the corner of the street and is therefore extremely wasteful of the site leaving a thin sliver of land which would be almost unusable for another building. What purpose could this structure have filled?

Outside the *collachio* and behind S. John's curtain stands the collonnaded building now developed with an L shaped church whose functional purpose defies rational analysis, leaving an irregularly shaped structure entered from Scots' Street. His propensity for dividing plots in an ungainly fashion is demonstrated in the last building outside the *collachio*, a large house, or perhaps two, on the site bounded by S. Dominic's, S. Nicholas' and Merchants' Streets. Here is a T shaped building slotted into a U shaped building served by two spiral staircases. Both buildings would be awkward to use and it is difficult to imagine what Laparelli had in mind.

What emerges from Plan D is the realisation that by June 1566 the basic street plan of Valletta was established a mere nine months after the raising of the Great Siege, but the position of the individual buildings and of the open spaces or *piazze* was not finalised. The *collachio*, even in its reduced open form, was no longer a feasible proposition and several of the *auberges* were constructed outside its boundary as defined in Plan D.

The drawing on the title page of Pompeo Floriani's *Discorso* is important in relation to the town plan of Valletta only in so far as he shows the proposal for the demolition of Fort S. E'mo which would, had it been carried out, have granted space for more housing and

13. Floriani (Pompeo) *Discorso Intorno all'Isola di Malta*..... Macerata 1576.

rationalised the street pattern which is now irregular in front of the fort (14).

We are fortunate, for, in addition to possessing the original outline plans for the city of Valletta, we also have a number of extremely accurate illustrations of the city in its early stage of building. Many European towns are both inadequately and inaccurately depicted by engravers, but Malta has been fortunate. Soon after the siege, a tradition was established of accurate recording and careful description and one has only to overlay the plans on a modern aerial photograph to be aware of the extraordinary precise surveying which went into their preparation.

In 1576 the Grand Master sent to Rome for a painter who could depict the noteworthy incidents of the Great Siege and Matteo Perez d'Aleccio, a pupil of Michelangelo and probably an acquaintance of Laparelli, came to Malta where he was commissioned to paint the famous frescoes in the new palace (15). Subsequently Perez d'Aleccio had them engraved and they were first published in Rome in 1582 (16). Amongst the engravings was an aerial view of Valletta, its outline following the coastline of the Laparelli plans (and the Lafrery engravings which are taken from them) (17). Amongst the paintings collected by Charles I of England was a series which depicted the Great Siege of Malta (18), *modelli* for the frescoes in the Grand Master's palace in Malta, but, in addition to the scenes depicted there, the Greenwich paintings include a remarkable aerial view of Valletta which is similar in broad outline to the Perez d'Aleccio engraving. The paintings at Greenwich are certainly his work, but they are undated and unsigned. Matteo Perez was in Malta from 1576 to 1581, the year before the engravings were published, and the material for both the painting and the engraving of

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14. The implications of this drawing on the fortifications of the Sciberras peninsula — the additional advanced trench in the form of a *tenaille* and the provision of more cavaliers — is discussed in Hughes (Quentin) "The Defence of Malta" in *Quaderno*, 8, 1976.
 15. The frescoes are illustrated in Lochhead (Ian C.) & Barling (T.F.R.) *The Siege of Malta* — 1565, London 1970.
 16. Calnan (D.J.Z) *The True Depiction of the Investment and Attack suffered by the Island of Malta at the hands of the Turks in the year of Our Lord 1565 by Matteo Perez d'Aleccio*, 3rd edition Malta 1965, introduction.
 17. The engraved plates 1 to 12 are dated 1582, but plates 13 and 14 (Valletta) are not dated. However, 14 carries the arms of Verdala who became Grand Master in 1582. The engravings were reprinted by Antonio Francesco Lucini of Florence in 1631. Lucini 'improved' them by removing the written text from the face of each picture and massing it below. The details in the two sets of engravings are not identical, but nearly so. Those in the edition of 1582 are more carefully drawn as evinced in the buildings of the Birgu.
 18. Greenhill (Basil) *The Maritime Siege of Malta* — 1565, National Maritime Museum, Greenwich 1970.

Valletta must have been collected during that time. In 1584 he was in Seville, but he could have returned to Malta later. However by about 1587 he had journeyed to Peru and severed all connection with the island (19).

There are differences in the details on the Greenwich painting and the engravings from which one must conclude that the painting is a more accurate depiction of the city as it existed at that time, whereas the engravings contain several projects which, although muted, were not executed. Let us first consider the fortifications, starting at the City Gate (Porta di S. Giorgio) and moving round the *enceinte* in a clockwise direction. Approaching the gate the engraving shows a single span trestle bridge which could not have been built, but the painting shows a drawbridge closing on to a large pillar for which there is written evidence (20), and then a causeway on three arches with, beyond this, a place of arms (21). Laparelli designed straight flanks to his bastions and these are shown on his drawings. Later it was decided to add *orecchioni* to give additional protection to the guns in the flanks (22), and these are shown in course of construction on the engravings and completed in the painting, suggesting that the painting is later than any drawing which must have formed the basis of the engravings. The church of Our Lady of Victory is shown abutting the cavalier of S. James and the engraving looks like a less accurate re-drawing of this situation. We know that the cavaliers are both deeper and higher than those designed and executed by Laparelli when there was considerable space between what was then the front of the church and the back of the cavalier (23). Behind the cavalier of S. James the prison of the slaves is marked on the engraving, but in the painting its southern wall has been removed, suggesting that this prison was no longer in use.

S. Michael's demi-bastion is shown complete in the engraving, but more accurately in the painting where a portion of its face has been left unfinished as described in a contemporary document (24). The bastion of S. Andrew is also far more accurately depicted in the painting

19. Lochhead *op.cit.* pp. 58-9.

20. Urb. Lat. 833 fol. 201v December 1568.

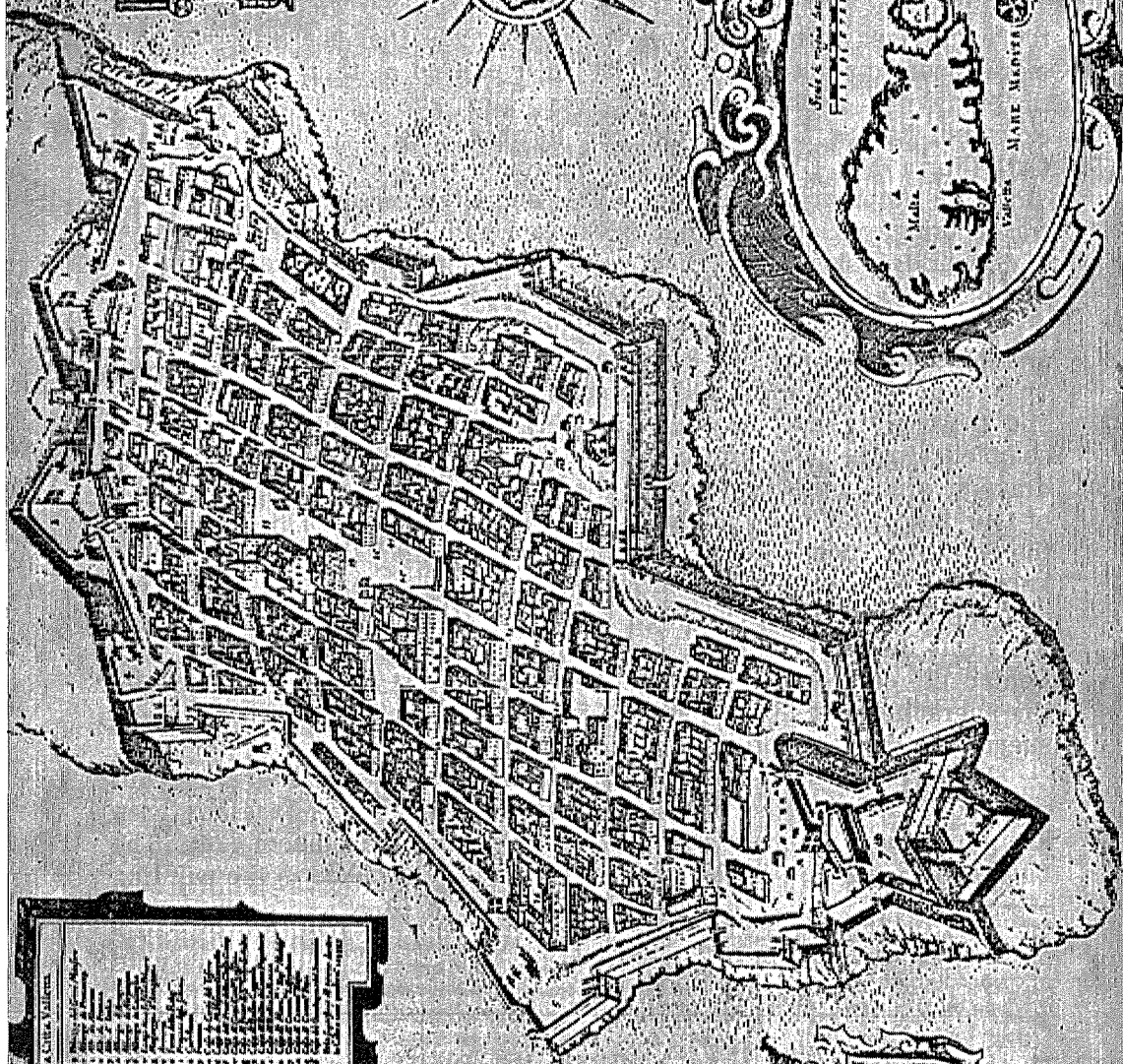
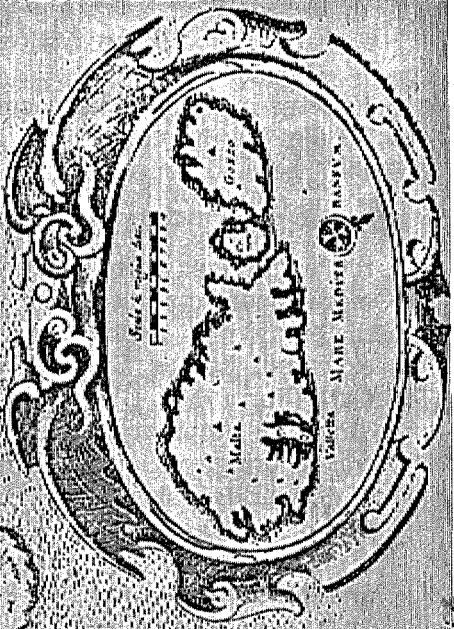
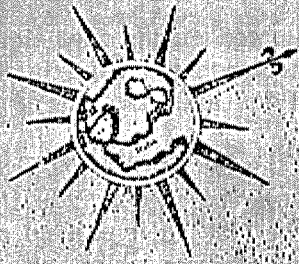
21. *Ibid.* fol. 206v describes a place of arms capable of holding 200 arquebusiers. Fol.207 states that these places are to be open behind so that if captured an enemy could not use them.

22. Vat. Lat. 776 *Report* 1575 fol. 41 proposes them and they are again recommended in Campi Chigi Q III 69 fol. 20v 17 July 1577.

23. Campi *op.cit.* fol. 20v. The cavaliers are defective because they do not cover the declivities of the site outside. They must be heightened and increased backwards. 15 July 1577.

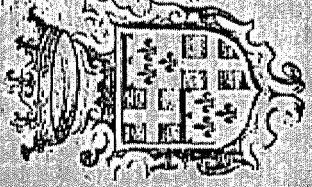
24. Urb. Lat 833 fol. 208 December 1568 states it was unfinished except for 10 *canne* from the angle of the bastion.

VALLETTA
CITTA' NOVA
DI
MALTA.



Libro notabile della Città di Valletta.

<p>1. Chiesa di S. Giovanni Battista</p> <p>2. Chiesa di S. Maria della Vittoria</p> <p>3. Chiesa di S. Rocco</p> <p>4. Chiesa di S. Spirito</p> <p>5. Chiesa di S. Vito</p> <p>6. Chiesa di S. Andrea</p> <p>7. Chiesa di S. Bartolomeo</p> <p>8. Chiesa di S. Matteo</p> <p>9. Chiesa di S. Tommaso</p> <p>10. Chiesa di S. Paolo</p> <p>11. Chiesa di S. Pietro</p> <p>12. Chiesa di S. Luca</p> <p>13. Chiesa di S. Marco</p> <p>14. Chiesa di S. Michele</p> <p>15. Chiesa di S. Gabriele</p> <p>16. Chiesa di S. Raffaele</p> <p>17. Chiesa di S. Zaccaria</p> <p>18. Chiesa di S. Niccolò</p> <p>19. Chiesa di S. Stefano</p> <p>20. Chiesa di S. Agostino</p> <p>21. Chiesa di S. Bernardino</p> <p>22. Chiesa di S. Francesco</p> <p>23. Chiesa di S. Domenico</p> <p>24. Chiesa di S. Maria della Groppa</p> <p>25. Chiesa di S. Maria della Porta</p> <p>26. Chiesa di S. Maria della Pace</p> <p>27. Chiesa di S. Maria della Grazia</p> <p>28. Chiesa di S. Maria della Consolazione</p> <p>29. Chiesa di S. Maria della Anima</p> <p>30. Chiesa di S. Maria della Fede</p> <p>31. Chiesa di S. Maria della Speranza</p> <p>32. Chiesa di S. Maria della Carità</p> <p>33. Chiesa di S. Maria della Misericordia</p> <p>34. Chiesa di S. Maria della Pietà</p> <p>35. Chiesa di S. Maria della Pietasenza</p> <p>36. Chiesa di S. Maria della Pietasenza</p> <p>37. Chiesa di S. Maria della Pietasenza</p> <p>38. Chiesa di S. Maria della Pietasenza</p> <p>39. Chiesa di S. Maria della Pietasenza</p> <p>40. Chiesa di S. Maria della Pietasenza</p>	<p>1. Chiesa di S. Giovanni Battista</p> <p>2. Chiesa di S. Maria della Vittoria</p> <p>3. Chiesa di S. Rocco</p> <p>4. Chiesa di S. Spirito</p> <p>5. Chiesa di S. Vito</p> <p>6. Chiesa di S. Andrea</p> <p>7. Chiesa di S. Bartolomeo</p> <p>8. Chiesa di S. Matteo</p> <p>9. Chiesa di S. Tommaso</p> <p>10. Chiesa di S. Paolo</p> <p>11. Chiesa di S. Pietro</p> <p>12. Chiesa di S. Luca</p> <p>13. Chiesa di S. Marco</p> <p>14. Chiesa di S. Michele</p> <p>15. Chiesa di S. Gabriele</p> <p>16. Chiesa di S. Raffaele</p> <p>17. Chiesa di S. Zaccaria</p> <p>18. Chiesa di S. Niccolò</p> <p>19. Chiesa di S. Stefano</p> <p>20. Chiesa di S. Agostino</p> <p>21. Chiesa di S. Bernardino</p> <p>22. Chiesa di S. Francesco</p> <p>23. Chiesa di S. Domenico</p> <p>24. Chiesa di S. Maria della Groppa</p> <p>25. Chiesa di S. Maria della Porta</p> <p>26. Chiesa di S. Maria della Pace</p> <p>27. Chiesa di S. Maria della Grazia</p> <p>28. Chiesa di S. Maria della Consolazione</p> <p>29. Chiesa di S. Maria della Anima</p> <p>30. Chiesa di S. Maria della Fede</p> <p>31. Chiesa di S. Maria della Speranza</p> <p>32. Chiesa di S. Maria della Carità</p> <p>33. Chiesa di S. Maria della Misericordia</p> <p>34. Chiesa di S. Maria della Pietà</p> <p>35. Chiesa di S. Maria della Pietasenza</p> <p>36. Chiesa di S. Maria della Pietasenza</p> <p>37. Chiesa di S. Maria della Pietasenza</p> <p>38. Chiesa di S. Maria della Pietasenza</p> <p>39. Chiesa di S. Maria della Pietasenza</p> <p>40. Chiesa di S. Maria della Pietasenza</p>
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very much as it is today with its three levels (25). It is known that the cavalier of S. George, recommended by Laparelli, was started and later demolished. The engraving shows an earthwork on this site and it has been removed in the painting, as is also the traverse on the parapet of the bastion. There is conflicting evidence on Fort S. Elmo. The engraving shows a wooden stepped bridge leading to the *tenaille* on the northern corner of the fort, whereas the painting shows a three arched stone bridge leading to the gate in the main front, as built. In the open ground which lay beyond the fort, always a vulnerable point liable to attack, a project for a double bastioned front is shown in the engraving whereas a *tenaille* front is overpainted on an earlier project in the painting. The indications here are complex and their discussion would be out of place in this study of the town planning of Valletta, but they have been described elsewhere (26). The engraving shows the cavalier of S. Elmo as drawn in Laparelli's plan D and the Lafrery engravings, but the painting shows the spur raised to form a full triangle (27). Both pictures show the nine granaries in front of the fort (28). Of the fortifications facing the Grand Harbour, S. Christopher's bastion is shown with its two casemates as in Plan D, but the painting shows half the bastion raised up with earthworks, a measure suggested in the report of December 1568 (29). S. Barbara's bastion is clear of buildings in the engraving and has both the inner wall and the traverse indicated in Laparelli's Plan D. These are omitted in the painting and buildings have already been erected on the site. In the engraving the bastion of S. Peter and S. Paul follows Plan D, but the painting shows a far more accurate illustration with the *piazze* on two levels as documented (30). Finally, such details as *vedettas*, or sentry boxes, are carefully painted at four points on the line of fortifications, features which were augmented in

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25. *Ibid.* fol. 208v. describes the three *piazze*, or levels as shown in the painting.
26. Hughes (Quentin) "The Defence of Malta" in *Quaderno op. cit.*
Scipione Campi, writing in July 1577, stressed the need to fortify urgently the space in front of Fort S. Elmo as proposed in the plan he was shown, Chigi Q III 69 fols. 20v and 24.
27. As shown in the later engravings such as the one done by F. Fillamena for Bosio in September 1600. About the original drawings Bosio wrote on p. 872 ".....its true design drawn from life and giving its natural shape in the way in which it is now to be found was drawn by the knight Fra. Francesco del Antella from Florence. It was given to me and I have it in my house. The drawing, much reduced, is reproduced in this book". Merian produced an almost identical engraving.
28. Urb. Lat. 833 fol. 214 December 1568.
29. *Ibid.* fol. 202. The face of the bastion towards S. Elmo is to have its angle raised with earth and fascines. The painting shows the southern face raised with earth to form an upper level and this is shown in greater detail in the Villamena engraving in Bosio with guns trained to fire over the entrance to the Grand Harbour.
30. *Ibid.* fol. 202v.

later engravings (31).

Within the city itself the buildings show even more interesting variations. There are three spacious squares in the middle of the town as exist today (32). The Magisterial palace, begun in 1572, originally had two rooflines as shown in the painting where the roof is lower over the earlier house (33). Although Cassar may have originally envisaged one large courtyard, as shown in the engraving, there must have been a time when the side walls of the earlier house stood, providing the disposition shown in the painting. It also shows doors, but not in their present position. The present facade looks as though it may once have had a door on the right which would have served the original house and which was later filled in, for there is a wider spacing between two of the windows above. The *auberges* are marked on the engraving, with the exceptions of Italy and Castile where the letters T and X seem to have been lost. An interesting point is that the *auberge de France* is not shown on its recent site but on a plot bounded by Old Mint Street, South Street and Scots Street. When we refer to the painting we find that, although the *auberges* are not indicated by name, they are shown by flags and once again the *auberge de France* appears on this site close to the corner of the cavalier of St. John (34). Because of the viewpoint of the picture only the back of the *auberge de Provence* shows, in the engraving as a hotch-potch of buildings but in the painting as the E shaped plan which was built with its five arched loggia opening onto a spacious paved courtyard. The *auberge d'Italie* is shown with its flag on S. Zachary Street, perhaps suggesting that that was originally the main facade, and with two pitched roof buildings facing onto Merchants' Street, one of which must have been the old church of S. Catherine by Cassar. In the portrayal of roof patterns the painting is consistently more accurate for, whereas in the engravings, they are dotted all over the place, in the painting they are generally reserved for churches and a few other buildings. The flags of the *auberge de Castile* face onto Castile square in the painting and in front there are two small buildings, one of which has a pitched roof which may suggest a temporary structure, the other being marked with a II, the place where they paid money to the labourers

31. Villamena/Bosio shows these, plus eleven more.

32. Not where Laparelli planned them in his drawings of 1566, nor as suggested in Urb. Lat 833 fol.213v. — "It is intended to build one beautiful square in the centre."

33. Hughes (Quentin) *Building of Malta*, London 1956 p.133.

34. *Ibid.* p. 148. The later *auberge* was begun in 1588 and in note 442 I mention that Bonello suggests Cassar did not design the building which replaced an earlier one elsewhere in Valletta.

(35). In the engraving these buildings do not line up with the grid-plan. The *auberge d'Aragon* is shown in the engravings on the site now occupied by the Manoel theatre, but on the correct site on the painting, and both pictures show the *auberge d'Alemagne* on the adjoining plot. They both show a pitched roof building about one third of the length of the Holy Infirmary, and this was the first wing built between 1574 and 1578 (36). Behind the Infirmary Perez d'Aleccio's own house is shown in the engravings, one of a small cluster, but, by the time he made the painting, this site has been built up with a complete block.

One could go on for a long time pointing to the variations in the two pictures, but let it suffice to conclude with a reference to the two main churches. The Gesù, also called the parish church of S. Paul, was designed by Gerolamo Cassar (37). In both pictures it is illustrated as occupying its present site on half the block to the east of the palace, leaving sufficient space on the other half for the university buildings. It is described as the *Chiesa Catedrale di S. Paolo* and it was clearly one of the most important buildings in Valletta. Both pictures show a triple aisled church with pitched roofs and they only differ in the way in which the facade has been portrayed. The engravings show a porticoed door supported by two niches and surmounted by a rose window, but the painting shows a more elegant solution with the same porticoed door and niches, but with corner pilasters, a pediment and a string course separating the higher nave from the apex of the aisles.

St. John's Co-cathedral was built between 1573 and 1577. In the engravings it is accurately portrayed with a door on the side elevation and what seems to be a thickened pier at the point where one now exists, but Perez has added a dome on a pilastered drum surmounted by a lantern, a feature then unknown in Malta, and has braced the rear wall of the nave with a semi-circular apse (38). If this were a serious project, it was abandoned. Had it not been, it would have reinforced the military complaint that a high building on that site would inhibit the guns firing from the roofs of the cavaliers of S. James and S. John across the harbour mouths (39). However, Ferres' suggestion that a reduction in the height

35. Bosio III p. 748, says that this was the first house to be built in Valletta by the Commissioners of Works in 1566. It was a house of rustic stone without mortar built for the general prefect of building.
36. The transverse section was built next, between 1583 and 1593. The prolongation of the first wing was continued in 1666. Neither of these extensions is illustrated.
37. Archives of Malta MS 439 Lib. Bull. fol. 270v. The citation on Gerolamo Cassar mentions this church. Additional money was provided after 1592 for Francesco Bonamici to carry out further work which was probably complete by 1610.
38. Hughes (Quentin) *Building of Malta*, p.64 and p.65.
39. *Ibid.* p.64.

of the nave roof was called for to improve the site lines of these guns hardly makes sense when one notices the heights of spires of the two towers of S. John's which are shown in both pictures (40). The painting is a careful study of the church. It shows the seven bays of the nave and aisle with a small door in the third bay from the right. There is a drawing, probably by Cassar, which shows an elevation and a part of the plan of this doorway (41), the main difference being that in the Cassar drawing the pilasters are carried to the full height of the aisle with the archway filling the intercolumniation and rising from the cornice above the door, whereas the painting shows capitals which line up with the tympanum over the door and, above them, a superimposed order of pilasters culminating in vases on the roof. The three stages of superimposed orders of pilasters and the spires of the towers on the main facade are carefully painted in. At this stage the square beside the church was unobstructed by the sacristy which was built in the following century.

These drawings, engravings and the painting established a tradition of accuracy in depicting the city of Valletta so that those engravers who followed were able to draw inspiration or directly purloin material from these sources. For example Pierre Mortier produced in Amsterdam an engraving which is almost a direct copy of the Perez d'Aleccio engravings (42) and Marian copied the engraving made by Villamena for Bosio's *History* (43), merely changing some of the numbers that indicate the sites of the various buildings and fortifications. The amended information on the engraving in Bosio must have been based on a careful study of the actual conditions in Valletta. For example, the left hand flank of the bastion of S. James, where the *orecchione* is shown in course of construction in the Perez engraving, is now omitted, leaving a square shoulder and suggesting that the curved addition must have been carried out some time after 1600. The cavaliers are certainly heightened to their present

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40. Ferres (V.A.) *Descrizione storica delle chiese di Malta e Gozo* Malta 1866, p. 73.
 41. It is found in a folder of original drawings made by Romano Carapecchia in Malta and Rome and preserved in the Courtauld Institute, University of London. As it shows the treatment of the aisle wall of S. John's before Carapecchia added the covered loggia in 1736 it is reasonable to assume that he took one of Cassar's drawings and used it as a survey basis for his own designs for the loggia. These are included in the folder.
 42. Mortier (Pierre) *Valletta ou Valette Ville Forte da l'Isle de Malta*, Amsterdam ND, dam ND.
 43. Merian (M.) *Valletta Citta Nova di Malta*, ND.

level, the *manderaggio* is shown incomplete and no works of fortification have been carried out on the promontory beyond Fort S. Elmo. The Holy Infirmary has been extended, the slaves' prison has been moved to a new site behind the bastion of S. Christopher and the *auberge de France* has been moved to its new site.

Many engravings followed which illustrate with care the growth and development of Valletta and the Three Cities with the ring upon ring of fortifications which girdled them. Add to these prints the rich material in manuscript and drawing preserved in the archives of Malta, the numerous reports transmitted abroad and still preserved in Rome, Paris and other centres of learning, and the military and naval reports of the British armed forces, and we have a picture of urban growth unsurpassed in the history of western Europe.

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