

Available online at www.sciencedirect.com**SciVerse ScienceDirect**

Procedia - Social and Behavioral Sciences 51 (2012) 1061 – 1065

Procedia
Social and Behavioral Sciences

ARTSEDU 2012

Revitalizing ancient technologies and advancing an ethical design in textile art education

Alexandra-Andreea Rusu

^aNational University of Arts, Str. General Budisteanu nr. 19, Bucharest 1 010773, Romania

Abstract

My research focuses on revitalizing ancient sustainable technologies and advancing them as fundamental components in textile art and design education. The purpose is to develop a program of art education centered on social and environmental issues. Present art education should relate to social concerns not only at a theoretical level but also in practice, revitalizing ancient technologies and generating growing awareness among students regarding the power of design in shaping human habits and tendencies, thus enabling it to become an agent of positive change. In redefining art education to meet new social and environmental challenges, educators should stimulate research, creativity and help new generations define their own identities.

© 2012 Published by Elsevier Ltd. Selection and/or peer review under responsibility of Prof. Ayşe Çakır İlhan

Open access under [CC BY-NC-ND license](#).

Keywords: education, textile art, design, sustainability.

1. Introduction

My research as a fiber artist and teacher focuses on revitalizing ancient sustainable technologies and advancing them in textile art and design education. My purpose is to develop education in this field centered on social and environmental issues rather than commercial ones whilst at the same time preserving our technological heritage. In this paper I discuss the main issues faced by education for sustainable development, and suggest possible solutions designed in art practice and textile art practice in particular. The transmission of knowledge and the preservation of traditions and designs will help to ensure a balanced cultural environment and a sustainable future. Adaptation, change and innovation are as old as humanity and will continue as an integral part of creativity. Yet, technological traditions, including textile technological traditions, are facing oblivion. Our role is to sustain the core of these traditions, as part of the world's heritage. In order for a cultural manifestation to live it must be constantly reinvented in the context of new environmental, economic, social and political challenges. Fiber artists reinvent traditions knowing that they cannot survive in a world in which values are changing and in which any human activity has an impact on the environment. It is important to seek to revitalize green technologies and implement solutions that have been tested throughout the ages; the ritual gestures that strengthen links between humans, their artifacts and the environment.

*Corresponding author. Tel.: +40 0720182317

E-mail address: rusu.alexandra.andreea@gmail.com

2. Education for sustainability

2.1. Sustainable development issues

During the last century technological progress has begun to reveal its faults. Industry has brought many benefits to humanity but negative repercussions are becoming apparent, particularly where ethical issues are concerned. Faced with modern technology, rather than the ancient *techné*, people are reconsidering their moral relationship with technologies. Modern technologies have created a gap between humans and their artefacts, failing to resonate with our worldview and overlooking human-environmental relations.

Sustainable development has been a debated subject for over three decades now, but designing and implementing strategies towards achieving it seems always to be a task for tomorrow. In 1983, the UN Commission for Economic Development was created to investigate environmental issues caused by economic development. In 1987, the Commission published the *Our Common Future* report, in which the basic principle of sustainable development was written, that is, to meet basic needs for ALL present and future generations. Any strategies put forward should emphasize technologies that increase the productivity of natural capital (Cochrane, 2006), that is, technologies that can ensure productivity without pollution or exhausting resources.

Traditional technologies give us patterns of sustainability. Sustainable products are made from organic, recyclable or compostable materials; they are safe and non-toxic. Production processes use renewable energy and the final product fulfils its function efficiently, and has a fair social impact.

Public acceptance of sustainable designs is influenced by their efficiency in the context of a growing population. Sustainable technologies, whether new or ancient, have to face demographic, economic, social and political challenges, but most of all, educational challenges.

Ancient traditional technologies can offer solutions for major problems we are now facing, like climate change, poverty and educational issues. Art or crafts that use traditional technologies provide income for small communities, developing their economy to a higher level. Commerce in cultural goods, if it does not affect the quality of the products, may contribute to the overall standard of life in some geographical areas, providing food, health care and other extremely important benefits for underprivileged groups.

2.2. Paradigm shift in art education

Art is confronted by a technological culture that is often dehumanizing and demonstrates a loss of respect towards tradition. The advance of Virtual Reality (VR) and Augmented Reality (AR) technologies has shown our success in developing a perfect artificial world without finding long-term creative solutions for the natural world. Modern and contemporary art has always considered environmental issues in producing works of art and has used sustainable technologies. From the first signs of this consideration seen in the works of Rauschenberg and Beuys through the radical perspective of Arte Povera, towards today's environmental and ecological art, the message of employing an ethical perspective in cultural manifestations calls for action. Artists are now rediscovering ancient techniques, including recycling as part of the creative process, reusing materials, making landscapes their canvases and immortalizing, not the beauty, but the destruction of nature.

Artists need to seriously rethink their educational system to stimulate creativity for a sustainable future, adapting themselves to live life in this finite planet. The higher educational system prepares students for social advancement and to work in a competitive environment rather than encouraging them to work towards building a sustainable society. In 2002 the UN declared 2005-2014 the decade for Sustainable Education Development and designed standards for a Sustainable Education Development program but the application of the criteria is still waiting. Education for sustainability implies not only developing empathy and cooperation, but also developing skills for problem-solving and for filtering decisions through a moral values framework. In the economical technocratic environment virtues of the human spirit such as vision and imagination become superfluous. A healthy society needs cooperation instead of competition, and interdependency instead of the pursuit of selfish goals. The green frame of

mind (Jagodinski, 1987) encourages people to live with awareness of the vast and fragile ecosystem that surrounds us.

Art education is focused on the aesthetic components or, in the best curricular scenario, on building concepts for an aesthetic program. Both form and function have to answer critical social issues. Artists and designers should ask themselves what is the relevance of creating a gallery of aesthetically pleasing objects if they also increase the human carbon footprint?

Gablik (1991) demands the redefinition of Western art to encompass solutions to ethical and environmental problems. Every work of art carries a message, a metaphor. Yet the message that is not transformed into action loses its initial value. Artists cannot limit themselves to raising questions; their concepts, use of materials and end products have to make a statement towards change, otherwise they just perpetuate an elitist-consumerist society in which aesthetics is just another word for beautiful waste.

Artists need to correlate their work with new environmental contexts, combining aesthetics and ethics, and politicians need to understand the potential of aesthetics to shift mindsets towards sustainability.

2.3. *Textile art-textile design patterns of sustainability*

In the art world a severe dissociation exists between the value of artworks that result from conceptual processes and those that emphasize the development of practical abilities. Fiber artists display both the cultural and ethical value of their work. Besides the practical technological knowledge displayed by a fiber artwork we discover an entire fiber culture, a culture of touch and gesture, customs and traditions. This tactile culture nurtures empathy and dialogue. All educational curricula should follow the pedagogy of a sensorial experience and ecology.

Objects cannot be isolated from the context in which they evolve to be called “art”. They gain this status by contextualization. Aesthetic qualities of an object are not only a sum of the modalities in which they appear to us but are also the sum of transformations, the result of interaction between artist and matter. A fiber art piece is a real scenario of events and rituals, collaboration and unity. The transient and ephemeral nature of technological gestures, performed each time in a different way, displays aesthetical qualities that exceed those of the final artwork.

In Wiesel’s (1990) opinion, the great problems of education revolve around the connections between cognition and morality. What should be a process of sharing values, knowledge about the human being and consciousness is a highly prized framework for developing theories, abstractions and efficiency.

Applied arts encourage paradigm shift theories required for environmental protection. The most important quality of textile art and traditional textile goods is sustainability. The products of “total beauty” are the source of many environmental problems. Pollution, deforestation, extinction of species and global warming are side effects of mass goods production. Sustainable products, amongst which we find textiles made using traditional technologies such as manual spinning and weaving, and dyeing with plant dyes, do not have a major impact on the environment, and are consistent with the environment throughout their life span.

Fiber artists relate to tradition from the point of view of new technologies, use traditional technologies to shape a new aesthetics, or turn to tradition from an eco-friendly perspective. Tapestry, textile design, mixed-media, installation, and textile sculptures are only a few examples of the diversity of expression. Fiber artists understand that you cannot open yourself to innovation if you ignore the cultural background of the matter with which you are working. In teaching textile art-textile design I often combine modern techniques of printing and weaving with ancient methods and emphasize the wide array of environmental friendly techniques, from block-printing, mud printing, tie and dye, and *ikat* to *batik*, fiber plant dye and manual weaving techniques such as tapestry weaving (*haute-lisse* and *basse-lisse*), *karamani*, knotted and *Oltanian* weaving. When learning a technique students also gain knowledge about the history of practice and technological cultural decisions made by communities to serve their needs without ignoring the environment.

Innovation follows demographic growth, economic and technological reality. The chemical dye industry has replaced plant dyeing processes and has taken away the authenticity of textile traditions. Computer powered looms are the optimal solution nowadays but they have destroyed the link between human and product, between human and nature and, more than that, have deprived man of the gesture that reiterates tradition and identity.

2.3.1. The Maps of Time Project

The “Maps of Time” is a project developed by Professor Dragoş Gheorghiu (National University of Arts, Bucharest), and financed by a PN II IDEI grant. Since 2011, a team of scholars, artists and IT experts have worked on developing a structure for the immersive experimentation regarding ancient technologies in the virtual world. The “Maps of Time” is also a research project investigating ways to preserve and revitalize ancient technologies, bringing them into a contemporary context, and presenting them as viable and tested strategies in lifelong education for sustainability.

As a fiber artist and research assistant at the National University of Arts in Bucharest, my responsibility in the project varies from documenting ancient textile technologies, experimenting with technology reconstructions in workshops, and creating an e-learning environment for people who want to acquire fiber art skills. In my theoretical research I have investigated the power of technological traditions, following the *chaîne opératoire* of various ancient weaving technologies to understand the technological decisions that have contributed significantly to humanity’s development. Another purpose of our experiments with ancient technologies is to understand their sustainable component; patterns of strong interactions between humans-environment-artifacts may provide the means for small communities’ economic growth.

We want to develop an e-learning program to facilitate the sustainable development of small communities. We use visual support, online lessons from experts and advice about learning crafts (textile, ceramic or metal technologies). Although the e-learning sessions currently involve a small community in the Oltenia region (south Romania), especially its school children, we are aiming for a larger audience; experts and individuals who want to develop artistic skills.

The experimental platform we are building in an archaeologically rich environment will also be a site for education. We have the support of craftsmen in the local community and they will assist us in the transmission of technological information to new generations. Teachers from the local school are seeing opportunities for economic growth, implied by the exercise of acquiring a new skill, as well as other positive repercussions in child education.

Experiments conducted both on the platform and in the National University of Arts’ laboratories and workshops will focus upon the educational components, and the results will be disseminated on web-sites and throughout a European network of artists and scholars.

The research team aims to transmit not only technological information, but also artistic metaphors. All experimental samples woven in collaboration with school children will be followed up with theoretical materials and technical demonstrations by means of the interactive classes.

For educational purposes the interactive component of this project builds the applications by using AR technologies, 3 D reconstructions, and VR.

The preservation of our technological heritage provides an opportunity for our team to develop a sustainability oriented project that will empower communities and change attitudes.

3. Conclusions

Unfortunately, the Romanian cultural framework, although legally protected, is still influenced by a centralized cultural and educational system, by bureaucracy and corruption, and a lack of highly qualified personnel.

From 2003, the Constitution has been amended to ensure the preservation of the national culture, national heritage and identity. Some contemporary art manifestations have been accorded attention, as a way of promoting Romania’s cultural and artistic values throughout the world.

With the best of intentions, the Ministry of Culture still administers, amends and produces cultural events. A different kind of cultural life is emerging, however, influenced by Western managerial practices. Thus, Romania’s artistic life is separated into one administered and approved by the Ministry of Culture, and the other supported by NGOs, donations, foundations, art centers and the emerging private galleries. Art students are beginning to doubt

and even be resentful towards institutionalized artistic events, seeking instead to be accepted in the environment of privately funded bodies.

The Romanian art education system is very slow to adapt itself to European standards: research departments are only now beginning to access funding, students are skeptical about taking part in projects and teachers often use the same old curricula. In this context, when projects eventually succeed in gathering an art team, its purpose is not sustainability.

Change must come from within the core of the art education system. Curricula should be shifted towards socially directed projects. Teachers must inspire students with the social power of art and the new role of artists in contemporary society. The artist has a key role in society, being the instigator of creativity, diversity and also innovation. Art is not only an instrument of lifelong learning, or a discipline that affects a few “disconnected” individuals, but is a social and economical engine.

Textile art not only contains embodied ecological knowledge but also applied knowledge. In the process of transforming matter, the artist understands the vulnerability of resources and the link between humans and nature. This is what the “Maps of Time” team is trying to convey through the project’s educational alternative.

References

- Cochrane, Phoebe (2006). Exploring cultural capital and its importance in sustainable development. *Ecological Economics*, 57, 318-330.
- Gablik, S. (1991). *The re-enchantment of art*. New York: Thames & Hudson.
- Jagodinski, J. (1987). Toward an ecological aesthetic: Notes on a “green” frame of mind. In D. Blandy & K. Congdon (Eds.), *Art in a Democracy* (pp. 138-168). New York Teachers : College Press.
- Romanian Parliament (2003). Law for the revision of the Constitution of Romania: Title II Fundamental rights, freedoms and duties, Article 321, <http://www.cdep.ro/ppts/constitutionEN> (accessed 14 April 2012).
- UNESCO. *About ESD*. http://educationforsustainabledevelopment.com/blog/?page_id=27, (accessed 14 April 2012).
- Wiesel, E. (1990). *Remarks before the Global Forum*, Moscow (cited in Orr, D. 1994. *Earth in Mind*. Island Press, Washington D.C. 213 pp.).
- World Commission on Environment and Development (1987). *Our Common Future*. Oxford: Oxford University Press.