



Design and Production

At Shedd, maps are part of our landscape. They have to be, with the twists and turns that our building takes. How do we make sustainable the thousands upon thousands of maps we print each year? The answer is in the certification.

After inventorying our supply and discovering that the aquarium used 100,000 pounds of paper every year for external communications, Shedd's planning and design department began searching for a paper mill that could provide environmentally sound paper at an economically competitive price. We looked for FSC (Forest Stewardship Council) certification. This independent nongovernmental organization is recognized internationally for its rigorous standards. If products aren't coming from sustainably managed forests, they aren't going to be certified by the FSC.

It turns out that the oldest continuously operating paper mill in the country is also committed to sustainable practices. Monadnock Paper Mills Inc. is a family-owned, ISO 14001 certified business. Their Astrolite PC 100 paper stock is FSC-certified to be 100 percent post-consumer recycled fiber, meaning our recycled paper has already been recycled before. Even better, PC 100 is manufactured in a carbon-neutral process with 100 percent renewable electricity.

Paper is only part of the design equation; printing also has significant ecological costs, from toxic inks to energy-gobbling machines. Consequently, we were thrilled to discover that one of the greenest printers in the world hangs her sign in Chicago. Consolidated Printing uses vegetable-based inks in a process that is completely free of petroleum and toxins. Consolidated is our go-to printer for conservation-related materials.

When we aren't using recycled paper, we try to use fewer materials in the first place. We've replaced bulky membership mailings with postcards. Our holiday card arrives in your inbox, saving us 350 pounds of paper and several thousand dollars each year. In house, wherever we're able, we're moving documents like program reservations, supply orders and human resources forms online and out of the print tray.





WHAT'S YOUR SIGN?

Shedd's guests may be too busy admiring the design of our signs to notice the materials, but our sustainable efforts include the whole package. Most industry signs need to be protected from weather, harsh lights and curious hands. Consequently, many signs are finished with a protective coating but that coating is often full of toxic chemicals. While some of our signs practically need a suit of armor to withstand Chicago's winter winds, many pieces don't require the same level of durability. For these, we use Foamacell BioBoard, which is biodegradable, weather-resistant and long-lived. To protect our indoor environment as well, our design team stopped using toxic spray adhesives and switched to self-sticking boards.

Whether we're printing on BioBoard, banners, or other material, Shedd often uses a printing method called "direct-to-surface," which uses a UV light to dry environmentally friendly inks instantly onto the sign. This process drastically reduces production time, cost and the need for extra chemicals or lamination. UV inks are long-lasting both indoors and outside, and they're resistant to the scratches and fading that can occur over time.

When graphics need heavy-duty protection, we often shield them with a protective cover made of materials such as Plexiglas. When the image needs changing, we simply remove the cover and reuse it, which reduces waste. What happens to the old graphics? When we can, our production designer reuses the backs of signs to make new ones. After all, every sign we reuse keeps a little more material out of the landfill.

EXHIBITS

People love special exhibits, but what do you do when it's time to change subjects? Until recently, we struggled to find green disposal options for our exhibit materials. Plexiglas, Styrofoam, silicon: The materials that go into a great exhibit don't usually make their way to recycling bins.

That's where our staff comes into play. With support from the fabrication shop and the IT division, we found a specialty recycler to handle our electronic waste and our specialty materials. Intercon Solutions takes everything from vinyl to acrylic rods, turning unwanted materials into parking bumpers. Now, when a Styrofoam model becomes outdated or a silicon anemone receives a little too much love from young guests, we don't have to put them in the garbage. Instead, we divert thousands of pounds of e-waste and specialty waste from the landfill, sending it to a responsible, third-party-certified processor.

