

Hal Ferh proposal - Group 5

Elena Di Pirro¹, Niklas Weins², Maria Isabel Bastos³, Tannya Pico⁴, Hafiz Khan⁵, Shahryar Sarabi⁶

¹ Dipartimento di Bioscienze e Territorio (DiBT), Università del Molise, C. da Fonte Lappone, I-86090 Pesche (IS), Italy - elena.dipirro@unimol.it

² Institute of Philosophy and Humanities (IFCH) - University of Campinas, Rua Cora Coralina, 100, Cidade Universitária Zeferino Vaz, Campinas, São Paulo, Brazil - CEP 13083-896. weinsniklas@gmail.com.

³ UNaLab-PT, Centre for Environmental and Marine Studies (CESAM), Department of Environment and Planning, University of Aveiro, Campus Universitário de Santiago, 3810-193 Aveiro, Portugal. mariaisabel@ua.pt.

⁴ IHS, Erasmus University Rotterdam. picoparra@ihs.nl

⁵ Laboratory for Industrial Water and Ecotechnology (LIWET), Department of Green Chemistry and Technology, Faculty of Bioscience Engineering, Ghent University Campus Kortrijk, Graaf Karel de Goedelaan 5, B-8500 Kortrijk, Belgium. Hafiz.Khan@ugent.be

⁶ Information Systems in the Built Environment (ISBE) Group, Department of Built Environment, Eindhoven University of Technology, Groene Loper 3, 5612 AE, Eindhoven, the Netherlands. - s.ershad.sarabi@tue.nl.

Study area

The study area of the "Hal-Ferh" military complex is located in the southwest of the small town of Mellieħa (10.087 inhabitants) at the northern tip of the island of Malta. The abandoned area of the Hal-Ferh complex covers an area of 9 ha and lies on the Golden Bay (Ir-Ramla tal-Mixquqa), one of the island's few sand beaches and among Malta's most popular. A small watercourse used to traverse the site from the southeast to the northwest, draining into the sea at Golden Bay but it has been sealed by the developments on site. Some military and defense-related buildings are also nearby, which are the only example of this type of architecture in this part of Malta.



Figure 1. View of the currently unused Hal Ferħ complex and the beach front with the Radisson Blu hotel. Source: Time of Malta, 2020.

Available at:

<https://timesofmalta.com/articles/view/hal-ferh-to-become-upmarket-low-rise-mixed-development.791477>.

Close to the beach, the uses are mainly targeted at tourism, focussed on high-season visitors, but also some year-round activities. Besides several hotels and restaurants, there are parking and camping facilities. The biggest among them, the Radisson Blu Hotel, is located on the north side of the beach, covers a significant area, and cuts through an existing area of high-value ecological value.

The inland is predominantly used for agriculture, with some areas of high agricultural value. Several of the natural features of the area have suffered from the intense touristic activity, e. g. the river that used to run through the study area was channelized and the parking lots have sealed a significant area and made heavy rainfalls have stronger impacts than before.



Figure 2. Agricultural areas in the inland area of Hal Ferh near Villa Frere. Source: TVM, 2020. Available at: <https://www.tvm.com.mt/en/news/church-s-environment-commission-does-not-agree-that-land-at-hal-ferh-should-be-used-for-residential-development/>.

Key policy goals and general strategy

Key policy goals in the region include the redevelopment of land for tourism purposes (by amending policy NWGT 1 of the North West Local Plan and the Hal-Ferh Development Brief), with the inclusion of high-quality residential accommodation.

The NW Local Plan aims at improving and protecting “the natural and man-made environment of both rural and urban areas, provide for economic development needs, accommodate population growth, sustain rural communities and encourage agriculture.” The NWGT 1 requires the provision of “appropriate open spaces between buildings to break the bulk of the built development”.

Consistently, the overall strategy is to promote redevelopment and reuse of the land predominantly for eco/agro tourism, whilst improving the general environmental quality and landscape connectivity. Intending to relieve the strong anthropic pressure on Golden Bay Beach, we propose the provision of alternative tourist attractions and activities for visitors and the residential public, within an overarching goal of sustainable development. The abandoned military complex is deemed to have historical and heritage merit; thus, we propose to conserve and rehabilitate it through suitable re-use. From an ecological perspective, it is crucial to daylight the Golden Bay river as well as improving the connectivity between the High-Value Ecological zones currently undermined by the tourist complex.

Therefore, according to the policy goals mentioned in the local plan our proposal includes four main objectives (1) Tourism related: the incentive of upgrading the tourist accommodation, (2) Recreation related: the provision of accessible open space for residents (3) Landscape related: the conservation of landscape setting and the enhancement of aesthetic features within the tourist area, and (4) Conservation related: the protection of water resources as well as the high-value ecological zones, along with the rehabilitation of buildings having historical and heritage merit.

Interventions envisaged in the proposal

The planned interventions follow both a multi-scale and multi-temporal approach, aimed at improving the environmental quality in the mid to long-term as well as enhancing ecological connectivity while offering new opportunities for slower and more environmentally friendly

tourism. Our intervention proposes that the tourist area be surrounded by a green and blue belt, which provides the most expensive and long-term interventions. In the southern part of the tourist area, the Golden Bay river will be daylighted, while in the northern part, a land-use change, from agricultural to natural lands, will be guided for the establishment of a green corridor with a total surface of about 3 hectares aiming to reconnect two significant areas of high-value ecological importance.



Figure 3. Proposal for a green and a blue corridor in the study area. Elaborated by the authors.

Within the perimeter of the study area, the interventions will be conducted with a more short-term return. The vegetated parking lots combined with the integration of sporting paths will be suitable and accessible for all ages. These interventions, combined with the construction of new tourist accommodations resulting from the re-use of abandoned military barracks, allow the area to become of high value for both tourists and residents.

Blue and Green Belt

Re-establishment of the Small Watercourse (Daylighting River)

Due to the urbanization process, the Golden Bay River, which once flowed naturally through the area, has been covered over or culverted. In response, our project intends to restore the natural water flow, by re-exposing the hidden river to the environment. This action might help in addressing several environmental challenges, mainly related to the water cycle, riparian ecosystems, water pollution, hydrogeological risk. Besides, a new riparian ecosystem combined with pedestrian facilities will offer suitable habitats for fauna as well as recreation opportunities for people (e.g., bird watching).

Green Corridor

The green corridor aims to increase the structural connectivity of the high ecological value level 3 areas located both north and south of the tourist complex. The corridor will be about 1 km long,

vegetated with Mediterranean maquis, and will be accessible on foot, on horseback, and by mountain bike. It will run from Il-Majjistral Nature & History Park to the start of the river course, southeast of the complex. Combining these two paths will be provided a biodiverse and multifunctional environment, useful and accessible for tourists and residents.

Restoration of abandoned and sealed areas

Green parking

Two new vegetated parking areas are planned for a total surface of about 2 hectares. The pavement will be kept permeable with flower beds and edges of endemic shrubs and trees (Mediterranean maquis, see figure 4). These features make the car parking shaded and pervious hence able to mitigate the heat island and increase the water infiltration.



Figure 4. Mediterranean maquis.

Source: Creative Commons

Sporting path and equipped areas

Five sealed and degraded areas will be the object of interventions, with a total surface of about 1 hectare. This soil may be rehabilitated and restored intending to provide new equipped areas that can be used by different classes of the population, playgrounds for children, meeting points for the elderly, picnic areas, and sports equipment. These areas should be built with local and ecologic materials (e.g. wood resources derived from forest management). The equipped areas and the parking lots will be connected by a path along one kilometer that will be used to encourage sports activities (e.g. bicycle, jogging) and walks.

Planning instruments and stakeholder involvement

For the implementation of the envisaged interventions, we suggest an overall regulatory and design-based approach.

Considering the current situation of the ex-military complex, we suggest a land acquisition process for the available vacant and abandoned lands, especially for the interventions related to parking and sporting path. Furthermore, to ensure the implementation of the green corridor it would be necessary to acquire the agricultural lands close to the complex, providing incentives for the owners of the lands.

However, the hotel, which we consider to be the most powerful and affected stakeholder in the area, might not support all of the interventions, disagree with the high costs or fear ecosystem disservices. Since the proximity of the proposed NBS to the hotels and resorts, we suggest a Public-Private Partnership (PPP) type of contract, between the municipality and the hotel to share both costs and lands. Considering the potential increase in tourist accommodation and activities expected due to the benefits provided by NBS, the hotel business can expect a medium-term return on the investment. Accordingly, after an initial investment by the municipality and the hotels' owners, on the one hand, the tourists will help economically in the maintenance and prosecution of interventions, especially in the high season. On the other hand, residents will be

encouraged to use the sporting facilities during the low season by paying a small usage fee or a type of membership.

Environmental NGOs could be interested especially in the actions related to the river's daylighting, organizing awareness campaigns and volunteer camps for the maintenance of river and coastal biodiversity. For this purpose, indeed, the suggested planning instrument is the conservation zoning to limit the future urban re-development of the river and coastal zone that can negatively affect the biodiversity and provision of ecosystem services in the area (e.g., urbanization close to the coasts and the river).

With regards to the monitoring of expected impacts, we propose quantitative-qualitative management plans to consider multiple social, economic, and biophysical benefits that NBS provide.

Elaborated by the ReNature school, group 5: Elena Di Pirro, Niklas Weins, Maria Isabel Bastos, Tannya Pico, Hafiz Khan, Shahryar Sarabi.