

Education and Recruitment of Landscape Architects for Highway Organizations

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•THE PROFESSION of landscape architecture has a unique contribution to make in planning, constructing, and maintaining the highways of America. Historically, an almost automatic thought envisions highways in which landscape architects have served in important capacities throughout the conceptual and developmental stages. The Boston Fenway, the Westchester County Parkways, the Mount Vernon Memorial Highway, and the National Parkways are all prime examples of highways which continue to hold the respect of professionals and laymen alike for design adequacy and sympathetic integration into the environment.

Somewhere along the way, however, the development of highways became a less creative design process and more of an engineering process in which the application of standardized geometric design data and the yardstick of comparative economy were the major if not total criteria for the expansion of highway systems. Furthermore, the growing complexities in dealing with all of the elements that went into the highway facility—right-of-way acquisition, soils exploration, soil mechanics, grading, drainage, pavement, etc.—led inevitably to specialization. In this division of responsibility, conceptual thinking was all too often replaced by strictly applied technology. In this framework the landscape architect was for the most part relegated to the position of a specialist in erosion control, plant materials, and "general beautification." The latter meant for the most part an ipso facto application of a green mantle that would distract highway users from recognizing inherent shortcomings of the rigid application of geometric design formulas, much as an undertaker serves other aspects of society.

A landscape architect is basically more of a generalist than a specialist. He may become the latter through preference, aptitude and experience, but his greatest contribution is in the creation of purposeful order through the integration of design and technology. In a highly-specialized and complex society more generalists are needed to give a directional purpose through conceptual thought.

A landscape architect is not a civil engineer, botanist, horticulturist, agronomist, architect, hydrologist, geologist, pathologist, entomologist or forester, although he must be well grounded in many aspects of each of these fields and may acquire specialized knowledge in one or more of them. He is a planner of land and the objects upon it. His function is to integrate these arts and sciences into an entity through the process of creative design. The greatest contribution he can make to a highway organization is an integral part of the planning, reconnaissance, location and geometric design process. This does not preclude him from continuing and expanding his contributions in roadside development and maintenance operations as they have developed in recent years. It merely permits focalization of his ability and energy to areas where, by talent, training and experience, he can make his greatest contribution.

LANDSCAPE ARCHITECTURAL EDUCATIONAL PROGRAMS

The curricula of most landscape architectural schools are oriented to a design base; that is, major emphasis is given to instruction in and analysis of creative design and the graphic tools needed for its expression and explanation. In order to apply these skills to the planning of land, it is necessary to be versed in the technology of related sciences

and the elements of companion arts. Thus, most schools will include in their curriculum, courses in art, horticulture, architecture, civil engineering, geology, administration, and recreation to the extent that time and the individually determined curriculum balance permit. Variations in the attention given to each of these segments and to landscape design reflect both the parent institution in which the course evolved (i.e., architecture, horticulture, city planning, forestry) and the philosophies and backgrounds of the teaching staffs.

Thus, one school may have a stronger sequence of horticultural courses because it evolved in an agricultural or horticultural college; another will stress architecture, engineering, or planning for similar reasons. None make any attempt to orient their programs toward the specifics of highway design and roadside development and this is not likely to happen unless the annual demand for such graduates increases substantially.

The American Society of Landscape Architects, in conjunction with various accrediting associations, has established minimum curriculum standards, staff-student ratios and other criteria, the satisfaction of which wins for a school "accredited" status. At present, there are 16 accredited schools and they account for the bulk of graduates entering professional practice each year. The standards under which they are trained preclude any marked degree of specialization toward elements peculiar to highway design and/or roadside development. Also, under the present function of landscape architects in highway organizations, the skills most used are those related to horticulture or agronomy and their application to erosion control, screening and definition. Thus, students particularly interested in these facets are most likely to be attracted to highway work. On the other hand, true collaboration in the planning and design process calls for a high degree of creative design ability, not necessarily possessed by those with strong horticultural interest. This is not necessarily a consistent or axiomatic relationship. Graduates could have equal interest and ability in all phases of landscape architecture. However, an ability to visualize and design creatively is, in part, inherent rather than acquired, and coupled with the relative interests and abilities to master the diversity of technological subjects required, it is inevitable that each graduate will possess greater skill in some phases than in others.

ATTRactions AND DETERRENTS TO EMPLOYMENT

There are many aspects existing and in prospect that should make employment with highway organizations attractive to landscape architects. The tremendous scope of the expanding highway systems and their impact on environmental design is certainly an appealing challenge. Salary scales are generally consistent with other public works opportunities and also competitive with many comparable positions in private offices. The employment outlook is very good for many years to come, and opportunity for advancement shows a general improvement at least in the northeastern States. However, there are also some real deterrents to such employment, and these all too often more than offset the attractions.

Under most highway organizational setups, the opportunity for landscape architects to do creative design is quite limited and, for the most part expression is found in the layout of roadside rest areas and in the use of plant materials. Since most contemporary landscape architectural graduates have their major interests in the design areas of their professional training rather than in the technologies of the undergraduate curriculum, and since there is no dearth of jobs in private offices and other public agencies where the opportunities in this direction are currently greater, this will continue to prove a major stumbling block in attracting the men who appear most promising at the time of graduation.

Another problem that deters more enthusiastic applications for employment is the variety of titles under which landscape architects are employed in different State highway organizations. This diversity is understandable because of the variety of ways in which initial landscape positions were created in these organizations and the historic lack of a commonly adopted identity that has plagued the profession since early in the century. However, whatever its shortcomings, landscape architecture was the original name adopted by the profession. Through the growth of the American Society of Landscape

Architects as a common rallying point, and the adoption of laws governing the name and practice of landscape architecture in an increasing number of States, it now seems to be firmly established as the official name. It is important to understand the implications of this in relation to titles in highway organizations, since the more promising graduates, as well as establishing practitioners, automatically discount titles other than landscape architect as tending to be nonprofessional. The younger professional, particularly, feels that he cannot afford to associate himself with such a position if he is looking for acceptable experience that will permit him to qualify for a license at some future date in either his own or some other State. This same title ambiguity is often a stumbling block to good advancement opportunity, both intra- and inter-organizational, and reduces the chance for an individual to feel that continued contributions would lead to a satisfying recognition of service by the organization and by his profession.

Not the least of current problems in recruitment is the competition from other sources of employment. At present, the demand for landscape architects annually exceeds the products of the schools, at least the accredited schools. Although it is debatable whether this is an unmixed blessing so far as the future of the professional is concerned, since there is no natural attrition of weaker men beyond standards set for satisfaction of academic requirements, the result is that competition for the better men is strong, and with several jobs to choose from, they tend to select those most nearly approaching their idealized concept of what the practice of landscape architecture should be.

Absolute remedies cannot be suggested for all these problems. Only some of them are pertinent to any given situation and perhaps none are applicable to some of the more progressive organizations. It does seem, however, that these observations should end on a positive note, so in review the following are highlighted:

1. Landscape architects can increase their contributions to highway organizations and highway systems through more continuous collaboration with other responsible personnel throughout the planning, design and construction process. This would not lessen their effectiveness in current responsibilities for items relating to roadside development; indeed, it should enhance it by early elimination of problems before they become remedial in nature. In most highway organizations such a course would necessitate a change in entrenched attitudes toward landscape architects as well as in the place of landscape architectural sections in the administrative organizations.

2. The opportunity to contribute creatively throughout the planning, design and construction stages would go a long way toward attracting a fair share of the better landscape architects.

3. Establishing landscape architectural titles for all pertinent professional positions and providing an opportunity for advancement that can lead to satisfactory professional recognition in the highway organization and in the profession will certainly identify the potential for professional contributions and make the work more attractive.

4. Constant review of salary scales, to keep them consistent with other public works and private positions of equal status, is especially desirable in the present situation where the demand continues to exceed the supply.

5. More frequent association with and interest in professional schools which most logically could supply future personnel would be mutually beneficial in understanding each other's problems, and might possibly strengthen those parts of the curricula most closely related to highway design and development. This, in turn, would increase student recognition of opportunities in the field and could stimulate enthusiasm for careers in this facet of landscape architecture.