

Illuminating
the **past** for the
future

Museums are already in the conservation business. Extending this to energy use is a natural fit.

Generating electricity from burning fossil fuels produces CO₂, which contributes to global warming. Exhibition environments consume a lot of electrical energy. Elaborate heating and cooling systems (climate control) maintain safe temperature and humidity levels for artifact preservation. Complex lighting systems deliver a quality and intensity of light so that objects look their best, and will not fade.

WHAT ARE WE DOING?

The museum recently upgraded its track lighting system. Better dimming controls, and smaller more efficient light fixtures will result in energy savings.

During the 2007–08 exhibition season, look for experiments with other energy efficient lighting technologies such as compact fluorescent and LED's.

www.projectregenerate.org/ucdgreen/

Reduce,
Recycle,
Reuse,
Reinvest

It smells like a barn in here, except the straw is on the walls rather than the floor.

Exhibition construction accounts for up to 70% of a museum's consumption of materials. This exhibition is built using a wheat particle board—a rapidly renewable agricultural by-product. Chaff and stalk from wheat fields, which was formerly burned, is compressed, and bound with a toxin-free (no formaldehyde) bonding agent to make panels that can be milled like other wood-based particle boards.

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 PRINTED ON RECYCLED PAPER USING ECO-SOLVENT INKS



Manufacturers (involving scientists from UC Davis) are in the process of developing a “rice-stalk” particle board. Over one million tons of carbon dioxide and particulate pollution are sent to Central California’s skies every year when rice farmers burn the rice chaff off their lands after harvest.

WHAT ARE WE DOING?

90% of this exhibition has been built using green materials that have been salvaged, or come from recycled or rapidly renewable sources.

Materials: Wheat chaff, sustainably harvested woods, recycled metals, fabrics, plastics and papers.

2007/2008 **YEAR OF
ECO-EXHIBITIONS**
AT THE UC DAVIS DESIGN MUSEUM



ECO-INKS AND RECYCLED PAPERS

Our **graphics**
won't be here for long

Odorless printing inks and vinyls that make a tasty meal for microbes.

Environmental health concerns are linked with large format inkjet prints and direct application vinyl lettering. Both are used to convey words and images in exhibition installations. Printing inks off-gas solvent fumes. The manufacture of vinyl (Polyvinyl Chloride), and subsequent incineration of waste vinyl is known to produce dioxins that are carcinogenic.

WHAT ARE WE DOING?

This exhibition uses vegetable based or eco-solvent (low VOC) inks, and substrates made from recycled papers and fabrics. Future exhibitions will use a biodegradable PVC alternative that when exposed to landfill conditions, is broken down by microbes.

Products: Rowland Eco-solvent inks, 100% post-consumer content paper, BIO-flex PVC substrate.

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REUSABLE EXHIBITION FURNITURE

Closing the

loop

Sustainable design means considering the reuse of materials and the longevity of a product.

Due to the temporary nature of most exhibitions, museums use a significant amount of raw materials for building new walls, display furniture, and crating artifacts. Quick turn-arounds and a lack of storage space mean few of these materials are salvaged, 75% are sent to landfill where they can take years to decompose.


WHAT ARE WE DOING?

To cut down on waste, this exhibition uses a modular display system that can be repurposed multiple times. At the end of its long life, each component can be easily separated and safely recycled.

Products: Wood Stalk, Homasote, FSC (Forest Stewardship Council) certified poplar, recycled plastic and metals.

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NON-TOXIC PAINTS

A close-up photograph of a hand holding a paint roller, applying a vibrant lime green paint to a white wall. The roller is positioned horizontally, and the paint is being spread across the surface. The background is a plain white wall, and the overall scene is brightly lit.

Please lick the
paint

It's not just precious artifacts that are at risk when you change an exhibition's paint color.

Most paints contain chemicals that are suspected carcinogens. The walls in this museum have been repainted hundreds of times. Even when dry, paints continue to release toxins that are trapped in an indoor environment.

Museum artifacts require case interiors that are free from harmful contaminants, why shouldn't the visitors who come to see them on display deserve the same?

WHAT ARE WE DOING?

For a healthier indoor environment, this exhibition uses toxin and solvent-free paints, low VOC (Volatile Organic Compounds) finishes and inks, and toxin-free (no formaldehyde) glues and binders.

Paint supplier: Green Sacramento

Paint manufacturer: American Pride

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FOOD SERVICE

Hungry?
Try one of the **forks**

What self respecting museum doesn't have a cafe?

This museum may not have a cafe, but like most museum's it regularly hosts public events and opening receptions. The museum food service industry is large, and generates a great deal of food and packaging waste, much of which can't be recycled and goes to landfill. Museum's, many of which cater to children, can influence our eating habits by serving healthy, nutritious meals and snacks.

WHAT ARE WE DOING?

We have our visitors well-being in mind. The food you are eating is organic or grown locally. The flatware, plates, and cups are either made from recycled plastics and papers, or biodegradable alternatives, such as corn or potato starch. Waste will be composted through the universities R4 program.

Supplier: University Catering

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