# MUSEUM STORAGE

- Corporate Archive
- Cultural Center
- Historical Library
- Museum
- Design Studio
- Art Dealer

#### PROBLEM

The museum, a horticultural science institution, was running out of space and needed to consolidate the archives, artifacts, documents, photographs, and records the organization had accumulated over its many years of operation. The museum's archives are a result of being at the leading edge of study and research of new species of plant life from all corners of the world and thus priceless. The archive staff was concerned with security of the valuable collection and the environmental effects of preserving this collection through the years.

The museum was torn between the need to house more collections, the need for more laboratory, research and classroom space, and the competing need to provide enough space for public viewing. The bottom line for the museum was: What good are important and valuable collections and archives if they cannot be presented to the world?



### **OBJECTIVE**

To design, using a mobile storage system, an archival vault that is space efficient and protective of not only the horticultural collection, but also the many kinds of artifacts, documents, and photographs that make up the bulk of the museum's storage component. To customize a high density mobile storage system with all the special hanging holders, custom cabinets, and drawer applications needed to store all the specimens and associated media. This system has to be environmentally adaptable to the special needs for storing the specimens.

#### SOLUTION

We created a solution that optimizes limited space while better organizing the large items and going the extra mile to protect the smaller, more delicate items. We realized that one single vault would not meet the environmentally sensitive needs of all of the materials to be stored; therefore, we designed a "cold room" within the master vault area where refrigeration and humidity could be controlled to protect hundreds of thousands of color negatives and film. A mobile storage system was designed to carry the special binders used by the museum to keep their 35mm color slides in this chiller room. Thus, the vault became two specialized vaults. each with its own environmental needs.

## CASE STUDY

On some of the mobile carriages, we designed pullout drawers to handle the smaller artifacts and some of the black and white photo materials. On other mobile carriages, we designed oblique compartments to handle larger photography and some drawings. And on other carriages, we designed a method of storing drawings within specialized vertical containers, with acid free interior holders. Finally, we customized many other carriages to handle the larger bulk volume of 1.1 cubic foot archives boxes, which hold the written history and documents of operations for the museum since its doors opened to the public in 1946.

The new high density mobile storage systems deliver five times the capacity of the old system. We designed a special viewing table attached to the front end of each carriage to allow specimens to be handled and shown at their storage areas without risking contamination from other areas. Also, the new storage vault is connected with the facility security systems to limit damage in the event of a fire or flood. It has a sophisticated electronic system that easily interfaces with facility lights to minimize fluorescent exposure. Best of all, the entire high density mobile storage system is easily reconfigured when the museum's storage needs change.

