Aesthetics of Sedimentary Rocks as a Source of wall hanging design woven by Gobelin Technique

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introduction

Nature has its own secrets, which leading us to the beauty and creativity less than their counterparts, in the course of the formation of mountains, valleys and rivers across millions of years, which we find the manifestation of the almighty creator.

Mountains are one of the most beautiful geological formations in the world, which create beauty and colors that unmatched, the most colorful mountains with overlapping color trappings are mountains with sedimentary rocks. These mountain ranges are one of the most attractive destinations for tourists from all over the world.

Hence the idea of research is how to take advantage of the aesthetics of these rocks in their beautiful forms and colors in designing and production of wall hanging textile by gobelin technique, which is an ancient art, used in the production of upholstery fabrics and wall hanging, and one of the aesthetic means of adornment, it is a kind of woven fabric of different colors yarns, to form a picture or drawing, and most of gobelin fabrics is used as wall hanging on the inner walls. This type is woven on the looms of modern jacquard, so that a large number of different colored threads can be woven to form a detailed view of the details, has been the use of multiple textile structures the freedom to use them on the jacquard looms has a great impact on the development of gobelin fabrics, where the number and arrangement of the colors of the warp and the weft and their different interdependence and obtaining different mixing ratios and infinite gradations, giving a realistic view of the final view.

1- The theoretical framework of research:

1.1 Sedimentary rocks:

The mountains with sedimentary rocks are among the most colorful mountains with overlapping color schemes. These mountain ranges are one of the most attractive destinations for tourists from all over the world

Rocks are known as solid deposits of metal compounds and are an essential part of the earth's crust. They have been formed by natural processes through different times of earth history. The rocks are of different sizes and shapes, from the large rock masses that form the hills to the fine grains of sand on the shores of rivers and seas. The rocks vary in their colors and in

DOI: 10.12816/mjaf.2019.15801.1290

the size of the crystals or granules that make up their minerals, and also in the types of minerals they form.

The basic differences in the origin of rocks lead to differences in physical and chemical properties, which distinguish a rock from another, and divide rocks according to the way they form into three main types: igneous rocks, metamorphic rocks, and sedimentary rocks. Many places in the world are known for their colorful sedimentary rocks, such as Asia, Africa, North America and the United States.

1.2 Woven wall hanging:

The wall hanging in the language is a word that expands to include all that can be suspended materially or morally, and the word was launched as a description of the textiles hung on the Kaaba, and known as the commentaries of the Kaaba. "It is defined as a flexible body in an area that allows the suspension to hang over the walls, containing a substance registered in a technical formality, whether it is related to a functional purpose or an end in itself. The paintings are made of the "gobelin" cloth as a beautiful and is one of the aesthetic means of decoration, the ancient, which illuminated the role and palaces in the Middle Ages, because of its high aesthetic value was considered a rich masterpiece attached to the walls, and in our time, these paintings returned to appear in the world of furniture and home decoration to decorate the walls of houses after updates introduced by French and Belgian manufacturers to suit the oriental style.

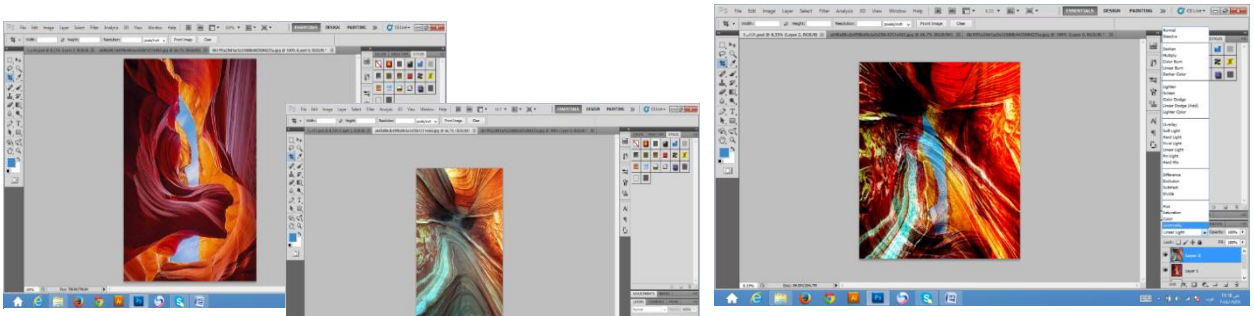
The process of producing tapestry fabric has been developed by hand. It is produced on the jacquard looms, and each warp is moved by a separate motion according to the design. The weft yarns are moved either above or under the threads according to the design, unlike the traditional tapestry, in contrast to the traditional tapestry fabric, the weft yarns cover the whole woven surface. The use of multiple textile structures and their freedom of use on the jacquard looms have had a significant impact on the development of the gobelin fabric and have enabled the use of many different color gradients and touches. It gives additional potential by having multiple choices of warp and weft, different mixing ratios and, therefore, infinite color gradients.

2. Practical applications for research:

Practical applications were carried out in the following stages:

1-2-Design:

More than one image of sedimentary rocks was selected and merged with some through the work of some treatments and effects using Adobe Photoshop CS5 as in" A, B, C" of Figure (1). In this way, 12 designs were designed as textile wall hanging. The three designs will be displayed in table (1).



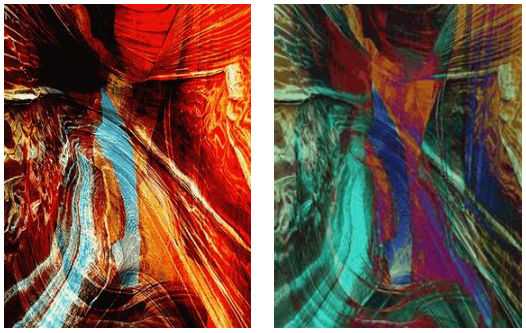
(A) The first image of the sedimentary rocks

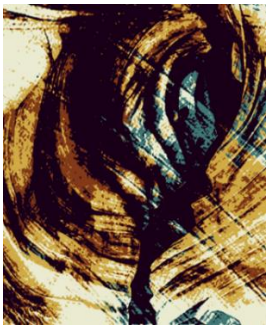
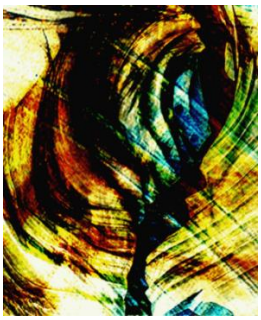
(B) The second image of the sedimentary rocks

(c) design after merge and adding some effects and color effects rocks

Figure (1) production stages of the designs

Table (1) Produced designs and sources of sedimentary rocks

no	Pre-treated images and their source	Design after processing
1	 Antelope Canyon/ Arizona/ USA (20) Vermilion Cliffs / Arizona/ USA (20)	
3	 Vermilion Cliffs / Arizona/ USA (20) Rock formation on the coast of Northumberland _ Englan(20)	

12	  **Petra - Historical and Archaeological City - Southern Jordan *(25)*** **Lower Antelope Canyon - Arizona, USA*(25)***	 

2-2-Implementation:

Designs 1, 3, and 12 were implemented using the NedGraphic program.

❖ **Specifications of machine used in fabric production:**

Jacquard Bonas (Van de wiele), 3 p.m. display, power Jacquard 5376 Schenkel

❖ **Specifications of materials used in fabric production:**

▪ **Specification Warp yarns:**

Density: 66 / cm – No :150/1 - Width: 145 cm – Total: 9600 yarn - weight: 195 g/m

Arrangement of the colors of yarns: black: white

▪ **Specification Weft yarns:**

Density: 52/ cm - No :300/1

Arrangement of yarns:

(**First design**): Poly Ester, 300/1 denier in color order (white, gray, orange, turquoise) – Flat Chanell 4.5 metric - Beige color

(**Second design**): Poly Ester lotion, 300/1 denier in color order (yellow, orange, green, red) - Flat Chanell 4.5 metric ton – off white color

(**Third design**): Poly Ester lotion, 300/1 denier in color order (yellow, orange, green, turquoise) - Flat Chanell 4.5 metric ton - black color

2.2.1 Implemented wall hanging:

2-1-1-1 - The first wall hanging with the design No. (1):

where the use of (21) structure of each of them gives a color tone as shown in Figure (2)

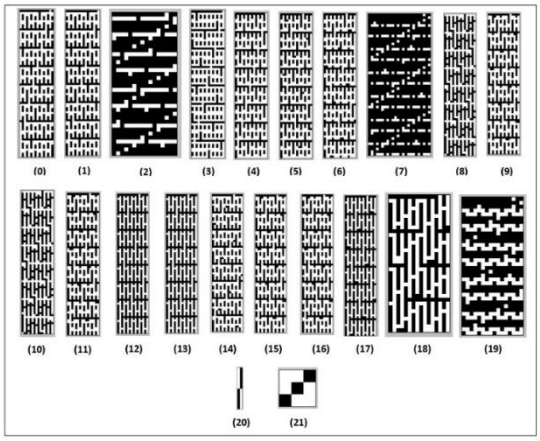


Figure (2) textile structures in the first wall hanging

Figure (3) The executive form of the first design after textile structure

Figure (4) The first wall hanging executed by design No (1)

Figure (5) Simulation of design as attached to a room

2-2-1-2 - The second wall hanging with the design No. (3):

where the use of (36) structure of each of them gives a color tone as shown in Figure (6)

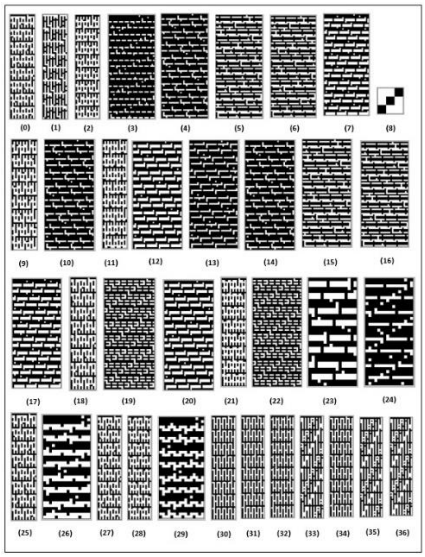


Figure (4) The first wall hanging executed by design No (1)

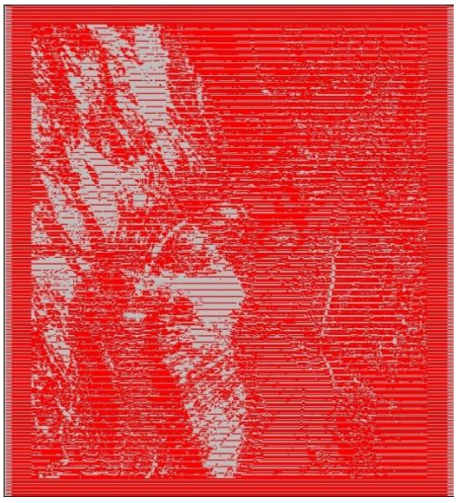


Figure (5) Simulation of design as attached to a room

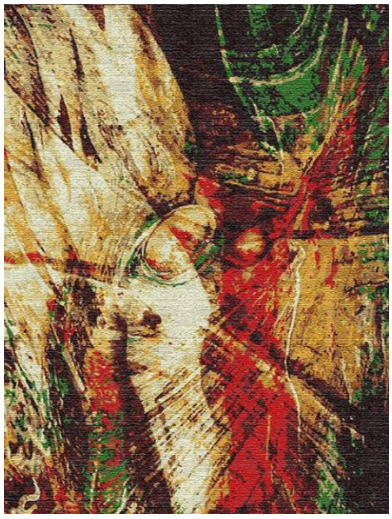


Figure (8) The second wall hanging executed by design No (3)

Figure (9) Simulation of design as attached to a room

2-2-1-3 - The third wall hanging with the design No. (12):

where the use of (36) structure of each of them gives a color tone as shown in Figure (10)

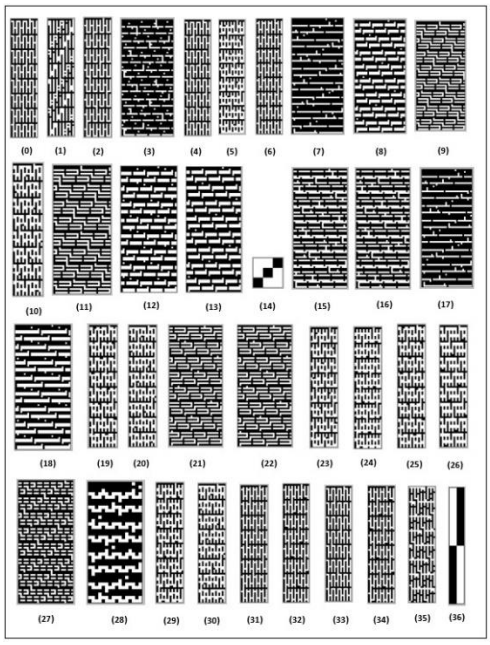


Figure (10) textile structures in the third wall hanging

Figure (11) The executive form of the XII design after textile structure

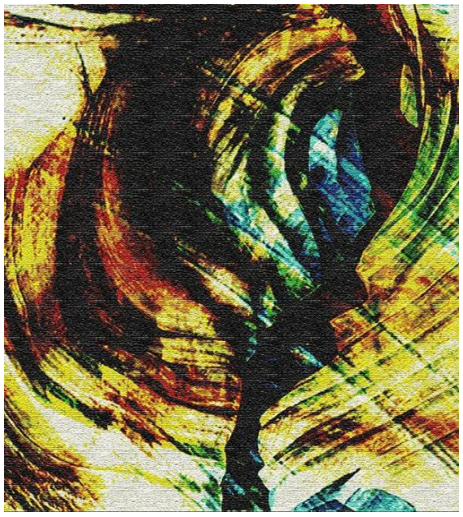


Figure (12) The third wall hanging executed by design No (3)

Figure (13) Simulation of design as attached to a room

Conclusions

In this study the aesthetic values of the sedimentary rocks have been used in the work of designs suitable as textile wall hanging., the results can be summarized as follows:

- Sedimentary rocks are rich in artistic possibilities and artistic values that open up a wide range of innovation and creativity in textile design.
- The gobelin is one of the most successful styles in the implementation of designs for textile wall hanging, adding aesthetic value and enriching the design of wall hang.
- Activating the role of the gobelin technique textile wall hanging in the decoration of interior architecture.
- Benefit from the aesthetic values of sedimentary rocks in their colors and shapes in the design and production of textile wall hanging.
- Utilizing the possibilities of Photoshop and NedGraphic in the design and implementation of textile wall hanging.

Finally, we can recommend the following:

- The necessity of taking advantage of the aesthetics of nature's inexhaustible vocabulary and its aesthetic and values to enrich the textile designs.
- Paying attention to the old techniques in the production of textile wall hanging, especially the gobelin technique, because of its enormous potential to enrich the textile work.
- Conducting more specialized studies that are concerned with the technical and technical development of the textile wall hanging and keeping pace with the development of the design movement.
- The need to carry out more studies dealing with the wall hanging and its connection to internal and external spaces and linking this to contemporary architecture.

References:

اولا: المراجع العربية

1- أحمد، أحمد عبد اللطيف: "التسويق وأثره فى تطور اقمشة المفروشات فى ظل الاسواق المفتوحة" – رسالة ماجستير – كلية الفنون التطبيقية – جامعة حلوان –2002

Ahmed, Ahmed Abdal-latif: " Al-taswek w atharoh fi tatwr akmsht al-mafroshat fi zel al-aswak al-maftouha " – resalat magester – kolyt al-fnoun al-ttbekya – gamaat helwan – (2002).

2- أفندي، عماد الدين: "أطلس الصخور والمعادن" _ دار الشرق العربي_بيروت_2014م.

Afandi, Emad Al-dein: " Atlas al-sokhour wa al-maaden – dar al-shark al-arabi – bayrout – (2014)

3- حجاج، حسين محمد: "دفاعا عن التلقائية فى تصميم وانتاج معلق المنسوج المطبوع فى مواجهة التكنولوجيا الحديثة والمستحدثة"- بحث منشور- المؤتمر العلمى السادس، كلية الفنون التطبيقية- جامعة حلوان- 1999.

Hagag, Hussien Mohamed: " Defaan an al-telkaaeya fi tasmem wa entag moaalk al-mansog al-matboua fi mwagaht al-teknologya al-hadesa wa al-mostahdatha – bahth manshour – al-moatamar al-elmy al-sads, kolyt al-fnoun al-ttbekya – gamaat helwan-(1991).

4- سعيد، طارق صالح: " الاصالة والابتكار فى تصميم نسجيات مرسمة من التراث المصرى وتنفيذها بالاسلوب الميكانيكى" – رسالة دكتوراه – كلية الفنون التطبيقية –1995

Saed Tarek Saleh: " Al-asalah wa al-ebtkar fi tasmem nasgyat morasamah mn al-torath al-masry wa tnfezha bal-eslob al-mekanini – resalt doctorah - – kolyt al-fnoun al-ttbekya – (1995).

5- سنجر، صبري عباس السيد: " تأثير خلط وتشييف خيوط الوبره على القيم الجمالية والكتابات في تصميم المعلقات بأسلوب السجاد الميكانيكي بالشكل المتقابل " _ رسالة دكتوراه _ كلية الفنون التطبيقية _ جامعة حلوان _ 2006م

Senger, Sabri Abas Al-Sayed: " Taather khalt wa tasheif khyot al-wabarh ala al-keyam al-gmalya wa al-ketabat fi tasmem al-moalkat beslob al-sagad al-mekaniki blshakl al-motkabl " – resalt doctorah, – kolyt al-fnoun al-ttbekya – gamaat helwan – (2006)

6- الشيمي، مها على حسن: " المعايير التصميمية لاستخدام الأبجدية العربية بفاعلية الحاسب الآلي في المعلق النسجي" _ رسالة دكتوراه _ كلية التربية النوعية _ جامعة طنطا _ 2006م

Al-shimi, Maha Ali Hassan: " Al-maaier al-tasmemya lestkhdam al-abgadya al-arabya bfaelya al-haseb al-ali fi al-moalk al-nasgy – resalt doctorah – kolyt al-tarbya al-naweya – gameaat tanta -(2006)

7- عبد العظيم، سهام على البدري:" دراسة تحليلية لبعض مدارس التصوير الشرقى لانتاج منسوجات ذات موضوعات تصويرية" – رسالة ماجستير – كلية الفنون التطبيقية – جامعة حلوان –2006

Abdal-Azem, Seham Ali Al-badry: " Derasah tahlelya lebaad madares al-taswer al sharky lentag mansogat zat mawdoaat taswerya " – resalt magester - – kolyt al-fnoun al-ttbekya – gamaat helwan – (2006).

8- محمد، هبة عاطف عبد العزيز: " صيغ تصميمية مستحدثة للمعلقات النسجية المطبوعة في مكتبات مدارس الأطفال " _ رسالة ماجستير _ كلية الفنون التطبيقية _ جامعة دمياط _ 2014م

Mohamed, Heba Atef Abal-Aziz: " Seyagh tasmemya mostahdatha llmoalkat al-nasgya al-matboaa fi maktbat mdars al-atfal " resalt magester - – kolyt al-fnoun al-ttbekya – gamaat doumyat – (2014)

9- مسعود، عايدة رفيق عبد الحميد: " دراسة تقنيات إنتاج المعلقات النسجية وتحديد أفضل طرق الترميم " _ رسالة ماجستير _ كلية الفنون التطبيقية _ جامعة حلوان _ 2008م

Masood, Ada Rafek Abdal-Hamed: "Derast teknyat al-moalkat al-nasgya wa tahded afdl tork al-tarmem " resalt magester - – kolyt al-fnoun al-ttbekya – gamaat helwan- (2008)

10-مصطفى، أحمد مصطفى: " تصميم المعلقات النسجية واستخدامها في التصميم الداخلي للمنشآت المختلفة " _ رسالة ماجستير _ كلية الفنون التطبيقية _ جامعة حلوان _ 2000م

Mostafa, Ahmed Mostafa: " Tasmem al-moalkat al-nasgya wa estkhdamha fi al-tasmem al-dakhly llmonshaat al-mokhtalifa " – resalt magester - – kolyt al-fnoun al-ttbekya – gamaat helwan- (2000)

11-هيكل، محمد أحمد حسن – هويدي، عبد الجليل عبد الحميد: "أساسيات الجيولوجيا الفيزيائية" _ مكتبة الدار العربية للكتاب _ أبريل 2008م.

Hekal, Mohamed Ahmed Hassan – Hwidy, Abdal- Galel Abdal-Hamed: "Asasyat algeologya al-fezyaeya " – maktbt al-dar al-arabya llktab – april (2008)

12-حمود، مروة ممدوح مصطفى "الرؤية البصرية للأنسجة الحيوية المجهرية كمصدر الالهام لتصميم المعلقات النسجية المطبوعة "مجلة العمارة والفنون والعلوم الإنسانية العدد 13

Hamod, Marwa Mamdouh Mosstafa “el roaya el abasrya ll ansega el hayawia el megharya kamasdar el elham ltasmeem el moalaqat el nasgya el matboaa” Magalet al Emara w al Fenoun w al Elom al Insania El adad 13

13-الصياد، غادة محمد "حوار بين الخطوط والألوان والتراكيب النسجية كمدخل لتصميم المعلقات والمفروشات" مجلة العمارة والفنون والعلوم الإنسانية العدد 8

El sayad, Ghada Mohamed “hewar bin el khtoot w el alwan w el tarkeeb el nasgya k madkhal l tasmeem el moalaqat w el mafroshat” Magalet al Emara w al Fenoun w al Elom al Insania El adad 8

ثانيا: المراجع الأجنبية

14- Dumitrescu, Delia; Landin, Hanna; Vallgarda, Anna. " An Interactive Textile Hanging: Textile, Context, and Interaction ", Studies in Material Thinking Journal, vol. 7, (2012).

15- Editions, Magnolia. "Jacquard Weaving and the Magnolia Tapestry Project", Nick stone, Oakland, califonia,(2007)

16- Marshak, Stephen. "Essentials of Geology", 3th Edition, W. W. Norton & Company Ltd, New York, (2009).
17- Mibei, Geoffrey. "Introduction to Types and Classification of Rocks, presented at Short Course IX on Exploration for Geothermal Resources, Organized by UNU-GTP, GDC and KenGen, at Lake Bogoria and Lake Naivasha, Kenya, Nov. 2-24, (2014).
18- Sam Boggs Jr., Petrology of Sedimentary Rocks, second edition, United States of America by Cambridge University Press, New York,(2009).
19- https://www.alittihad.ae/Article/44500/2010/
20- https://arabic.arabianbusiness.com/gallery/2015/nov/3/399805?pages=1&img=1
21- https://ar.wikipedia.org/wiki/%D8%B5%D8%AE%D8%B1
22- https://www.pinterest.com/pin/433893745321963711/
23- https://www.gettyimages.com/detail/photo/eroded-sedimentary-rocks-of-the-dove-spring-high-res-stock-photography/555166119
24- https://peru.com/viajes/noticia-de-viajes/ola-petrificada-desierto-arizona-paraiso-viajeros-fotos-noticia-237882
25- http://wanderlola.com/antelope-canyon-la-beaute-et-la-force-de-la-nature
26- https://www.taringa.net/posts/imagenes/17020115/Zhangye-Parque-Geologico-de-Danxia-una-maravilla.html
27- https://www.tuttartpitturasculturapoesiamusica.com/2011/03/ancient-jordanian-site-of-petra.html
28- http://www.escapingabroad.com/blog/lower-antelope-canyo.