10.2
Exporting CAD Teaching into Developing Countries

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In 1986 the Faculty of Architecture was established in Maputo. It is financed by the Italian Ministry of Foreign Affairs and managed by a Scientific Council of the Faculty of Architecture of "Università La Sapienza" of Rome. The need to create human technical resources beeing able to work profesionally as soon as they finish their studies, made the teaching basis for lab exercises and design. The new architects (the first six students graduated in 1991), need to design and make very important decisions without any control by more experienced local technical institutions.
The creation of a CAAD laboratory, and the teaching of information technologies and metodologies in architectural designing aimes to achieve a double goal:
- to make the new architects able to manage on their own, because of the lack of qualified human resources, large quantity of data, and difficult design problems;
- to make University, the most important scientific center in the country, an information exchange center between developped countries, and Moçambique.

The low cost PC technology helps the architects to achieve these tasks. The collaboration between the public institutions of planning management and the University are reciprocally usefull, since this allows the participation of the new architects in real jobs. On the other hand the planning institution assimilates the new advanced technics of data acquisition and management, and new methods of planning and designing. From this collaboration it will be possible to develop the whole country using local technology knoledge.
The questions to give an answer are: a) who should be trained; b) in what subject;c) to what depth.
It is clear thath the young architects graduating from this school will get immediately the leading part in the development of the country, acting as planners and designers. The large range of needs of the country, does not allow to select a specific topic to teach. The new architects should be able to exercise every kind of planning and designing. Therefore it would be wrong to make them higly specialized. Keeping this in mind, the academic year has been split in two parts: the theory based semester, and the practical exerciuse semester. In the first semester during the lectures in the "metos quantitativos I-II-III", the students learn the meaning of statistical data processing, geographic information systems, CAD components, multicriteria assessment, hyerarchic organization of the goals in the design process.

In the second semester in the classes of "Applicações de informatica I-II-III- IV" they practically apply all what they learned in the first one, using appropriate software, and linking the computer exercises to the planning exercises. Students are working in parallel on "Projecto de Planeamento". In this way students are encouraged to use both traditional methods and advanced informatics techniques.

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