

# Cumulus

## The Future is Now: Designing a Sustainable Fashion Program for an Age of Austerity

*Carolina Obregón*

### Abstract

Fashion education in Colombia has recently transitioned from technical to professional programs. I designed the new curriculum for a professional program that will open in 2014 at Universidad Jorge Tadeo Lozano in Bogotá. Based on previous research and work in sustainable design education, and inspired by new courses in sustainable fashion elsewhere, I designed 30 courses with sustainability as the linking objective throughout the curriculum. The curriculum seeks for students to innovate and look for design opportunities within the community at large with a focus on local economic and social problems.

Fashion design students often feel disenfranchised with greater issues of the society and would like to contribute but are not sure how to do it. This new program looks at how fashion design can confront the critical issues of the larger society and come up with solutions. For example, the program seeks for students to work together with people from the community who participate in the design process so both learn skills with the universities technical training program. By fostering an open, creative and energetic environment the students and community will benefit from a platform of collaboration, active participation, improved design, production and manufacturing processes. This in itself is a bold change from a silos mentality.

KEYWORDS: Sustainable Fashion, Sustainable Education, Biodegradable Materials, Co-Design

## Introduction

The program, Design and Fashion Management, starts out with one premise: fashion education today must change their view of a linear mentality and work within a sustainable foundation. Based on my experience in designing a new sustainable fashion curriculum, this paper will address two questions: How can design education bring local communities together to work on projects that improve their own standard of living and benefit the environment? And how can we change pedagogical content and delivery methods to attend the contemporary problems of austerity and climate change?

The program has support from the university directives that want to see this as a pilot for incorporating a sustainability vision, theory and practice into other curriculums. I suggest Latin American universities have possibility of being at the forefront of a sustainable shift in education. Our current era of austerity and climate change can take advantage as a way of forming future-oriented designers that have their priority a concern with the environment, the society and the economy. Fashion designers educated through a sustainability curriculum will see themselves as agents of change that can be part of the solution. The local community's involvement is intended to create jobs to make an ecologically sustainable design process viable.

## Following An Industrial Fashion Education

With the trend of globalized mass fashion industry fashion design students are faced with a world affected by an unstable economy, ecological devastation, faster production processes, unethical working conditions and a throw away society<sup>1</sup>. Hence, some design universities have taken into account that design is at a breaking point. Education in design is adopting changes by creating masters programs and including courses in the curriculum which educate in the long-term consequences of how anything that is created designed, processed and realized has consequences which will transform the environment.

Trends in education should be promoted in order to begin changing the current industrial paradigm at root. It is essential to support new designers with sustainable processes in order to create a more holistic industry from its core. Teaching about consumption, working conditions, and creative manners to approach fashions industrial processes in turn, can bring more prepared designers on real cause and effect realities.

Although there is increase awareness to sustainable issues, an overall gap is felt in the educational curriculum where fashion students still need to connect to a wider scope of the design profession in order to understand the triple bottom line.<sup>2</sup>

Within the world of sustainable fashion and academics, Kate Fletcher founder of the *Slow Fashion* movement, suggests that education works best when it not confined to a classroom. Most importantly building knowledge is best achieved through experience, bringing real world knowledge and academia to the community becoming catalysts for discussion. Fletcher reinforces the use of design in closed-loop systems, such as Cradle to Cradle, instead of Cradle to Grave, but she says, "It doesn't acknowledge we need to make sacrifices, we need to steer cradle to cradle projects, direct them with tough moral questions"<sup>3</sup>. Clearly, it's crucial to include a sustainable fashion education within the status quo: a shift in paradigm; a shift of mind related to how fashion designers in the present relate and understand the environment for the future.

Universities face an interesting moment of how to address the necessities of future fashion designers. Schools could take into consideration the impacts of fashion designers as a whole and generate creative solutions in the classroom. Graduates, who can participate in these new educational initiatives, will fill key positions in fashion industry jobs and can be new leaders in the change of paradigm.

## A Sustainable Fashion Design Program

Countries such as Finland, Denmark, Germany, the Netherlands, Austria, and Sweden head in design method development and eco-design education<sup>4</sup>, Colombia is following into these footsteps. Having this in mind, Universidad Jorge Tadeo Lozano, in Bogotá, has seen an opportunity of being in the forefront of creating a sustainable fashion education by embracing a curriculum that has a sustainable thematic through all of its classes.

“World history offers many examples of societies with environmentally sustainable structures and communities which have endured for thousands of years.”<sup>5</sup> Colombia offers this knowledge and highly unique setting which enables a sustainable education that looks into its roots, traditions and local resources.

Inspired by my research and potential that Colombia has to offer, with its traditional and artisanal processes, natural and biodegradable materials, and human resources, I designed a new undergraduate, four year fashion program, with a sustainable theme through out all its courses: *Diseño y Gestión de la Moda* (Design and Management of Fashion). It will be the first fashion program in Colombia, which brings a significant role to sustainability in all its courses.

Why does a sustainable fashion program would work in Colombia? Because despite austerity, it shows that it is not such a bad thing, people have learned to become resourceful and use to their advantage what they have: Biodiversity, traditional craft techniques and manufacturing processes and human capacity, ideal for innovation and sustainability. Also Apparel and textiles are major industries in the Colombian economy and has had high export growth, reaching more than 5% of the total exports with 130,000 people employed directly in the industry.<sup>6</sup>

The four-year program based in Bogotá, will follow eight semesters and is composed of 30 courses, starting in August of 2014. It's main focus is on how things are done, emphasized through its processes and materials. Most importantly, the social and human aspect vital in order to look holistically at the fashion process, as in a systemic thinking approach. The subject plan is structured around a credit system, valued in accordance with the complexity of the academic activities of each subject and methodological emphasis, such as a seminar, lecture, class theoretical-practical workshop and elective credits, allowing flexibility in the curriculum and enhancing students autonomy.

Although the program is structured from a classic fashion design plan, the uniqueness is in its social aspect. The highlight of the program is in how Universidad Jorge Tadeo Lozano is shifting the current paradigm of a silos mentality into one where the students become agents of change. It is proposed by training young people from high-risk communities who want to learn a trade in fashion such as sewing and patternmaking. In turn, hopes to give young Colombians and opportunity to train in a skilled occupation and learn a craft or technique that in the future may bring financial security. It will enable fashion design students work with the group of young technicians, in order for them to accentuate their technical skills and start actively learning how to direct a fashion team from the beginning of their education.

Through the work of University-Workshop program also maintains the connection between different social strata and enables for both groups to interact outside their own communities. *In the Bubble, Designing in a Complex World*,<sup>7</sup> Thackara describes as taking a creative method into educating within design by changing the way of doing things in a sustainable economy, where culture and education are the protagonists creating change.

A common thread through out all the courses is creating a sense of community where the human factor and the environment are key to the pedagogical process. Designers today should change their view of the production processes and learn to work with local and natural materials that do not affect the environment. By application and utilization of endemic fibers, dyes and processes from Colombia, students will be able to practically use indigenous materials in their fashion collections.

The Professional and Technical Fashion Workshops highlights of the program is training young people from high-risk communities who want to learn a trade in fashion such as sewing and patternmaking and giving them an opportunity to train in a skilled profession at the university. It will enable fashion design students work to later on work with the group

of technicians, in order for them to accentuate their skills and start actively learning how to direct a fashion team from the beginning of their education. The collaborative school-workshop program wants to educate students, as they understand how they can affect their community and the environment in every step of the process. Within this collaborative, trans-disciplinary approach of teaching students can benefit from practical learning and research, developing innovation within design.

In the course titled: Raw Materials, will study local, natural and biodegradable materials, consequently opening the possibilities of replacing conventional fibers with fibers friendlier for the environment. Student's collaboration and application of natural materials within local climate and culture in a significant and constructive way<sup>8</sup> is where Colombia can enhance the educational experience.

Colombia offers an immense possibility of exploration in this area, such as working with natural fique fibers.

*Fique fibres originate from the leaves of Frucraea spp., a plant indigenous to the Andean regions of Colombia where they are the material of choice for the manufacturing of twine, rope and packaging materials for agricultural applications such as coffee sacks.*<sup>9</sup>

The fique fibres are found in Barichara, in the northern part of Colombia, founded in 1705, and declared UNESCO world heritage. The organization *San Lorenzo de Barichara* has created a paper workshop, where fique and pineapple paper is developed and processed.

Students will have an opportunity to travel to Barichara and work with the artisans from the organization. The pedagogical content and delivery methods will come from collaboration between artisans and students by sharing knowledge and valuable personal experiences. To attend the contemporary problems of austerity and climate change, the program will connect the power off the fashion industry and bring resourceful strategies for economical growth, protection of culture, wellness and independence of the community.<sup>10</sup> Universidad Jorge Tadeo Lozano is looking to achieve principles such as: "educate, enrich, empower and enhance, where "giving back is the new luxury."<sup>11</sup>

In fact, in the Fashion Design course, students will work closely with the rural community in Cucunubá, Cundinamarca, which has continued and widespread traditions in wool fabric and artisanal design.<sup>12</sup> The course seeks to highlight and foster craft traditions seeking social and economic benefits for the community and the students.

The value of Colombia, in sustainable fashion is recognized for its traditional natural materials; therefore it is crucial to provide this knowledge to students. This program seeks to analyze and put in practice processes, which usually begin empirically, in an intuitive, locally, and smaller scale. In the course dyeing and printing, color techniques will be studied using endemic and biodegradable dyes. Students will study the ecosystem of the region, seeking to maximize efficiency in the use of water and energy. A crucial part of the course will research biodegradable alternatives and bio-eliminable colors based on the whole spectrum of development and innovation from dyes and fibre's that are found in Colombia. The aim is to evaluate and explore the ability to effectively design, produce, and deliver a natural dye.

Through out the courses students will conceptualize, analyze and implement ways to incorporate sustainable fashion in the production processes and ecological materials of Colombian origin. Through a detailed and thorough analysis of these processes and materials, students will also learn the technical aspects of sustainable fashion and they will also have to study systemic thinking and consumer behavior in courses such as: Fashion Merchandising, Fashion Culture, and Fashion Design II, III sustainability will be included in theory and practice.

In fashion design, studio classes, a sustainable approach will apply a systemic thinking methodology. This course surveys sustainable fashion terminology and properties enabling students to make appropriate choices to design a sustainable fashion project. The course combines theory and design perspectives to issues of sustainability. They will use design methodology as systemic thinking, empathetic design, co-design and collaborative design. The course uses PBL-methodology (Problem-Based-Learning), supported by theme lectures, working in teams with case studies and design tasks. Project work includes several stages such as: research, insight, ideation, concept creation and prototyping.

In Design and Fashion Production students will include several points of

understanding to analyze the problems, solutions and approaches to sustainability in the design and development of products and services. Therefore they will implement sustainable methodology as: Natural capitalism, Ecological efficiency, Cradle to Cradle, Ecological effectiveness, Biomimicry, Life Cycle Analysis, Social Return on Investment and Total beauty.<sup>13</sup>

Quality Control will teach international quality standards and labelling necessary to define an item as sustainable. It will include CSR (corporate social responsibility) considering how clothing is manufactured from an economic, social, and political standpoint. An important part of the course is to understand the economic infrastructure and impact of manufacturing in Colombia and abroad, and the implications of local and external sourcing. Also they will focus on studying environmental and human right violations in the industry. When considering a holistic view, students will start to ask tough moral questions in regards to their practice.

## Conclusions

Students of design given the opportunity to comprehend the full process of creating, marketing, discarding clothing, and consumerism, will be in a stronger position to build best practices into the departments and companies they will work for in the future. Designers and design educators should respond to the call for sustainable development in terms of what design can do.<sup>14</sup> Because of the educational trends outlined, the fashion program at Universidad Jorge Tadeo Lozano seeks to implement a curriculum which ultimate goal is to form designers who are committed to the social and environmental well being of the planet.

The support of the institution by including the community is a mayor part of their mission. In Colombia we are learning to appreciate the biodiversity and richness that the country has to offer, not only in fibres and materials, but also in the quality of our traditional crafts and techniques. The program is committed in rescuing these processes, as they are the key to the foundation of a sustainable fashion curriculum. The importance lies in reflexive learning, where students understand what they do in their everyday lives will affect the environment<sup>15</sup> increasing awareness of environmental impacts can create responsible environmental behaviour.

Focusing in real issues and working with other less fortunate members of the community by engaging students, where learning is viewed as trans-disciplinary, interaction with others and with the environment is common.<sup>16</sup> Consequently, shifting how we work with others enhances the learning experience. A crucial aspect of sustainable education is the ability to cope with uncertainty, which represents a challenge for higher education. The program hopes to obtain well rounded fashion designers who are real agents of change, hence they can continue being creative, innovative and sustainable when confronted with problems of austerity. The collaborative school-workshop program looks to obtain fashion designers who understand the importance of working with local communities together to improve their own standard of living and with those they work with.

One of the most important aspects is to create awareness among the students, as they understand how they can affect their community and the environment in every step of the process. Within this collaborative, trans-disciplinary approach of teaching students can benefit from practical learning and research, developing innovation within design.

*Carolina Obregón*  
*Associate Professor*

[carolina.obregonf@ntadeo.edu.co](mailto:carolina.obregonf@ntadeo.edu.co)

*Universidad Jorge Tadeo Lozano*

*Carrera 4 #22-61*

*Bogotá, Colombia*

## References

---

- <sup>1</sup> Niinimäki, K. (2011). *From Disposable to Sustainable. The Complex Interplay between Design and Consumption of Textiles and Clothing*. Unpublished Dissertation, Aalto University School of Art, Design and Architecture, Helsinki, *ibid*.
- <sup>2</sup> Charter, M., & Tischner, U. (2001). *Sustainable Solutions: Developing Products and Services for the Future*. Greenleaf.
- <sup>3</sup> Fletcher, K. (2012, 19:03). Interview on Sustainability and a Fashion Education. In C. O. (E-mail) (Ed.) (Email questions ed., pp. 1). London.
- <sup>4</sup> Sproles, G. B., & Burns, L. D. (1994). *Changing Appearances: Understanding Dress in Contemporary Society*. Fairchild Publications.
- <sup>5</sup> Flanagan, T. R. (2011). *A Democratic Approach to Sustainable Futures*. Ongoing Emergence Press.
- <sup>6</sup> Medellín, U. E. d. (2007). La Moda en Colombia. Primer Simposio Internacional de la Moda: Universidad Eafit de Medellín.
- <sup>7</sup> Sproles, G. B., & Burns, L. D. (1994). *Changing Appearances: Understanding Dress in Contemporary Society*. Fairchild Publications.
- <sup>8</sup> *Ibid*.
- <sup>9</sup> Chacón-Patiño, M. L., Blanco-Tirado, C., Hinestroza, J. P., & Combariza, M. Y. (2013). Biocomposite of nanostructured MnO<sub>2</sub> and fique fibers for efficient dye degradation. *Green Chemistry*, 15(10), 2920.
- <sup>10</sup> Ravasio, P. (2012). Does fashion fuel food shortages? *Guardian Professional Network*, p. guardian.co.uk.
- <sup>11</sup> (*ibid*.)
- <sup>12</sup> Compartir, F. (2013). Festilana.
- <sup>13</sup> Shedroff, N., & Lovins, L. H. (2009). *Design is the Problem: The Future of Design Must be Sustainable*. Brooklyn, N.Y.: Rosenfeld Media.
- <sup>14</sup> Leerberg, M., Riisberg, V., & Boutrup, J. (2010). Design Responsibility and Sustainable Design as Reflective Practice: An Educational Challenge. *Sustainable Development*, 18(5), 306-317.
- <sup>15</sup> Wals, E. B. A. E. J. (2007). *Social Learning Towards a Sustainable World: Principles, Perspectives, and Praxis*. Wageningen Academic Publishers.
- <sup>16</sup> Wals, A. E. J. (2011). Initiative for Transformative Sustainability Education at Wageningen University, The Netherlands. *Journal of Education for Sustainable Development*, 5(2), 251-255.