CHRONICLE OF THE CITY



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Abstract

The great cities of all continents have a remarkable story to tell about their social, economic, industrial, cultural and architectural evolution. This paper gives an insight into an ambitious project to construct a 2000 year historical chronicle of Glasgow – the city at the heart of the Industrial Revolution in Northern Europe. The multimedia document which holds the chronicle draws from a huge range of paper-based resources and pulls together contributions from experts in many disparate fields. A significant characteristic of the chronicle is the use of "place" in the telling of the story. This has been achieved by sophisticated merging of artistic impressions, digital terrain modelling and aerial photography.

Background

The city of Glasgow is located on the river Clyde in the industrial south-west of Scotland – a country which, after a period of 300 years, has recently reestablished its own government. The city flourished, industrially and culturally at the height of the Industrial Revolution, when it was known as the Second City of the Empire [Oakley, 1976]. Currently, it is re-inventing itself after the decline of the heavy industries of ship-building and steel-making; recent accolades include European City of Culture, 1990 and UK City of Architecture and Design, 1999.

ABACUS, the Architecture and Building Aids Computer Unit, Strathclyde had already produced a number of multimedia documents relating to particular aspects of Glasgow and other places [ABACUS, 1999] [ABACUS, 2000] when Geoffrey Jarvis brought his ambitious idea to the Group. A small maquette of the proposed project was produced and used to win funding from the Scottish Cultural Resource Access Network(SCRAN), the Lord Provost's Millennium Fund and the Trades and Merchants Houses of Glasgow. SCRAN is a unique initiative which aims to capture digitally, the main cultural assets within the nation of Scotland; and to scholars world wide [www.scran.ac.uk].

Structure of the Document

The central issue in the design of the CD-ROM – to be named "Glasgow 2000 : the Story of the City" – was to give a distinctive sense of "place" and to link all of the information regarding the city's history to specific geographical locations.

An artist was commissioned to produce a series of water-colour aerial perspective views of the Clyde Valley, all from the same eye-point, onto which the evolving village/town/city form could be superimposed. The artist was provided with a computer-generated 3-D wireline topographical model of the area as seen from the chosen view-point and with a series of early maps of the city; his task was then to interpret how the city would have looked from above as it grew and developed. For the most recent period of the city's development, actual aerial photographs were "draped" over the computer generated topography. By manipulating a cross-wire cursor, it would be possible for the user, in a closeup window, to visit the sites of significance - from the early battles or archaeological sites of yesteryear to

today's football stadia.

The highest level menu relates to the historical periods in the city's development. The menu items are:

Prehistory (8000BC – 500AD)

Christian (500 – 1560)

Reformation (1560 – 1707)

Commerce (1707 – 1830)

Manufacturing (1830 – 1920)

Social Revolution (1920 – 2000)

Within each of these time periods, the user can investigate issues of interest specified by choices from one or other of two menus:

Landscape

The menu items are different depending on the historical period. For example, in the pre-history period the items are: ancient sites, canoes, incidents, fords, Romans. For the manufacturing period the items are: country mansions, city views, distilleries, docks, engine works, landmarks, potteries, public parks, railway stations, shipyards.

Concepts

The menu items are broadly similar for most historical periods and include items such as: people, land owners, the Clyde, government, wealth, work, taxes, technical advances, housing/building, food/agriculture, beliefs, services, communication, education and social/cultural life.

The content of the CD-ROM has been gleaned from a large range of published sources and knowledgeable individuals. It comprises over 230 images and over 140,000 words of text. It also features 5 video clips and 35 sound clips – the outcome of unique research in the musicology of the region.

Work on the development of the CD-ROM is now complete. 2500 copies have been produced and will be distributed to schools and academic institutions locally. It is anticipated that it will become the focus of much teaching material and a stimulus for further research into the

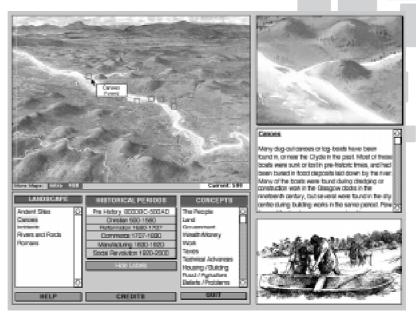
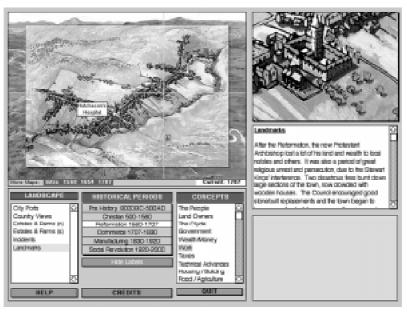


Figure 1 shows how the user can identify the location of the ruins of canoes used in pre-historic times. Moving the cursor in the top/left window produces a close-up in the top/right window and choices from the "landscape" or "concepts" menus brings up text/images in the bottom/right section of the screen.



In Figure 2, the user has asked for landmarks from the Reformation period. The perspective drawings in both graphics windows were commissioned from an artist

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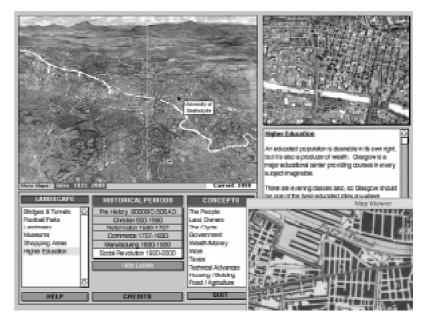
history of the city. It would please the authors of the CD and this paper if the existence of Glasgow 2000 promoted comparisons between the evolution of the European City of Glasgow and the great cities of Iberio-America.

Bibliography

Oakley, C. <u>The Second City</u>, Blackie, London, 1976

ABACUS. <u>Virtual Open Doors: A Virtual Tour of Glasgow Architecture</u>, University of Strathclyde, Glasgow, 1999

ABACUS. New Lanark: The Social Legacy of Robert Owen, University of Strathclyde, Glasgow, 2000



In Figure 3, the six railway stations are highlighted on a stunning 1861 engraving of the city. Note the huge number of sailing and steam ships on the river. The bottom/right window gives a 1852 map of the city.

Figure 4 is an aerial view of the modern city draped over the artists impression of the landscape. The user has asked for the 12 higher education institutions to be identified and has highlighted, with the cursor, the University of Strathclyde.