

ARCHITECTURE

Historia de la Arquitectura with MediaStation *Instituto Tecnológico y de Estudios Superiores de Monterrey*

Traditionally, architecture students at the Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM) had not devoted as much attention to their architectural history courses as faculty members thought necessary. Many of their projects were not of the quality expected by the school. And they were devoting little time outside of the classroom to further investigate the material reviewed in class lectures.

The students' main interest is designing buildings,^o explains Fernando Huerta, a member of ITESM's academic computing staff. "Although architectural history is a very important part of the curriculum, instructors were having a difficult time catching students' attention with the static charts and maps that are used in class lectures. Students were bored by the historical information. We needed to find an autodidactic method that would motivate students to spend more time investigating the subject on their own.^o

Working with three members of the architecture faculty, Huerta developed *Historia de la Arquitectura*, a multimedia database running on NeXTstation Color computers that contains 18 key architectural works from the Renaissance and modern periods. Using the database, the 275 students who enroll in architectural history courses each year learn at their own pace about the historical context in which the buildings were created; their main characteristics, including style and geographical and physical location; and the impact the various works have had on the field of architecture.

ITESM has been using NeXT machines since 1988, when it became the first Latin American university to purchase NeXT computers. There are currently 120 machines on site. According to David Trevino, computer services director, "We chose workstations because of power. We'd been working with PCs and Macs and found them good for word-processing, but we needed a technology that went further. We saw workstation technology as having a major impact on both academic and nonacademic worlds, and we evaluated NeXT as the best workstation in terms of both hardware and software.^o

He adds, "NeXT technology allows the integration of not only text, but images, sounds, and video. Course material becomes more alive, dynamic, and motivating on NeXT.^o

For Historia de la Arquitectura, faculty members provided Huerta with information on the various buildings as well as audio, images, and music. Using scanners, audio- and image-processing software, architecture students scanned the text, audio, and images into MediaStation. All text and images are stored in standard RTF and TIFF formats.

With MediaStation, Huerta created four classifications (building type, author, style, and building name) by which students can retrieve information on the 18 works. He set up two archives—one for Renaissance buildings and one for modern buildings. The two Historia de la Arquitectura archives open to a table that includes a list of subjects appearing in the archives. Each window of an archive contains scrolling text that provides historical information on a particular building as well as important dates and characteristics regarding the building. While reviewing the text, students can click a separate tile that includes various figures relating to the building. When students get to the end of the text, a bibliography appears, listing books and articles on the building that are available from the campus library.

Because the NeXT environment is very flexible, says Huerta, "it's easy to update the archives as new information on buildings or architects becomes available."

Using Historia de la Arquitectura, students also participate in a multimedia tutorial in which they hear the voice of a faculty member reviewing information about the building as images of the work appear on the screen. Music from the period in which the building was constructed can also be heard in the background. Throughout the tutorial, various pointers appear on the screen, specifying parts of the building as the instructor refers to them in his commentary.

Given the attractive, easy-to-use multimedia presentations we've been able to create, the coursework has now become interesting for students, says Huerta. "They now have a simple and intriguing way of learning repetitive information. Therefore, during class, teachers have more time to devote to student questions and expressing their opinions about a particular building or architect. This makes the classroom sessions much richer."

Huerta notes that, perhaps most importantly, the quality of students' homework assignments has improved and that students are now devoting more of their spare time to studying architectural history. "Students are more motivated," he says. "Because the material is so easy to find on MediaStation, it encourages them to do further investigation."

Because of the School of Architecture's success with their NeXT-based tutorial, ITESM's Marketing Department in the School of Business has asked the academic computing staff to create a similar application. The marketing tutorial will allow students enrolled in advertising courses to have access to a variety of advertising materials.

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