

BATTLE McCARTHY ©

Consulting Engineers & Landscape Architects



PROJECT:

ParcBIT, Mallorca

CLIENT:

Government for the Balearic Islands

ARCHITECT:

Richard Rogers Partnership

BM SERVICES:

Sustainable Masterplanning

VALUE:

£250million

DESIGN BRIEF

To develop an integrated masterplan in collaboration with Richard Rogers Partnership and Arup Transportation and Communications for a Sustainable New Town. Parc Balearic Information Technology was established by the Balearic Government to describe a new approach to creating living and working environments.

London UK Office
T: +44 (0)20 7440 8282
F: +44 (0)20 7440 8292
E: admin@battlemccarthy.com
www.battlemccarthy.com

DESIGN INITIATIVES/ACTIONS UNDERTAKEN

ParcBIT was funded as part of the ExpoCities Project under the European Union Thermie Programme. ExpoCities is a co-operative effort among four urban development projects at Palma, Hannover, Utrecht and Lisbon, to define a common strategy of sustainable development, to disseminate environmental and energy solutions, and to lead the way forward for sustainable energy schemes in Europe.

Battle McCarthy were responsible for developing an integrated approach to water, ecology, landscape, transportation, energy and climate.

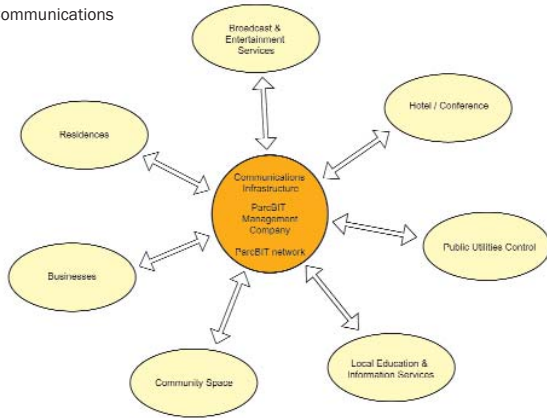
The strategic objectives of the project were to:

- Create the basis for a new community that is more sustainable in its use of valuable resources, by creating systems which attempt to balance the cycle of supply and demand within the boundaries of the community.
- Promote an approach to construction, both macro and micro, that is more sympathetic to the natural land forms and therefore less disruptive to local ecology.
- Promote a policy of restraint that recognises that in the future there must be a reduced dependency on the car.
- Recognise that work location is no longer defined by historic patterns but will be determined by the quality of life and the environment.

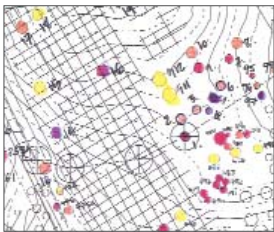
Some of the innovations incorporated into Phase 1 of the development included:

- A centralised combined heating cooling and power plant (evaporative cooling using treated wastewater).
- The use of treated wastewater for non-potable uses such as irrigation and to support the creation of new wetland areas.
- A prototype solar collector - 100 m² fixed mirror with tracking gantry incorporating a gas turbine.
- A vacuum waste collection system.
- No net loss of wildlife habitat value.

Communications

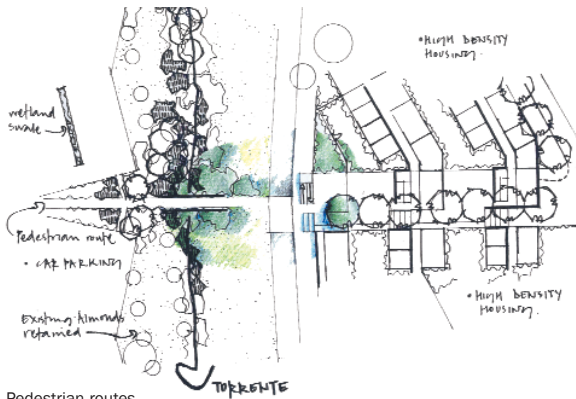


Landscape



Part plan of the tree survey

Battle McCarthy undertook a comprehensive tree survey of the area which identified and categorised over 600 specimens. Signature landscape studies identified elements unique to the site to ensure the landscape proposals were sympathetic to the area. Existing vegetation has been retained where possible and developed further to increase the ecological value and biodiversity of the site whilst proposed plant species are indigenous or native to encourage wildlife and reduce demands on water supply.

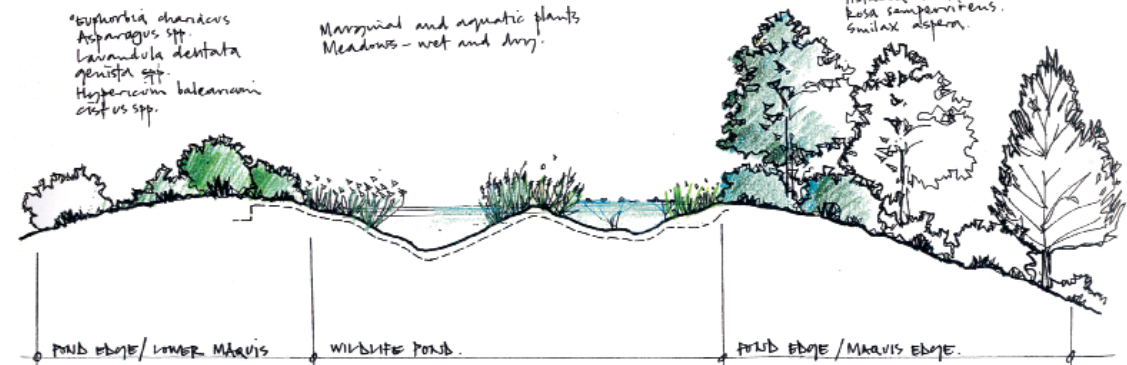


Pedestrian routes

Euphorbia characias
Asparagus spp.
Lavandula dentata
Genista spp.
Hypericum balearicum
Cistus spp.

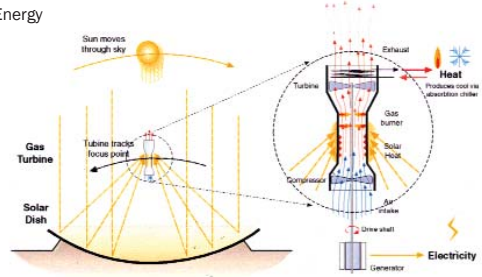
Marginal and aquatic plants
 Meadows - wet and dry.

Opuntia officinalis
Cistus sp.
Ficus carica
Myrtilus communis
Ribes spp.
Rosa canina
Smilax aspera



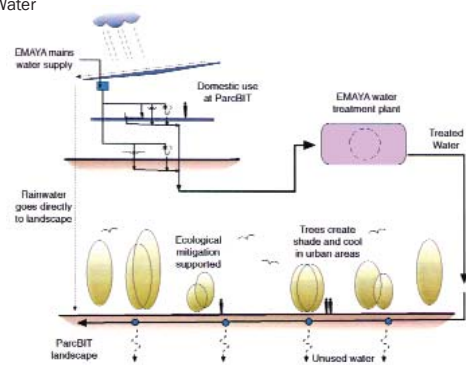
Ecological Pools

Energy



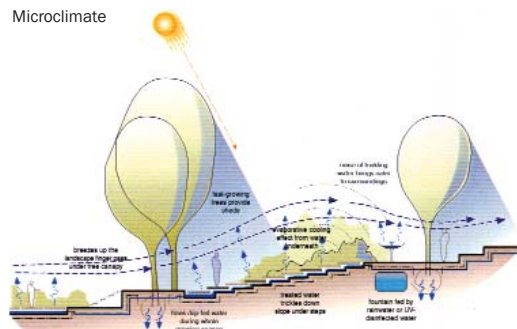
The proposed solar integration system uses focusing mirrors to catch the sun's energy via a gas turbine which is partly gas-fuelled. This is an innovative system which fulfills the European Commission's objectives for demonstration and research of new renewable energy technologies.

Water



The water strategy for the site included the reuse of domestic grey water for irrigation of the landscape, reducing the demand on the mains system.

Microclimate



A microclimate strategy was developed where the landscape responds to climatic conditions to improve human comfort with shade, breezes and evaporative cooling.