

Preserving the Cultural Environment

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Egyptian Antiquities Information System (EAIS)

The Egyptian Antiquities Information System (EAIS) was established in June 2000 to for the protection of Egypt's cultural heritage. It is an Egyptian Finnish Project using a Geographical Information System (GIS) . From its foundation, EAIS has been a collaborative effort between . The SCA operates within the Egyptian Ministry of Culture, and is charged with the preservation of Egypt's rich historical legacy. The Finnish Environment Institute works under the Finnish Ministry of the Environment, as a research and development center dedicated to the protection of Finland's natural heritage.

Recognizing the need to modernize the tools and methods used in the management of Egyptian historical sites, EAIS leverages the technical advantages offered by GISs which are a computerized tools used for collecting, storing, retrieving, transforming, and analyzing spatial data. Today, the system is a detailed, flexible digital map and database, a powerful tool for description and analysis with strong links to national land use planning organizations and an immense potential for research.

Through the use of SCA specialists from various fields, most of whom are Egyptian and trained in the project ,a system was created and with the technical advising and support of Finnish experts. The systems used to manage Finland's natural reserves, wilderness areas, and water resources were used as a guide to create A system that can be applied to Egypt historical sites.

Fortunately, EAIS's Geographical Information System proposes a method for improving the SCA's capacity to protect its historical sites, improving the accuracy of its records and its ability to share the locations of these sites with important land use planning institutions, such as The Egyptian Survey Authority ,Ministry of Agriculture and the General Organization for Physical Planning (GOPP). EAIS gathers data on the official boundaries of each site from SCA records and departments. Using maps provided by the Egyptian Survey Authority (ESA), The Military Survey Authority, and recent satellite images and Arial photoset , it identifies the current conditions of sites, as well as changes to them over time. It then looks deeper, doing further archaeological research on the extent and content of historical sites, and even makes visits to the sites themselves, taking stock of their present conditions and confirming their locations with the assistance of Global Positioning Systems. At the same time, EAIS verifies its data across all available sources, ensuring the precision of its information. Using Arc View, a digital mapping program, maps of site locations are layered onto maps of their environments, allowing them to be seen in relation to topography, property lines, urban development, agricultural activity, socio-economic data, or a multitude of other possibilities.

Descriptive information gathered about the sites are input into a Microsoft Access database, facilitating search ability and augmenting the flexibility of the digital maps. Finally,

and perhaps most importantly, EAIS then returns its information to Egypt's system of land management, adding site locations to official SCA, ESA, GOPP, and Ministry of Agriculture maps. In this way, EAIS increase these national institutes' awareness of historical sites and supports their ability to follow the letter and the spirit of Egypt's antiquities protection laws. To date, EAIS has added and verified the positions of several sites in government records, and brought to light inconsistencies in the registers of both the SCA and Sigel 'Ayni, the official property register of the Egyptian government.

The natural environment and the cultural environment are inescapably intertwined. As part of its mission, EAIS gathers information on the threats historical sites face to their continued preservation, or even, existence. Historical sites are embedded into the fabric of the natural world. Changes to that world, disruptions to the ecosystem, can have a direct, rapid effect on them. Changes in the water table, and air pollution can wear away stone that has stood for centuries.

The cultural environment and the natural environment share common concerns, goals, and destinies. Too often, their representations on official maps and records outdated, and lack detail. Buffer zones are difficult to establish and to control. In addition Land ownership records are incoherent as legal protection documents .The locations of well-known sites and are not documented are unprotected,. Urban expansion in Egypt is rapid and new land is needed constantly for agriculture, industry, and housing, and construction of New development zones are being created, such as in New Valley, New Delta, and North Sinai, impacting often fragile environments.

EAIS has also provided a platform for the recognition of unregistered historical sites, sites whose importance have been recognized by archaeological researchers and by the SCA's personnel in the field, but which have not yet received the benefits of legal protection. In the same way, Geographical Information Systems can be used for the identification of unprotected natural sites.

Geographical Information Systems have enormous potential as research tools, allowing for the analysis of spatial information in powerful, flexible ways. Researchers can study the distribution patterns of ancient temples as well as of water fowl. Studying the locations and uses of natural resources is as elemental to archaeology as it is to environmental conservation. Populations, either human, animal, or plant, can be seen in terms of their spatial relationships and interrelationships.

EAIS has recognized that combining the capacity of national and international organizations to conduct their operations and satisfy the law is essential to fulfill their own purposes. It therefore has placed a great deal of emphasis on the creation of a managerially, financially, and technically sustainable of A GIS center in SCA that works closely with government institutions involved in land use planning and heritage protection. EAIS seeks not only to provide information, but to improve the system of Site management. This is impossible without reliable, accessible information and strong operational bonds among the organizations concerned. EAIS works to assure a successful future for this system by running an extensive training program and providing a way for institutional development.

Only through the collaboration of a diverse set of national and international actors is conservation of Egypt's cultural and natural environments possible. It is an enormous, long-term task, and EAIS is committed to working with a broad range of national and international actors to ensure this country's future is as bright as its past. Raising awareness of this task and the standards of protection with land use management institutions and those who maintain government records is vital. Even the public plays a role, from cultural tourists to eco-tourists, from farmers to businesspeople; the responsibility of protecting our natural and cultural heritage belongs to everyone. Interested parties are invited to contact us and mutually benefit from our system. For further information, please contact EAIS at eais@eais.org.eg, or refer to our website www.eais.org.eg. You are also invited to call our offices in Cairo for an appointment at 735-0287 or 735-0289.