

EDUCATION VIDEOS TO ENHANCE TEACHING SUSTAINABILITY IN HOUSING, INTERIORS AND RELATED COURSES

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Abstract

Sustainable design is one of the fastest growing segments of the interior design and housing industries. Educators often find it challenging to communicate the complexity of sustainability issues, which requires both intellectual and emotional modes of learning. High quality audiovisual materials can be used to support instructional objectives and enhance course content. The purpose of this review is to assist instructors in selecting audiovisual resources that present issues of sustainability related to housing and interiors. Sixty-seven videos, all produced after 2000, were viewed. Each video was evaluated based on criteria developed by the evaluators. The videos were rated on an overall scale of 1-10, and assigned to one of three topic areas: (1) general sustainability issues, (2) cities, housing and construction, or (3) textiles, materials, and interiors. The review resulted in a final list of 18 recommended videos. Each is professional, appropriate for college classroom use, relevant to housing and interiors, and could facilitate student learning by being easily incorporated into lectures and effectively used to stimulate discussion and analysis. The list provides a good starting point in the search for materials that will challenge students on both the intellectual and emotional level to understand and engage in sustainability issues related to their field.

Introduction

In 1989, the World Commission on Environment and Development (Brundtland Commission)(U.N. Documents, 1987) articulated what has become a widely accepted definition of sustainability: to meet the needs of the present without compromising the ability of future generations to meet their own needs. The three dimensions of sustainability—social, environmental and economic—are often referred to as the three-legged stool, the three pillars, or the triple

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HOUSING AND SOCIETY, Volume 37, Issue 1, Pages 69–86.
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HOUSING AND SOCIETY, 37(1), 2010

bottom line of sustainability. When applied to housing, the ability to live in one's home throughout the lifespan, move about safely, and feel secure reflects social sustainability; the efficient use of resources such as water, waste and energy reflects environmental sustainability; and cost-efficiency over time reflects economic sustainability. A fourth dimension may emphasize how societies and economies rely on the natural world, suggesting that no subsystem can expand beyond the capacity of the total system of which it is a part. Beyond defining sustainability, the mission of the Earth Charter Initiative® (2009) identified values that give direction to future achievement and a sustainable global society, including respect for nature, universal human rights, economic justice, and a culture of peace. To live these values, all people must be responsible to one another, to the greater community of life, and to future generations.

Sustainability related to housing can be studied and managed in various contexts and in different sectors. For example, if the house and site are considered the basic context, then community and state represent a broader context and interiors and furnishings represent a narrower context. Furthermore, each of these contexts, or parts within, can be studied within the social, environmental, and economic sector. Thus, the focus for sustainability can range from the total carrying capacity of the planet to the capacity of component parts, such as a country, neighborhood, household, individual good or service, lifestyle or behavior pattern.

Sustainable design is one of the fastest growing segments of the interior design and housing industry as designers, builders, consumers, and government entities come to recognize the long-term benefits of environmentally responsible design. Given that, how do educators teach students about sustainability, addressing both the big picture and the component parts? How do we move student thinking from a conventional way of doing things to a new way of doing things? How do we facilitate both an understanding of and a desire to design and build sustainably?

Helping Students Make an Intellectual and Emotional Connection to Sustainability

Conventional design criteria include aesthetics, function and cost. A new way of doing things means also considering sustainability issues.

According to McDonough and Braungart, the authors of *Cradle to Cradle* (2002), the champions of sustainable development like to use the triple bottom line approach based on ecology, equity and economy—alternative terms for environment, social and economic sustainability. They suggest, however, that rather than considering these three perspectives at the end of a project, questions regarding ecology, equity and economy should be asked at the beginning of a project and used as triple top line questions. When they are used as a design tool, designers can create value in all three sectors. Oftentimes, a project that begins with a concern for ecology or equity can turn out to be financially profitable in ways that may not have been imagined if the approach was from a purely economic perspective.

Housing and interiors educators have an obligation to prepare students to engage with sustainability issues, yet instructors often find it challenging to communicate their complexity. Addressing both the intellectual and the emotional dimensions of student learning will facilitate student engagement with sustainability. The intellectual, or cognitive, dimension is about knowing. The emotional, or affective, dimension is about attitudes and feelings. High quality audiovisual resources can be used effectively as a supplemental learning activity to support instructional objectives and enhance course content by addressing both intellectual and emotional learning through observation, analysis and discussion. Griffin (2010) states that there is substantial research promoting the use of video in the classroom as a dynamic resource for supporting curricula. Video taps into emotions which stimulate and enthrall students. Furthermore, the more engaged students are and the more interactive the lesson is, the more students will enjoy it, learn from it, and retain the information.

Today, there are a plethora of audiovisual learning resources that can help introduce students to general concepts of sustainability as well as more specific applications to energy efficiency, renewable resources, and social justice issues. Television and movies, the most obvious, are an effective medium because current sustainability issues can be presented in a mode to which students are receptive. And, as the technological capabilities expand, the sheer number of audiovisual resources increases with streaming media and video files that can be accessed through the internet and shown during

class. Streaming media are live radio or television “feeds;” video files, created professionally or with webcams, are available from video rental providers and public websites, such as You Tube®.

Purpose of Review

The purpose of this review is to assist instructors in selecting current audiovisual resources that present issues of sustainability related to housing and/or interiors. The scope of this review included: determining criteria for selecting audiovisual resources, locating and previewing the resources, and making recommendations for audiovisual resources that would enhance classroom instruction and facilitate meeting sustainability learning objectives. To the authors’ knowledge, neither a list of audiovisual resources specific to interior design and housing courses nor research methodology on audiovisual selection was available on which this current review could expand. A limitation of this review is that the evaluators did not fact-check the information presented in the videos.

Method of Selection

Resources produced after 2000 were reviewed that could be used to either introduce sustainability issues in general or that were relevant to housing, interiors and related courses. Traditional educational DVDs, You Tube® videos and other on-line sources were included. To identify resources, we contacted all major distributors of educational videos, conducted on-line searches, perused pod cast libraries and educational television programming, and explored You Tube® entries. Table 1 presents an alphabetical listing of the 67 audiovisual resources that were viewed. They varied from full length programming to short clips. The cumulative viewing time among the three evaluators totaled at least 96 hours.

Each audiovisual resource was viewed and evaluated by two evaluators in a written format using a two-part method. The first part of the evaluation was based on criteria established by the evaluators. These criteria were created through collaboration among the authors based on the objectives for courses they teach in interiors and housing. Oral and written feedback from students was also considered, when available. The evaluators answered a series of questions in each of the six categories that the criteria were presented.

Category one was professionalism of the resource, including the engagement of the visuals, background sound and music, and ability of the video to keep the viewer's interest. Category two was relevance to courses in housing, interiors, or other related courses. Category three was the main concepts of the video. Category four was about the incorporation of social justice issues. Category five was about solutions and action items, whether there was a focus on mainstream intelligent activism, and the seriousness of the resource. And, category six was about the appropriateness for college classroom use, including the facilitation of discussion and analysis.

In the second part of the evaluation, each resource was given an overall rating, based on the categorical evaluations, on a scale of 1-10, with 10 being the most effective for classroom use. Although some videos were of high program quality, including production and content, they were rated lower and not included on the final list of recommendations due to their lack of relevance to the built environment and content taught in housing and interiors courses.

Table 1. Audiovisual Resource Information

Title	Producer	Price	Date	Length
Addicted to Plastic	Bullfrog Films	\$295.00	2009	1:25
Alive & Well TV: Green Home Eco Make Over Part 1	Alive & Well TV	Free (You Tube®)	2007	0:09
Alive & Well TV: Green Home Eco Make Over Part 2	Alive & Well TV	Free (You Tube®)	2007	0:07
An Inconvenient Truth	Paramount Pictures	\$29.98	2006	1:36
Big Ideas for a Small Planet: Build Cities Create Drive Eat Fuel Furnish Kids Paper or plastic? Pray Sports Wear Work	Sundance	\$39.93 (entire season)	2007	0:25 each segment

Table 1. (continued)

Title	Producer	Price	Date	Length
Blue Vinyl	Bullfrog Films	\$26.95	2002	1:37
Burning the Future: Coal in America	Firefly Pix	\$129.00 (educational price)	2008	1:29
Car of the Future: Engineering for the Environment	WGBH; NOVA	\$24.95	2008	0:54
Crude Impact	Vista Clara Films	\$26.95	2006	1:37
Design/e2: The Economics of Being Environmentally Conscious: The Green Apple (Part 1) Green for All (Part 2) The Green Machine (Part 3) From Gray to Green (Part 4) From Red to Green? (Part 5) Deeper Shades of Green? (Part 6)	PBS Home Video	\$24.99 (all 6 parts)	2006	0:25 each segment
EcoTop Counter Tops on Planet Green's "G" Word	Planet Green	Free (You Tube®)	2008	0:07
Episode Five: Breathless in LA Sierra Club Chronicles, Season One	Sierra Club Productions	\$10.00	2006	0:30
Episode Seven: Rats to Roses Sierra Club Chronicles, Season One	Sierra Club Productions	\$10.00	2006	0:30
Episode Three: Dioxin, Duplicity & DuPont Sierra Club Chronicles, Season One	Sierra Club Productions	\$10.00	2006	0:30
Episode Two: The Day the Water Died Sierra Club Chronicles, Season One	Sierra Club Productions	\$10.00	2006	0:30
Escape from Suburbia	Escape from Suburbia, Inc.: Dara Rowland	\$20.00	2007	1:35
Everything's Cool	Toxic Comedy Pictures	\$295.00	2007	1:29
Fair Trade Cotton in Cameroon	Fair Trade Foundation	Free (You Tube®)	2008	0:09
Flow	Oscilloscope Pictures	\$29.99	2008	1:33
Garbage	Take Action Films; Andrew Nisker	\$295.00	1996	1:16

Table 1. (continued)

Title	Producer	Price	Date	Length
Garbage Warrior	Open Eye Media UK: Oliver Hodge	\$24.98	2007	1:26
Global Warming: What's Up with the Weather	WGBH; NOVA	\$19.95	2000	1:52
Green: The New Red White and Blue	Optomen Productions; Discovery Channel	\$21.95	2007	1:05
Growing Back to Organic	New Internationalist	Free (You Tube®)	2007	0:08
How Polyester is Made	History.com	Free (History.com)		0:04
Manufactured Landscapes	Foundry Films	\$29.99	2006	1:30
Modern Marvels: Renewable Energy	A&E Television: Bruce Nash	24.95	2006	0:50
Moral Fibre-Organic Cotton Part 1	Pesticide Action, UK	Free (You Tube®)	2008	0:07
Moral Fibre-Organic Cotton Part 2	Pesticide Action, UK	Free (You Tube®)	2008	0:07
National Geographic: Human Footprint	National Geographic Channel	\$24.95	2008	1:30
Planet Earth: Disc #5	British Broadcasting Corporation	\$79.99	2007	0:44
Planet in Peril	Cable News Network	\$19.98	2007	3:00
Rachel Carson: Silent Spring	WGBH; PBS American Experience	\$19.95	1993	0:56
Rivers and Tides	Mediopolis Film	\$26.95	2001	1:30
Solar Energy: Saved by the Sun	WGBH; NOVA	\$19.95	2007	0:56
TED Talks: William McDonough on Cradle to Cradle Design	YouTube: TED Conference	Free (You Tube®)	2007	0:22
Textiles: The Sustainability Revolution	Textile World	Free (online, Cotton, Inc.)	2008	0:15
The 11th Hour	Warner Independent Pictures	\$4.95	2007	1:35
The Conventional Trap	New Internationalist	Free (You Tube®)	2007	9:22

Table 1. (continued)

Title	Producer	Price	Date	Length
The Eco House: Ideas for a Healthier Home	D & A Productions	24.95	2007	0:34
The Great Warming	Stonehaven Productions: Karen Coshof	DVD coming soon	2006	1:25
The Greening of Southie	Bullfrog Films	\$295.00	2008	1:13
The Next Industrial Revolution	Earthome Productions	\$275.00	2001	0:55
The Story of Stuff	Free Range Studios	\$10.00	2007	0:20
The Unforeseen	New Yorker Video; Cinema Guild; Robert Redford	\$29.95	2007	1:33
Trashed	CustomFlix	\$19.99	2007	0:20
White Gold—The True Cost of Cotton	Environmental Justice	Free (You Tube®)	2007	0:07
Who Killed the Electric Car?	Plinyminor	\$14.94	2006	1:33

Findings and Recommendations

Each resource was assigned to one of three topic areas: (1) general sustainability issues, (2) cities, housing and construction, or (3) textiles, materials, and interiors. These categories are not distinct or mutually exclusive and cross-over can be found among them. The resources with the highest overall ratings in each of the three areas are presented below, in alphabetical order, as our final recommendations. Each entry includes a synopsis of the video and evaluator comments. All of the videos recommended are professional, appropriate for use in a college classroom, relevant to housing and interiors, and could be easily incorporated into lectures and effectively used to stimulate discussion and analysis.

General Sustainability Issues

The category of general sustainability issues presents sustainability in the broadest context. It represents the big picture and asks questions such as: what is sustainability; what is the 'whole' and what are the component

parts; what are the general approaches to being more sustainable; and, why should we care? Depending on students' prior exposure to sustainability issues, instructors may choose to introduce basic concepts before diving into specific concerns around housing and interiors. It is important that students know what part of the whole they are learning about. The following is an alphabetical listing of the top six videos recommended for teaching general sustainability issues.

- *Flow*, Oscilloscope Pictures, 2008, 84 min.

This film comprehensively and objectively addresses the crisis of polluted water, water availability, and privatization of water sources around the world in an optimistic manner. The content is directly related to interior design because water efficiency is one of the six categories for environmentally responsible construction under the LEED (Leadership in Energy and Environmental Design) rating system. Designing a home with responsible, water-saving devices such as dual flush toilets, reduced flow shower nozzles and faucets, and solar water heaters will become increasingly common in the future. The film provides information that is easy to understand with engaging visuals and is at an effective pace. This film could be used in an introductory design course, stimulating discussion regarding globalization, global warming, or general sustainability concepts. It can be divided into shorter segments.

- *An Inconvenient Truth*, Paramount Pictures, 2006, 96 min.

This award winning documentary, presented by former U.S. Vice-President Al Gore, is interspersed with video clips, computer generated graphics, and still photographs. It holds the viewers interest with its quick pace and presentation of thorough, easy to understand facts. The program addresses the myths and misconceptions surrounding global warming and asks, "What can individuals do to make a difference?" As commercial construction accounts for approximately 40% of our greenhouse emissions, this film is appropriate for an introductory design course as a means of presenting general sustainability concepts.

- *Manufactured Landscapes*, Zeitgeist Films, 2007, 90 min.

Stunning visuals abound in this extraordinary film. Particular environmental situations in China are highlighted to show a country whose very size makes it of pivotal importance to the sustainability of human civilization. For over seven minutes, viewers see row-upon-row of machinery operated by unnamed employees dressed in matching uniforms. This sheds light on the sort of anonymity produced in these settings and reveals that individuality and self-identity have no place in the world of mass production. Social justice issues are implicit throughout as scenes are presented of children playing on toxic piles of electronic waste and young boys cleaning out old oil tankers. Such issues are interwoven with the very fabric of design, as designers daily specify mass produced furnishings, textiles, lighting and electronic control systems that are transported thousands of miles to final job sites, expending enormous amounts of energy in the process. Products containing toxic materials are shipped back to third world countries where poor, unempowered employees are exposed to heavy metals while they extract recyclable components. *Manufactured Landscapes* presents these 'facts' indirectly but powerfully. Although this film would provide an outstanding opportunity for classroom discussion and analysis, a challenge to overcome for classroom use would be the intentionally slow pace of the film used as a technique to enable viewers to absorb the message.

- *Modern Marvels: Renewable Energy*, A&E Television Networks, 2006, 50 min.

This episode of the History Channel's series, "*Modern Marvels*" uses strong visuals and clear, easily understood facts to effectively present five types of renewable energy: solar, wind, water, plant, and ocean. Reflecting our global society, international references are provided, with special attention on the solar energy program in Germany. The exploration of

the five alternative energy sources gives the film a broader perspective than others in the same category, and presents sustainability issues with impacts beyond global warming. The content could easily be used in an introductory design course. Because buildings in the U.S. account for 40% of our overall energy use, 72% of electricity, and 39% of CO₂ emissions (U.S. Green Building Council, 2010) knowledge of alternative energy sources is, therefore, quite relevant to the general design profession.

- *Trashed*, OXI Productions, 2007, 60 min.

This film, focusing on solid waste disposal in the U.S. and the negative impacts of landfills, is surprisingly relevant to interior design. Designers often educate their clients on the benefits of life cycle costing, that can be applied to most items a designer specifies, including materials such as carpet, tile, furnishings, and fabrics. Although the up-front costs of higher-end sustainable products may be greater, the long term financial and environmental costs may be lower. Design students will more fully comprehend the importance of life-cycle costing and materials specifications when they understand the problem the U.S. faces with waste disposal. One segment includes a clear and thorough explanation of the Pacific Gyre—an African-continent-sized plastic-filled garbage patch in the middle of the Pacific Ocean. Content with effective visuals of this topic is difficult to locate, making this segment of particular value for classroom use. Due to the slow pace of this film, it may be most effective to present it in smaller segments, which should be fairly simple to achieve in a DVD format.

- *Crude Impact*, Vista Clara Films, 2006, 97 min.

Crude Impact focuses on the relationship between fossil fuels and environmental degradation by presenting the history of petroleum from its initial formation to the current dependence on it by human civilization. The film is divided

into clear sections that focus on history, material growth and consumption, foreign policy impact, human impact (environmental damage, increased poverty, and human rights abuses), peak oil, peak impact, and future impact. The approach is thorough and the clearly stated facts are accompanied by effective visuals. This film is highly relevant to interior design due to the high number of interior materials (e.g., vinyl upholstery, flooring and wallcovering, nylon and polyester textiles, various glues, grouts, upholstery cushions, plastic furnishings) that are petroleum derivatives. This film would be an effective tool for stimulating group discussions on the larger perspective of oil-related issues, the relationship to design, and what the design industry can do to make a difference.

Cities, Housing and Construction

In housing, sustainability issues are present in all phases of production and consumption, producing negative effects on individuals and the environment, from high operating costs, to unhealthy interior environments, to the creation of enormous amounts of waste and the depletion of natural resources. The following are the top five videos recommended for teaching about sustainable cities, housing and construction.

- *Big Ideas for a Small Planet: Build*, Scout Productions, 2007, 25 min.

Big Ideas for a Small Planet, originally a television series on the Sundance Channel, includes a dozen different episodes on various aspects of sustainability. The episode entitled *Build* focuses on green building practices, prefabricated and modular housing, sustainable building materials, and environmentally responsible practices during the on-site construction process. It is an optimistic and articulate series, and information is presented clearly through insightful commentary and engaging visuals. In this segment, even indirectly related sustainability issues such as consumerism, sustainable housing for low income families, and maintenance and operation costs are addressed.

The effect of the whole is an ideological expansion of the very concept of architecture, stretching understanding of structure to its sculptural possibilities and its role in social justice issues. The length is ideal for classroom use. This video would be well suited to use in basic design as well as introductory or general housing courses.

- *Design/e2: The Economics of Being Environmentally Conscious, From Gray to Green (Part 4)*, PBS Home Video, 2006, 30 min.

This is the fourth in a six-segment series and focuses on the issue of building waste and environmentally conscious building, specifically how to re-use materials when gray buildings or structures are torn down. This video presents a case study in Boston and the “big dig” that turned an elevated freeway into an underground tunnel. The steel beams and concrete slabs from the freeway were used to build new homes, with an emphasis on rethinking the relationship between design/build and future re-use of materials. Classroom questions could be posed before viewing the program that focus on commonly held beliefs, such as “how does construction waste play a part in the big picture of sustainability?” Visually, the film keeps a nice pace switching between interviews and panoramic views.

- *Design/e2: The Economics of Being Environmentally Conscious, From Green for All (Part 2)*, PBS Home Video, 2006, 30 min.

This video, the second in a six-segment series on the economics of being environmentally conscious, focuses on the impact of elitism in design. It demonstrates the value of sustainable design for all people, not just the wealthy or those living in developed countries. It reports that one in seven people are currently living in inadequate housing; the number jumping to one in three in the next thirty years. This video provides more of an overview, although some specific solutions are incorporated through examples. One powerful example is that of students building sustainable homes and communities

in Mexico. Questions could be posed before viewing the program that focus on commonly held beliefs, such as “who should benefit from sustainable design efforts?” This program is a good introduction to the general ideas of social justice.

- *William McDonough: The Wisdom of Designing Cradle to Cradle*, YouTube®, 2007, 22 min.

William McDonough, architect, author, and educator, presents on topics of sustainability, including the elimination of the concept of waste, designing for “all children, of all species, for all time,” and biological and technical material metabolisms. Toward the end of the speech he shows examples of work that qualify as “cradle-to-cradle” design. This video content came from a TED (Technology, Entertainment, and Design) Conference and has a simple format. The informational content is compelling and those who listen closely are rewarded with quick witticisms and scattered bits of irony and humor. The short length of this video helps to make it suitable for classroom use, especially since the presentation is slower paced and without the graphic imagery to which college students are accustomed.

- *The Unforeseen*, New York Video, 2007, 93 min.

This film is timely, professional, and thorough in its presentation of issues surrounding real estate development of raw land in Austin, Texas. Environmental activists fight for preservation of a local spring, economics affect the financial viability of the project, and development ethics are brought into question. The pace of the film is somewhat slow. Issues are presented, but without clear, concise facts, as it primarily addresses “the forces behind the facts,” and “the forces behind the forces.” The complexity of the content renders this film most useful to upper level courses; and, given the slow pace of the film, it may be advisable to present it in small segments. Potential for discussion, application and analysis is plentiful as long as instructors provide sufficient guidance and input.

Textiles, Materials and Interiors

Although this category presents sustainability issues in a narrower context, questions regarding social, environmental and economic impacts abound. Textile and other material producers have been working on creating sustainable fabrics and materials over the past several decades (Belli, 2007). The following are the top six videos recommended for teaching about sustainability related to textiles, materials and interiors.

- *Blue Vinyl*, Toxic Comedy Pictures, 2004 (U.S. release), 98 min.

As one of the early docudramas on sustainability, this video remains timely in both style and content. Filmmaker Judith Helfand explores the impact of her parents' decision to re-side their home with vinyl siding, and proceeds to research issues associated with vinyl. She approaches the dilemma with intelligence, sincerity and humor, resulting in a film that successfully captures viewer interest. Social issues are incorporated into the presentation, especially as they relate to the right to healthy and safe working environments and materials most used in the construction of low income housing. Since polyvinyl chloride (PVC) is a component of everything from exterior siding to wall coverings, plastic laminates and carpet backing, the content is extraordinarily relevant for use in college courses on interior resources and materials. Potential for discussion and analysis is plentiful, especially since inexpensive alternatives to PVC are still in development. This film is best viewed as a whole and should not be shown in smaller segments. Fortunately, due to its entertaining and riveting informational aspects, this is not a weakness.

- *Big Ideas for a Small Planet: Furnish*, Scout Productions, 2007, 25 min.

This episode focuses on sustainable materials and interior furnishings. It highlights the work of furnishing manufacturers including Herman Miller, Mio Design Lab, and ScraPile, all of whom take very different approaches to designing sustainably. Related issues include the potential of

LED lighting, FSC certified wood, reclaimed materials and the affordability of sustainable products. Social justice issues are implicit, as green design is good for all. The length is good for classroom use, and the episode could even be effectively broken down into shorter clips. The music and visuals are engaging, and the content could be used not only to stimulate classroom discussion, but also to inspire students to create their own sustainable interior items.

- *Growing Back to Organic*, New Internationalist Publications, 2007, 8 min.

This program focuses on how organic cotton production can benefit farmers and their communities. The village of Peddasakeda in India decided to go back to the organic practices of earlier generations and the film explains the benefits and opportunities organic growing and fair trade certification offer. The impact of conventional methods of growing cotton are made clear including environmental issues, health and welfare issues of farmers, gender issues, and quality of life issues. This program is an optimistic story of one farmer's and one village's move to organic and fair trade certified cotton production. The program makes it clear that organic cotton growing can be successful for producers and consumers.

- *The Next Industrial Revolution*, Earthome Productions, 2001, 55 min.

This profound film documents the philosophy and examples of cradle-to-cradle design. Ideas such as “waste=food” (the elimination of the concept of waste), biological and technical material metabolisms, natural water purification systems, and the triple bottom line are explained. The power of the film is in its message that there is a viable way for humanity to flourish on planet earth without destroying it and ultimately, ourselves. Examples of effective design are presented, including manufacturing facilities for Herman Miller, product design at Nike, and compostable but durable commercial fabric production

at Rohner Textiles. Using references to history through the work of Thomas Jefferson as well as current events, it thoroughly presents the need for utilizing nature's operating system by living on current solar incomes and exploring other methods of biomimicry to reinvent the human footprint in a positive way. The questions posed in the film are thought provoking, and would provide excellent opportunities for classroom discussion. The film could easily be viewed either as a whole or divided into smaller segments, based on instructor preference.

- *The Story of Stuff*, Free Range Studio, 2007, 25 min.

Annie Leonard presents very complex concepts using basic cartoon drawings and visuals. There are enough visual changes to keep viewer interest even though the bulk of the information is communicated aurally, but without words. Social justice issues such as equality and health care are incorporated within sweeping generalizations, and the film challenges viewers to consider the hidden costs of consumerism. Some content is more political than necessary and certain points could be made without political reference, which has the potential to polarize the classroom. The film could be useful in introductory level design courses, with an apolitical introduction by the instructor.

- *White Gold*, Environmental Justice Foundation, 2007, 8 min.

The main focus of this program is on how cotton production creates many social justice issues in Uzbekistan. The impact of buying or consuming cotton from Uzbekistan is the enslavement of many Uzbekistan citizens. The program claims that up to one third of Uzbekistan's workforce is made to labor on cotton farms including tens of thousands of children. The workers are denied ownership of the land they work and forced to labor without reasonable wages. It claims that those who do not are subject to violence, imprisonment and intimidation. The program places the blame on the Uzbekistan government for creating a slave nation. The implied solution is that cotton should not be purchased from Uzbekistan. It is short and to the point. It gives

the viewer pause to reflect on the impact of being indiscriminate when determining sources for cotton and other materials.

Discussion

The purpose of this review was to guide instructors in selecting audiovisual resources that present issues of sustainability related to housing and/or interiors, with the goal of enhancing learning objectives. Sustainability was defined as meeting the needs of the present without compromising the ability of future generations to meet their own needs. Sustainability was approached socially, environmentally and economically. The result was a list of 17 recommended audiovisual resources presented by the topics of (1) general sustainability issues, (2) cities, housing and construction, and (3) textiles, materials, and interiors.

Hopefully, this list of recommended resources will be useful to instructors of courses in the housing and interiors curriculum. This list can provide a good starting point for instructors searching for materials that will challenge students on both the intellectual and emotional level to understand and engage in sustainability issues related to their field, both in general and specific ways. If educators can effectively accomplish this task, the environment, the economy, individuals and households, and consumers will benefit.

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