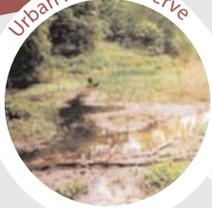


Urban nature reserve



## HERITAGE AND CONSERVATION

Identity of society depends on a common history and heritage, reinforced by culture, language and surroundings, both natural and man-made, landscape and “a sense of place”. This is important to local people, but also provides potential for tourism, education, and research.

Landscape is moulded from the Earth’s surface by geological and biological processes. Topography reflects the underlying rocks – hard rock uplands and soft rock rolling hills – and vegetation cover. Topography can aid good urban design. An imposing coastal location or attractive hills can add interest. But, too often, urban areas disregard the landscape. Hills are excavated, hollows are infilled and streams are hidden in culverts. Design opportunities are lost. Visual damage from urban sprawl partly reflects disharmony between buildings and the landscape.

Geological and geomorphological features merit conservation in their own right. Many urban areas contain exposures of geological strata in road and railway cuttings, old quarries, and naturally eroded cliffs. These can form interesting visual features and a focus for study. They can be incorporated into town walks with site explanation boards. If an area contains numbers of important sites then it might merit designation as a UNESCO Geopark. Since different geological materials support varied habitats, geodiversity contributes significantly to biodiversity.

Thus vegetation reflects the nature and composition of local soil and water and local topography and climate. Since vegetation is at the base of the food chain it also influences all dependent animal life. Habitats can be lost by degradation, fragmentation and neglect. Safeguarding and reclamation of land can provide a focus

for community involvement, neighbourhood renewal and generating pride in surroundings, especially where traditional communities of tolerant organisms and have been protected for nature conservation.

Most wildlife can, and should, co-exist with people in urban areas – green areas can be restful (e.g. parks, gardens, reserves) and retain links with the cultural past. Trees help to retain moisture and provide shade and shelter. Re-vegetation can reduce the rate of run-off of rainfall, soil erosion and slope instability. But urban wildlife can be severely constrained by contamination and pollution and some trees even add to pollution by emitting volatile organic compounds.

All long-inhabited areas contain archaeological remains. Some sites are obvious but most are invisible, especially if concealed by urban development. Older parts of cities may have remains spanning the whole history of development of the settlement. Archaeologists prefer to leave sites undisturbed for future investigation if practicable but, if a site is likely to be lost due to the development, this may be preceded by full excavation. Even if remains are left preserved within the ground they may be damaged or lost due to:

- physical damage (e.g. excavation, piling) which can shatter artifacts;
- drying out (e.g. changing groundwater levels due to pumping, drainage or environmental change) leads to crumbling away of organic materials;
- chemical damage - changes to the chemistry of soils or groundwater (e.g. pollution or evaporation and deposition of salts) may corrode, encrust or dissolve artefacts).

Therefore careful mapping and recording is needed to define areas in which remains might be expected and need protection. Site investigations, development and redevelopment need to be undertaken cautiously. Flexibility of design of development is needed to retain access to features or to minimize damage.

There is often a sense of achievement and pride in the historical and built heritage. But while old major buildings may be carefully conserved, more modest and newer structures that provide much of the urban sense of place may be neglected until it is too late to save them. Many old buildings are constructed from natural stone from long lost quarries. The weather erodes these: a process that may be exacerbated by urban air pollution. Investigation is needed to secure suitable matching stone for repair as well as for building new structures of local traditional materials. Structures worthy of conservation may be vulnerable to natural hazards such as ground instability or flooding, or from adjacent excavations and tunneling operations and so, need to be carefully monitored.

geoconservation at an urban roadside



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# Heritage and Conservation

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