

THE ARTCARE[™] ADVANTAGE: PROFILES IN CONSERVATION



THE CLIENT PROFILE

The Lewis and Clark Herbarium is the priceless collection of 226 plant specimens gathered by Meriwether Lewis and William Clark on their government-funded expedition across the western territories of the United States in 1803-1806. Housed at The Academy of Natural Sciences, Philadelphia, the plant collection represents one of the major scientific tasks given to Lewis and Clark by President Thomas Jefferson. It serves as a primary reference for botanists, historians and other scientists and scholars. The collection has been recognized as one of the American Treasures in the "Save America's Treasures" program sponsored by the White House Millennium Council and by Heritage Preservation.



Artcare[™] storage containers for the Lewis and Clark Herbarium collection samples

THE CONSERVATION CHALLENGE

The Lewis and Clark Herbarium collection has endured severe rigors for nearly two hundred years, including transport on horseback and boat, storage in trunks, changes in temperature and humidity, insect infestation and continual handling during routine scientific study. The

Lewis and Clark Plant Specimen Collection *Protected by Artcare[™]*



A sample of the Lewis and Clark Herbarium collection

approaching bicentennial of the collection, as well as the development of new scientific technologies, have created a higher demand than ever before for access to these priceless yet aging specimens, which can now be used to provide insights into botanical evolution, medicinal herbology and even atmospheric conditions in the 1800's.

Each plant is currently stored following herbarium practices that have remained essentially unchanged for over a century. Plants are mounted on paper, stored inside manila folders, and stacked in cabinets. Plants and storage materials are all extremely fragile. Many plants are fragmented and some mounting papers are ripped, worn, or stained. The value of the Lewis and Clark Herbarium collection to science and to the public as artifacts of a key event in American History make its preservation and accessibility a matter of great national importance.

THE PROCESS AND SOLUTION

Conservational assessments in 1998 and 2000 highlighted past damage and future threats to the Lewis and Clark Herbarium. In addition to modern storage cabinets and environmental controls, re-housing of all specimens was recommended. Funded by the National Geographic Society, a housing design was jointly conceptualized by conservator Catherine Hawks, conservators at the CCAHA and staff at the Academy of Natural Sciences. The new housing would double as an archivally stable storage container and display unit, providing secure placement of the specimens that would, at the same time, allow scientific study and exhibition.

Alpharag[®] Artcare[™] was chosen as the archival product used to construct individual storage/display boxes for each of the 226 specimens. Each box features a base of 8-ply Alpharag[®] Artcare[™]; multiple

layers of window-cut 8-ply Alpharag[®] Artcare[™], stacked to create "sinks" for the specimens; and a hinged cover of 4-ply Alpharag[®] Artcare[™] that can be folded behind the box for specimen exhibition. Specimens will remain permanently attached to their original base papers, which will be secured to Mylar sheets using custom designed tabs. The Mylar substrate will provide support to the fragile paper mounts during scientific study, and will facilitate viewing of the underside of each specimen page, while the tabs will allow specimen pages to be removed from the Mylar if necessary.

THE SUCCESS OF ARTCARE[™]

The Lewis and Clark Herbarium will be part of a major exhibit at the Academy of Natural Sciences, as well as part of a traveling exhibit organized by a national consortium of institutions, coinciding with the bicentennial commemoration of the original expedition. The new Alpharag[®] Artcare[™] storage/display housings will provide enhanced protection against environmental pollutants and emissions from the specimens and base papers themselves, while also affording a highly stable and rigid storage vehicle, designed to withstand the continued and growing use of these specimens for research and enjoyment.

The Artcare[™] Archival System

The art of protecting your art.

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MATERIALS USED

8-ply Alpharag[®] Artcare[™] matboard was chosen for backing and dimensional layering.

4-ply Alpharag[®] Artcare[™] was used as a hinged cover.