UNIVERSIDAD TÉCNICA DEL NORTE

FACULTAD DE INGENIERÍA EN CIENCIAS APLICADAS

CARRERA DE INGENIERÍA EN DISEÑO TEXTIL Y MODA

TRABAJO DE GRADO PREVIA A LA OBTENCIÓN DEL TÍTULO DE INGENIERÍA EN DISEÑO TEXTIL Y MODA

TEMA:

DISEÑO Y CONSTRUCCIÓN DEL TELAR MAYA PARA LA ELABORACIÓN DE CUBRECAMAS UTILIZANDO HILO DE ACRÍLICO

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Abstract. In the course of time had happened a lot of changes and evolution in the things. In the old days, the Indian people used tools to hunt, to fish and in this case tools crates by themselves to weave. The woman made the housework and also they dedicated their time to elaborate fabrics and clothes for their families with beautiful colors and unique designs.

Therefore, with this project I want to show that long time ago had hand looms and these are very easy to build. But, nowadays these tools have been forgotten due to the consumerism. There are not initiative to propose something new and better or created by our own hands. For these reasons, I have proposed the construction of Loom Maya, but is necessary to emphasized that it will have modifications to get a new product like bedspread.

Resumen. En el transcurso del tiempo han sucedido muchos cambios y evolución en las cosas. En la antigüedad las personas indígenas utilizaban herramientas para cazar, pescar y en este caso herramientas creadas por ellos mismos para tejer. Las mujeres hacían las labores de la casa y también dedicaban su tiempo a elaborar telas y ropa para su familia con hermosos colores y diseños únicos.

Por lo tanto, con este proyecto yo quiero mostrar que, hace mucho tiempo había telares manuales y estos son fáciles de construir. Pero hoy en día estas herramientas han sido olvidadas debido al consumismo. No hay iniciativa para proponer algo nuevo y mejor o creado por nuestras manos. Por estas razones, yo he propuesto la construcción de un telar maya pero es necesario enfatizar que esto tendrá modificaciones para obtener un nuevo producto, como los cubrecamas.

BACKGROUND The loom is as old as humanity, has lasted to the present day almost with the same format. (Nehuel, 2011). In other words, it is a structure of sticks, where will be weaving and is forming the fabric, using as a raw material wool of the animals he had in the Andean zone as a sheep, llama, guanaco and vicuna. To build the loom you can use wood or metal, can be local or industrial, according to the need and economy of the person.

HANDLOOMS

We do not know the true origin of the looms but the studies indicate that the handloom goes back to the ancient era and was used in the Chinese civilizations and the Middle East before reaching Europe. Its use is widespread in the underdeveloped countries, and in the industrialized countries is also used to weave cloth craft that are used in decoration (Galeon.com, n.d.) inside of the handlooms we have the following:
1. MAYAN LOOM

The Maya developed a resplendent civilization, of which there are known all over the world aspects as the monumental architecture or its complex writing, but also they had a rich textile tradition that has managed to survive despite the passage of time. (Guiarte.com, s.f). The diversity of the clothing of the Maya corresponds to its cultural complexity. The pledges shut up cultural codes, sociopolitical status, apart from showing a technical refinement. The status, the lineage, the prestige was marked in this “social skin” that is the clothing, both in man and in women. In the step of the centuries, this people has been capable of supporting in the ambience of the clothing - the influence of the new fashions, receiving with slowness part of the innovations. Therefore the textile will always be the connection to remember the past of our natives. Before constructing, it is necessary to take into consideration that the size of the looms that is constructed, can change in accordance with the needs. Another point is in the textile, after withdrawing it from the loom, he will suffer a diminution or the textile will increase. It is anticipated that this one would be in the order of 25 up to 100 % to increase the textile.

2. ACRYLIC YARN

Acrylic fibers are synthetic fibers made from acrylonitrile. These are gentle and do not cause allergies. Are resistant to moths and fungi. Have an excellent resistance to sunlight. AND are particularly suitable for people who are allergic to wool. Fantasy Yarns is difficult to define who is a yarn of fantasy but without doubt we conclude that there is a set of wires to regular and irregular intervals, the latter is the big difference with the normal wires because they have a defined title. Classes of fantasy yarns • The wire loop is characterized by the formation of buclecitos rings in the form of twine effect on the length of the wire of soul. • Wires Moline this thread obtained twisting two-wire or strands of different colors, where one of these will effect and the other tie. • Twine Bony los Cabos of this type can be constructed with or without a soul and are made by interlacing of their beads

BEDSPREADS
The bedspreads are done of only one cloth layer. The cloth in itself can be a native, like the skin, or can be done by the man, including textiles, looms, knitwears or crochet hook. The textiles made by the man often adorn with embroideries, plush, wall lights, serigraphy and other forms of creation of a design on cloth.

<table>
<thead>
<tr>
<th>Tamaños</th>
<th>Medidas para cubrecama</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twin o 1 plaza</td>
<td>173 cm x 218 cm</td>
</tr>
<tr>
<td>Queen Size matrimonial</td>
<td>218 cm x 218 cm</td>
</tr>
<tr>
<td>Queen Full matrimonial</td>
<td>218 cm x 218 cm</td>
</tr>
<tr>
<td>King size o 2 ½ plazas</td>
<td>254 cm x 229 cm</td>
</tr>
</tbody>
</table>

Labeling
The tag helps to that the clients are sure of the product that they use, as well as it serves to identify, to describe, to differ, to give a service to the client and surely the product that is commercialized is known and also the company. You label for clothes of bed linen as norms INEN According to the norms INEN the tags of the products of clothes bed linen it must contain the following information:

a. Number of size, in accordance with NTE INEN 237; NTE INEN 1 875 and NTE INEN 1 874, where I applied.

b. Percentage of fibres and/or used materials,

c. Social reason of the manufacturer and/or importer,

d. País de origen.

e. Instructions of handling and conservation, according to annexes A of the NTE INEN 1875,

f. Reference norm: NTE INEN 1 875

3. WOVEN IN A LOOM MAYA

1. Cross-stitch

2. English

3 Stitch. Enhanced cross-stitch
4. Cross-stitch two colors in English
5. Stitch two colors in English jumping a nail
6. Cross-stitch jumping a nail
7. Combined Point crossed and English
8. Stall Point
9. Point star

**Ventajas y desventajas de tejer en telares maya**

<table>
<thead>
<tr>
<th>En telar 1 y 2</th>
<th>En telar 3 y 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>When is woven with title thread # 2/89.16 tissue is dense semi</td>
<td>When is woven with title thread # 2/89.16 tissue is not dense, the tissue is not defined</td>
</tr>
<tr>
<td>When weaves with thread title # 1/37.68 is woven with title thread # 2/89.16 tissue is dense semi</td>
<td>When weaves with thread title # 1/37.68 tissue is compact</td>
</tr>
<tr>
<td>In the weaving thread title # 1/37.68 (thickness) has problems when you want to get the points</td>
<td>In the weaving thread title # 1/37.68 (thickness) is performed without any problem</td>
</tr>
<tr>
<td>These looms weaving time is greater, for example: When weaves with thread title # 1/89.16 time is less</td>
<td>To weave in these looms the time is less When the time is woven by title thread # 1/89.16 it is less</td>
</tr>
<tr>
<td>When weaves with thread title # 1/37.68 time is slightly larger</td>
<td>When the time is woven by title thread # 1/37.68 it is less, it produces the textile</td>
</tr>
<tr>
<td>In terms of raw there is so much difference</td>
<td>In terms of raw there is so much difference</td>
</tr>
<tr>
<td>The tissue when it is removed from the loom there is a % of 80-90% raw onto stretch there is so much difference</td>
<td>When the tissue is removed from the loom there is a stretch of 25 to 30 per cent owed to raw material</td>
</tr>
</tbody>
</table>

3. **DESIGN AND CONSTRUCTION OF THE LOOM MAYA**

For the design of the loom maya is important to know what we are going to weave. The research has in particular, that the loom is large, measuring more than a meter wide, then it is necessary to test in this case we are going to make a small loom of 40 centimetres to perform tissue samples and this apply to the loom. The largest design consists of only two wooden slats, located in them sticks of wood, united by threaded rods and butterflies. When the tissue is removed from the loom there is a stretch of 25 to 30 per cent owed to raw material there is not such a big difference.

**DIAGRAM OF ASSEMBLAGE OF THE LOOM MAYA**

4. **ELABORATION OF BEDSPREADS**

Para la elaboración de cubrecamas realice fichas técnicas
| **Product Highlights:** The material that was used in the weaving is a yarn with a soft texture that provides comfort and above all do not cause allergy. In addition we use pastel colors that give a touch of tranquility and peace development of bedspreads perform technical sheets | **Description of the Product**

**Weight:** 2000 grams

**Long:** 190 cm

**Width:** 200 cm

% Stretching after release of the loom: 25%

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**Instrucciones de lavado**

Para que dure el producto se recomienda

- **lavar a mano**
- **secar a sombra**
- **no restregar**

<p>| <strong>Start Date</strong> | 13-12-2013 |
| <strong>End Date</strong>   | 16-12-2013 |</p>
<table>
<thead>
<tr>
<th></th>
<th>M EASURE</th>
<th>RAW MATERIAL</th>
<th>MANPOWER</th>
<th>DEPRECIATION OF THE LOOM</th>
<th>PACKAGING AND LABELLING</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bedspread #1 simple</td>
<td>1.5 plazas</td>
<td>$ 26.00</td>
<td>$15.79</td>
<td>0.022</td>
<td>$ 2.332</td>
<td>$ 44.144</td>
</tr>
<tr>
<td>Bedspread #2 With design</td>
<td>2 plazas</td>
<td>$ 28.60</td>
<td>$28.30</td>
<td>0.042</td>
<td>$ 2.332</td>
<td>$ 59.274</td>
</tr>
<tr>
<td>Bedspread #3 With design</td>
<td>1 plaza</td>
<td>$ 25.50</td>
<td>$23.90</td>
<td>0.035</td>
<td>$ 2.332</td>
<td>$ 51.767</td>
</tr>
<tr>
<td>Bedspread #4 With design</td>
<td>1 plaza</td>
<td>$ 20.00</td>
<td>$10.19</td>
<td>0.015</td>
<td>$ 2.332</td>
<td>$ 32.537</td>
</tr>
</tbody>
</table>

Tabla 1. Costos de cubrecamas
5. CONCLUSIONES

- It was designed and constructed the Mayan Loom using materials like: wood and smooth rod for the sticks of the loom, and there were prepared bedspreads of 1 square, 1.5 and 2 squares using thread of acrylic like Thread Moliné, I spin Ringlet and Spin Bony

- In the realized tests the thickness of the textile was well-known, since to weave with thin thread title # 2/89.16 in the looms of 0.5cm and 1cm of diameter the thickness of the textile is semi compact and those of 1.5cm and 2cm of diameter, the thickness of the textile is slack, it is alike the meshes of going fishing, for the opposite if we weave with thick thread title # 1/37.68 in the looms of 0.5cm and 1cm, the thickness of the textile is more compact and in the looms of 1.5cm and 2cm the textile is semi compact, managing to have this way a more definite textile, for such a motive at the moment of weaving in the looms it is necessary to take into consideration the product that it wants to weave, the thread that goes to use for certain product and this way to be able to have a product with good finished.

- Textiles designs were prepared combining threads of colors and types of stitch. Also we form figures in the bedspreads. It is necessary to stress that every bedspread has different design.

- During the development of the thesis we think that the implementation of the Mayan Loom affected positively, concluding that it is possible to weave a variety of products owed that the breadth of our proposed loom facilitates to realize the weaving from a cap up to a shawl. It is considered that the new design of the loom is a tool easy to handle, we are sure that it will help to create work sources.

- We use threads that are soft to the tact and it does not cause allergy, giving an additional touch to this product.

- We use acrylic yarn for its special characteristics, these threads are bulky and it has no weight, this helps in the weaving so the bedspread is not heavy.

- In cost analysis we did a comparison of the cost of bedspreads reaching the conclusion that prices vary in the bedspread #1 tissue is therefore simple weaving time is less, by contrast in the bedspread # 2.3 and 4, weather-weaving is higher since it has designs, concluding that producing them exclusive designs in knitting factory labor is high compared to simple tissue. See table number. 33.

- Finally conclude that you proved difficult to find bibliographic sources, since the research is new.

6 RECOMMENDATIONS

- It is recommended that you should sand well Woods so there is no problems of wire grips during weaving.

- Work in a ventilated and comfortable place.

- Analyze the characteristics of the threads before weaving in order to have the garment or desired product.

- If there is a thread color change make a knot "moreno" to avoid problems when the final review of
quality is made and not release thread

- When you plan on weaving on the loom must take into account that there is a 30% increase in tissue, in other cases there is an increase to 90% of the tissue.
- Loom is adjustable in the opening, we have tested and recommend make the measurement Aperture 1.5 is a standard measure for any type of product.

6. FUENTES BIBLIOGRÁFICAS


✓ Normas"INEN". (s.f.). NORMAS INEN.COM.


LINKOGRAFIA

Anónimo, consultado el 27 de noviembre del 2013 http://www.decorablog.com/clases-de-tejidos-y-telas/


Anónimo, consultado el 2 de diciembre del 2013 http://chacharasytelares.blogspot.com/2009_05_01_archive.html


Telares Cachicadán , consultado el 3 de diciembre del 2013 http://textiles cachicadan.blogspot.com/2011/06/construccion-de-telar-rectangular.html


Centro de Servicios para la Capacitación Laboral y el Desarrollo , consultado el 3 de diciembre del 2013 http://es.scribd.com/doc/67354232/6/Historia-del-telar

Centro de Acción Comunitaria “Nehuel”, Historia del telar http://eltjedordeprendasentelar.wordpress.com/proyecto/


Rojas Bibiana, Hilados consultado el 6 de diciembre del 2013 http://rohendezhilados.blogspot.com/2013/11/hilos-de-fantasia.html

Arleco producciones, Accesorios y camas. Consultado el 12 de enero del 2014 http://www.blogicasa.com/tamanos-de-camas-ancho-y-largo-de-camas