

South Carolina's New Marine Resources Center

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The estuarine and marine environments of South Carolina are still in relatively good condition compared to many of the more populous coastal states, especially those to the north. The resources that result from and depend upon these environments hold great promise for future development as economic, recreational and aesthetic assets. Development of this coastal zone will occur, but whether it will be wisely done or conducted in a self-destructive fashion depends largely upon the wisdom and effectiveness of the state's marine resource management practices. Effective management of so complex a zone where so many competing interests are vying for what they consider legitimate access is probably not possible without a sound research base.

In 1967, the State of South Carolina recognized the total inadequacy of both its marine oriented management and research programs and took positive steps to correct this condition. For some years, the late Dr. G. Robert Lunz, who was of course well known to this group, almost single-handedly conducted the marine management and research program for the state at Bears Bluff Laboratory. His accomplishments within a difficult organizational structure and an impossible budget climate must be considered remarkable. The respect and admiration that Dr. Lunz commanded were well deserved, and no criticism of his record should be inferred from my remarks. Early in 1968, the Wildlife Resources Commission assembled a team of out-of-state consultants to study the needs of South Carolina and recommend a program to meet those needs. This advisory group was drawn from state and federal agencies as well as universities, and all the members were well known marine scientists or resource management specialists.

The emerging Marine Resources Center that will be described is largely the implementation of the consultants' suggested course of action. The advice of the consultants is being followed much more closely than is often possible.

First, a few remarks on organizational structure. A Division of Marine Resources was created within the South Carolina Wildlife Resources Department, and Dr. James A. Timmerman, Jr. was selected as Director of the Division. Within the Division are two functional units. First, there is a Marine Conservation, Management and Services section which contains the usual spectrum of environmental and fisheries management functions. This unit is the responsibility of Mr. Charles Bearden. Administratively separate, but closely integrated with the management unit, is the Marine Research Laboratory and Educational Program, which is the responsibility of the present speaker.

The Center's purpose is to bring about coordinated, comprehensive management of the coastal zone in South Carolina, and to enhance the development of its resources in a manner consistent with the longterm need of its people. Its functions will include—in addition to management—research, education and advisory services, including extension work.

Several geographic sites were considered, but Fort Johnson on Charleston Harbor was ultimately selected. This site, which is approximately equidistant

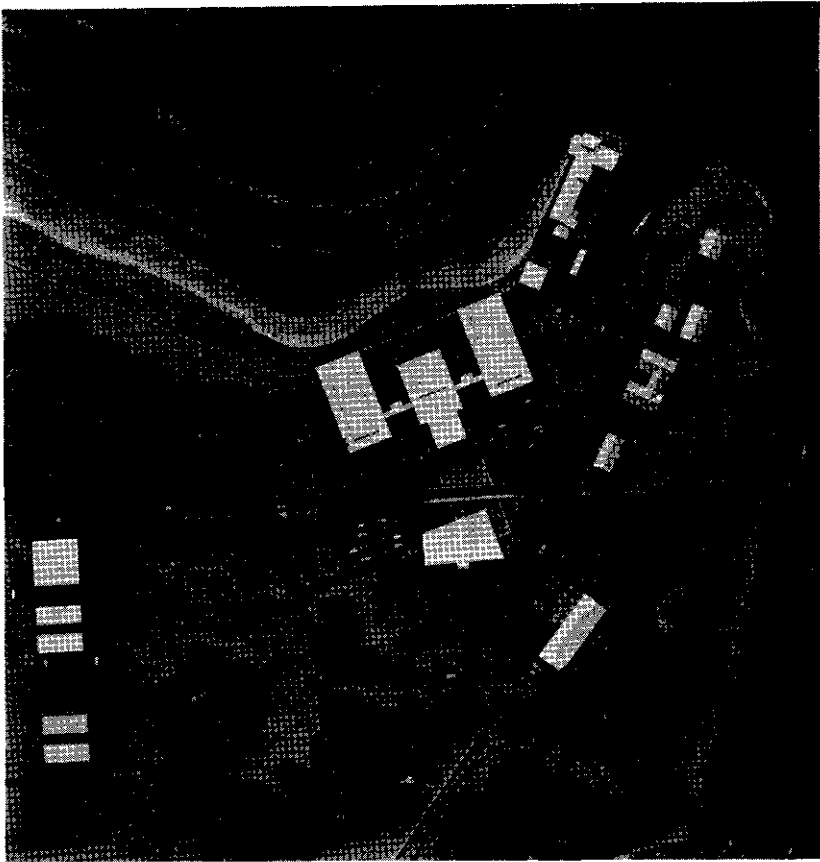


Figure 1. Architect's conception of development of Fort Johnson site.

between the city of Charleston and the open ocean, is comprised of approximately 75 acres of highly desirable land in a spectacular setting. This property was already in the possession of the state and has been transferred to the Marine Resources Division. The choice of site will, I feel certain, prove to have been a wise decision.

Figure 1 is an architect's conception of the development of the Fort Johnson site and must be considered only that. Only a small portion of the total acreage is included in the rendering. The building at the point adjacent to the boat slip is a multistory structure, which will house administrative offices and the personnel of the Management and Conservation unit. This is presently under construction and is scheduled for completion in early spring of 1972. The two large rectangular units are laboratory buildings, one of which is in late stages of construction with completion expected in January of 1972. The second unit is projected for the second phase of construction and present plans call for these two units to be connected by a central building housing offices and an auditorium. The angular building near the center is projected as a small public

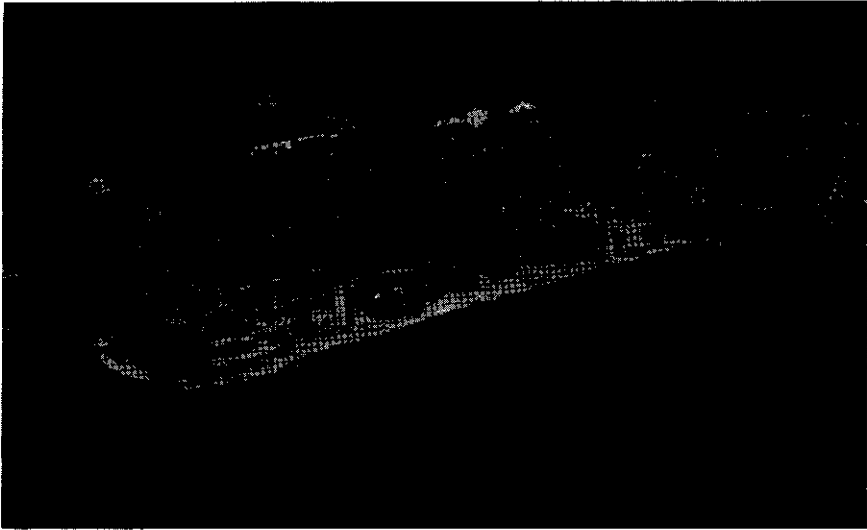


Figure 2. Aerial photograph of construction.

display marine aquarium, and much local interest has been expressed in this. The small H-shaped building to the right of the picture is an existing structure which houses the George D. Grice Marine Laboratory of the College of Charleston.

Figure 2 is a recently taken aerial photograph illustrating the actual construction at the site. The initial investment in facilities presently under construction exceeds 3 million dollars, and this does not include any expenditure for land. The original funding has come from the State of South Carolina and the Coastal Plains Regional Commission.

Most of the remarks to follow will be restricted to the laboratory building and the emerging program. The initial laboratory building is of modern and architecturally pleasing design. It incorporates 20,000 square feet on the single floor. No space is lost to basic utilities, since these are provided from a separate energy source building. Since this building had to be designed before the research program had evolved, a serious effort was made to build in the maximum possible flexibility. Most of the internal partitions that sub-divide the laboratory and office areas are demountable partitions that would permit internal rearrangement at relatively minor costs.

Many estuarine laboratory sites on the Atlantic and Gulf coasts of the United States present considerable problems for sea-water systems because of the ever-present silt and fouling that occurs in the lines. Charleston Harbor is no exception, and the problem is rendered more difficult because of industrial contamination. For these reasons, the initial design incorporates a completely closed, recirculating sea water system which carries either artificial or natural sea water to all appropriate laboratory areas. An open raw sea water line will provide natural sea water to a large open wet lab area which will also be served by the closed system.

The building also incorporates well equipped chemistry laboratories, environmentally controlled rooms and walk-in freezer and cooler, in addition to the more traditional facilities.

We are now recruiting for the first phase of staffing which will consist of five additional doctoral level marine scientists with adequate supporting staff. The research program will be mission oriented and designed to meet the marine resource needs of the state. As we now envision the program, it will at first consist of about equal parts of direct fisheries related research and environmentally oriented research of South Carolina's coastal zone. Because of the prominence of the shrimp, the blue crab and the oyster to South Carolina's fisheries, at least one crustacean biologist and one molluscan biologist will be included in the original staff. Later stages of development envision a broadened research program to include coastal geology and engineering and physical oceanography.

We believe the Marine Resources Center will make a significant contribution to graduate and undergraduate education in marine science in South Carolina; however, we do not intend to develop an in-house academic program. Rather, we hope to provide shore-side facilities, vessel and technical support to marine science interests in the various colleges and universities within the state. The next major building to be sought would include library facilities for the entire center and teaching facilities set aside for use of educational institutions.

The name "Marine Resources Center" is derived from our hope that with the significant facility now being developed, and with the extensive land holdings yet undeveloped, we will be in a position to attract other marine science facilities to establish on our grounds. We are interested in attracting appropriate laboratories to settle with us, be they university, state or federal in nature, so that the Fort Johnson area on Charleston Harbor will in fact become a true center of marine resource and research activities.