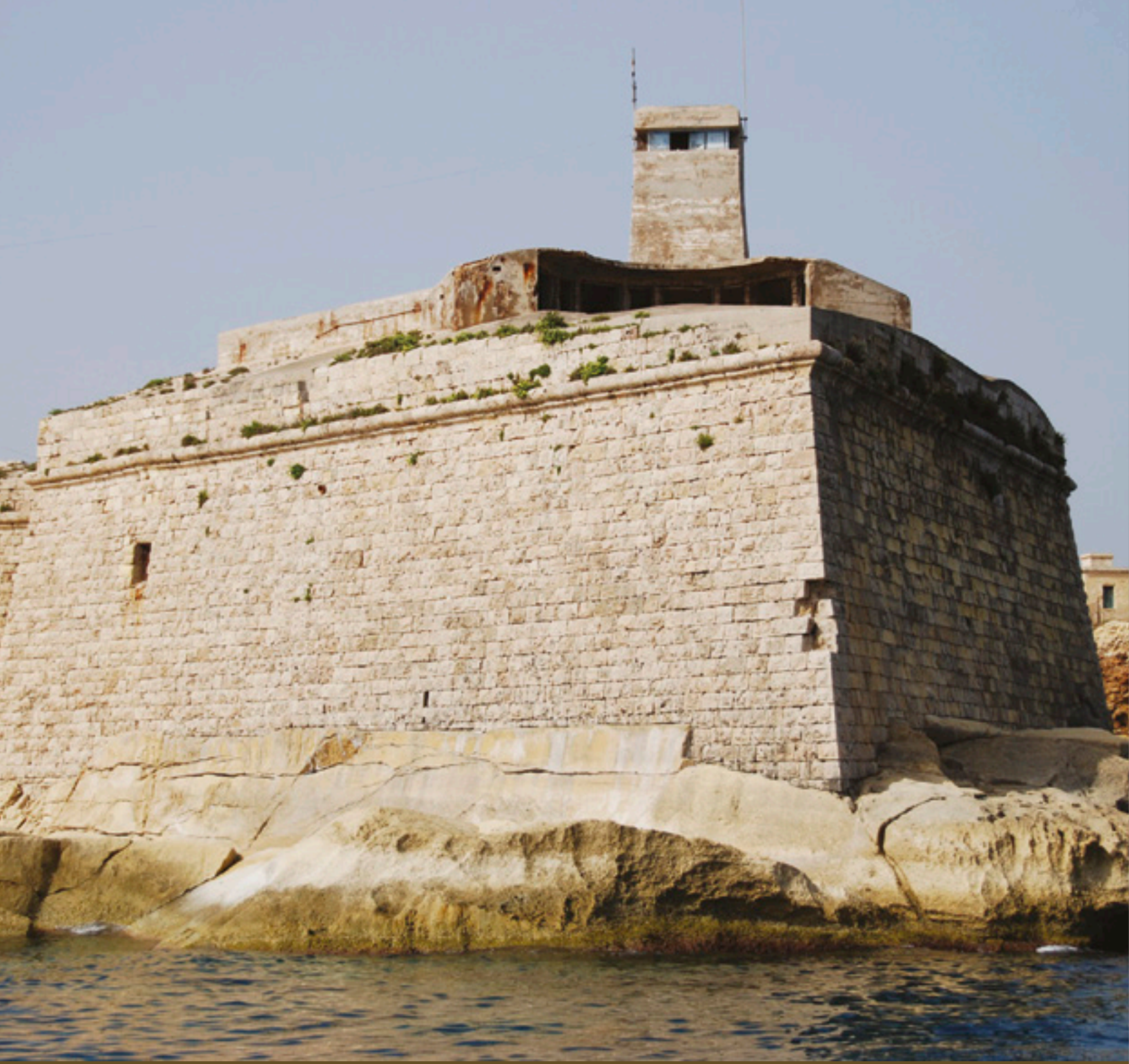

Introduction

Few places around the shores of the Mediterranean can better attest to the adage that 'fortifications are a direct product of geography' than the stone-built defences of the Maltese Islands, erected by the Hospitaller Knights of the Order of St. John in the period 1530-1798. Indeed, three observations stand out from a study of the Maltese Islands and their long process of fortification, namely:
(i) the strategic importance of the geographical position of Malta in the centre of the Mediterranean Sea and the leading role it was to play in shaping the history of the region,
(ii) the Islands' harbours which provided a safe all-weather anchorage ideal for protecting large naval fleets and
(iii) the lithic nature of the massive fortifications which were erected to defend these harbours and the rest of the islands from sea-borne attack and invasion.

Malta's Fortifications - a matter of geography and geology

It is often stated that fortifications are a product of geography. All throughout history, military men have sought to exploit the landscape for protection, using land features and building materials derived from the land to establish their works of fortification where nature provided the greatest defensive advantage. Nowhere, perhaps, is this relation between geography, geology, and fortification better illustrated than in the Maltese archipelago. Indeed, Malta and its sister islands, Gozo and Comino, (despite their small size and a surface area of little more than 316 square kilometres) contain one of the richest concentrations of fortifications to be found anywhere around the world – a unique and prodigious mass of defensive works carved out in stone which the islands owe directly to their particular geography and geology.

To begin with, geography placed these islands in a position of great strategic importance in the centre of the Mediterranean Sea, endowing them with great military and naval relevance in the history for the struggle over control of the region. Secondly, geography gave Malta, the largest of the islands, an excellent natural harbour, one of the finest first class anchorages to be found anywhere around the shores of the Mediterranean, big enough to accommodate any size of fleet; and thirdly, geology provided the archipelago with an abundant supply of stone ideal for realising extensive and large scale fortress-building programmes.

The first to recognise and systematically exploit all these qualities were the Hospitaller Knights of the Order of St John of Jerusalem and Rhodes. This military organisation devoted to fighting the Ottoman war-machine, acquired the Maltese islands (together with the fortress of Tripoli in North Africa) from Emperor Charles V in 1530 after losing their home and naval base on the island of Rhodes in the Dodecanese to Sultan Suleiman forces in 1522. The Hospitaller knights' acquisition of the Maltese archipelago set off a process of militarisation which was to result in the widespread fortification of these islands. This programme of fortification developed rapidly around the need to secure Malta's Grand Harbour and its naval facilities from both landward attack and seaward bombardment. The location of the individual defensive components was determined by a series of narrow tongues of land, or peninsulas, the largest, highest, and centre-most of which was then known as the Sceberras Peninsula.[1]

The latter was immediately recognised as the ideal location for the Order's new fortified headquarters (known as the 'Convent') as it offered both command and defensibility. As the highest ground in the harbour area, it commanded all the surrounding terrain as well as the entrance to both anchorages (Grand Harbour and Marsamxett). The site was eventually fortified in 1566 with the creation of the formidable bastioned fortress of Valletta,

The bastioned fortifications of Malta, knit of virgin rock and dressed stone – Fort Ricasoli.
(Image source: Author, 2016)

named in honour of Grand Master Jean de Valette, the hero of the valiant defence against the mighty Ottoman armada sent to capture the island in 1565.[2]

Radiating outwards from Valletta, came, over the course of the next two hundred years an impressive network of forts, fortified enceintes and coastal watch-posts and batteries, all designed and built to the conventions of the bastioned type of fortification by some of the leading European military engineers of their day.

Apart from their design, these fortifications also derived a great part of their power of resistance from the solid manner of their construction, carved out as they were from the bedrock and imprinted indelibly into the ground. This manner of construction also had the added advantage of providing all the necessary building stone and rubble quarried in the process of the formation of the ramparts directly on the fortress site.

The strata of rock which were most suitable for providing building material for the construction of the bastioned fortifications were the Coralline and Globigerina limestones, because the other sedimentary formations (i.e. Blue Clay and Greensand) were either too soft or fragile to support the massive rampart walls and the earthen massifs that they held in place. The Globigerina limestone was the most dominant layer in the Grand Harbour area where most of the Hospitaller fortifications had to be located to provide the necessary defence of the harbour and its surroundings and, as a rule, it was this 'pietra globigerina che viene tolta dai fossati'(the Globigerina limestone extracted from the ditches of the fortifications) which was invariably employed in the formation and building of the ramparts.[3] The tal-Franka stone (as the Globigerina is called locally), was considered 'ideal for building, white in colour, easy to cut, and specially suitable for use in the erection of fortress walls as it [was] not easily crushed by artillery' although, on the other hand, it did not stand up very well to humidity, and was rather soft [4]. However, by the end of the seventeenth century, the more durable hardstone (Tal-Qawwi and Żonqor) came to be preferred for the construction of the ramparts of coastal works of fortification and other defences built close to the water as it was found to be more resistant to erosion caused by sea spray.

This process of fortification came to an abrupt end when the Knights of St. John were expelled from Malta by General Bonaparte in 1798, who then lost the islands to the British in 1800. A truly new process of fortification only began to materialise in the early 1870s, following the opening of the Suez Canal, which gave Malta a new strategic role. By this time, however, the nature of warfare had changed considerably so that the newly built British defences crystallised into a totally different style of fortification from that built earlier by the Knights of St John, now forged from a combination of new design templates and imported materials (Portland cement and armour-plating). Still, seen together, the largely stone-built fortifications of Malta make up a rare ensemble of defensive forms shaped by the nature of the local terrain, the special qualities of its building materials, and the local methods of construction – a combination of form, shape, and texture that sets the fortifications of Malta distinctly apart from those found elsewhere around the world.

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Rock hewn bastion and ditch of the landfront fortifications of Valletta.

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