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The Virtual City
Europe's architectural heritage is immensely rich and diverse; it contributes to the quality of life in our cities and attracts hundreds of thousands of visitors from all corners of the world. Yet it is under increasing threat from insensitive planning, atmospheric pollution and commercial exploitation.

There is urgent need to understand the complex evolutionary development of our urban habitats, to reconstruct what once existed, to archive what currently exists and to test, in context, proposed future architectural and planning interventions.

The emerging multimedia technologies offer an unprecedented opportunity to make all this accessible to a wide range of interested agents - from citizens to tourists, from students to scholars, from conservationists to developers.

The ABACUS Group, which is part of the Department of Architecture and Building Science at the University of Strathclyde, has been melding the technologies of Computer Aided Design (CAD) and Multimedia (MM) to provide tools and systems appropriate to the modelling and management of our urban heritage.

The group's first experiment in combining CAD and MM was carried out in collaboration with the University of Rome and the University of Cataluna, and was funded by the European Community. The challenge was to offer an explanation of the extraordinary evolution of the modern city of Split on the Dalmatian coast, from its origins as the Diocletian Palace built at the height of the Venetian Empire.

The next challenge, offered by the Edinburgh Old Town Renewal Trust, was to provide a highly detailed and comprehensive model of the beautiful and ancient capital of Scotland which could be used on a day-to-day basis by the Trust, to explain the quality and value of the Old Town environment, and to test proposals for renovation, renewal and revitalisation of Edinburgh's historical heart.
The challenge now facing the ABACUS group is in the run-up to 1999, when the magnificent and dynamic Victorian city of Glasgow celebrates its award as City of Architecture and Design. Students of the Strathclyde School of Architecture have, over the past five years, created a massive geometric database of the city which includes its hilly topology, its road, rail and river networks, and the footprint and form of over 10,000 of its buildings. Over the next four years the ambition is to build the most comprehensive Virtual City this side of the Millennium.