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Pier Luigi Carci and Riccardo Wallach

The University of Calabria, founded in 1972 at Cosenza in Southern Italy, represents the first attempt within the Italian university system to create a university along the Anglo-Saxon model. Some of its major innovative features are the following:

- ⊕ The number of students admitted annually is specified. This is a major departure from normal Italian university practice. Unlimited admission, based solely on students achieving basic admission standards, is the norm, resulting in great enrollment fluctuation from year to year.
- ⊕ All faculty, 70 percent of the students, and all of the staff must eventually live on the campus.
- ⊕ Teaching and research activity is organized by departments rather than by a more traditional centralized faculty. Departments have more autonomy within their faculties, and greater freedom than usual in relationships with other departments.

- ⊕ New, non-traditional programs and degrees have been established. For example, the degree of urban planning at the school of engineering in Calabria is the first such degree in the country. Elsewhere, urban planning is an area of study within architecture.
- ⊕ The University exists wholly within a single (new) campus located in an area outside the city (Cosenza). Normally, faculties are decentralized and located throughout their cities.

The Faculty of Engineering of the University of Calabria confers two kinds of degrees: civil engineering, which stresses appropriate and safe uses of the natural and built environment, and includes regional planning (with an emphasis on hydrological and geological phenomena because of the peculiar land characteristics of the Calabria region); and engineering in industrial technology.

The program in engineering aims to train engineers by combining traditional and new knowledge so that students will be equipped to respond to emerging demands in the field. Civil engineering (including natural factor and regional planning) is divided into four concentrations: hydraulics, geotechnics, structures, and city planning. The program includes two years of preparation in engineering, after which students must spend three years in one of the following departments: structures, systems analysis,

regional planning, or "land defense" (which includes the hydrological and geological factors mentioned earlier).

The Regional Planning Department is where the degree in city planning is pursued. The urban studies teaching program in the Regional Planning Department provides students with a level of knowledge and operating ability somewhere between the basic studies common to civil engineers in Italy, such as city planning, transportation infrastructures and regional transportation planning (which are required subjects for all engineering students), and a specialization which aims to prepare the student for more scientifically advanced research. In short, engineering graduates are expected to have both a sound general knowledge of their field and competence in a more specific sector. At this stage of their professional educations, however, they are not expected to specialize to the degree common in the United States. It has been concluded, in Calabria, that urban and regional planning embraces methodologies that should be familiar to all engineers in order for them to work constructively and to communicate with urban planning experts.

The Regional Planning Department, one of 21 departments at the University of Calabria, is the first teaching unit in Italy capable of carrying out coordinated teaching and research in the field of regional planning within a faculty of engineering. This unique arrangement has considerable

potential for the preparation of city planners and the whole discipline with respect to other universities. The basic preparation in civil engineering schools allows students to develop skills in physical regional planning related to geomorphological and hydrogeological problems, and to problems of transportation infrastructures. Such features are generally ignored in city planning courses given in faculties of architecture.

The department is intent upon achieving the following goals:

- ⊕ To provide basic information to all civil engineers on matters pertaining to the most rational and orderly use of land;
- ⊕ To promote the use of engineering in city planning, in order to plan more functional settlements;
- ⊕ To develop an interdisciplinary approach to the study of single sectors that are of concern to regional planning.

Looking at the Berkeley Planning Program

Because it is a new program and because it is located in a uniquely organized university in Italy, the Regional Planning Department of the University of Calabria has been eager to examine planning education at foreign universities,

particularly ones similar to itself. The Department of City and Regional Planning at the University of California, Berkeley, was chosen in 1980 for the first visit by University of Calabria faculty, partly for this reason, and partly because it is well-established and is a leader in U.S. planning education. The general idea was to examine whether the teaching methods and the organizational approaches to research at Berkeley could give insights into these activities at the University of Calabria, and vice versa.

The possibility of collaboration in this effort was established in 1980. Later, in 1982, the Italian National Council of Research (CNR) sent the authors to the College of Environmental Design at Berkeley for the period of one academic term, to undertake the studies upon which this paper is based. The collaboration foresees the use of this type of comparison at the University of Calabria by bringing Berkeley faculty to Cosenza, to present lectures and seminars dealing with city and regional planning as it is experienced and taught in the U.S.

There are some aspects of urban planning in the U.S. where research and analysis methods are carried out in greater depth than in Italy, such as studies of environmental conditions and visual analysis. These, if known and understood, can be useful in Italy. Also, in the U.S. more attention has been paid, at least at the academic

level, to problems associated with planning for urban sciences and legislative and administrative approaches to planning. An analysis of management and implementation problems in the U.S. can also help Italian planners to assess and develop urban standards.

Furthermore, since the organizational and teaching model of the University of California is so different from what is normal in Italy, and since it appears to be representative of U.S. urban planning schools, our understanding of the latter should prove fruitful.

The Department of Regional Planning (Di.Pi.Ter.) at Cosenza
and the Department of City and Regional Planning (DCRP)
at Berkeley

Any comparison of programs and approaches to education and research must take into account the great differences in the ages and sizes of the two institutions. The University of Calabria is only ten years old; the University of California at Berkeley is 111 years old. The Berkeley student enrollment is approximately 28,000, while that of Calabria is 4,500 and disparities in organizational structure and level of support services, libraries, opportunities for cross-fertilization of ideas and studies, overlapping research, and so much more are apparent. More specifically, the student enrollment in DCRP approximates

125 in any given year, of which 100 are enrolled in the masters degree program and about 25 at the doctoral level. The College of Environmental Design, of which it is a part, has a total enrollment of 650 students, with the large majority in the Department of Architecture and fewer in the Department of Landscape Architecture. To compare, 35 to 40 students are enrolled in the entire Department of Regional Planning at the University of Calabria.

The graduate degree at Di.Pi.Ter. is "Laurea in Pianificazione Territoriale" (City and Regional Planning). The graduate degree at DCRP is Master of City and Regional Planning. Both are basic professional degrees -- that is, the degree-holder is assumed to be a qualified professional urban planner. DCRP also offers a Ph.D, which is an academic degree.

The relatively short existence of the University of Calabria has not allowed for all of the scheduled courses to be started; consequently students do not yet have great diversity in their individual curricula. The opposite is true in Berkeley, where a great variety of course offerings allows students to choose areas of specialization based upon relatively personalized programs of study.

Graduates of DCRP are expected to have acquired specialized competencies as well as a general professional ethic. Following their education at DCRP, graduates are expected to pursue important professional roles in urban

physical planning and development, or in such fields as housing, regional planning and development, and social and economic planning. They may serve at local, metropolitan, regional or national levels of government concerned with a wide array of urban physical, economic, social, and governmental policy matters. Moreover, some graduates find employment with private consulting and development firms as well as public agencies and institutions. They are expected to be generalists as well as specialists. The U.S. planning education is believed to be in keeping with an increasingly complex society, one that operates at many levels and with many substantive facets, all related to urban and regional development.

The MCP program at Berkeley requires students to be enrolled for two years (or four semesters). A three-month internship is required unless the student has previous equivalent experience. A thesis or professional report is also a requirement. In their two years, students must complete 48 credit (didactic) units, which usually translates into fourteen to sixteen courses. The teaching programs reflect major subject specializations within the urban planning field and permit students to pursue their particular interests within it. Students come to Berkeley with a great variety of undergraduate preparations, from very general fields embraced in the liberal arts, to much more technical areas.

All City Planning students at Berkeley are required to take five courses:

- ⊕ Process and History of Urban Planning
- ⊕ Introduction to Analytic Planning Methodology
- ⊕ Research Methods for Planning
- ⊕ Introduction to Economics of Public Enterprise
- ⊕ A studio course

DCRP has identified five areas of concentration within its program, and requires that students specialize in one. Three to five courses are required in one of the following concentrations:

- ⊕ Land Use and Environmental Planning introduces planning as a continuing and deliberate effort to design the physical fabric of urban settlements in a manner that meets social and economic needs within the constraints of the natural environment. Courses in this concentration deal with development determinants and constraints (including transportation planning and land economics), analytic methods, institutional contexts including legal tools, and planning applications.

- ⊕ Housing and Community Development concentrates on housing as a major land use, problems and solutions associated with the production and provision of housing, housing programs for the lower classes, and the relationship of housing to community development.
- ⊕ Economic Development and Regional Planning emphasizes planning at the metropolitan and regional levels with particular reference to economic and environmental development. Courses include demographic and economic analysis and locational models, basic economic studies, regional science, and political economy.
- ⊕ Urban Services Planning is concerned with rationalizing social and physical services through analysis and evaluation. Policies for distribution of urban services and infrastructures are included in the course offerings.
- ⊕ Transportation Policy and Planning deals mainly with the interrelationship of transportation and land use systems. The professionals who deal with transportation require multi-disciplinary training which includes economics, social planning, civil engineering, and city and regional planning. Students are encouraged to take courses offered by the Department of Transportation Engineering in

order to acquire the necessary technical tools to plan, design, and organize transportation facilities and services in the physical, political and social environment of which they will be a part.

Within each concentration courses are added and dropped as necessary to adapt to changing needs.

One more aspect of the Berkeley program should be noted. DCRP has established joint degree programs with a number of other disciplines. Students may study in two departments and get two degrees in about one year less than if they pursued those degrees separately. Joint degree programs exist with architecture, landscape architecture, law, public health, and transportation engineering.

After their first two years of engineering studies which include 10-12 courses per year, students at Cosenza are required to enroll in one of the departments for more specialized study lasting three years. During this period they are required to attend a minimum of 18 courses of one semester each. A final dissertation or professional project is required.

The program at the Di.Pi.Ter. of the University of Calabria does not offer the degree specialization that marks the Berkeley program. One must keep in mind that it is itself a specialization within the discipline of engineering. However, the required courses in city planning

are more or less equivalent to those of DCRP. The following are the most important of the required courses, because they involve studios, and because they are the subject matters of required theses:

- ⊕ City Planning is concerned with the comprehensive physical planning of local communities and their surrounding areas.
- ⊕ Regional Planning deals with economic, social, physical, and functional development and interrelationships within large geographic areas. This course is less specific than that which deals with local planning and includes more natural resource planning.
- ⊕ Organization and Administration of Environmental Planning is concerned with planning law and implementation methods at all geographical levels. Urban costs and financing are also covered.
- ⊕ Transportation Infrastructures studies various transportation systems as well as specific designs of transportation improvements.
- ⊕ Urban Systems Methods considers different methods of understanding the growth and development of Italian urban settlements, with particular attention to sophisticated quantitative methods and models of analysis.

The Di.Pi.Ter. organizes its courses under three main groupings: urban planning, regional planning, and transportation planning. They are all interrelated. The courses in urban planning are meant to provide an adequate professional training for Civil Engineering students who are interested in the instruments and methods of city planning.

Courses in regional planning deal with the regional economy, resource management, housing needs and production, and the organization and assessment of large region-serving projects.

The transportation planning courses are organized to provide Civil Engineering students studying land conservation and development and regional planning with a complete knowledge of an engineer's responsibilities in this field. Special attention is given to preliminary design of transportation systems, the planning of improvements, and the design and management of infrastructures. Studies include demand analysis and assignment models as well as technical aspects of vehicle infrastructure systems.

Every engineering student, regardless of field of specialty, is required to take a minimum of three courses in the urban planning group and one course in transportation. Those students pursuing the planning degree, however, must take all the courses the Department offers, about eleven.

It seems clear from an examination of the two programs that while they are both comprehensive and are both concerned with interrelationships between subject matters, the two departments are considerably different in their organization. Greater concentration of study is possible at Berkeley. Both departments, however, offer similar courses and approach problems faced in the field in similar ways.

The major difference in the two schools is in the area of applied research.

Organization of Applied Research

Planning research associated with both departments has as its main goal the increase of cognitive and theoretical knowledge, to provide support to teaching and to the practice of the profession.

There are two research units closely associated with the College of Environmental Design, both independent of individual departments. These are the Center for Environmental Design Research (CEDR) and the Institute of Urban and Regional Development (IURD). Faculty of all departments of the College, as well as faculty members from other departments, may have access to these research centers as well as to other research units in the University, but these are the ones that are closest to the planning faculty. Both may contract with government agencies to do research as

well as with private foundations, non-profit groups, and other sources. Some funding comes from the University, which also monitors the nature of work that may be undertaken.

The Center focuses primarily on research, training, and information concerning the built environment. Research there has included considerable work on earthquakes, building technology, environmental factors, housing, and reconstruction of the physical, built environment.

The Institute focuses on the problems of cities and metropolitan and regional areas. The research activities of IURD have examined such topics as housing, economics of regional development, transportation, energy and resources, historic studies, analytic methods, environmental perception, and the government's role in planning. The Environmental Simulation Laboratory, a unique research tool now located within the aegis of the Institute, does studies to gain fuller understanding of the possible impacts of plans and proposed projects on the physical environment, such as views, shadows, sunlight, wind, bulk, and personal comfort. The Laboratory is equipped with an environmental simulator that has a remotely guided periscope supported by a gantry, capable of recreating real conditions of flight, driving, and walking in a physical model of buildings and landscape, projecting images onto a closed-circuit television screen.

Research in the Di.Pi.Ter. is not centered in a specific institute intended to conduct autonomous research activities. The Department is the responsible body, and faculty themselves carry out studies. Research is required by their appointments. The research arrangements fall into three groups:

- ⊕ Research led by a single faculty member and conducted in small work groups of researchers, students, and graduates;
- ⊕ Research coordinated between groups of disciplines within the Department;
- ⊕ Research in collaboration with other departments of the University of Calabria or with external bodies or institutions.

The research is divided according to major topics in the Department: local planning, transportation planning, and regional economics. Subjects relative to planning in Italy generally and to Southern Italy and Calabria more specifically are of considerable importance for the formulation of study programs in the Department. Some particular research projects address the following:

- ⊕ Methodology for the preservation and recovery of historical centers by functional transformation or inclusion in the process of regional development;

- ⊕ Analysis and verification of the social requirements of housing and services in the context of city development;
- ⊕ Planning and management of transportation services in less populated areas;
- ⊕ Demographic and social-economic studies in relation to the projections of city plans;
- ⊕ Methods of analysis and project hypothesis for minor urban settlements.

Research results are published as a collection by the Di.Pi.Ter., similar to IURD's working papers. The Department chairman is responsible for final publications. Di. Pi. Ter., as does IURD, regularly conducts open seminars and meetings with invited foreign experts, thereby contributing to the cultural growth of their respective universities. A relationship with DCRP is of importance to Di.Pi.Ter., not only for the opportunities to compare teaching methodologies and disciplinary research, but also for the purpose of cultural exchange. There are considerable planning experiences and general knowledge to be shared.

Reflection

A comparison of the nature and substance of the teaching programs of the two departments permits a few reflections. Teaching practices in the two departments appear to be similar; both are concerned with similar subject matters and approach them in a comprehensive, interrelated manner. The number of course offerings at Berkeley, however, is much greater than at Calabria, giving students more access to differentiated programs with specific requirements and concentrations. On the other hand, while DCRP is an autonomous department that confers its own degree in City Planning, the Department of Regional Planning at the University of Calabria is an area of specialization within the Civil Engineering Faculty.

Some of the courses at DCRP could make significant contributions to the professional education of students in Calabria, particularly considering the role that the University has come to play in Southern Italy. These courses include:

- ⊕ Rural Area and Small Town Planning and Policy
- ⊕ Citizen Involvement in the City Planning Process
- ⊕ Comparative Urbanization
- ⊕ Urbanism and the Future of Cities

⊕ Regional and Urban Development Strategies in Third World Cities

The courses that deal with developing countries might be especially relevant because of the involvement of Italian faculties and professionals in these areas, especially in Africa.

There are also several topics covered at Di. Pi. Ter. that could be of use to students and researchers at DCRP, particularly:

- ⊕ Problems associated with the preservation, recovery and re-use of historic centers;
- ⊕ Planning and development limitations associated with seismic risk;
- ⊕ Planning legislation in Italy as a basis of comparison of methodologies and approaches to planning.

Of greater interest than the teaching programs are the different approaches to research and its organization. Berkeley has created independent and complementary bodies that deal with an advanced research providing a considerable flexibility to the activity. At Cosenza research is carried out directly and only by faculty members of the Department; the Department and its chair is directly responsible for it. The autonomy given the research units at Berkeley allows

greater flexibility than at Cosenza, where it is more difficult to put interdisciplinary teams together. Faculty in Cosenza may not always have time to pursue teaching and research simultaneously; when both are required at the same time, scheduling can be difficult. If teaching were separate from research, researchers/teachers could make choices, schedule their activities better, and have more flexibility. As it is, when the department has particular research responsibilities, it involves almost all faculty members, although it may not coincide with individual interests or abilities.

Considering all the limitations imposed by the internal legislation of the University of Calabria, the creation of a center whose sole task would be to carry out research, separate from all the problems concerning teaching, but associated with the faculty, could be a major step forward.