TREATMENT PROPOSAL/AUTHORIZATION FOR TREATMENT

Date:	2/12/08
PCS Identification number:	08-65
Owner/Custodian:	Nancy Sparrow
Address:	Alexander Architectural Archive Battle Hall, Room 6, University of Texas at Austin Austin, TX
Telephone:	512-475-4621
Owner/Custodian call no.:	n/a
Title/Subject/Description (.01):	Architectural Model
Creator:	David Wilson
Date of production:	2007
Place of production:	Austin, TX
Approximate dimensions (hxw):	English: 39 1/4" x 9 ¾" x 5" (approx. height) Metric: 100.3 cm x 24.9 cm x 12.8 cm
Conservator:	Sarah Norris

Authorization

The undersigned requests and authorizes the Kilgarlin Center at the University of Texas, Austin, TX, to undertake conservation treatment of the artifact described in the attached Condition Report according to the procedures outlined in the appended Treatment Proposal. In the event the Owner/Custodian authorizes the Kilgarlin Center to proceed with the treatment recommended in the proposal such authorization shall be deemed to include acceptance by the depositor of the terms and conditions appearing in the original Authorization for Examination and Treatment. The undersigned further agrees that the Kilgarlin Center and the conservator may share any information or images obtained during the agreed upon examination, treatment, or investigation in written and public presentations.

Signature of Owner/Custodian: _____

Date: _____

Signature of conservator: _____

Date: _____

Description

Primary support: English: 39 1/4" x 9 ¾" x 5" (approx. height)
Metric: 100.3 cm x 24.9 cm x 12.8 cm

Background

The architectural model was created in 2007 by University of Texas architecture student David Wilson as part of the Advanced Design Studio taught by visiting professor Sergio Palleroni. Palleroni led a project in New Orleans to build new structures and furnishings with materials salvaged after Hurricane Katrina. Wilson's model shows his design for a furniture workshop to be located in New Orleans as part of Palleroni's project. The design was chosen for actual construction, but these plans have now been put on hold. Wilson's model was displayed in the Architecture Library at the University of Texas, where in early 2008 it was discovered to be in pieces. It is presumed that a student or other library visitor damaged the model, presumably by swinging a backpack into it.

General

The model is an adhesive structure built with commercially available craft materials, including wood, metal, and plastic. While the base is composed of dense, multilayered chipboard, the wood framing and plastic and metal components are all thin, lightweight, and fragile. A 7.6 cm square exhibit sign accompanies the model; it is unknown whether this sign is original to the piece.

Materials

Material 1: Chipboard / Binder's Board / Davey Board

Layers of chipboard compose the base of the model, as well as three pillars that rise out of the base. The base consists of 12 sheets of 2 mm-thick board adhered together, and the pillars consist of 36 layers of 1 mm-thick board adhered together. One piece of 5 mm-thick chipboard forms the back of the exhibit sign that accompanies the model. The chipboard is a composite structure with mottled brown fibers, as typically seen in binder's board in bookbinding work. The artist notes that the boards were adhered together and cut in a machine shop at the University of Texas. Machining lines are evident on the cut surfaces of the base and pillars.

Material 2: Basswood

Basswood ranging from 1 mm – 1 cm in thickness is used as the flooring and framing of the model. The flooring material consists of panels of basswood with precut ridges, while the wood in the framing is smooth in texture. This wood is light in color and unfinished. Basswood comes from the linden family and is commonly used in craft and model work because it is soft, lightweight, and has little grain.[1] Several pieces of the basswood still show a black, imprinted barcode from the University Co-op, where the artist reports he purchased his materials. The Co-op still sells basswood with the same appearance as that in the model.

Material 3: Wire mesh

A fine wire mesh is used as the roofing material. Four pieces of the mesh have been molded and adhered to long, thin arcs of basswood that form the roof frame. Three

[1] Crow, T.R. "American Basswood." USDA Forest Service. Accessed 2/12/08 at http://www.na.fs.fed.us/pubs/silvics_manual/volume_2/tilia/americana.htm.

smaller portions of mesh have been adhered to basswood potentially as window or wall elements. The mesh is flexible and a light silver in color. Though the artist reports that he purchased the mesh from the University Co-op, this material does not appear to still be available from that vendor.

Material 4: Frosted plastic
A 23.5 cm x 17.7 cm sheet of 1 mm-thick flexible frosted plastic is adhered to the basswood frame. Five strips of 3 mm-wide clear plastic are adhered on the non-framed side of the frosted plastic. The plastic has the appearance of PVC or PET, but its actual identity is unknown.

Material 5: Clear plastic
A 15.5 cm x 9.0 cm sheet of 1 mm-thick flexible clear plastic is adhered to a basswood frame to form a window. The sheet is highly reflective. A 3 mm-thick piece of the plastic forms the front of the exhibit sign. The plastic has the appearance of PVC or PET, but its actual identity is unknown.

Material 6: Sobo glue
The artist reports that Sobo glue was used as an adhesive to join together all parts of the model. Sobo glue is made by Delta Creative, Inc. It is marketed as a multipurpose craft adhesive, and is believed to be a suspension of polyvinyl acetate in water, much like PVA or Elmer's School Glue.[2] Like PVA, Sobo dries clear and flexible, but unlike PVA, it may not have a neutral pH.[3] Sobo is available at the University Co-op and at many other craft stores.

Material 7: Printer paper
Modern, off-white machine-made printer paper forms the center of the exhibit sign.

Material 8: Metal posts
Two 2.5 cm-long posts of an undetermined type of metal are pierced through the sides of the exhibit sign. The posts have ridged nuts screwed on at the front of the sign. The posts are black in color, while the nuts are a darkened gold.

Material 9: Pencil erasers
Two pink erasers, apparently broken off from standard wooden pencils, have been affixed at the bottom of the metal posts in the exhibit sign. The erasers serve as bumpers to keep the posts from slipping against the surface below while they hold the sign up at an angle.

Media
Medium 1: Black ink (on basswood)
An unknown type of black ink creates barcodes on at least one of the pieces of basswood. This ink was presumably applied during manufacturing.

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[2] Glass Attic Polymer Clay Encyclopedia. Accessed 2/12/08 at http://www.glassattic.com/polymer/glues-Diluent.htm.
[3] Frequently Asked Questions, Preservation Services. Dartmouth College Library. Accessed 2/12/08 at http://www.dartmouth.edu/~preserve/html/faq.shtml.

Medium 2: Black ink (on exhibit sign paper)
Black ink appears on the printer paper in the exhibit sign. This ink appears to have come from an office printer or copier, but it is difficult to examine because it is sandwiched into the exhibit sign between thick clear plastic and chipboard.

Condition

General
The model's materials do not exhibit notable deterioration, but the model is physically in very poor condition. All pieces more than 2.5 cm from the base have been knocked over and lie in a jumbled pile. Some of the framing remains adhered in its original form, while other portions are broken apart. The model does not currently appear to form any recognizable architectural structure. It currently requires a storage box to ensure none of its loose pieces are lost.

Materials
Material 1: Chipboard / Binder's Board / Davey Board
The chipboard appears stable overall, and the pieces in the base and pillars are securely adhered to one another. Skinning of the top layer has occurred where adhered framing elements were knocked over.

Material 2: Basswood
The basswood appears stable overall, with chipping and breaking evident where adhered framing joints have been broken apart.

Material 3: Wire mesh
The wire mesh appears stable overall. Very slight warping and bending is evident in the roofing pieces, presumably due to the force absorbed during the damaging impact. Crease lines running perpendicular to the length of the pieces are very regular between the pieces, and appear to have come from the original roll of material.

Material 4: Frosted plastic
The frosted plastic appears stable overall, retaining notable flexibility. Bubbles from the adhesive are visible beneath the adhered strips of clear plastic.

Material 5: Clear plastic
The clear plastic appears stable overall. The plastic on the exhibit sign shows light scratching overall.

Material 6: Sobo glue
The Sobo glue remains transparent, as visible against the clear plastic pieces of the model. At many joints where board has delaminated or wood has broken, the glue would appear to have been stronger than the materials it was joining.

Material 7: Printer paper
The printer paper appears stable overall.

Material 8: Metal posts

The metal posts appear stable overall. The nuts visible at the front of the exhibit sign show slight indentations at their grooves, presumably where pliers or some other tool were used to tighten them.

Material 9: Pencil eraser
The pink erasers appear stable overall, with grime appearing where they lie in contact with the surface below. The metal post pokes through the left eraser, nearly contacting the surface below. Though the erasers remain flexible now, they will eventually become discolored and embrittled, potentially reacting with the surface below.

Media
Medium 1: Black ink (on basswood)
The black ink appears stable overall.

Medium 2: Black ink (on exhibit sign paper)
The black ink appears stable overall.

Treatment Proposal

1. Examine photographs of fully assembled model as compared with model in current state.
2. Create a numbering system and diagram to reassemble model.
3. Reconstruct the model using a sympathetic adhesive.
4. Construct an enclosure.

Photography
Digital images, recto and verso, in spectral and raking light, will be taken before and after treatment. During treatment photos will be taken, as well.

Possible Effects of Treatment
The reconstructed pieces could be positioned incorrectly. The new adhesive could be too weak to withstand the forces within the structure, or could react with the materials. The new enclosure could greatly impact the experience of viewing the model.

Treatment Notes
2/14: Performed adhesive test on sample piece of basswood on davey board using thick wheat starch paste, thin wheat starch paste, PVA, Lascaux, B72, and Beva. Drew model diagram from pre-damage photo and numbered the broken pieces. Made tags with string and adhered paper, numbered them according to the diagram, and attached them to broken pieces.
2/21: Chose Lascaux adhesive because it has similar strength and flexibility as PVA (which is most similar to original glue), but it is easier to work with and reversible. Repaired pieces 10, 13, 14, 15, 16, and 17 and readhered flooring. Filled several small joint gaps with Lascaux, especially at window joint on pieces 16 and 17.
2/26: Readhered several popped joints and adhered vertical pieces to base. Instead of reconstructing the model top down, decided to work bottom up. Top down would have decreased the chance of pole placement error, but installing large, finished units would stress the joints too much. Worked from inner poles out like in boxmaking to spot check the roof fit while working.

3/4: Attached outer roofing pieces. Supported roofing with boards and rolled towels. Readhered floor with weights.
3/6: Created new shim for middle roof piece from sample piece of basswood. Adhered center roof piece, supporting with boards and rolled towels.
3/17: Re-glued left shims and hinge. Mechanically affixed chronically loose left hinge with polyester thread. Mocked up enclosure with 20 point board.
4/1: Built lower tray from conservation grade davey board (chosen for its size, not necessarily its quality.) Cut corrugated insert tray to allow finger room to remove model from tray.
4/8: Covered tray with black bookcloth and adhered corrugated tray to bottom. Cut and covered small end walls.
4/9: Adhered velcro for small end walls. Designed stitch to reinforce Velcro. Cut board for long side walls. Sewed velcro to tray and small end walls. Tried multiple awls and needles to sew through conservation board. Tried magnets as an alternative to velcro, but they were not strong enough to hold the boards up.
4/10: Sewed two more velcro patches.
4/15: Redesigned housing. The conservation board walls are wobbling when attached to the tray. They risk falling over when the item is transported. Many plans were considered with classmates. The final plan was to design one long wall from corrugated board. The wall will be covered, with no window as originally planned. Then, that wall will be joined to the small walls with textile and linen tape hinges. Velcro attachments will be attached to the long wall and the tray. The lid will be a three-sided tray of corrugated board with a mylar window in the top. The front wall of mylar will drop down from the lid and attach to the tray with magnets. For display, the mylar wall can fold back over the lid, or the lid can come off, or all the walls can come off.
Cut the long corrugated wall. Covered in bookcloth and a 70# doublure. Dried under weight.
4/16: Adhered and sewed velcro to tray and back wall. Attached three walls with inner hinges of linen tape and outer hinges of black bookcloth. The walls' stability was much improved.
4/18: Built three-sided lid with mylar window. Covered most of the lid with bookcloth. The front piece of the lid sags. Tried test strips of corrugated reinforced with 70#, 40 pt board, 60 pt board, and foamboard; all sag.
4/19: Purchased galvanized steel drywall support to reinforce front of lid. Folded over, but it wouldn't fit on the lid. Then, adhered another piece with PVA on top of the lid and folded it over. It wouldn't fold the whole way, so used tin snips to cut the bottom half off. Hammered down sharp edges with rubber mallet. Covered with bookcloth. Adhered magnets to mylar and front of tray.
4/29: Dampened and ironed bubbled doublure. Trimmed textile and mylar.
4/30: Adhered magnets to back of lid. Glued down loose textile. Made "fragile" sign on printer paper backed with 70# and coated with Klucel G. Adhered to back wall. Diagrammed box. Removed number tags from model.

Treatment Performed

2/14, 3 hr: Performed adhesive test with basswood. Drew model diagram from pre-damage photo and labeled broken pieces accordingly.
2/21, 4 hr: Chose Lascaux as adhesive. Repaired pieces 10, 13, 14, 15, 16, and 17. Readhered flooring. Filled loose joints with Lascaux.

2/26, 3 hr: Readhered popped joints. Adhered vertical pieces. Decided to reconstruct model from the bottom up rather than the top down for greater stability.
3/4, 3hr: Attached outer roof pieces. Supported roofing with board and rolled towels. Readhered flooring under weight.
3/6, 1 hr: Created new shim for middle roof piece from spare basswood. Adhered middle roof piece.
3/17, 3 hr: Reglued loose shims and hinges. Mechanically affixed chronically loose hinge with polyester thread. Mocked up enclosure.
4/1, 3 hr: Built lower tray from conservation grade davey board. Cut corrugated inner tray.
4/8, 4 hr: Covered tray in black book cloth and adhered insert to bottom of tray to allow finger room to remove model from tray. Cut and covered small end walls.
4/9, 3 hr: Adhered Velcro for small end walls. Designed reinforcing stitch. Sewed velcro through walls with great difficulty. Tried magnets as another option to support walls; not strong enough. Cut conservation board for long side walls.
4/10, 0.5 hr: Sewed two more velcro patches.
4/15, 3 hr: Redesigned housing so walls will not wobble. Added cloth hinges between the walls. Designed 3-sided lid with fourth mylar wall. Cut long wall from corrugated board. Covered in book cloth and doublure of 70# paper. Dried under weight.
4/16, 2 hr: Glued and sewed Velcro to back wall and back of tray. Adhered outer textile hinges and inner linen tape hinges to walls. The walls became much more solid.
4/18, 4 hr: Built and covered three-sided lid with mylar window. Unsuccessfully tried various paper reinforcements to keep front lid edge from sagging.
4/19, 6 hr: Reinforced front of lid with galvanized steel. Covered with book cloth. Adhered magnets to mylar and front of tray.
4/29, 1 hr: Dampened and ironed bubbled doublure. Trimmed textile and mylar.
4/30, 2 hr: Adhered magnets to back of lid. Glued down loose textile. Made “fragile” sign on printer paper backed with 70#, coated with Klucel G. Adhered to back wall of box. Diagrammed box. Removed number tags from model.

Total: 45.5 hours