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Bags Across the Globe: Bagging the Waste for a Sustainable Future

Abstract

Historically the crafts tended to be sustainable by nature, using local resources that were sustainably harvested. The Industrial Revolution destroyed the central role played by the crafts in many cultures, while planned obsolescence put an end to the long-term use, repair and re-use of consumer goods. Today, due to the interconnectedness made possible by the internet, the crafts, design and visual arts have the opportunity to create for themselves a vital role in global sustainability agendas. This paper discusses a project created in response to one such sustainability issue, the environmental damage caused by the four to five billion plastic shopping bags used globally each year. In addition to clogging waterways and littering landscapes, plastic bags comprise some of the most hazardous ocean debris. It is estimated that plastic debris causes the deaths 100,000 marine creatures and one million birds annually. Bags Across the Globe (BAG) is a global collaborative piece intended to raise awareness of the environmental damage caused by plastic bags, and to promote the creation and dissemination of reusable shopping bags made from discarded materials. Launched in 2009, it is an ongoing effort that involves University of California Design students in creating shopping bags out of discarded vinyl banners and fabric samples. One hundred eighty free bags have been sent to over 90 participants in nearly 60 countries. Participants keep one bag and return a photo of themselves with the bag and a BAG postcard with a message. The photos and selected messages are posted on an interactive world map on the BAG website. A final gallery installation of the BAG project will tour several countries. BAG is a blend of craft, art and design in the service of a global sustainability agenda, using the internet for contact and communication. It is a cross-cultural exchange of energy, information and ideas, in which shopping bags are the vehicles of this exchange. It functions as a seed project to inspire other individuals and groups to launch their own bag projects. It already has led to the planning of projects with people interested in adapting the project to their own endeavours in India, Dominica, and Mali. Bags Across the Globe has larger implications for the unsustainable consumer culture of today. It embodies the frugality and recycling ethos practiced by many traditional cultures but adapts it to a contemporary sensibility. One of this project's hoped-for outcomes is to help change the teaching goals in craft and design schools, to become rooted in local community participation, social equity, and environmental, financial and cultural sustainability. Design, craft and art education of the twenty-first century must change to embody a whole system approach and to embrace a broader base of knowledge -- including familiarity with climate change, Life Cycle Analysis, renewable resources, and more -- that will enable students to work in interdisciplinary teams to solve the daunting environmental, social and financial problems the world faces today.

Introduction

Crafts traditionally have been rooted in sustainability as a matter of necessity. In the past, craftspeople generally used locally available materials because these were affordable and accessible. Exceptions were luxury materials imported from other countries, such as silk or gold; but these usually were reserved for the elite, and were not employed in daily use by the general population. Experts and curators often examine the materials as one important way to identify the origin and date of objects. Clay, wood, glass, metals and plant and animal fibres biodegrade, oxidize or break down into small particles that become part of the soil without damaging the environment. As a result, most of the objects created by craftspeople in earlier ages are not littering today's landscape.

The Industrial Revolution destroyed the central role of the crafts in daily life, and the deliberate strategy of planned obsolescence after World War II put an end to the thrift and saving ethos of our grandparents. Today we are disconnected from the origins and ultimate destinations of our industrial and consumer products. Modern technology shields us from these sources and processes so that we are spared unpleasant knowledge of the environmental and social damage caused by consumer goods. The accumulation of consumer goods has become the primary goal of many people, leading to tremendous economic disparities between haves and have-nots, as well as environmentally unsustainable use of non-renewable resources and exorbitant waste and pollution. As Worldwatch Institute State of the World 2004 states, 'The underlying premise of mass consumption economics—that unlimited consumption is acceptable, even desirable—is fundamentally at odds with life patterns of the natural world ' (Gardner et al. 2004: 3-21). All of us must refocus our efforts in the twenty-first century on achieving social and economic equity while restoring the environment that supports us.

The crafts as never before should create for themselves a vital role in global sustainability agendas or risk losing their remaining relevance, particularly in the most advanced industrialized nations. Already in these nations, most crafts are regarded as luxury items affordable only for the wealthy, and they have surrendered to large-scale manufacturers their traditional role as providers of functional goods. Take a look at any craft gallery or craft fair, and you see craftspeople using unsustainable materials and practices, with scarcely a nod to sustainability.

We who are designers, artists and craftspeople have become divorced from the sources of our materials. We have the luxury of using materials from around the globe, without knowing their sources and with little or no regard to their sustainability. Resources such as precious metals, minerals, gemstones, and exotic woods are used with little thought as to the habitat destruction that they cause. We buy them in stores or from suppliers and barely consider their origins or their environmental impact. What if we were once again confined to using only locally available materials? This restriction, far from being a calamity, could unleash new inventiveness and resourcefulness.

There still are cultures in the world where craftspeople use locally available materials, and their resources are so scarce that virtually everything is reused in some form. For these cultures there is no 'waste' as a matter of necessity. This attitude and work ethic prevents waste from accumulating and encourages craftspeople to think of ways to creatively reuse virtually anything. In such situations people become inventive and resourceful, and creativity blossoms. Take a look at markets in West Africa or India (Fig. 1): we can learn valuable lessons from people who reuse everything and throw away almost nothing.



Fig.1. Traditional craftpersons in West Africa (courtesy of Elaine Bellezza).

We craftspeople in affluent countries can begin by reusing in our work the multitude of materials that we routinely discard. And the products that we create de novo can be designed for reuse in the 'closed loop' system envisioned in the 'Cradle to Cradle' design paradigm (McDonough and Braungart 1982). We must learn to calculate the carbon footprint of our products; perform a Lifecycle Analysis (LCA) of them; and identify and eliminate hazardous and toxic materials and practices. More and more corporations are adopting these steps and others, including Extended Producer Responsibility (EPR) measures to take back their products for safe reuse or disposal. Why should we designers, artists and craftspeople be exempted from the practice of environmental sustainability? We are part of the cycles of nature as much as anyone else, and we therefore need to take responsibility for our products.

Scope of the Problem

One example of a sustainability issue that designers, artists and craftspeople could tackle is the story of throwaway plastic shopping bags. Plastic bags without handles were introduced in U.S. supermarkets in the mid-1970s; in 1982, the now universal 'T-shirt' bags with handles were introduced. Global production and consumption of plastic shopping bags, and the resulting waste and environmental damage, is staggering. Within one generation their use has exploded worldwide, and they may well be the most ubiquitous consumer item in the world. A consulting firm for the petrochemical industry, Chemical Market Associates, estimated in 2002 that four to five trillion such bags were used worldwide each year (Gardner et al. 2004: 22-3).

Environmental damage includes landscapes littered with bags and waterways choked with bags that eventually end up in the ocean gyres. The North Pacific Subtropical Gyre contains an area called the Pacific Garbage Patch, an area that may be one and a half times the size of the continental United States that has millions of tonnes of plastic debris circulating in it (Ferris 2009). This plastic debris, which includes plastic bags, is not benign; it causes the deaths of an estimated 100,000 marine creatures and one million birds (Ferris 2009). For example, sea turtles mistake the bags for jellyfish and consume them; Laysan albatross mistake the debris for food and feed it to their chicks; whales ingest all sorts of plastics. The plastics cause these animals to slowly starve to death. A cursory internet search reveals many such grisly stories and images.

Reports are now emerging of land animals that are killed by plastic bags. Sacred cows in India are dying after eating plastic bags. Cows that were examined had more than 50 or 60 plastic bags in their stomachs (Krulwich 2008). The highly prized racing camels of the United Arab Emirates, as well as gazelles, sheep and goats are dying after eating plastic bags (Wernery 2008).

Ironically, at the same time we are producing trillions of single-use plastic shopping bags, we are discarding extraordinary amounts of textiles that could be used to construct long-lasting shopping bags. Global statistics are not available, but U.S. textile waste alone is staggering: in 2007, ten million tonnes of textiles were discarded in its landfills (U S Environmental Protection Agency 2008). Vinyl commercial and museum banners are commonly discarded; they make extremely durable bags when reused. This extravagantly wasteful consumption makes no sense economically, socially or environmentally and must stop.

Bags of all sizes and materials were invented thousands of years ago and still play an important role in everyday life all across the world. This attests to the wisdom of their design: there has been little change to the shopping bags with straps that can be slung over the shoulder. Craftspeople can exert enormous influence by creating these bags from materials that are destined for landfills. Bags that are clever, beautiful, sturdy and environmentally friendly can be the answer to the plastic shopping bag. Well before the invention of plastic bags, shoppers across the world created and used ingenious reusable shopping bags.

One Response to the Problem

Against this apocalyptic backdrop, **Bags Across the Globe (BAG)** was conceived in early 2008. BAG is a global collaborative piece, or what contemporary artist-activists call an 'intervention', in which artists carry out an action in the public sphere. BAG has several interconnected goals: a) to engage friends and strangers across the globe in a dialogue and an action in order to raise awareness of the environmental damage caused by single-use plastic shopping bags and textile waste; b) to promote the creation and dissemination of reusable bags from locally available materials; c) to divert textile waste from landfills through creative reuse in bags; d) to act as a seed project to inspire individuals and groups across the world to create their own related or separate endeavours.

BAG reflects my philosophy that artists and craftspeople have responsibility to help combat social and environmental problems. As stated before, the arts and crafts cannot be exempt from sustainable principles and practices: we are as embedded in the larger ecosystem as anyone. In fact, it will take great creative vision to solve today's global problems, and creative practitioners in all fields must join together for this endeavour.

Nature of the Bags Across the Globe Project



Fig. 2. Interns creating bags from discarded designer fabrics.



Fig. 3. Bags made from discarded vinyl exhibition banners .

Undergraduate Design majors from the Design Department at the University of California, Davis (UC Davis) served as interns to create the initial 180 shopping bags needed for the project (Fig. 2). Work began on the first bags in June 2008 and through June 2009. Bags were sewn from discarded vinyl exhibition banners and discarded fabric samples, detailed below. The tags are discarded laminate samples stamped with the BAG logo. The only new materials used in construction of the bags are cotton webbing for the handles and bead chains for the tags.

Each one of the bags created for Bags Across the Globe is unique, due to the special character of the materials used to create them. For example, the vinyl exhibition banners used for a UC Davis Design Museum exhibition had architectural images and text, and so when it was cut for bags, each bag carried unique fragments of images and text (Fig.3). Carnegie Fabrics of Mill Valley, California and the UC Davis Design Services staff donated a large quantity of high-end fabric samples. Each fabric bag is composed of six or more fabric samples pinned together and stitched. Recently, SITE Santa Fe of Santa Fe, New Mexico, donated three large exhibition banners that will provide dozens more bags.

Two shopping bags each have been mailed as gifts to participants. Each bag contains the following: a letter explaining the project and giving instructions, a small fact card on the hazards of plastic bags and actions that individuals can take, and a postcard printed with the Bags Across the Globe logo and an image of bags circling the globe (Fig. 4). Design students have been involve in these aspects of the project as well, helping to design the logo, the postcard, and the fact card, as well as the BAG blog and interactive world map on the website (Fig.5).



Fig. 4. Self-addressed return postcard for the BAG project.



Fig. 5. Interactive world map of the BAG blog. The user can click on a location and a popup appears with a picture of a participant and text of their response.

Participants are asked to keep one bag to use for their shopping, and to send the other bag as a gift to someone else, preferably in another country. In this way, the bags leapfrog across the world. In exchange for the bags, participants return a photo of themselves with their bag, and the postcard with a message on it.

Bags Across the Globe employs social networking to identify and contact participants. Artists, craftspeople and scientists typically have international networks of friends and colleagues, so these groups were initially contacted for participants. As the project has progressed, word of it has spread to include people who have contacted BAG on their own. University students have been another important means of disseminating the bags: they have carried the bags to many countries as they go abroad for educational programs or to visit family and friends.

Progress to Date and Future Plans

Over 180 bags have been given or mailed to at least 90 participants in nearly 60 countries. Most of these participants were given two bags, and each of them will give one bag to another person, making the ultimate number of recipients close to 180, conservatively estimated. The goal is not to send bags to every country, but to have a representative sample from each region of the globe.

Participants from 40 countries have returned photos and messages as of August 2009, and these have been posted on the interactive world map found on the website (annsavageau.com). One of the most thoughtful and poignant responses came from twenty-year old student Nora Adoukoum Nossa of Ghana:

I don't know whether you have been in Ghana before but I must confess that we have a lot of problems with plastic bags, because they are used almost everywhere and they are dumped almost everywhere. Most streets are littered, except for highways and some few streets. Though the government has a company called Zoomlion Ghana Limited which cleans the streets on daily basis and also take care of our garbage, our streets are still littered and most garbage are not properly disposed. Most of these garbage are plastic bags. That is why I want to participate in your project.

Our system is very different from yours in the states (I mean not well developed). I am saying this because we over use plastic bags here. Most of our women will go to the market to do their errands and everything they will purchase is wrapped and carried in a plastic bag. I want to snap some pictures of how plastic bags are used in our system.... I wish everybody will understand the harm that plastic bags are causing to the environment and minimise their usage but I think for now the campaign of plastic versus cloth bags must be intensified.

Thanks for the great idea; I admire people who do their best to make the world a better place, to make it better than they met it. You have become part of my mentors. Thank you.

The BAG project will be shown as a gallery installation when the process is complete. It will consist of the postcards, photos, and sample bags, and a large-scale map displaying the destinations of all the bags. This map will be laminated from hundreds of plastic bags. A wall of plastic bags equivalent to the average number saved by an individual's use of a cloth bag will be part of the installation. There will be dynamic presentations of statistics on global plastic bag consumption, textile waste and their environmental damage. The BAG blog will be an online component. The installation will to travel to several countries and involve local people in workshops to create shopping bags out of locally available materials.

In the face of this global onslaught of plastic bags, the ultimate challenge of craftspeople and designers worldwide is to design and create attractive, affordable, long-lasting shopping bags from locally available materials that can be composted or reused, closing the technical or biological loop and creating no waste. This could be the next step in Bags Across the Globe as it is adopted by other people and adapted to local cultures and conditions.

Implications of Bags Across the Globe

Bags Across the Globe employs the traditional craft of hand-sewn shopping bags as a vehicle for effecting attitudinal and behavioural change around an environmental sustainability issue of global scope. It uses the internet for contact and subsequent communication between citizens of many nations. It thus joins craft to modern technology to effect change, and it provides a model for other sustainability agendas in the contemporary crafts. Other crafts can be employed locally and globally to effect similar change. The bags are exchanged freely as gifts, reflecting traditional cultures' practice of exchanging gifts to cement relationships. In this aspect, BAG operates as cross-cultural exchange on a global scale.

Vehicle for environmental change, and social and financial equity.

At first glance, Bags Across the Globe is a simple exchange of shopping bags for photos, postcards and messages. However, it is a great deal more. It is an exchange of energy, information and ideas, and the bags function as the vehicle for this. It subverts the prevailing competitive model of doing business through collaboration and the sharing of ideas to effect cultural and environmental changes. BAG takes a stand against the waste and excesses of consumer culture, and the glorification and elitism of high-priced luxury items such as designer

bags. BAG asserts that stylish, one of-a-kind bags are accessible to anyone, regardless of income, ethnicity, or location. It counters the unchecked consumption of the throwaway ethos that pervades so many parts of the world today. The bags themselves embody the marriage of frugality and beauty; they redefine 'waste' materials as possibility, value and transformation.

Seed project

BAG also is functioning as a seed project to inspire and encourage others to launch bag projects in their own countries. It counters the social isolation and powerlessness that people often feel in the face of mass production. The BAG exchange already has led to the planning of projects with people interested in adapting their own model to endeavours in other countries, including India, the island of Dominica, and Mali.

Never before has it been so urgent for those of us in industrial societies to learn from the ways other cultures have lived sustainably. The bags themselves embody the marriage of frugality and beauty; they redefine 'waste' materials as possibility, transformation, and value. This last concept is one that traditional cultures the world over have known and practiced for centuries before the onslaught of industrial technology and consumer culture with its ethos of planned obsolescence. For example, international product designer Elaine Bellezza, who has lived and worked in less affluent countries in West Africa, such as Mali, reports that people already reuse almost every resource, and they have embraced plastic bags out of necessity and because of their incredibly low cost. Therefore, plastic bags will not be given up in such countries. Bellezza suggests instead of trying to ban plastic bags in such countries, making the collection and reuse of plastic bags an economically viable activity. Bags can be collected, cleaned, woven, sewn and/or laminated with heat into many patterned layers, which then are fashioned into larger, highly durable shopping bags or used to create tourist items to sell locally or to export. They also can be made into other home accessory and décor products. This activity would create new sources of income for local people. And it fits easily into long-standing cultural traditions of reuse (Bellezza 2009).

BAG and Contemporary Craft Education

Craftspeople, artists and designers have the power to influence consumer culture by becoming environmentally conscious producers. They can be part of the solution instead of the problem. The choices that consumers make are largely dictated by the options that are available to them; if the options are not sustainable, there is no opportunity for them to change their buying habits. Designers, as a link between concept, and manufacturing and sales, play an important role in determining consumers' perceptions and choices. Designers are part of the industrial system charged with creating new products every cycle, which results in making previous products obsolete and unfashionable. This is the modern ethos of convenience, fashion, and disposable products, which results in an extraordinary amount of waste. It is the antithesis of the 'cradle to cradle' sustainability, which is based on the creation of products that can be returned as nutrients to either the technological cycle or the biological cycle, thus producing little or no waste. In order to change the way they design and make consumer goods, designers, artists and craftspeople need to be trained in sustainable design principles and practices. This will become the new mandate of educational institutions in the twenty-first century.

One of the hoped-for outcomes of BAG is to help change the teaching goals in craft and design schools from an emphasis on creating high-end, disposable, trend-laden items to becoming rooted in local community participation, social equity, and environmental, financial and cultural sustainability. Students are influenced by what their professors consider to be important. If teachers emphasize projects that allow students to learn and apply environmentally sustainable principles and practices to real world problems, students will carry this training and ethos into the work world when they graduate. Students are eager to do meaningful work for their community and the environment, because these projects yield tangible results. They learn more when they have to teach others, and the act of raising community awareness about an environmental or social issue can lead to lifelong commitment to sustainable practices.

Programs in sustainable design are springing up in every country in response to students' and faculty's interest in changing the way we design, manufacture and dispose of things in today's world. This trend represents an extraordinary shift in how we teach and practice our disciplines. Although such rapid and profound change is not easy, it is vital to the survival of life on our planet. We no longer can be narrowly focused and ignore the global ecosystem: we must be trained to look at the whole system of human, natural and financial capital and design for it. Designers, artists and craftspeople of the future will need to have a broader base of knowledge, including familiarity with climate change, environmental pollution, Life Cycle Analysis, toxic materials, renewable resources, and so forth. They may work in teams with scientists, engineers, economists and others, since the design, manufacturing and disposal problems that we face are so complex.

Conclusion

The current climate crisis represents an extraordinary challenge to craftspeople, designers and artists. . No longer can any of us afford to ignore the fundamental laws of nature. We are part of the closed-loop planetary ecosystem, and we must practice our disciplines according to its laws. Each of us has the opportunity to address the social, financial and environmental issues of the day in our professional work and our teaching. Bags Across the Globe represents one such effort. It addresses the social, financial and environmental issues created by the proliferation of single-use plastic shopping bags. As such, it serves as a seed project and model for other efforts spearheaded by those in the crafts, arts and design.

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