

The Military Revolution Thesis: A Comparative Analysis of Early Modern Siena, Mantua and Valletta

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The Military Revolution thesis has traditionally been associated with large states which embraced its changes and achieved hegemonic status, while small states have generally been thought to lack the pre-requisites required to benefit from the Revolution resulting in their marginalisation. This paper attempts to offer an alternative dimension to the great-power centric narrative of the Military Revolution thesis through the comparative analysis of three small states, Siena, Mantua, and Malta, with a particular focus on Valletta. This short paper is inadequate to explore the full range of the Military Revolution thus the study will be constrained to a single important element within the thesis; a comparative evaluation of the *trace italienne* fortifications of Siena, Mantua, and Valletta, and whether these lessened the viability of small states, as the case of Siena suggests, or bolstered it, as demonstrated by Mantua during the 1620's. The inclusion of Valletta's enceinte seeks to add a third element to this discussion, shedding light both on the viability of the *trace italienne* as well as Malta's situation relative to other small states.

The Military Revolution and Small States

Prior to the 1950s there existed a notion among military historians that the opening decades of the Early Modern period lacked developments in the art of war worth of any major interest.¹ Military historians were content to chronicle battles yet refrained from delving deeper into the wider socio-political implications of warfare, while social historians wrongly regarded the study of tactics and armaments as uncondusive to their enquiries. Sociologist have generally been more perceptive of warfare's contribution to society, and indeed Charles Tilly claimed that 'War made the state, and the state made war', however most historians found the argument distasteful although a compelling alternative was not easily provided.²

Michael Roberts ushered a new age in military historiography as his thesis of a Military Revolution proposed a clear relationship between military developments and the birth of modern statehood.³ Roberts' thesis attracted the attention of a wide cross-section of scholars rather than appealing exclusively to military historians. While matters concerning warfare, specifically the development of early modern armies take centre stage, the thesis broadened the scope of traditional military history integrating matters of bureaucracy, centralisation, and state-formation, thus delineating the fundamental principles behind state expansion and warfare.⁴ Roberts' Military Revolution hinged upon four interconnected changes. First, a 'tactical revolution' replaced the

¹ Geoffrey Parker, 'The 'Military Revolution,' 1560–1660 – a myth?', *The Journal of Modern History*, xlviii:2 (1976), 195.

² Steven Gunn, David Grummitt, and Hans Cools, 'War and the State in Early Modern Europe: Widening the Debate', *War in History*, xv:4 (2008), 372.

³ Parker (1976), 195.

⁴ David Parrot, 'The Military Revolution in Early Europe', *History Today*, xlii: 12 (2014), 1.

established pike and shot tactics with linear formations which maximised the firepower of every unit.⁵ Second, a ‘strategic revolution’ stemmed from the higher quality troops required for the new formations, allowing commanders to implement more complex strategies, often featuring campaigns with multiple armies operating synchronically.⁶ Third, the capability of mobilising and integrating several armies into a larger composite force necessitated a significantly larger quantity of men thus escalating the scale of warfare throughout Europe.⁷ Finally, Roberts demonstrated how the recruitment and upkeep of these vast armies created an unprecedented strain upon governmental structures which had to adopt a policy of large scale centralisation through the establishment of dedicated bureaucracies.⁸ Financing these new administrative bodies compelled governments to extract capital in an increasingly efficacious manner, formulating the physiognomy of a modern state established upon a creditary economic system.⁹

Fundamentally, the Military Revolution thesis exhibits a dualistic nature; those states which embraced its qualities accessed the ‘great powers club’, while those that failed its test were quickly absorbed by their expansionist neighbours. The association between large states and the Military Revolution is unsurprising, so much so as to make the inclusion of small states seem a fruitless exercise.¹⁰ This is not the case. Evaluating

⁵ Michael Roberts, *Essays in Swedish History*, (Minneapolis: University of Minnesota Press, 1967), 196; Parrot (2014), 2.

⁶ Roberts (1967), 203; Parker (1976), 196–197.

⁷ Roberts (1967), 203–204; Parker (1976), 197.

⁸ Parrot (2014), 3.

⁹ Parker (1976), 197.

¹⁰ Raymond Howard, ‘The Military Revolution: The Case of Early Modern Malta’, (Unpublished B.A. Hons. Dissertation, University of Malta, 2017), 51.

the links between small states and the Military Revolution enriches the ongoing debate and demonstrates that the thesis does not inherently exclude small states, although these did not necessarily develop into a hegemonic power. For such an exercise to be possible a more flexible approach is required in order to circumvent the dichotomy between success and failure within the debate, while preserving the core features of the thesis. Rather than utilising the Military Revolution as a standardised criterion for quantifying a states' military power, a more natural process allowing greater tolerance for variability should be adopted.¹¹ The study of early modern fortifications is a great opportunity to demonstrate the relevance of small states. Indeed the study of military architecture holds an important place in Military Revolution historiography. Geoffrey Parker, John Lynn and Adam Smith have identified how the *trace italienne* style fortifications, apart from curtailing the efficacy of gun powder artillery, proved to be an important component in the enlargement of early modern armies.¹²

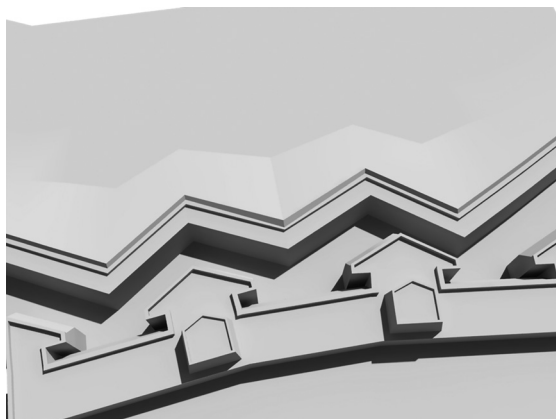


Fig. 1. Elevation view of *trace italienne* fortifications. (See also p. 136)

¹¹ Howard (2017), 52.

¹² Howard (2017), 16–25.

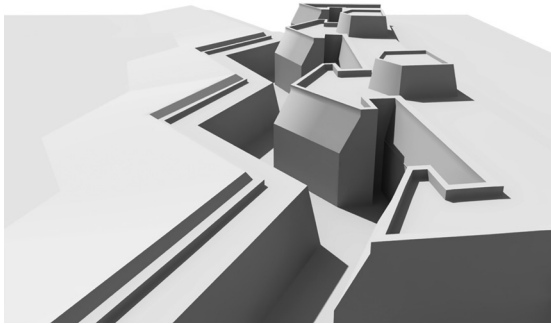


Fig. 2. Side view of *trace italienne* fortifications. (See also p. 137)

The bastioned trace was an expensive piece of technology, not only because of the physical cost of materials and construction, but also because of its impact upon a state's army. Furthermore the *trace italienne* left its mark upon the political world as European political geography became highly attuned to the existence of frontier fortresses, essentially defining a state by its pacified (unfortified) interior and a heavily fortified exterior.¹³ Traditionally, small states lacked both the wealth and the territory for widespread border fortifications, instead opting for a strategically positioned fortress or fortified city. Indeed a prevailing point of contention among historians revolves around whether the *trace italienne* bolstered the viability of small states, as Mantua in the 1620s would suggest, or lessened it, as showcased in Siena throughout the 1550's. The following sections explore this issue comparatively by introducing the case of Hospitaller Malta, together with those of Siena and Mantua, demonstrating if and how small states could benefit from aspects of the Military Revolution.

¹³ Thomas Francis Arnold, 'Fortifications and Statecraft of the Gonzaga, 1530–1630', (Unpublished PhD dissertation, Ohio State University 1993), 63.

Siena

The Italian Wars (1494–1559) acquainted the medieval fortifications of Italian city states with the destructive power of gunpowder artillery, resulting in the development of the *trace italienne* as an anti-artillery defence system. The Habsburg-Valois rivalry unfolding on the Italian peninsula, together with the endemic factionalism consuming Siena's ruling class, acted as the motive force behind the republic's need for an elaborate defence network. Indeed the alliance between an exiled Siennese faction and Pope Clement VII (r.1523-1534) resulted in the unsuccessful siege of 1526 which acted as the catalyst behind Baldassarre Peruzzi's fortifications.¹⁴

The late 1520s harboured considerable threats for Siena's independence inducing the ruling faction to embark on a modernisation scheme of Siena's medieval enceinte under the direction of the Siennese architect Peruzzi. He was directed to devise a system through which troops could move around the enceinte while retaining cover from incoming fire, as well as to reinforce the existing walls with bastions. Although Peruzzi did make provisions for protected movement, his principal work was the bastion constructed besides each of the five gates.¹⁵ The largest bastion was built at the Sportello di San Prospero which Peruzzi identified as a problematic area due to the damage inflicted during the siege. Peruzzi's bastions seem to have developed rather quickly with a total estimated building time of five years from 1527 to 1532. Although there is a lack of documentation detailing the exact date of construction for each

¹⁴ Simon Pepper and Nicholas Adams, *Firearms & Fortifications Military Architecture and Siege Warfare in Sixteenth-Century Siena* (Chicago: University of Chicago Press, 1986), xviii.

¹⁵ Pepper and Adams (1986), 37-38.

bastion, scholars believe that by 1529 work was being carried out simultaneously on all of the five bastions. Indeed by 1528 the work had already progressed enough to attract the attention of several eminent ambassadors who remarked upon the bastion's strength.¹⁶ Siena's economy suffered due to the financial strains imposed by the project. In 1529 Charles V's (1500-1558) stay in Siena, and the celebrations planned for his coronation as Holy Roman Emperor, diverted the money intended for fortifications towards the decoration of the city. Siena could not hope to finance both projects at once hinting at the costs of the new bastions despite being relatively small-scale works.¹⁷

Despite Peruzzi's bastions the majority of Siena's enceinte remained medieval in nature and in 1549 the Spanish authorities commissioned the building of a citadel overlooking the city. The Sieneese recognized this manoeuvre for what it was; direct Imperial intervention in a bid to stabilize a turbulent city state within their orbit.¹⁸ The Spanish citadel was planned to be a three bastioned fortress with two demi-bastions at the extremities creating a hornwork projecting towards the city. Charles V decreed that construction of the citadel and maintenance of its Spanish garrison were to be funded by the Sieneese.¹⁹ The Sieneese were well aware that building the citadel entailed enormous expenses. Acquisition of the necessary finances could only be secured through drastic measures threatening the existing liberties and rights of the Sieneese. Indeed the required revenue was raised through the abuse of power: forced loans, misappropriation of funds envisioned for coastal fortifications, and forced labour

¹⁶ Pepper and Adams (1986), 56.

¹⁷ Pepper and Adams (1986), 57.

¹⁸ Simon Pepper, 'Sword and Spade: Military Construction in Renaissance Italy', *Construction History*, xvi (2000), 24.

¹⁹ Pepper and Adams (1986), 58, 66.

became the order of the day.²⁰ Nevertheless, construction plans went ahead forcing the Sieneese into open rebellion; with French aid, they expelled the Spanish. After the revolt, a committee was setup with the aim to destroy the citadel, however, the council decided to retain it albeit with some modifications. The initial design was amended; the demi-bastions were demolished and the rubble reused to complete the outward bastions integrating them with the existing medieval enceinte.²¹ Siena's shift from Spanish to French influence failed to address the city's bankruptcy. Indeed the French used the same methods as their predecessors to gain the funds required to complete the remodelled citadel.²² Now facing a Spanish counter attack, Siena only achieved the minimal defences required to withstand a war, despite the herculean effort to mobilise its resources. While the modernisation of the city's defences proved daunting, the defence of the wider state was more problematic and costly as none of the fortification projects undertaken outside the city had been completed when the first invasion began. Furthermore in an effort to reduce costs any fortifications outside the city were only bolstered with earthworks.²³

Considering that Siena contributed the most during the war effort, although its vassal towns played their part, one might be tempted to speak of an early modern state imposing its centralized will upon its dependencies. Such a model does not fit the Sieneese case as its defence was shackled by several regional factors. Despite the appointment of several military architects, suggesting a level of professional specialisation employed by modern

²⁰ Judith Hook, 'Fortifications and the end of the Sieneese State', *History*, lxii, 206 (1977), 375, 376.

²¹ Pepper (2000), 25, 26.

²² Hook (1977), 375.

²³ Hook (1977), 378, 380.

states, Siena's administration depended upon local volunteers to guarantee the construction of the forts. Consequently any progress regarding fortification schemes depended upon the determination of individual towns to see the project through, as well as their friendliness towards Siena.²⁴ While Siena's bankruptcy hindered any attempts at modernisation, the timing in which these projects were initiated was grossly inadequate. Imminent attack by a combined Spanish-Florentine force stretched Siena's already limited man-power to its limits as its labourers were dispersed working on several small forts at once. The sheer costs of its fortifications deprived Siena from raising an army large enough to break her enemies' blockade, forcing her to rely on French aid for supplies and soldiers; when these failed to materialise on time Siena succumbed to starvation, defeat, and loss of independence.²⁵

Mantua

If the loss of Siena's independence has been used as an argument against the viability of the *trace italienne* for the defence of a small state, the Mantuan case quickly assumed the opposite end of the spectrum. Francesco IV Gonzaga (1484–1519), a Mantuan Marquis, inherited from his predecessors a typical medieval fortified city, whose enceinte comprised of a high, but narrow curtain wall circumscribing the city interspersed with a number of square towers, and the late-medieval style Castello di San Giorgio. Mantuan defences were ill equipped to withstand artillery bombardment forcing the Gonzaga to embark upon a process of modernisation. Early sixteenth-century military architecture was characterised by experimentation; the angled

²⁴ Hook (1977), 385–386.

²⁵ Hook (1977), 387.

bastion was not yet the conventional solution to the problem of gunpowder artillery. Naturally the initial round of fortification construction around Mantua exhibited several transitional elements between the medieval traditions and the anti-artillery properties of thick, low, earthworks.²⁶

The military veteran Alessio Beccaguto designed and oversaw the construction of the new fortifications. Beccaguto's design featured new walls which were to be lower, thicker and reinforced by recurrent buttresses, however, the most progressive aspect of his design was the inclusion of three large circular artillery towers. These were built level with the walls but projected outwards, providing a powerful field of fire dominating the surrounding territory. Beccaguto's artillery towers were a transitional form of bastioned fortifications, although the principle of enfilading fire, the cornerstone of the *trace italienne*, was not yet implemented. Mantua's southern perimeter was the first to be modernised in this fashion, however, Beccaguto planned to apply his design to encompass all of Mantua's enceinte. Nevertheless, Beccaguto's master plan failed to materialise and only the fortifications of the southern perimeter were fortified in this manner. Construction work was often intermittent as lack of funds and a shortage of mortar and lime disrupted the project. Indeed, the construction of the Cerese gate and its adjacent wall was estimated to cost a total of 16,000 ducats, while in his master plan, Beccaguto had estimated a sum of 18,000 to 20,000 ducats for the fortifications of the whole eastern section of the city.²⁷ The lack of natural resources in the vicinity of Mantua further exacerbated these enormous costs. Despite the relative ease with which stone was transported over Mantua's waterways, the costs of importation

²⁶ Arnold (1993), 87, 93–94.

²⁷ Arnold (1993), 96–98, 102–103.

were high and the nature of the project dictated vast quantities of raw material. The sheer volume of manual labour required was another factor draining the Mantuan treasury and every quarter of the city was expected to provide unskilled labourers.²⁸

Beccaguto's fortifications were finished in 1528, however, none of his other plans materialised since the principles delineating Mantua's defence changed completely. The Gonzaga invested seventy years of intermittent work in modernising their city. An analysis of this decades-long process reveals two major trends playing themselves out; the increasing reliance upon the angled bastion as the optimal defensive system, and a dwindling interest in ambitious schemes of modernising whole cities.²⁹ The latter had proven impossible to fund and consequently fortification projects focused upon strengthening specific areas of Mantua's perimeter. The Gonzaga's next project was the construction of the citadel which completely embraced the angled bastion system. Indeed the citadel was shaped roughly as a regular polygon with four bastions providing mutual flanking fire. Building the citadel proved to be a massive enterprise, requiring around forty years to complete despite being much smaller than Beccaguto's proposed enceinte.³⁰ Although the citadel further modernised Mantua's defences it failed to offer a comprehensive solution as several areas within the city remained unprotected. In a bid to rectify this, the San Giorgio bastion was commissioned with the intention to defend the San Giorgio causeway and the lower lake although the bastion was not enough to safeguard the suburb. The construction of both the citadel and the San Giorgio bastion followed the same pattern established during the construction of

²⁸ Arnold (1993), 103, 104.

²⁹ Arnold (1993), 137.

³⁰ Arnold (1993), 118.

Beccaguto's fortifications. Construction was slow and sporadic owing to the lack of resources and finances, while a good labour force was not always easy to obtain. Furthermore, there were periods when work halted completely as was the case following the death of Duke Federigo in 1542. The fortification projects clearly show that until the 1590s, the Gonzaga lacked the money to finish their projects on schedule, although by the 1530s, Italy was relatively pacified and thus the Gonzaga lacked any sense of urgency.³¹

The sixteenth century saw the increasing sophistication of Mantuan fortifications although the Gonzaga had been forced to settle for a compromise. The Gonzaga chose to modernise specific sections of their defences while the majority of Mantua's border remained defended by medieval walls, although, in a crisis, these could be bolstered by earthworks at a much lower cost than permanent fortifications. Nevertheless, these fortifications coupled with the natural defences provided by Mantua's rivers made the city one of Europe's sturdiest strongholds. While no fortification scheme is wholly impregnable, Mantua's fortifications, if used wisely as a component within a much wider diplomatic policy, could provide political independence to a small state surrounded by larger and stronger expansionist neighbours.³² The policies pursued by Duke Carlo of Mantua show a break with his predecessor's dependence on foreign aid from Spain or any other greater prince, as Duke Carlo relied upon his own military strength and his fortresses to oppose the claims of his opponents. The Mantuan War (1628-1630) was the final test of this independence where Mantua's fortifications resisted the Imperial army in 1629. Indeed the fall of Mantua in 1630

³¹ Arnold (1993), 136-138.

³² Arnold (1993), 343.

is largely attributed to the plague, rather than any fault with the defences of the city itself. Nevertheless, the Peace of Regensburg ratified in the same year reconfirmed the independence of Mantua to the great humiliation of Emperor Ferdinand II (r.1619-1637) and his ally the Spanish monarch Phillip IV (r.1621-1665).³³ The Mantuan case is an excellent example of how a new military innovation central to the Military Revolution thesis, far from being limited to great powers, redefined the political and military existence of smaller European powers.

Valletta

The conditions surrounding Valletta's construction are quite peculiar when compared to the Sienese and Mantuan cases. While Siena's enceinte was modernised in anticipation of a siege, and Mantua's fortification project was a long term peace-time investment which paid dividends in war, Valletta was built from scratch following a large invasion, expected to resume during spring. Upon its arrival on Malta, the Order of St John identified Birgu as their seat of power, however its obsolete defences and vulnerability to enemy artillery motivated the Order to search for a more defensible candidate.³⁴ Several military engineers proposed the construction of a fortified city upon the Sciberras peninsula, however, these proposals were never sanctioned and the Order settled with repairing the existing fortifications.³⁵ In the aftermath of the Siege of 1565, the Order faced a dilemma; the island's economy was ruined, the treasury empty, and the Ottomans were expected to resume the invasion come

³³ Arnold (1993), 344-345.

³⁴ Howard (2017), 23.

³⁵ NLM = (National Library of Malta) AOM = (Archive of the Order of Malta) 286, f.59.

springtime. The need of a new fortress city was felt more than ever, however, the economic impediments which had previously postponed plans for the city had increased exponentially.³⁶ Building a fortified city from scratch certainly seemed daunting and yet no real alternative existed. By rebuilding the old forts the Order would not have improved its strategic position; the existing fortresses were too small and restricted by geography to benefit from the advantages of *trace italienne* style fortifications, while the cost of rebuilding the old forts was estimated to equal that of building the new city.³⁷

Grand Master Jean de Valette committed himself to raise a fortified city on the Sciberras peninsula and tasked the Order's envoys in Europe to procure the engineer Baldassare Lanci to initiate work on the city he had already designed in 1562. Tensions between Grand Duke Cosimo de Medici (r.1537-1569) and de Valette, coupled with the deteriorating relations between Spain and the Order, ensured denial of Lanci's services³⁸ resulting in the appointment of Francesco Laparelli.³⁹ Laparelli took into account the Order's financial and political situation in his design for Valletta's fortifications. He was well aware that any project the Order undertook would have to be completed in a limited timeframe to account for the possibility of a second Ottoman invasion. This excluded his initial plan of enclosing the Marsa spring behind the Valletta front, and in turn the highest area of the Sciberras hill was chosen as the optimal candidate for the

³⁶ Alison Hoppen, *The Fortification of Malta by the Order of St. John 1530–1798* (Malta: Mireva Publications, 1999), 49.

³⁷ Hoppen (1999), 49; Howard (2017), 27.

³⁸ Roger Vella Bonavita, 'A Gentleman of Cortona: The Life and Achievements of Capitano Francesco Laparelli da Cortona (1521 – 1570)', (Unpublished PhD dissertation, University of Malta, 2011), 252

³⁹ NLM AOM430, f.268v.

siting of his front.⁴⁰ Laparelli's chosen site restricted the area on which an invader could establish artillery batteries thus reducing Valletta's exposure to frontal bombardments. Valletta's front consisted of four bastions connected with curtain walls on top of which towered two cavaliers surrounded by a ditch. The city's lateral walls were designed to be high enough to protect Valletta's interior, and to intersect with the fortress of St Elmo. In order to reduce expenses and construction time, Laparelli opted to carve out the bastions from living rock wherever possible while masonry would be used where the terrain prevented such methods.⁴¹ Despite a shortage of workmen and finances, construction seemed to have progressed steadily, although Laparelli himself was fearful that the city would not be made defensible in time. Indeed Laparelli estimated that, with 4,000 workers at his disposal, Valletta could be made defensible in twelve months' time, although it would take a further year for the whole enceinte to be built and many more years for the whole city to be completed.⁴²

No surviving document clearly defines how much Valletta's construction cost the Order, although a 1568 estimate provides the sum of 200,000 *scudi* for the work already completed while the remaining fortifications and public buildings would require another 200,000 *scudi*. This was a great expense when the estimates of the Order's yearly revenue amounted to 116,732 *scudi*.⁴³ The Order judiciously monitored fortification-related expenditures including the wages of all skilled workers it employed. These were usually employed on a contractual basis

⁴⁰ Hoppen (1999), 56; Vella Bonavita (2011), 263

⁴¹ Hoppen (1999), 58.

⁴² Hoppen (1999), 61.

⁴³ Hoppen (1999), 256.

and paid a fixed rate, determined by the complexity of the work, per cane.⁴⁴ Similarly to Mantua, building materials were the main items of expenditure, despite the ample supply of locally procured masonry thus avoiding shipping costs. Nevertheless, Malta's lack of natural resources required the importation of iron, mortar, wood, and other material. Documentary evidence regarding material costs is scarce, however, what exists hints that raw material may have accounted for three quarters of the total expenditure while the remaining quarter was allocated to the craftsmen's wages.⁴⁵ It is necessary to question the ability of the Order's financial system to cover the expenses incurred by fortress construction. The Order's major source of revenue came from its foreign properties leaving the Order at the mercy of international crises often resulting in the loss of *responsions*, the income from its landed estates spread across Europe. This deficiency, coupled with the financial strains of warfare, would under normal circumstances prohibit the Order from funding a project such as Valletta.⁴⁶

The Order, in fact, financed the project by capitalising on its victory and morphing it into a public relations exercise where it presented itself as the defender of Christendom thus highlighting its relevance as the gatekeeper to Europe. This carefully crafted image resonated with the princes of Europe; Charles IX (r.1560-1574) of France donated 140,000 *livres tournois*, Philip II (r.1556-1598) of Spain 30,000 *scudi*, Pope Pius V (r.1566-1572) 15,000 *scudi*, and Sebastian of Portugal (r.1557-1578) 30,000 *cruzados*. Furthermore, Laparelli himself had to engage 500 men at his own expense to supplement the lack of workers

⁴⁴ NLM AOM116, f.263

⁴⁵ NLM AOM1016, f.6.

⁴⁶ Howard (2017), 54-55.

building the city, while the pope and Phillip II provided 6,000 soldiers to guard the workers in case of attack.⁴⁷

A wider look at Hospitaller fortification history shows that Valletta was very much a unique case. Any further fortification projects the Order embarked upon after Valletta's construction failed to attract foreign financial support on a similar scale and were financed almost exclusively by the Order. The Order lacked a comprehensive long-term plan for the fortification of the harbour area. Fortification projects were mostly commissioned after reports of possible invasions and the Council frequently sanctioned highly ambitious schemes it would struggle to complete. The situation would be exacerbated when doubt would assail the Council after the commencement of a project, inducing it to halt one project and embark upon another resulting in a number of grandiose schemes which the Order could never finance.⁴⁸ Despite this mismanagement of resources, work on the harbour fortifications dragged on sporadically until they were completed by the eighteenth century, creating a truly formidable defence system. Even more significant than the completion of the harbour fortifications was Valletta's construction as it cemented the Order's commitment to Malta and safeguarded the Order's pretensions of independence. While no fortification scheme could ever make a state immune to invasion, the *trace italienne* certainly made a small state politically viable.

Conclusion: Points of Comparison

Geoffrey Parker identified the *trace italienne* as the motive force behind the military changes outlined by Roberts. The

⁴⁷ Hoppen (1999), 51, 60, 243.

⁴⁸ Howard (2017), 29-30.

bastioned *trace's* anti-artillery properties changed the military geography of the early modern period, forcing warring states into a struggle over strongholds, since it was control over the latter which dictated the dominance of a contested region.⁴⁹ The changes in military architecture had an impact upon the policies of governments forcing them to adapt to the changes in warfare. The Military Revolution thesis posits that states had to create dedicated bureaucracies to extract the capital required to finance this new method of warfare. These bureaucracies assumed the roles traditionally fulfilled by private military contractors, creating the centralised modern state.⁵⁰ The links between military change and state growth proved to be harder to trace than Roberts proposed, often resulting in a situation where case-studies are traded in order to argue opposite cases.⁵¹ Such have been the Sieneese and Mantuan cases prompting this study to include the case of Hospitaller Malta in an attempt to overcome this stalemate. Despite the limits imposed by the brevity of this paper, some patterns emerged providing useful insights.

Siena, Mantua, and Malta all share several features. All three are relatively small states, surrounded by expansionist neighbours and subject to the machinations of the larger powers. For Siena and Mantua this was the Franco-Habsburg rivalry playing itself out in northern Italy, while for the Order and Malta it was the Spanish-Ottoman rivalry over the Mediterranean. The three states were practically independent and sought to retain that independence through the modernisation or construction of fortifications. It is generally agreed that the *trace italienne* was too costly in relation to sixteenth-century social and

⁴⁹ Parker (1976), 203, 204, 206.

⁵⁰ Hook (1977), 373; Howard (2017), 8; Parker (1976), 197.

⁵¹ Gunn, Grummitt and Cools (2008), 373.

economic developments, prohibiting feudal governments from commissioning modern fortification schemes.⁵² This is visible in all three states as they all struggled to finance their fortifications; Siena's modernisation project bankrupted the state leaving her unable to raise an army, while construction work on the Mantuan fortifications was slow and sporadic due to the lack of resources and finances. The harbour fortifications on Malta followed a similar pattern and work only progressed when the Order's finances permitted. Valletta proved to be the exception to the rule due to the financial aid the Order received from foreign patrons. Nevertheless, only the fortifications were built rapidly; the remainder of the city took years to complete. The prohibitive cost of the *trace italienne* ensured the avoidance of large-scale modernisation schemes; Laparelli reduced his initial plan for Valletta's size, while both Siena and Mantua chose to integrate several bastions with the existing medieval walls instead of encircling whole cities with new enceintes.

Interestingly, these fortification projects failed to create a centralised state. Siena's fiscal system remained decidedly medieval, leading to her bankruptcy and loss of independence, while the Order started developing a more systematic fiscal state during the eighteenth century.⁵³ While Siena's loss of independence can be attributed to its fortifications, Mantua and Hospitaller Malta retained their independence partly because of them. Indeed, the Sienese example does not prove that small states were unable to benefit from the bastioned *trace* but rather that modern fortifications were not enough to secure a state's independence. Mantua and Malta succeeded in guaranteeing

⁵² Hook (1977), 373.

⁵³ Bellizzi, Louis, 'The Cost of Providing Hospital Care in Malta 1733-1798', (Unpublished M.A. dissertation, University of Malta, 2013).

their independence precisely because their fortifications were subsumed in a wider diplomatic policy. The Mantuan fortifications allowed the Gonzaga princes to overcome their dependence on Spanish military aid. When a Spanish army invaded, the fortresses of Mantua held long enough to enable the signing of a Franco-Mantuan alliance forcing Spain to divert resources from the campaign in the Netherlands. The independence of Mantua was finally recognised in the Peace of Regensburg dealing the final humiliation to the Habsburgs. While Malta never suffered another Ottoman siege, Valletta was constructed under the threat of a renewed campaign during the spring. By the end of the 1565 siege, the Order's finances were depleted, Malta's economy disrupted, and its defences ruined. The remaining fortifications were so obsolete that they could only withstand a second siege for a brief span of time and at great human cost, a price which the Order could not afford. Indeed, plans were made to abandon the island and retire to Rome should a second Ottoman army invade.⁵⁴ This approach would have definitely shattered any pretensions of independence the Order had, for how could they claim sovereignty without their own state? The need of a new fortified city could not have been clearer. Indeed Valletta's construction cemented the Order's commitment to make most out of their new territorial possession. Valletta's construction would have been impossible had the Order not been adept enough to pursue a diplomatic policy crafted to obtain financial and military support from European monarchs. Indeed it is only through the patronage of its foreign benefactors that the Order managed to safeguard its island state and aspirations of sovereignty through fortification projects.

⁵⁴ Giacomo Bosio, *Historia della Sacra Religione Militare di S. Giovanni Gerosolmitano*, (Venice, 1695), III, 741. Hoppen (1999), 49–50; Vella Bonavita (2011), 262, 339.