WEAVING PEDAGOGY

CordiTex also aims to teach weaving to local communities and schools to help regenerate the interest in weaving. From the digital loom, a weaving learning tool-kit (LTK) will be provided showing the step-by-step process on how to weave textiles.



Bontoc weavers from Mt. Province weaving on the digital loom at the CordiTex Lab at the College of Social Sciences, UP Baguio.

IMPACT OF CORDITEX RESEARCH

Cordillera weaving is a national heritage, however, master weavers are fast dwindling in numbers through time. As such, the CordiTex is aggressively documenting this cultural practice and intervene through the revival of traditional loom weaving using new technology. This project aims to provide added dimensions and value to Cordillera textiles, thus lending itself to the weaving industry that it deserves. The results of the research will hopefully bring about product development and could rekindle interests on the craft of weaving among the Cordillera youth.



AGABEL TAYO!



Check our FB Page and Website for updates and registration



PROJECT TEAM

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THE CORDITEX PROJECT

WHAT IS THE CORDITEX PROJECT?

The Cordillera Textiles Project (CordiTex) is a multidisciplinary research that combines different approaches in the social and natural sciences in analyzing traditional textiles, and how they are transformed in the contemporary period. The project is vigorously documenting textiles that can no longer be woven by local communities, due to the demise of master weavers. CordiTex facilitates in the reconstruction of extant textiles to rejuvenate the interest in traditional weaving in the region. The project also aims to provide comprehensive and accurate anthropological and technical information about the Cordillera weaving tradition.

The long-term goal of CordiTex is to design concrete scientific protocols to improve product quality in the hope of producing textiles from locally available indigenous materials with the use of new technology that can preserve textile tradition. The University of the Philippines Emerging Interdisciplinary Research (UP-EIDR) initially funded the project for Phase 1 and 2. For Phase 3, the UPD Office of the Chancellor Research Grant and the Office of former Senator Loren Legarda supports the project. The project is now in Phase 4, which aims to digitize extant Cordillera textiles, and reconstruction of textiles and reweaving of the textiles by the community.

WHAT WE AIM TO DO

The ultimate goal of CordiTex is the preservation of traditional textiles and encourages an in-depth understanding of the old woven fabrics in the Philippines in general, and in the Cordillera specifically. CordiTex aims to:

1. Investigate further and continue the research on the anthropology. mathematical symmetry, technology, art, ergonomics and science of Cordillera and Philippine textiles;

2. Document and analyze the different Cordilleran textile designs and weaving patterns, including the technology used in the production of woven materials;

3. Investigate the physical properties of Cordilleran textiles and how they differ across various indigenous weaving patterns;

4.. Collaborate with local weavers to help preserve the traditional weaving and revive traditional textiles through the use of digital loom technology, popularized medium of instruction, weaving workshops and;

5. Disseminate the findings of the research through themed exhibitions, seminars, and publications to the local communities, students, faculty, scholars, and other stakeholders.

HOW WE DO IT?

FIELD INTERVIEWS

Anthropological fieldwork, in-depth key-informant interviews, and documentation are carried out with local artisans and weavers from various Cordillera communities in Northern Luzon, Philippines. The aim is to provide a better understanding on how the textiles are produced such as the materials, techniques, designs, and technology used in the production process.

MATHEMATICAL SYMMETRY ANALYSIS

With the use of group theoretic methods and tools in mathematical crystallography we can understand the mathematics in textile designs from various ethnolinguistic groups in the Cordillera. In particular, a symmetry analysis based on the principles of group theory and transformation geometry on various repeating patterns can be analyzed from Cordillera textiles.



FINITE ELEMENT AND 3D MODELLING

A computational model predicts the mechanical properties from fiber used in woven textiles. The aim is to develop a virtual process that allows the prediction of textile properties such as the weaving structures found in textiles.





Image rendering by J. Mapalo



UNIVERSAL TESTING MACHINE

To evaluate the intrinsic and extrinsic characteristics of the patterns of Cordillera textiles, the Universal Testing Machine (UTM) will facilitate in understanding the technical characterization of woven textiles. In addition to UTM, digital microscope is also used to analyze the arrangement of the threads woven into motifs and patterns on the warp and weft.

DIGITAL LOOM TECHNOLOGY

In order to help local weavers weave the extant textiles and regenerate the interest in weaving, a breakthrough on the use of digital loom can help translate in reweaving the textiles.

With the use of a software digitally programmed, the digital loom is being used to weave fabrics that can no longer be woven by local artisans. The deconstructed digital translations will be returned to the weavers to re-weave the textiles, now using their back-strap or foot-looms.

