

# Incorporating Eco-Fashion in Fashion and Textile Design Education in Nigeria

Kent-Onah Roseline<sup>1</sup>, Anne Mastamet- Mason<sup>2</sup>

- (1. Department of Fashion Design & Technology, Tshwane University of Technology, Pretoria, South Africa;
- 2. Department of Fashion Design & Technology, Tshwane University of Technology, Pretoria, South Africa)

Abstract: Fashion and textile higher education is an interdisciplinary area which combines the study of every aspect related to fashion and textile design industry. The wide-range of fashion-textile design pipelines includes the production processes activities of the fashion-textile design complex as well as the functions of distribution and sale operations to the consumers (End users). As a result, fashion and textile design industry has a great power to control what people perceive, sense, and believe about themselves, the environments, and the society at large. The paper argues how fashion and textiles design relate to Eco-fashion (sustainable fashion) and how it can be incorporated in their curriculum. A framework is proposed that addresses how to incorporate eco-fashion in core fashion and textile design higher education curriculum. Strategies of teaching eco-fashion in fashion and textile design education are discussed. For eco-fashion to take its root, it needs to be driven by all who are involved educationally and in the pipeline of fashion and textile design. Fashion and textile design education can go a long way to promote eco-fashion if only there is room in the curriculum to accommodate sustainable practices. The aim of this paper is a call to curriculum makers particularly the fashion and textile design programmes to introduce environmental and ethical aspects specific to fashion and textile industry in their syllabit for the sake of promoting eco-fashion.

**Key words:** higher education, eco-fashion, fashion and textiles

### 1. Introduction

The Nigeria land mass and population make the country a major defaulter in the African region, when it comes to environmental concerns. It has been suggested that the country is emerging as one of the top dumping grounds for toxic, chemical and e-waste from the developed world (Nnorom & Osibanjo, 2008). An examination of the environmental situation by the government in Nigeria has a good chance of identifying critical policy gaps that can be addressed and/or promoted, but there is still one area that has been left out, which is the fashion/textile production processes, that has caused so much environmental degradation in the country. Amongst other establishments, the textile industry contributes to environmental degradation through its production processes, from raw material up to the use of the finished product through the use of highly toxic fertilizers and sprays used at the growth stages of textile producing plants such as cotton. Cotton is a versatile fabric used in apparel manufacturing processes, but has a significant environmental footprint (Claudio, 2007, p. 450). Eco-fashion came

Kent-Onah Roseline, Ph.D., MFA (Textiles), Ph.D. Fashion- still going on, Department of Fashion Design & Technology, Tshwane University of Technology; research areas: cross-disciplinary areas of arts and humanities. E-mail: mrskentonah@yahoo.com.

as a result of environmental concerns. It is significant, however, to address social responsibility issues, and to know that there can be no sustainable communities and institutions without social justice (Newman, 2005).

Textile production, apparel's life cycle as well as its disposal practices leave a pollution footprint (Mastamet-Mason, 2011, p. 1). Knowledge of environmentally friendly apparel has to grow in fashion designers, consumers, educators, and general members of the public. Nigeria being one of the Africa representatives who were invited to the WasteCon 2008 conference in Durban, South Africa (John Dada, 2010, p. 182), has come up with policy to fight the environmental problem as they were mandated to at the conference, were a framework document was fashioned out to encourage every country to develop its own roadmap on how to address climate change issues.

The Nigerian National Policy on the Environment (1998) does not make any explicit mention of environment and sustainable practices within higher education curricula, which the researcher believe is the starting point of fashion/textile. However, the federal government recognizes the need for an integrated national waste management strategy, and the Federal Ministry of Environment has proposed a bill that will be known as the National Environmental Management Act. It deals with air quality; atmospheric protection; protection and management of sensitive ecosystems; conservation of biological diversity; protection of hilly and mountainous areas; erosion and coastal management; and forest management. Sections (L) Part II and 16(1) (j) Part III deal with waste management. Additional national initiatives include the development of a draft National Healthcare Waste Management Plan in March 2007. However, apart from a few isolated efforts, there is a paucity of nationwide measures aimed at waste management, and Nigeria still lacks the legislation and enforcement capacity as well as the infrastructure to handle waste in an environmentally sound manner.

It is estimated that the poor management of Nigeria's environment cost the nation roughly USD\$5 billion annually. In 2008 the European Union (EU) selected Nigeria as one of fourteen African countries that can develop the capacity to manage waste (John Dada, 2010, p. 182). Long term plan of addressing environmental challenges is through education. Incorporating environmental issues within the Fashion curriculum will go a long way in reducing environmental hazards. Research in Eco fashion will help in the challenges facing the textiles and apparel industry. The challenges include: pollution of air and water associated with the textile manufacturing process; disposing of the waste that results from textile fibres; and the threat of using non renewable materials for synthetic fibres (Hye-Shin, 1995 cited in Bostic, 2008, p. 4).

The specific challenges regarding waste in all states of Nigeria concern its collection and disposal, highlighting unsustainable consumption and disposal practices of the consumers. The regulatory environment for these activities is either non-existent or poorly managed. The few civil society organisations that have some interest in waste management tend to be more focussed on the massive and enduring environmental degradation caused by oil drilling and export in the Delta region of Nigeria. Civil society engagement in the waste policy, advocacy and implementation process is still sketchy and uncoordinated, especially because of the size and diversity of the Nigerian socioeconomic landscape. The most comprehensive civil society action in this regard so far is the e-waste assessment studies launched in Nigeria, Benin and Ghana by the Secretariat of the Basel Convention Regional Centre (BCRC) (www.basel.int/centers/description/BCRCataGlance.pdf). Most textile organisations have not adequately addressed disposal of the textile products. Furthermore, consumers have not fully understood the consequences of their clothing consumption habits towards environment. Additionally, Fashion and Textile Programmes offered in Nigerian institutes of higher learning, have not factored in environmental issues affecting the fashion and Textile Industry.

The activities of the Federal Ministry of Environment are supposed to trickle down to the population through the state-based offices of the Environmental Protection Agencies. These are much smaller, poorly equipped and poorly staffed civil service units, whose grasp of the gravity of the issues they are required to supervise is rather poor. There are very few state governments, with the exception of Lagos State, that have a proactive waste management policy, good infrastructure and some form of reliable implementation. Lagos which has the busiest sea port is the main gateway for most of the technology, garments and textile fabrics that eventually become waste in Nigeria since the markets for these device as well as textile/garments discarded are in the hinterland and virtually every state in Nigeria. Furthermore the local textile industries have no eco-certification for their production processes contributing more to environmental degradation.

There are also an increasing number of institutions and individuals who can be regarded as key players in the Nigerian environmental concerns. They include:

- (1) The minister of Environment, Housing and Urban Development
- (2) The director of the Basel Convention Regional Coordinating Centre for Africa (BCRCC), Ibadan
- (3) The Federal Ministry of Science and Technology
- (4) The Standards Organization of Nigeria
- (5) The NESREA

Although these bodies exist, fashion education curriculum in Nigeria's education system does not factor any elements of eco-fashion and yet the Federal Ministry of Science and Technology, in which fashion and textile bodies belongs to is highlighted as one of the key players in fighting climate degradation.

The higher education institution is one of the main centres for research and where free investigation can be undertaken for the purpose of new knowledge and universal goodness. The idea of a higher education institution as a setting for promoting of eco-fashion awareness and responsibility has gained considerable attention over the last decade in the US/UK, but such considerations may not exist in Africa. Encouraging value and promoting the wellbeing of the society, should be incorporated within the general mission of institutions of higher education. Every person with basic education should posses 'environmental literacy' for the purpose of fighting climate change. Higher educational institutions should be a model for eco development with a focus on creating learning modules which bring skills, knowledge, reflections, ethics and values together in a balanced way (UHL& Anderson, 2001, pp. 36–41). As for Nigeria as in other parts of Africa, little has been done particularly with clothing and textiles education to promote healthy environment. For example, despite agreements which were made in Abuja during the 12th General Conference on Sustainable Development in Africa (AAU, 2009), most African Universities have not yet bought into the concept of ESD being included in all the disciplines. Since people are not aware of the destruction caused by the choice of clothing they make and the importance of eco-fashion apparel to their environment, production and usage still remains a problem for the environment.

The importance of assessing the fashion/textile design curriculum is paramount in determining the extent to which institutions offering Fashion and Textile Programmes have heeded the Talloires declaration of 1990, UNESCO (2005), AAU 2009 and UNEP (2010) call for integrating sustainable education within their educational programme. It is also necessary to understand perceptions, attitudes and behaviours of fashion/textile design students and educators to gauge their awareness and willingness to participate actively in promoting a healthy environment. Educators impart knowledge to students who in turn are the future producers and designers of eco-fashion.

# 3. Eco-Fashion Education

Education is acknowledged as a means for transforming and empowering people. It contributes to sustainable development, and is recognized in many countries as a priority area of development intervention as is reflected in policy documents. Education is the best tool to bring a positive change in society, to develop a generation of responsible individuals and contribute to the development of good human beings. Education serves as the means to develop oneself physically, mentally and socially. Institutions of higher learning educate people who develop and manage future society. Therefore, the concepts of sustainability need to take centre stage in fashion and textile higher education. Universities educate students with interdisciplinary knowledge, but since they are large, impressive, and important institutions in their own right, they are capable of having large impacts on the environment as well as some influence on local and global communities. Higher education institutions should therefore develop and prepare students for the dynamic changes, and in particular, the climate change challenge. Textile and fashion production processes are known to affect the environment right from raw materials through to the finished products such as apparel and household textiles (Fletcher, 2008, p. 7). This points out the importance of institutions to be proactively responsive to social and environmental issues in order to improve social concerns; and this action could be voiced through curriculum. Education is reported as one of the most powerful tools to support humanity in making the right and more responsible choices (Newman, 2005; UNEP, 2010, p. 10). Education can reconcile consumption with freedom and responsibility. Education imparts knowledge about the dangers of irresponsible lifestyle and at the same time empowers individuals with freedom to act accountably. It is through education that people learn how to make choices (Sue, 2006).

Today in most developed nations, education has been redesigned in terms of how to prepare people for life, for job security, for the demands of a rapidly changing, society and for technological changes. In Africa, most educational institutions use curricula that have been in existence for many decades and have not incorporated issues affecting contemporary life. In most African higher education, fashion design programmes do not integrate sustainable development awareness, which emphasizes constructive education strategies and action plans. In developed countries, aspects of education for sustainable consumption are already taught, however, there is a general lack of cohesiveness and innovation (Sue, 2006, p. 453; UNEP, 2010, p. 9). On the conceptual level, the understanding of the vision of sustainable consumption based on sustainable human development is often vague or lacking (UNEP, 2010, p. 10). On the level of course content, some of what is presented is fragmented and occasionally based on outdated scientific data and models that have proven to function poorly in real life. On the didactical level, teachers struggle to combine theory, research and practice, finding it difficult to connect the course content to the everyday lives of the students (UNEP, 2010). On the level of student motivation, teachers encounter disillusionment, passivity, fatalism and a sense of powerlessness.

Sustainability in education should be viewed as educational components that improve the main educational activities of the fashion and textile higher education curriculum. When the principles of sustainability are embedded as a core philosophy into the fashion and textile curriculum, it takes into account serious issues affecting the society. With inclusion of sustainability issues, students experience the powerful contribution fashion and textile education can make towards creating an eco-fashion world. Students fully engage with the sustainability agenda and begin to find clear paths to new forms of practice (Sue, 2006, p. 456).

Education support initiatives that stimulate the individual's awareness of the central role they play in forming society and empower them to choose responsible, sustainable lifestyles (Bostic, 2008, p. 47). This involves

providing opportunities for learning about the systems and processes connected to consumption. It also involves relearning and reorganizing information in wider contexts. It is dependent on reconsideration of such central questions as the value of material and non-material prosperity, and the significance of service to one's fellow human (Clavin & Lewis, 2005; Niinimäki, 2010, p. 168). The present situation indicates the need for the further development of analytical, reflective thinking skills in order to decode the extensive and aggressive commercial messages to which individuals around the world are constantly exposed (Jalas, 2004). Education for sustainable consumption should be an instrument for ensuring awareness of consumer rights (UNEP 2010; Mastamet-Mason, 2011, p. 1). The challenges are for proactive measures as well as protective ones. They encompass helping individuals learn how to function as citizens who not only make selective, reflected lifestyle choices in the market but who also effect changes by seeking creative new solutions and engaging as stakeholders in the dialogues and debates that determine policy development.

Education and consumer choice have a transformative role to play in creating a socially responsible fashion industry. There exist signals of deception, such as green washing, as well as unintelligent designs that have created products with hidden ingredients and products plus (Beard 2008, p. 448; Hanlon, 2009, p. 10). These seem to have hijacked the potential for any real consumer choice to exist at all. In the context of socially responsible fashion design, it is the responsibility of the fashion designer to create innovative products that would eliminate any consumer confusion. Without access to proper education regarding the social issues and environmental concerns surrounding the industry, the fashion design student is doomed to design garments that cater to support to serious mentality. Fashion design educators have a responsibility to teach their students socially responsible design strategies. As earlier mentioned, the level of course content, if found wanting it is based on outdated information and models that have been overtaken by events in real life. Educators also struggle to combine theory, research and practice content to the everyday state of affairs. This paper therefore proposes a framework in which eco-fashion could be incorporated into mainstream fashion design curriculum.

# 4. Strategies of Incorporating Eco-Fashion in the Curriculum

The concepts presented in Figure 1 are combined and their relationships are illustrated in a conjecture of how they might be applicable to higher education fashion and textiles curricula. This framework promotes an understanding of the relationship between fashion and textiles production, consumption of textiles and sustainable lifestyle.

The need for long-term visioning, and an understanding of the different approaches to eco-fashion solutions and one such approach could be through fashion education.

Educational approach of environmental impact in fashion education is the grassroots of fashion/textile manufacturing process. In this approach, the concept of eco-fashion becomes part of the decision-making process during the curriculum stage. There is an urgent challenge facing today's educators to improve the teaching/learning of environmental knowledge, attitudes and behaviour across a range of disciplines. Fashion and textile lecturers, professionals should understand the reasons why it is important for students to learn how to become responsible global citizens. Strategies of teaching sustainability in fashion and textiles can include:

- (1) Use of direct experience in a variety of settings
- (2) Use of students' knowledge and local community knowledge in relation to balance intuitive, intellectual, affective and cognitive learning approaches

- (3) Eco-fashion development
- (4) Exploring and clarifying values in relation to eco-fashion development
- (5) Using range of participative techniques to facilitate the development and exchange of viewpoints in relation to eco-fashion development

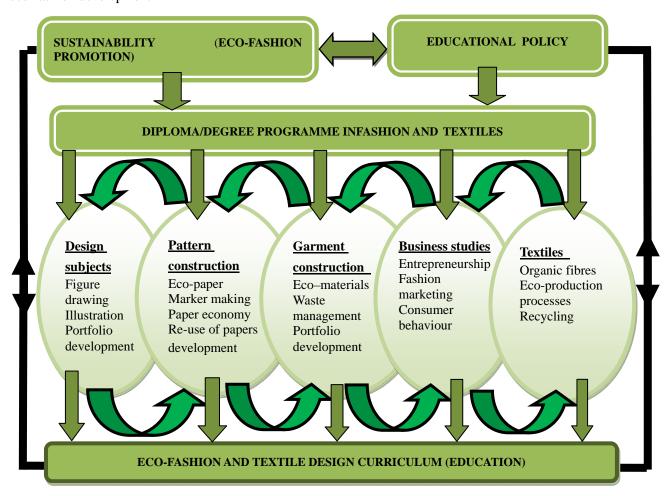


Figure 1 Framework of Incorporating Eco-Fashions in Fashion and Textile Design Curriculum

Bostic (2008) opined that lecturers have the responsibility to state and defend positions, because the furthering of students' significant capacities and the promotion of significant core objectives of higher education depend on such an approach. It would be very helpful if lecturers, tutors and teachers use lectures, projects or research studies to incorporate sustainability to give students opportunities to investigate and understand how textile and fashion industry impacts sustainability development. The vital goal of those projects and research studies is to encourage student engagement in sustainability activities.

### **5. Conclusions**

Embracing a new way of teaching and thinking is the only way one can embrace eco-fashion. Universities and all higher educational institutions collectively, can be the means of assembling their various environmental efforts into a comprehensive ecological mission aimed at achieving sustainability in all facets of fashion/textile

design production processes. The higher education institution is one of the main centres for research and where free investigation can be undertaken for the purpose of new knowledge and universal goodness. A golden opportunity to create a new generation of socially and ecologically responsible citizens is before us. By pursuing this ecological mission, higher education institutions could create a new model for the environment, one that produces little or no waste, supports regional economies, engenders an abiding respect for life, and fosters bonds among all members of the community of life.

The idea of a higher education institution as a setting for promoting of eco-fashion awareness and responsibility has gained considerable attention over the last decade in the US/UK, but such considerations may not exist in Africa. Encouraging value and promoting the wellbeing of the society, should be incorporated within the general mission of institutions of higher education. Every person with basic education should possess "environmental literacy" for the purpose of fighting climate change. Fashion and textile design higher educational institutions should set examples as role models for eco development with a focus on creating learning modules which bring skills, knowledge, reflections, ethics and values together in a balanced way.

Fashion and textile graduates are also future fashion buyers and forecasters highlighting the importance of well-grounded knowledge on ethical and environmental issues. On the other hand, educators have a role in imparting knowledge to their students.

### References

Allwool J. M., Laursen S. E., Russell S. N., Malvido De Rodriquez C. and Bocken N. M. P. (2007). "An approach to scenario analysis of the sustainability of an industrial sector applied to clothing and textile in the UK", *Journal of Cleaner Production*, Vol. 16, pp. 1234–1246.

Association of African Universities Report (2009). *12th Conference on Sustainable Development in Africa: The Role of Higher Education*, available online at: http://gc.aau.org/report/declaration\_12th\_gc\_aau9.pdf.

Beard Nathan Dafydd (2008). "The branding of ethical fashion and the consumer: A luxury niche or mass market reality?", *Fashion Theory*, Vol. 12, No. 4, pp. 447–468.

Bostic N. C. (2008). "Knowledge, attitudes, and behaviours of college students in family and consumer sciences towards environmentally friendly apparel", North Carolina State University, Publisher: ProQuest.

Claudio L. (2007). "Waste couture: Environmental impact of the clothing industry", *Environmental Health Perspectives*, Vol. 115, No. 9. Clavin B. and Lewis A. (2005). *Ethically Dimensions in Clothing Purchase: Focus Groups on Consumers' Ethical Beliefs*, London: Sage.

Cox S. (2007). "Dress for excess: The cost of our clothing addiction", available online at: http://www.document]http://www.alternet.org/module/printversion/69256.

Damhorst M. L., Miller-Spillman K. A. and Michelman S. O. (2005). *The Meanings of Dress*, New York: Fairchild Publications, Inc. Dickerson K. G. (1999). *Textiles and Apparel in the Global Economy* (3rd ed.), New Jersey: Prentice-Hall, Inc.

Fletcher Kate (2008). Sustainable Fashion & Textiles: Design Journals, London: Earthscan.

Hanlon M. (2009). Sustainable Design Solutions through Socially Responsible Fashion Design Education, Athabasca University.

Horrock A. R. and Miraftab M. (2007). "Eco-textiles: Woodhead publishing limited", available online at: http://www.alternet.org/module/printversion/69256.

Hye-Shin Kim (1995). "Consumers response toward apparel products in advertisements containing environmental claims", in: ProQuest database, Lowa State University, p. 252,

Jalas (2004). "Consumption in ecological economics related consumption and environmental impacts: The driving forces behind growing consumption", Cited by 12- Related Articles.

 $\label{lem:condition} \mbox{John D. (2010). "ICTs and environmental sustainability", \textit{Fantsuam Foundation}, available online at: \mbox{http://www.fantsuam.org.} \\$ 

Mastamet-Mason A. (2011). "Impact of textile and clothing processes on environment: How knowledgeable are consumers in sub-Sahara Africa", in: *The International conference on Arts, Society and Sustainable Development*, South Africa, 27th-29th June 2011.

Mastamet-Mason A. (2012). "Bridging the gap between academia and industry to build competitiveness within the textile and apparel

- sectors of Africa", in: Origin Africa, Addis Ababa, 24th -27th April 2012.
- Newman L. (2005). "Uncertainty, innovation, and dynamic sustainable development", *Sustainability: Science, Practice, & Policy*, Vol. 1, No. 2, pp. 27–31, available online at: http://ejournal.nbii.org.
- Ninimaki K. (2010). "Eco-clothing, consumer identity and ideology", Sustainable Development, Vol. 18, pp. 150-162.
- Nnorom I. C. and Osibanjo O. (2008). "Electronic waste (e-waste): Material flows and management practices in Nigeria", *Waste Management*, Vol. 28, available online at: http://www.ewaste.ch/biblio/electronic-w-1.
- Sue J. (2006). "Integrating sustainability in apparel and textiles higher education", *Environmental Informatics Archives*, Vol. 4, pp. 453–458.
- The Talloires Declaration (1990). "University presidents for a sustainable future", available online at http://www.iisd.org/educate/declarant/talloire.
- Uhl C. and Anderson Amy (2001). "Green destiny: Universities leading the way to sustainable future", *BioScience*, Vol. 51, No. 1, pp. 36–42.
- UNEP (2010). "Here and Now: Education for sustainable consumption", by Marrakech process Task force on ESC led by Italy, in collaboration with Hedmark University College in Norway.
- Yukie Nakano (2009). "An evaluation of the potential for wider use of recycled synthetic materials in the UK high street clothing markets: its drivers and barriers", Ph.D.