

Arboretum Progress

"Arboretum Progress," written by the Managing Director of the Boyce Thompson Southwestern Arboretum, will appear periodically in this journal. It is intended to be a vehicle for reporting various activities and concerns at the Arboretum. Since the Arboretum and its programs are steadily growing, it is anticipated that the word "progress" in the column's title will be appropriate. The decision to publish *Desert Plants* is ample testimony to the commitment to progress being made at the Arboretum today.

The Boyce Thompson Southwestern Arboretum was the dream of Colonel William Boyce Thompson, historically a giant in the copper mining industry but not widely remembered as such today. One of his most successful mining properties was the Magma Mine at Superior, Arizona, only three miles east of the Arboretum. It and the Newmont Mining Corporation which he founded are both flourishing, living monuments to his business acumen. It was the Magma property which brought him to this high Sonoran Desert country. Here at the foot of Picket Post Mountain he spent much of the decade of the nineteen-twenties building a winter home and creating the Arboretum.

At formal dedication ceremonies held at the Arboretum April 6, 1929, the first director, Professor Franklin Crider, said of the Arboretum's purpose and scope, "In the expression of its founder, the Arboretum is an institution wherein to grow every tree, shrub, vine, grass, and flower able to withstand in the open ground the climate of the Southwest; a little portion of the vast area, erroneously known as the Great American Desert, preserved forever in the richness of its native flora, where will be assembled, nurtured, and studied all that is useful and beautiful in plant life from all the sub-arid regions of the world; a place where the yet hidden secrets of these varied forms may be further revealed for the enrichment of human knowledge and the benefit of mankind."

The gardens have been operated continuously since their dedication with varying degrees of success in fulfilling such lofty goals. Professor Crider conducted extensive studies on plant roots and their efficacy in the control of soil erosion. The Arboretum cooperated with the U. S. Forest Service in the operation of a nursery to propagate thousands of plants that were set out by the Forest Service and other government agencies throughout the Southwestern United States to control erosion. In cooperative work with the University of Arizona the unique chemical and physical properties of the oil from Jojoba (*Simmondsia chinensis*) were discovered.

Director Fred Gibson, until his death in 1954, worked tirelessly to interest individuals and corporations in the development of Jojoba as an economic crop. However, a nearly identical oil could be harvested from the sperm whale at a much lower cost. A great many exotic plants from other arid lands were introduced into the gardens in those early years. The process of natural selection, having acted upon the collection these many years, has left many mature specimens that are well adapted to this climate. Those together with species of plants native to the area, dominate much of the current collection of woody plants.

Colonel Thompson formed the nonprofit Boyce Thompson Southwestern Arboretum Incorporated in 1927 to manage the Arboretum. An interesting aside here is that it was necessary for Thompson to use his influence with Governor George W. P. Hunt and the Arizona Legislature to secure enabling legislation allowing incorporation of nonprofit scientific institutions in Arizona. In 1965 the Arboretum Board of Directors contracted with the University of Arizona for the University to become the principal manager of the Arboretum with counsel and continued financial support from the Corporation. Although this was a productive arrangement, the University soon found that the daily operation of the Arboretum and its public educational-recreational programs were absorbing much of the limited financial and technical support available leaving little for research and teaching. In 1973 negotiations were initiated to add the Arizona State Parks Board as a third sponsor, recognizing its interest in the Arboretum and its expertise as a public recreation manager.

In March of 1976 an agreement was signed providing tripartite sponsorship of the Arboretum. State Parks will employ a staff and be responsible for the physical plant and display gardens. It will direct educational and recreational programs for the public and for elementary and secondary school students. The University of Arizona will direct the research program and college level educational programs. It will continue to employ the professional personnel responsible for those functions. The Arboretum Corporation will be free to invest its funds in capital improvement or to support the academic program.

The agreement is being implemented on an incremental basis as funds become available to the Arizona State Parks Board through the legislative process. During the interim the Arboretum is cooperatively managed by the three sponsors. Two full-time park rangers and one half-time one are now

employed by State Parks. The research staff is employed by the University. The Managing Director and four staff members who are also currently University employees will be transferred to Arizona State Parks as funding permits. The Director acts as a Park Supervisor for State Parks and also occasionally represents the Arboretum corporation in matters of their concern at the Arboretum.

The interests and activities at the Arboretum of the three sponsors are coordinated by an Advisory Committee. This committee is comprised of two representatives from each sponsor, plus alternates. Much credit for the accomplishments of the past two years must go to the current committee members. They represent a considerable pool of expertise in a variety of disciplines. Their cooperation and enthusiasm have been most productive.

The largest single undertaking during this two-year period was the renovation of the Visitor Center building. This building houses the Visitor Center, consisting of two wood-framed glass greenhouses for display, flanking a large central room used for interpretive displays and a store where books, minerals, living plants and other merchandise with a natural history orientation are sold. It also contains offices of the administrative and professional staff, a library, a laboratory and the public restrooms. Before renovation it also included two workshops for physical plant maintenance. With the Corporation funding and contracting the work directly, the University Planning Department furnished architects and engineers who designed the project to meet the needs of the growing Arboretum. The Managing Director served as the on-site construction manager with much counsel from the University Planning Department.

The laboratory was modernized to include a new fume hood and wall-mounted chemistry table, a large center table and extensive additional storage cabinets. All offices and the library were redecorated and modernized with built-in shelves and cabinets; floors were carpeted or tiled. The workshops were converted into a lecture room with a capacity of fifty adults. The fifty-year-old building was completely rewired and replumbed. Evaporative cooling capability, in addition to existing refrigeration, was restored to the building in view of the rapidly rising cost of energy and the difficulty of adequately sealing or insulating a building of this age and design. A new staff restroom was constructed; the public restrooms were doubled in capacity and fitted to serve the handicapped. An attendant benefit was the reinforcement and refurbishing of two outbuildings

(that had been in poor repair) to accomodate the shops displaced by the lecture room.

Another significant recent development has been the sponsorship by State Parks of a Young Adult Conservation Corps work crew. This federally funded program has provided a labor force of ten young people and a work supervisor. Since the crew started in mid-July of 1978, they have assisted in almost every garden operation and have rebuilt the "High Trail" abandoned several years ago because of our inability to maintain it with existing personnel. They are at present, in addition to routine daily maintenance assignments, clearing an area to be used for demonstration gardens and will soon begin installing an irrigation distribution system.

The University has taken the lead in the revival of an active research program at the Arboretum.

Several research projects have been activated and others are under serious consideration. These are treated in some detail by the journal's editor on a previous page.

In summary, then, the Arboretum was given an excellent start by the planning and foresight of the founder and the work of a number of skilled staff botanists and horticulturists who served at various periods through the years. Today it flourishes because of the dedication of it's staff and that of the many interested scientists and administrators of the three sponsors who have contributed their time and talents to its development. The Arboretum development and programs still pursue the achievement of the lofty goals set for it by its founder. The publication of *Desert Plants* is viewed here as a key effort in the pursuit of these goals.

Bob McKittrick