

Pursuing the idea of a greener Isle: viability and environmental sustainability



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BACKGROUND



- The Maltese Islands have witnessed in the past, two waves of colonisation and urbanisation stretching from the sixteenth to the mid-twentieth century.
- Finding a barren rock the Knights of the Order of St. John and later the British Governors sought to develop green retreats, garden systems and implemented afforestation projects.
- In the current dimension these green assets as in the case of heritage assets the maintenance costs are cumbersome for a micro-economy.
- The paper analyses the development of the ideal of a greener Isle through Maltese history and considers the current investment in landscaping, the development and maintenance of gardens and parks in an arid country which has been sustained in the past decades by reverse osmosis plants.
- Gardens and tree planting come as huge investments, can the Island afford losing this accrued asset?

THE ORIGINS OF GARDENS AND HORTICULTURE IN MALTA



- Gnien – Genna – Jannah Jannah
- Arabic: جنّة
- Akkadian origins (?)
- Referred to as of non-Semitic origin in the Qur'an
- Eden = garden. The correct Arab word: Janna.
- 'Gardens of Paradise'
- Will not dwell into the Phoenician connection and studies on genetic origins of Maltese
- Linguistically the original Carthaginian and Phoenician words are very present in the Maltese vocabulary

THE ORIGINS OF GARDENS AND HORTICULTURE IN MALTA



- A certain amount of irrigation took place. This is proved by contemporary place-names like is-Saqwi or Habel is-Saqwi , found both in Malta and in Gozo. More than 100 place-names refer to gnien or ghajn lands and some 200 to wells of various sizes - bir, bjar, giebja, gibjet, gibjun - and a few to reservoirs, again both in Malta and in Gozo. [\[8\]](#)
- In the gnien and ghajn areas [p.4] horticulture was carried on, including much growing of vines for the production of wine.
- On 21 September 1495 of the same year, Nicolaus Caxaro renewed the lease of the jardino of Ghajn Rihana for another four years in favour of the sitting tenant, to be added to the three years already agreed upon at a rent of ten uncie for the period of six years still remaining.

Source: Proceedings of History Week. (1981)(1-48)

[p.1] Agriculture in Malta in the Late Middle Ages

Wettinger Godfrey

THE EARLIEST DEVELOPMENTS



Possibly the earliest garden or afforested area was the area known as Il-Buskett in the North West of the alley and set in a valley in the late sixteenth century. The area probably started as an afforestation project with local and imported trees. The Cabreo by Le Marchant also records a few farms under the same estate with an array of fruit trees. Part of the less Romantic afforestation is a more symmetrically designed orangerie. Grand Master Hughes de Verdalle in 1588 built a characteristic tower which was designed as a summer retreat. The area is fed by natural springs and a main watercourse runs through the lower valley area.

The San Anton Palace and Gardens were developed by the Grand Master Antoine de Paule (1623-1636). The gardens are practically an application of the symmetrical Versailles design and was in its original state probably an orangerie and watered by limestone channels by gravity. These were in turn supplied by the Wignacourt Aqueduct.

THE EARLIEST DEVELOPMENTS



- Grand Master Jean Paul Lascaris de Castellar (1636-1657) erected graceful fountains in his private garden known as Ġnien is-Sultan overlooking the Grand Harbour, consisting of an elevated open terrace between Lascaris Battery and Ta' Liesse church.
- The garden was supplied with water from the Wignacourt's aqueduct. Only a nymphaeum/fountain and the belvedere survive to date and consist of a low boundary wall above a high blank wall which originally was the flank of part of the fortifications up It-Telgħa Ta' Liesse leading to Victoria Gate (previously del Monte gate).
- The nymphaeum/fountain is a concave symmetrical structure with flanking bays, each element divided by pairs of attached Tuscan pillars.
- In 1956 the circular fountain of Gnien is-Sultan was excavated from the ruins and taken to Argotti Gardens to form the centre piece in a garden square.

THE EARLIEST DEVELOPMENTS

1580s-1650s



1580s-1650s

1

- Il-Buskett
- Afforestation

2

- San Anton
- Formal Garden

3

- Gnien Is-Sultan
- 'Urban' Garden



THE BRITISH PERIOD



- The British instituted gardens , the ‘orto botanico’ as a system of governance. The district gardens also referred to as the Lieutenant’s Gardens which were nurseries manned by a military task force directed at civil works and tree planting.
- Under the benevolent direction of Sir Alexander Ball (1800-1815) the first public garden was inaugurated in Valletta. The garden planted with peppercorn trees and palms was to become also a Memorial for the Governor.
- There was a significant impact through the importation of trees during the early British colonisation. Apart from new species being imported from around the Empire into the botanical gardens the Colonial Silk Company filled extensive areas of Government land with Mulberry plantations.
- The lining of streets with trees is also an early development of the Victorian urbanisation process and Princess Street leading to the City marked this development.

THE BRITISH PERIOD



- The British instituted gardens through the Victorian and Edwardian period transforming most of the ‘wasteland’ and opening gardens to the public including San Anton which up to 1880s had been a coveted retreat for Grandmasters and successive Governors.
- The Garden Cemetery was also developed as a Victorian concept as the cemetery on a hill lined with cypress trees. The scheme devised by Emanuele Luigi Galizia in the Neo-Gothic style and symmetrically designed rows and lanes is mellowed by the trees lining the paths.
- The industrialisation and urbanisation of the Island caused the first strains on the Islands’ water resource.
- The British concept of greening the Isle cannot be more tangible in the propagation of the Garden Town concept. This is reflected in the development of Santa Lucia in the 1950s.

THE EARLIEST DEVELOPMENTS

1800s-1950s



1800s-1950s

1

- Lieutenant's Gardens
- Botanical Gardens

2

- Lower Barracca
- Public Garden

3

- Princess Street
- Tree Planting

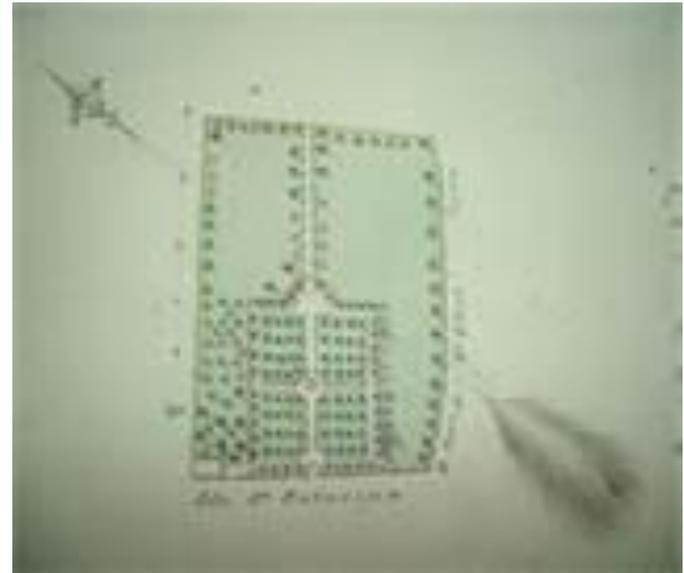
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- Maria Addolorata Cemetery
- Garden Cemetery

5

- Santa Lucia
- Garden Town





CONTEMPORARY GARDENS AND PARKS



- Successive Maltese Governments through the Post-Independence period have invested further in afforestation projects, nurseries, public gardens and parks.
- These have become essentially commemorative either dedicated to a historical event or a local public figure. A case in point is the 1964 Kennedy Grove and Memorial which is also a recreational park is being extended further.
- The afforestation projects may have come at a cost ecologically and environmentally. The donation of acacia trees Golden Wattle (*Acacia pycnantha*) mostly donated to the Maltese Government in the 1970s and 80s were considered a health problem. An eradication of the species ensued relieving the rural areas rather than the asthma patients.
- The more successful afforestation projects in environmental and ecological terms may include Il-Mizieb and Ghadira Nature Reserve. These two afforestation and conservation projects have created or conserved the characteristic Maltese landscape and habitats as in the case of the Maquis and in the latter very rare Maltese wetland and saltmarsh habitats.

CONTEMPORARY GARDENS AND PARKS



- The Ta' Qali National Park was a significant investment by the Maltese Government. It was a gradual re-development of an abandoned World War II airport. The successive tree planting has transformed the area in nearly two decades. The first redevelopment plan was compiled in 1994. In 2011 the Government announced a €5.5 million three-year project that will see the Ta' Qali national park extended by the equivalent of four football pitches. This investment excludes infrastructural upgrades but increases the number of trees currently 21,000 by another 1000.
- Another landmark project is the Garden of Serenity in Santa Lucija which was a donation of the Chinese People in 1996 and has been a complete regeneration of a 1980s government nursery. The Local Council is planning a revamp in 2013 also funded by the Chinese Government which will cost €1.7M. The garden of Serenity is one in a series of gardens that encircles the garden town.

THE EARLIEST DEVELOPMENTS

1960s to date



1960s to date

1

- Kennedy Grove (1964-)
- Grove and Afforestation

2

- Il-Mizieb (1970s)
- Afforestation

3

- Ghadira (1978-)
- Nature Reserve

4

- Ta' Qali National Park (1990s-)
- Park

5

- Garden of Serenity (1996-)
- Garden





Costs and Benefits

Costs	Amount	Benefit	Beneficiaries
Landscape Consortium (Annual cost for Landscaping of Public Areas)	€7 M p/a	Public areas are maintained and verges increased.	Public and the open areas, parks and public gardens.
Regenerating a garden	€520.00 p/m ²	Public areas are revived and attract locals	Public and estate value
Cost of trees *(saplings to mature)	€100.00 to €5,000.00 per tree	Public areas are green, shady areas provided and climate	Public, Aesthetics, health and environment.

Negative Investment



Costs	Approximate Values	Impact	Impacted
Vandalism (after 2 years)	€ 100.00 p/m ²	Public areas are marred and habitats destroyed.	Public, nature, environment, ecology.
Removal of Urban Trees (based on mature tree cost)	€2,500.00 per tree	Public areas are bleak and not aesthetically pleasing.	Urban climate changes and environment in general.

Investing in a greener Isle



IN CONCLUSION

- COMPARATIVELY THE INVESTMENT IN GARDEN REDEVELOPMENT AND TREE PLANTING IN MALTA HAS A HIGH POSITIVE IMPACT AND BENEFITS WHICH ARE NOT **ONLY** NON-EXTRACTIVE BUT ALSO OF EXTRACTIVE **VALUE**.
- THE BENEFITS OF GARDEN DEVELOPMENT AND TREE PLANTING OUTWEIGH COSTS BECAUSE OF ELEMENTS LIKE THE COMMON GOOD AND THE **PUBLIC GOOD** WHICH ARE AS IN THE CASE OF EDUCATION ARE **PRICELESS**.
- THE ACCRUED INVESTMENT FOR OVER 500 YEARS OF A GREENER ISLE SHOULD BE CHERISHED AND THE **IDEAL PROJECTED** TO YOUNGER GENERATIONS.