

## This week

continued

### Pergamon starts an empire of data libraries

Richard Fifield

Pergamon Press, having taken over Infoline—the ailing computerised technical library—has signed an “exclusive” agreement with Scicon Computer Services. Scicon will provide the computers and central bureau through which subscribers link into the computer files processed by what is now Pergamon-Infoline. The partners claim that the link with Scicon will enable the computerised library to “take on the best of the competition that the United States and Europe can offer”.

Infoline was once heralded as the flagship of Britain's information retrieval systems. The Chemical Society, the Institution of Electrical Engineers, the British Library, the Department of Industry and Derwent Publications established it in 1976, each contributing £300 000 to an initial loan fund. The partners hoped that Infoline would come into service by 1978.

Frustration set in among some of the parent organisations when Infoline was still not in service by the middle of 1979. Then, the government declared that it would not give Infoline any more capital. Least happy about events was Derwent, which, it is said, was pressurised by its parent company, the Thomson Organisation, to look for a reasonable return on its investment.

Infoline eventually started late in 1979. At the start, there were problems with software: some customers considered the system slow, and were not sure that it could handle the files (of chemical abstracts and patent information, physical and electronic data, general patents, and pharmaceutical information) eventually intended for it.

When it became clear that government cutbacks would stymie improvements and expansion, Derwent withdrew, taking its profitable patents index and pharmaceutical information services with it. By 1980 Infoline badly needed cash, although it still had the valuable information files of the Chemical Society and the Institution of Electrical Engineers.

Enter Pergamon, offering £1 million now and £2 million more over the next 2½ years. Pergamon had already been exploring the potential of electronic information. Its International Information Company in the US had bought a stake in the lucrative US patents file and, assuming that all goes well, Pergamon-Infoline hopes to offer this service by the autumn.

Infoline is certainly well connected. The company developed 10 local stations with cheap telephone access to its data banks. It also linked its computer to



Looking at the literature with Infoline

Diane, the EEC's computer network which became operational earlier this year. Further, it wanted to capture a share of the US market and so built connections with the Post Office's service for transmitting data across the Atlantic.

Robert Maxwell, Pergamon's chairman, and Brian Elson, Scicon's managing director, see their companies jointly developing new databases from the vast amount of technical information published by Pergamon Press and others. One of the first will be a new energy database. Scicon is a subsidiary of British Petroleum, and, according to rumour, BP has interests in a database prepared for a Middle Eastern state that, for political reasons, cannot take it up.

### Egypt's cultural heritage is at risk

The pyramids at Giza, the Sphinx, the monuments at Memphis and in the Valley of Kings in Luxor, the Pharaonic temple of Al Karnak and the Tomb of Queen Nefertiti in Upper Egypt are all sinking. This is the inescapable conclusion of recent geological research at Cairo's Institute of Astronomy and Geophysics, the University of Cairo and the University of Alexandria.

Studies there show that the entire cultural property of Egypt is floating on an immense sea of underground water. The ground water under the famous monuments has now risen to a critical level. Under the Sphinx and the Pyramids, the water table is only 3 metres beneath the

surface. At the Temple of Karnak and the tombs of the Valley of the Kings, it is a mere 2 metres underground, and even in Cairo, under the celebrated citadel and near the Mokattam Hills in the east of the city, the water table is less than 2 metres below the surface. Thus there is a serious danger that the historical monuments may soon collapse.

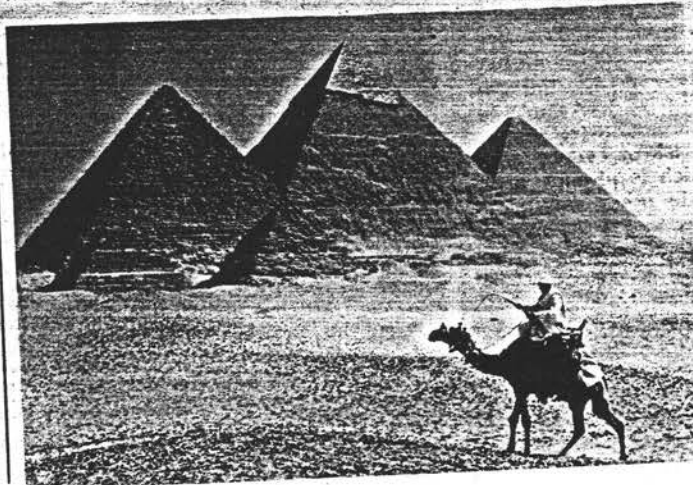
In Egypt underground water flows from the sources of the Nile in Central Africa and through the desert. In recent years the water table has risen sharply—water which was at a depth of 14 metres 50 years ago is now less than 5 metres from the surface. In most parts of the Nile Valley, underground water is

now 0.5 to 8 metres below the surface.

According to Dr Helmy Bakr, head of the Department of Irrigation and Drainage of the University of Alexandria, the drastic rise in the water table is due to the construction of the Aswan High Dam, the inefficient use of irrigation water in agricultural land and the absence of drainage extensive enough to handle lots of irrigation water.

The Nile floods almost every year. The Aswan High Dam blocks the flow of flood water to the Mediterranean and so makes a major contribution to the rise in the level of the water table. “In addition, over 40 per cent of the irrigation water and over 60 per cent of drainage water contributes directly towards increasing the water table,” says Bakr. In most of Egypt's agricultural land the water table is 30-35 cm below the surface, while large segments of the Nile Valley are, in fact, waterlogged, he claims. Bakr expects the volume of ground water (currently about 1800 million cubic metres) to double within a few years unless effective measures are taken to improve irrigation and drainage.

A number of research projects are under way in an attempt to improve irrigation and drainage and so to halt—and eventually reverse—rises in the level of the water table. This year, three experimental drainage schemes—in Giza, at Kafr el Shaikh in the middle of the Nile Delta, and at Abou Korkas in Upper Egypt—were set up with the help of £8 million in US aid. They will be completed in late 1982.



The pyramids at Giza are just one of the monuments threatened by rises in the level of ground water as big as 9 metres in the past 50 years. These rises are a result of building the Aswan High Dam and of the inefficient use of irrigation water, combined with the lack of drainage extensive enough to handle irrigation water

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