CREATE HANDMADE OF CHENILLE YARN INTO DIGITAL CHENILLE HANDMADE TAPESTRY TO PRODUCE ORIGINAL ARTWORKS REPRODUCED OF WEAVE SYSTEM

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***Abstract*:** The basis of the design of handmade chenille yarns and fabrics is similar to the other ways of designing velvety fabrics with the same effect as the woven fabric on paper. The boxes are of the same size that should be shown on the cloth. This is why a special type of square paper is usually used for this purpose. The weavers use handwork: a number of shuttles as much as the number of colors available. It is characterized by its cohesive strength in the places where the threads are woven, where we have sets of ribbons. one of the main objectives of the research is to devise a new method for the development of hand-made textile products and the purposes used in hand-made chenille fabrics are decorative fabrics, ladies' fabrics (evening cloths), pendants, curtains, Broudray, Furnishing fabrics and carpets. the stages of the design and handmade chenille, 1) in the case of simple fabrics: a) weft in one color continuous, b) the use of stripes of the cross of the flesh, whether different colors of the chenille weft or the use of different materials with different Tex count and different specifications; First in the case of simple fabrics: in this type of design of the chenille of handmade simple and easy so as not to draw on the squared paper and the resulting effects are automatic and simple. And the formation and pile of the chenille (the process of the first weaving), which have their distinctive features. Second in the case of embossed fabrics. Handmade design of pile and chenille, formation chenille weft, the design of the chenille weave is designed so that the horizontal rows have the vertical position parallel to the warp threads to be woven, the second weaving process, the woven fabric structures of the cloth, handmade chenille according to the purpose for which the cloth is used. For example, tablecloths, curtains and pendants the production of one square meter of chenille carpets takes seven hours and is produced by one textile worker assisted by a youngster. The production of a meter of hand-made carpets takes at least seven days and is produced by a number of boys, ranging from three to five. This is in addition to saving about 25% of the wool used in the blaze with handmade chenille carpets in traditional carpets.

Keywords: Chenille Yarn, Chenille Tapestry, Original artworks

1. Introduction

Sustainability strategy of global brands in fashion marketing strategy is a key factor that most organizations in today's society strive to achieve. The concept of strategy sustainability is about meeting the needs of the present without compromising the ability of future generations to meet their own for a long time [6]. Many yarns available in the market can be used for connections and circuit elements.

These include silverized yarns [1]. However; Chenille yarn is fancy yarns as Join Beads are those produced with some deliberate discontinuity introduced either into the color or form of the chenille handmade tapestry with the intention of producing an enhanced aesthetic impression [8]. They determine the ornamentation in the chenille handmade tapestry. Chenille yarn is a kind of fancy yarn which is fascinating because of its gleam and softness [3]. It has a pile protruding all around at right angles and finds a wide range of applications including outerwear fabrics, home furnishing fabrics and knitwear [1]. Chenille yarns are constructed by twisting core yarns together in chenille yarn machines where pile yarns are inserted at right angles and cut to within 1 or 2 mm of the core yarn surface to create a surface in which the fibers contained in the pile chenille yarns burst and form a soft pile surface to the yarn [7]. The size and number of the pile chenille yarns and how many of them are fed onto the core determines the count of the yarn [7,9]. Chenille is a difficult handmade yarn to manufacture, requiring great care in production. Due to the nature of its pile loss; great care must be taken in converting chenille into final chenille handmade tapestry [4]. When the yarns are in use, clearly the of the chenille handmade yarn is crucially important, in particular because the handmade effect sought is always that of the velvety feel of the pile, and the bald look of worn velvet or handmade chenille is not appealing. Any removal of the effect yarn forming the beard, either during further processing or during the eventual end-use, will expose the ground yarns, which in turn will result in a bare appearance [6]. Despite the fact that chenille yarns are used to produce special chenille handmade tapestry with high added value, the literature survey shows that there is limited research on the design chenille handmade tapestry of Gauze and leno fabrics behavior of such chenille handmade yarns and chenille handmade fabrics.

2. Experimental work

The design of the chenille handmade tapestry is similar to the other methods of designing the handmade tapestry where the color spaces are colored with the same effect as the woven fabric. As for the means used for the production of this type of cloth, it is necessary to take care more than those needed by the design of any kind of other fabrics structures; the design on the paper shows the squares of the same size as the ones shown on the cloth. This is why a special type of square paper is usually used for this purpose. The weaver uses a number of shuttles as much as the number of colors present. This velvety texture is characterized by its cohesive strength in the places where the threading threads are formed, where we have sets of ribbons. One of the most important uses of chenille handmade tapestry are decorative fabrics, ladies' fabrics (evening cloths), pendants, curtains, Broudray, Furnishing fabrics and carpets.

2.1. Design of chenille

1-In the case of simple fabrics; A - Weft in one continuous color. B - The use of pens of the cross of the flesh, whether the different colors of the punch chenille or the use of the usual pads of different materials with different cartridges and different specifications.

2-in the case of embossed fabrics.

First in the case of simple fabrics: In this type of design, the design of the chenille is simple and easy not to draw on paper boxes and the resulting effects are automatic and simple, chenille wefts made from natural wool of Sheep collected and treated by primitive methods, from Matrouh Governorate in Egypt. Figure 1 (a) carding machine.

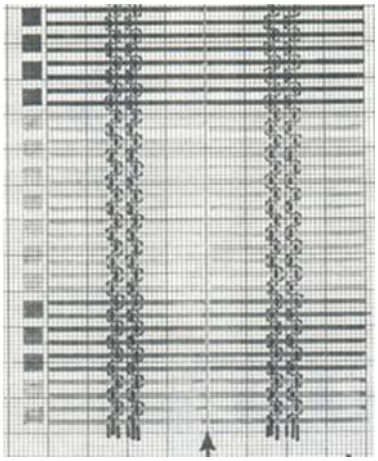
a) mechanical b) manual

Figure 1. Carding machine in the spinning factory (Mechanical/Manual) in the palace area in Matrouh Governorate in Egypt

2.2. Formation and Chenille Pile

As First weaving process, for chenille weave Gauze and leno fabrics, we use a number of decks as much as the number of automatic colors in place, as they change them manually or with one shuttle as a continuous color without overlapping other automatic colors, leaving only a small distance from the pads to allow the chenille to bend at the sides of the cloth. In the event that a large number of chenille Weaving are woven next to each other in one. In this way, we can obtain any required space and weave the chenille on a simple loom of weaving fabric, with splicing, and distribution of threading on the loom by a moving system; interchangeable for two fixed yarns [2] each of these two threads is located in two consecutive sections of the reed. Each of these two threads strings separates from the adjacent groups a different distance depending on the length required for the pile. This range ranges from 1/5 to 5 cm for pile of the clothing, 2/5 inch for the small pile and 1 inch for the long pile if used for upholstery fabrics.

Figure 2 (a) at left chenille weft of Gauze and leno fabrics shows how the interlacing threads are arranged in the order of the wefts to the left of the figure of Gauze and leno fabrics, where we get an automatic multi wefts canvas or one continuous color woven fabric. In the formation of the chenille weft (the first weaving process), the use of filament yarns and the use of continuous filament, whether natural or artificial, are used to give new aesthetic values similar to furring. This texture is characterized by its cohesive strength in the places where the leno threads are in the figure (2).



c) left chenille weft of Gauze and leno fabrics

d) right chenille weft of Gauze and leno fabrics

Figure 2. Left and right chenille weft of Gauze and leno fabrics

After finishing the weaving of wefts chenille weaves, the cutting of these wefts is done halfway between the splicing threads as shown in Figure 2, where we have sets of strips.

2.3. Second weaving process

Fabric formation: This process is the final stage of the formation of chenille fabric, where the former weft chenille weave is used - used as one of the wefts of this fabric weaving. This weft passes through the width of the weave and is bonded to the surface of the base woven with fine yarn of cotton, flax or synthetic fibers and weaves the chenille in the cloth in the same normal way. However, the producers of this type of fabric in France come out of this frame in the way the traditional weft is transmitted and they have effects in the flow as if they were in tapestry or sumac, controlling the number of wefts/cm, the proportion of ratio openings and basic of fabric structures of the cloth using this method in women's fabrics. In the international fashion trends for the 2018/2018 forecasting guide, seasonal of autumn-winter 2019 Promostyl guides Trend book with the use of fine and fine yarns for the yarn and weft.

3. Results

The chenille handmade of velvet fabrics are characterized by several aspects:

- Can be produced and pile cut off without the use of breeds conclusive as is the case in the Walton pile.

- All materials forming the pile above the surface of the base cloth without any interference with it can be used an unlimited number of colors that appear each very accurately and clearly and the production of this type of fabric to the two processes; are completely separate from each other In the process of the first weaving, known as "weaving weft" interlacing piles yarns in the form of weft with groups of warp that are separated from each other by uniform distances in the weaving reed. This process of weaving follows the process of converting the resulting cloth into a number of long strips, which are known as pile chenille, which are used in the fabric

process. The second is as a weft that interacts with a certain system to form pile on the surface of the basic fabric that is made up of the fabric.

3.1. Case of Embossed Fabrics

Design and design of chenille pile: The foundations of the design of the chenille are similar to the other ways of designing the pile fabrics where the color spaces are colored with the same effect as the woven cloth, For the means used for the production of this type of cloth, it is necessary to take care more than what is needed by the design of any other types of pile fabrics. And drowning the design on the squared paper in the same size which is required to be shown on the cloth. This is why a special type of square paper is usually used for this purpose. Figure 3, Part of the design of chenille, where each vertical line of the squares of the two lofts used to form the chenille weft, while each horizontal row of squares in this design represents one weft of chenille weft. Each small square on the square paper represents two threads; pile in the colors shown in the design. The horizontal rows in the design are individual numbers on the right and even numbers on the left.

3.2. Composition of chenille weft

For chenille weave, the design is managed and the horizontal rows are combined with the vertical position parallel to the threading thread which will be woven on it. The weavers then weave each row of design rows on a starting line from the first sign at the bottom of the row, depending on the numbering of this row. The weavers use a number of shuttles as many colors as the design where he manually changes these shuttles, The weaver is begin to work with two weft for each horizontal square required by described color in Figure 2, Where the system of laying the various colors and colors shown by the design of this system until the end of the longitudinal row. Then leave a little distance from the padding without wefts to allow the chenille to bend at the sides of the chenille cloth and then start weaving the second row with the same system but in the opposite direction. The work continues in this order until the weaving of each row ends with repetition. The length of the chenille grain required to produce a design is equal to the length of the longitudinal row (which is originally a cross-section of the design) multiplied by the number of rows. For example, in the design of 150 different chenille wefts, each needing 224 double weft, Then (240x150X2) = 67200 Weft weave to produce the chenille weave required for the full design. However, a large number of chenille weaves are woven next to each other so that we can obtain any number of repetitive design requests. Moreover, in the case of designs with symmetrical patterns in the transverse direction, It is possible to only weave half of the required number of chenille wefts on simple handle loom with a spike is attached and the threading warp is distributed on this handle loom with a fast moving one thread movement system for two fixed steps, Each of these two threads is located in two consecutive sections of the reed gates, Each group of the two neighboring groups is separated by a different distance depending on the length of the pile that required. This distance ranges from 2/5 for the small pile and 1 inch for the long pile. Figure 2 shows how to thread threads in order of wefts to the left of the figure, and we get a multi-colored fabric with woven length. This texture is characterized by a strong cohesion and control the accuracy of

colors in the places where the leno threads are attached, as shown in figure 2. After finishing the weaving of the chenille wefts, the cutting of these wefts in the middle of the distance between the twine threads as shown in Figure2, where we have sets of strips each bar is a thread of chenille. Then the process of exposing these strips to the heat and steam and pressure to take these strips shape appropriate for easy then spun it as a sword in the final stage. Figure 4 shows the appearance of a tape after the completion of this process. The chenille weft is then taken and each bar is neatly wrapped and the appropriate number is taken into consideration for the next stage.

3.3. Second weaving process

This process is the final stage of the formation of chenille fabric, where the former chenille weave is used. It is used as one of the wefts of this woven material. As this weft passes by the width of the woven and is cohesive on the surface of the basic woven, by thin threads of cotton or linen. The length of the chenille is represented by the width of the woven fabric, representing the horizontal row of the design. The chenille weave is woven in the same way as regular wefts, but the loom stops after each chenille thread so that the weaver can be prepared in the right position to match the previous chenille weft in terms of color scheme and accuracy of design

3.3.1.Fabric structure for chenille clothes

The Fabric structure of the main fabric of the chenille fabrics varies according to the purpose for which the cloth is used - for example, tablecloths, curtains, hang artwork, etc. they are often lighter and more flexible in the basic construction than the carpet, which needs to be somewhat hardened. (A) In figure 4 Fabric structure as illustrated in (b).

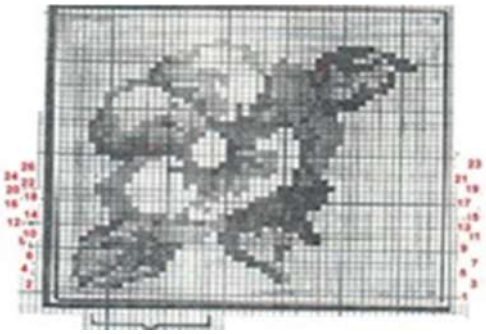


Figure 3. Part of the design of chenille

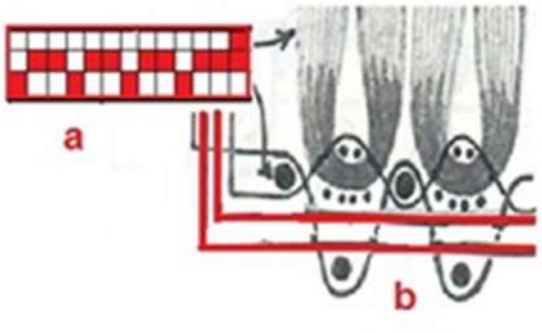


Figure 4. Fabric structure of Gauze and leno fabrics

In the same shape, the cross section of the weft, where two wefts are shown for each chenille weft, a warp ground thread opposite, with two fillers, one thread for consistency, and (consistency of chenille weft). Each nine warp threads that have a basic cloth as shown, also in (g-d) in fig. 5 Fabric structure and cross section of weft.

Where we find four wefts for each weft chenille a one thread ground, and two thin wefts for the cohesion and control the accuracy of colors of each of the eighteen warp threads of the original cloth, and the two structures can be woven from nine yarns ground and eighteen yarns of fillers and three yarns cohesion And control the accuracy of colors in one inch, While in the first example, 12 wefts and 6 chenille

wefts, while the number of wefts per inch for the first example is 12 ground wefts and 6 chenille wefts. In the second example, the number of wefts per inch is 16 wefts of ground, 4 chenille wefts, The threading task is to tie the chenille fasten to the base cloth as shown in (b,d) in figures 4 and 5. Figure 6 illustrates another Fabric structure, which is woven by four wefts for ground for each one chenille weft. In this case, the threading thread is distributed in arrangement a single yarn ground and one yarn as filler is repeated three times, one flouted yarn and one fine yarn for cohesion and control the accuracy of colors.

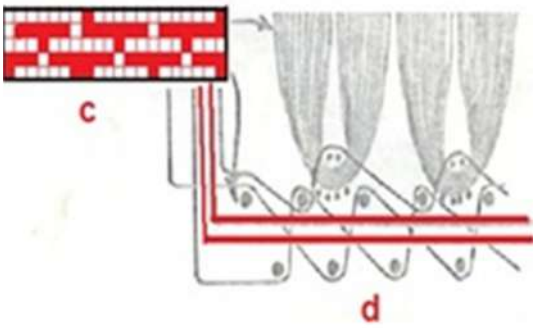


Figure 5. Fabric structure and cross section of weft

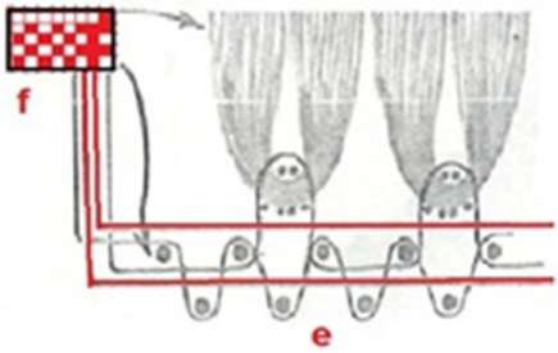


Figure6. Fabric structure and cross section of weft

And the function of the existence of the flouted yarn is to work on lifting the chenille above the basic cloth, and make it more prominent on the face. It is noted in all examples, which is in forms (4, 5 and 6), only the high coherence thread passes over the chenille weft. Most textile materials are used as weaves for chenille wefts, such as cotton, wool, natural silk and rayon.

The most important uses of chenille fabrics are decorative fabrics and ladies' fabrics (evening fabrics), curtains, broureray, mattresses and carpets. Figure 7 illustrates a pattern of chenille weft for the production of chenille ornamental fabrics for ladies and chenille, which woven from cotton thread 40/2 for fixed warp, and 80/2 for movement.

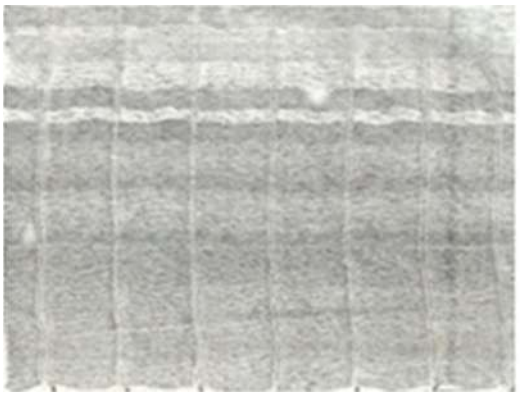


Figure 7. Pattern of chenille weft for the production of chenille

Figure 8. Amodel of chenille weft after cutting and preparing it for weaving in the final stage

The weft thread is woolen wool with a 20 Tex, with an average of 6 wefts per centimeter as traditional yarns extended by woven width. The cloth as shown is not yet ready for weaving in the second stage. Figure (8) shows a model of chenille weft

after cutting and preparing it for weaving in the final stage. The warp of second stage is as follows: (Ground warp: 30/2, filling warp: 30/2, flouted warp: 40/2, feeding warp: 40/2). And each warp on an independent bobbin; Weft: Cotton 30/2 by with 6 wefts ground per centimeter. Arrange two ground wefts for one weft chenille.

3.3.2. Denting system in weaving Reed

The first gate:(1 yarn for ground warp), (1 yarn for filling warp) :(1 yarn for flouted warp) :(1 yarn for Feeding warp)

The second gate):1 yarn for ground warp), (1 yarn for filling warp). This order is repeated.

Reed count: 4 gate per centimeter. The chenille fabrics are characterized by productivity of traditional hand-made fabrics with abundant production and rich colors It has been scientifically proven that the production of one square meter of chenille carpets takes seven hours and is produced by one textile worker assisted by a boy, while we note that the production of a meter of handmade carpets manufactured in the traditional way takes at least seven days and is produced by a number of boys ranging between three and five according the wide of loom. This is in addition to saving about 25% of the wool used in the blaze with chenille carpets in traditional carpets. This art work was carried out in the style of the Chenille, I had gave him a gift to the College of Textile at the University of North Carolina in 2008.

Figure 9. Creation of handmade of chenille yarn into digital chenille handmade tapestry to produce original artworks reproduced of weave system

4. Discussion

In terms of the fiber fineness throw chenille handmade tapestry, for wool chenille yarns and fabrics, there is a tendency toward decreased mass loss with the use of coarser fibers. The mass loss of chenille yarns with chenille wool pile material

was greater than that wool pile material. Similarly, Gauze and leno fabrics structures with these yarns showed the same softness behavior. These results can be interpreted as demonstrating that differences in fiber fineness will affect the pile density on the surface of the chenille yarn and chenille handmade tapestry. As the pile density of wool chenille yarn increases, the chenille yarn structure will be tighter, resulting in a more compact surface and increased degree of pile packing. The chenille piles will be held more tightly, which will raise the fiber cohesion and control the accuracy of colors. Thus chenille pile density affects the cohesion behavior of chenille yarns. Furthermore, it is stated in this work that increasing fiber diameter up to a limit improves abrasion resistance. when the mass loss results of wool chenille yarns and fabrics were compared with regard to yarn type, it can be seen that chenille yarns with conventional ring pile yarn component experience greater cohesion of original artworks reproduced of weave system by using gauze and leno fabrics structures throw and control the accuracy of colors than those with a mechanical/spun yarn component. The gauze and leno fabrics produced from those yarns also showed the same characteristic. This may be due to the fact that the resistance of chenille yarns and Gauze and leno fabrics to abrasive forces depend not only on the pile yarn fiber properties, but also on the pile yarn types and their positioning around the two core (axial) yarn components in the chenille yarn structure and Gauze and leno fabrics structures to create handmade of chenille yarn into digital chenille handmade tapestry to produce original artworks reproduced of weave system, Mechanical/spun yarn will more closely resemble a single yarn in structure but because of the low level of strand twist it has two important properties which improve its character to some extent: it is more abrasion resistant and less hairy. A similar differentiation resulted in the mass losses of Gauze and leno fabrics from chenille yarns. Accordingly, we can postulate that when polyester fiber material exists in the pile yarn the cohesion and control the accuracy of colors characteristics of wool polyester chenille yarns and fabrics do not show a different tendency from those of wool-type yarns and fabrics. Chenille yarns with a conventional ring pile yarn component are abraded more than the yarns with a Mechanical/spun yarn component. The effect of yarn type on the cohesion behavior and control the accuracy of colors was similar for the fabrics Gauze and leno fabrics with wool-polyester chenille yarns.

5. Conclusion

In this study, Gauze and leno fabrics structures throw the cohesion behavior and control the accuracy of colors of wool and primitive wool blended chenille yarns was analyzed with a computerized image analysis method. In addition to image analysis, yarn and fabric cohesion tests and control the accuracy of colors were also carried out to assess cohesion resistance and control the accuracy of colors and to determine the relationship between the mass loss values and values obtained from image analysis. The influence of Gauze and leno fabrics structures on some parameters of chenille yarns and chenille fabrics on yarn cohesion and control the accuracy of colors, fabric cohesion and control the accuracy of colors and cohesion and control the accuracy of colors coefficient values obtained from image analysis

was investigated. we have shown that pile yarn material handmade of chenille yarn into digital chenille handmade tapestry and pile yarn fiber fineness, as well as pile yarn type have significant influences on the cohesion resistance and control the accuracy of colors and the serviceability of wool and wool-blend chenille yarns and fabrics in accordance with past findings. Pile loss is encouraged by inadequate fiber adherence. Gauze and leno fabrics structures careful choice of the pile and core yarns to increase the inter-fiber friction may assist in reducing the rate of pile loss. Results imply that using primitive wool fiber in the blends, wool fibers with appropriate fineness and mechanical/spun yarn type in the production will help to produce chenille yarns with high cohesion resistance and control the accuracy of colors. Chenille yarns and chenille fabrics of Gauze and leno fabrics structures with high pile density are abraded less than those with low pile density. Using primitive wool fibers with appropriate fineness is intended mainly to assist in avoiding the slippage of the piles from the lock yarns. In order to find the practical plane of comparison for values obtained by gauze and leno fabrics structures of the three kinds of cohesion measurements and control the accuracy of colors, linear correlation coefficients were calculated. An assessment of the abrasive behavior of chenille yarns and fabrics in terms of possible to predict the fabric cohesion performance and control the accuracy of colors of chenille handmade tapestry. So it will be a practical method and enable a rapid laboratory interpretation. furthermore, it will be useful to carry out studies about the effect of pile of chenille yarn fiber fineness, pile chenille yarn type and fiber material on the dimensional and physical properties of chenille yarns and chenille fabric of gauze and leno fabrics structures, which is beyond the scope of this study and should be the subject matter of future studies.

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