CONSTRAINTS AND POSSIBILITIES

Two useful analytical tools are constraints and possibilities mapping. The constraints and possibilities maps focus mainly upon the physical factors which affect development. The constraints map contains information, for example, on the location and design of any approved projects such as road widening, sites with planning approvals, land use or building height restrictions, buildings designated as of historic interest, together with any important features of the land or its servicing. The constraints map can have a debilitating effect upon design if each constraint is not challenged in terms of its current importance and also examined in the light of any possible waivers or methods of circumventing the effects of the constraint. The possibilities map includes items such as areas ripe for development, possible linkages with adjacent areas in the city, features which are special to the area, groups of buildings of outstanding architectural significance which, with a change of use, would bring distinction to the quarter, positions where development would enhance the appearance of the built environment and areas where landscape intervention would be advantageous.

SIEVE MAPPING

Analysing constraints and possibilities can be expressed graphically as a series of sieve maps. Mapping a number of constraints as transparent overlays to an ordnance survey map of the project area eliminates those areas which, for one reason or another, present difficulties for development. The technique, when combined with the power of the computer using Geographic Information Systems (GIS) technology, can combine many layers of physical and socio-economic data, so affording complex analyses which relate population studies to the environment occupied by the community. The use of large-scale three-dimensional computer models is becoming more common in urban planning and design. In addition to the use of the computer model for design, it is being developed to act as the core of an urban information system. Systems are being developed for linking objects in a three-dimensional model with other kinds of information, including text and photographs, records of a building's history, social statistics, data about energy use and digital material for sound and video. Computer models are beginning to appear in which 'The visualisation capacities of the CAD model and the analytical power of the geographic information system can be brought together to provide new kinds of tools for urban design'.[3]

STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS

SWOT (strengths, weaknesses, opportunities, threats) analysis is a useful technique for the collection and structuring of data. SWOT analysis has its origins in business management where strengths and weaknesses refer to the internal workings of the organization while opportunities and threats are external to it.[4] This clear distinction between internal and external conditions is more difficult to apply when assessing the potential of a part of the physical world such a city district. The analysis in strict management terms could be applied to an organization contemplating a particular intervention in the world of real estate but not necessarily in quite the same way for the potential of the real estate itself. Many of the threats facing an inner city area or the opportunities it presents could be considered to be internal to the physical structure being investigated. For example, a continued loss of population in the inner city could be seen as a threat to regeneration but in many ways it is inherent to the inner city. Clearly there is overlap between all four analytical categories. A weakness, for example, can be viewed in a more positive light as an opportunity, while in