

## EPILOGUE

### Islands on the Move

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#### Introduction

Malta and Gozo's population have always been influenced by movement. People, goods and ideas that sailed on and across the Mediterranean Sea came into contact with the islands and inhabitants - some purposely, other not; some peacefully, others not. It would be mistaken to believe that such maritime traffic was one way. Since prehistory, inhabitants from the Maltese Islands travelled from the islands to explore and settle overseas. More recently, Maltese people also moved and populated other Mediterranean areas that included Gibraltar, Alexandria and Tunis. Beyond Mare Nostrum, the Maltese wandered as far afield as New York and Sydney - some left for good but others were unable to resist the lure of their homeland.

Whether traversing long distances or otherwise, any journey from one point to another requires one to know three basic facts: 1) where one is; 2) where one is going and 3) how to get there. Although navigation is an inherent skill, over the millennia humans have become consistently more reliable on navigational aids such as the compass and more recently Global Positioning System (GPS). Whatever the instrument used, the basis of all forms of navigation, even modern-day satellite systems, is the map. It is the map that provides essential knowledge which can be used to supply the three basic yet indispensable facts listed above. If we know where we are we can plot where we are on a map - just as we can locate where we would like to go. Information contained in the map will also tell guide us as to the best possible routes to reach our destination. Journeys could be planned with, amongst other matters, speed, safety and profit in mind.

It was therefore essential to keep maps updated and produce new ones with more data included. Countries like England and France excelled in the production of terrestrial maps and marine charts in the 19th and 20th centuries - reflecting the global dominance of these two powers - powers that needed maps to administer territories. So important were these depictions of space that the 19th century witnessed the the production of thematic works such as William Smith's Geological Map of England and Wales and Part of Scotland (1815). Such works permitted landowners to invest in coal mines, canals and other industries. What is important to note here is that Smith's map was not used to move

from one place to another but rather to plan ahead.

This brings us to the second function of maps - that of managing and planning. Just as Smith's map helped with the 'planning' of Britain's coal exploitation, maps started to be utilised all forms of knowledge. In 1854, Dr John Snow plotted 13 public water sources alongside the known cholera deaths around a specific part of London, a unique case of early GIS albeit decades before technological spatial aids became available. By visualising and 'querying' his data, Snow was able to identify the very pump that was infected and causing the cholera outbreak. Snow's map was not simply something that helps navigate but the plotting of different datasets (water sources and cholera deaths) enabled a basic but very effective methodology that is today referred to as spatial analysis. It is little wonder therefore that Snow's work is often referred to as a proto-Geographic Information System (GIS). Inversely, Elbridge Gerry used a similar exercise to attempt to restructure an electoral map as an aid to get re-elected. The episode, known as the 1811 Map the Political spectrum, when Elbridge Gerry was governor, was facilitated by the Jeffersonians, who desiring to retain their control of the state, rearranged the election districts in their favour in a grotesque salamander-like shape, a political manoeuvre then named by his opponents and since known as a gerrymander (from his name and salamander). Such early GIS examples depict how powerful the spatial information was and with new analytical technology as combined with hi-end data-capture devices, has become.

It is clear therefore that maps can be used for at least three different purposes: 1) navigation; 2) locating resources and 3) spatial analysis. All three 'map functions' are not mutually exclusive but rather intertwined. Snow could not have queried his data if he couldn't locate the water sources or the occurrence of cholera deaths. Neither could Gerry be re-elected.

Therefore, at the heart of forms of spatial based knowledge is the base map: a time-stamped dataset that subsequent datasets or maps could be compared with in order to analyse change. Maps however, can never be static. In this day and age of rapidly evolving urban landscapes and climate change the need to keep maps updated is more relevant than ever before. Likewise, the intricacies of modern day life, with its complex social fabrics contribute to a dynamic and fluid situation that is in need of mapping so that it may be better understood.

Because of their function maps must, in order to remain relevant, be consistently updated. Base maps that do not reflect the reality on the ground are not simply obsolete but also

dangerous. Any decisions based on wrong data will almost certainly lead to undesired results. As young modern European nation it is therefore vital that Malta is equipped with a system that enables the gathering and maintenance of spatial data that are in turn made available to persons working towards the improvement of the islands' efficient management. It was indeed a ground-breaking step in the right direction when the decision was taken to implement the SIntegraM Project. The list of sectors that can benefit from these up to date and state of the art spatial datasets generated by SIntegraM is too large to list here and beyond the scope of this short communication. It is however, essential to point out that the planned data will not only transcend boundaries but will also create synergies between entities, whether public or private, that should in turn facilitate better decision making.

Finally, the decision to invest in equipment and human resources ensures that a future for Maltese surveying and mapping is being secured. As a nation, we will no longer be dependent on overseas service providers for the gathering and production of spatial data.

*We will, for the first time in our history, have the capacity to, quite literally, map our own future.*