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Macrame craft: A valuable contribution to traditional handicraft sector

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Abstract

Macrame is decorative handmade craft developed by individuals using series of knots without using needles and hooks. In this paper various research studies were collected to analyze the trend of macrame in the world from ancient Arabic weaver's time to present digitalization time. Various types of macrame knots like lark head, half hitch, square, overhand knots and their variations are described in this paper. Basic macrame tools and cords such as rope, threads, fibres or leather are used to create the intricate decorative pattern with the help of macrame knot. Waste fabrics, threads or grasses are also used to develop macrame products and articles. In Modern time due to digitalization this craft various types of macrame tutorials are available on internet for learners. Macrame offers individuals to show their talent of this craft as hobby as well as an entrepreneur. In future research this macrame craft will be helpful for upcoming researchers as some contemporary techniques like adding this craft with printing work and using coarse plant fibres.

Keywords: Macrame, knots, digitalization, sustainability

Introduction

Art and craft have been known for decoration and individual expression since ancient times. The human mind has always been curious to create decorative art through the ages. Creativity is an innovative process in which creative new ideas are implemented with constant passion and commitment. Jonathan (2014) defined creativity as the ability to transform established ideas, rules, patterns, relationships, or the like into significant new ideas, forms, methods, interpretations through originality, progressiveness or imagination. Designers play a vital role in the world of fashion and textiles. They integrate elements of design using its principles i.e. balance, proportion, rhythm, harmony and emphasis. Using fibres, yarns and fabrics, textile craft techniques such as embroidery, knitting, sewing, weaving, quilting, crocheting and macrame are used to create a variety of household and decorative products. Some arts and crafts are handmade, while others are machine-made. Learning and practicing handicrafts is an opportunity for beginners, both as a hobby and business. Furthermore, in the twenty-first century, it is a boon for people of all ages, serving as a form of therapy and yoga. It develops thinking power and joy, strengthens social relationships, and eliminates boredom, anxiety, and loneliness (Raaz, 2013; Soni, 2023) [30, 37].

We use knots in everyday life, whether it's tying shoelaces or tying a simple gift ribbon. Macrame is a type of craft

created by twisting knots in various ways. This craft is created without the use of needles or hooks, simply by tying numerous knots in sequence and patterns instead of weaving or knitting (Egnowa, 2012; Darnamics, 2014; Jonathan *et al.*, 2015) [1, 13, 22]. By twisting knots in different directions, or by tightening or loosening them, various patterns are created, known as macrame techniques (Soni, 2023) [37]. This craft requires rope, thread, and cord to tie the knots, and dowel rods, hoops, and racks to support the knots. This craft can be used to create household items such as wall hangings, curtains, tablecloths, partitions, lampshades, women's accessories such as handbags, earrings, sandals, clothing such as jackets, skirts, and dresses, and for decorative embellishments purposes (Rani *et al.*, 2019) [32]. Numerous teaching modules and digital guides for macrame craft are available on Internet and social media to learn this craft. This craft is useful not only as a hobby but also in starting a business.

History of macrame

The history of macrame craft dates back to the 13th century. Before this, knotting was used for practical purposes and decorative fringe. A carving from the Neo-Assyrian court of Sargon II, dating from around 720-705 BC, clearly depicts the use of knotted fringes and tassels at the bottom of court dresses. In 13th century, the word macrame comes from the Arabic word "migrah," meaning fringe. In Turkish, it was

known as "makrama," meaning napkin or towel. It was used to finish and secure the edges of fabric by using extra threads or yarns along top and bottom in towels, shawls, and veils with decorative fringe (Staňková, 1985; Elradi, 2016) [39, 16]. During the 16th century, the macrame technique became popular in Italy under the names "Punto a Groppo," meaning "knotted points" or "knotted stitches" or "knotted lace". Moorish conquest is responsible for spreading this craft of macrame to Europe, France and England via Spain. Initially, it was introduced into England at the court of

Queen Mary II in late 17th century. In 17th-18th Century, European Sailors used leisure time on the deck for preparing macrame articles, later when they landed at different places, they often used to barter or sell these articles. Hence, this is how, macrame craft slowly and slowly spread to China and all around the world (Anonymous, 2006) [4]. In Late 19th Century, Victorian era revival, macrame gained maximum popularity. Various intricate household items like table cover, coverlet, curtains and hangings etc. were used and prepared by Victorians through macrame (Colton, 1979) [12]

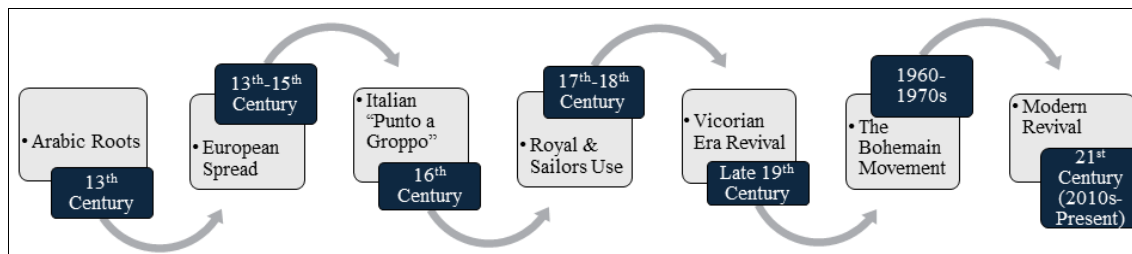


Fig 1: History of Macrame

In the early 1970s, the craft gained popularity among the American neo-hippie and grunge crowds as macrame jewellery, created using square and false knots and decorative shells, bone, and glass. Macrame fell out of fashion in the 18th century due to its limited use. Initially, macrame was used for plant and wall hangings, table covers and mats. As its popularity increased, it began to be used in jewelry such as necklaces, wristlets, and anklets (Chase *et. al.*, 1981) [11]. In the 20th century, it was primarily used in ladies' purses, laces, and belts. At the same time, in Ecuador, Mexico and Portugal, this technique was used to make shawls and purses. In Classical Greece, this technique was used in medicine as a sling for broken bones and in games as puzzles. Greeks and Egyptians used Hercules and square knot which represented magic and religion. (Anonymous, 2017) [6]. Macrame craft become again popular in the mid-20th century, becoming synonymous with the Bohemian and hippie movements of the 1960s and 1970s. It became a hallmark of counterculture, contributing to the creation of diverse items such as pant hangers, wall hangers and clothing (Rockart, 2024) [33].

In the 21st century, many researchers have created various crafts like bags, cushion and pillow covers etc. by using various materials like cotton thread, jute cord, leather, laces and ribbons and embellishments like different coloured threads, stones, beads, mirror and embroidery (Grewal and Kaur, 1996; Sharon, 2015) [18, 34]. Thousands of entrepreneurs and homemakers are earning a lot of money from this craft. It is said in India and the Orient that Columbus's sailors introduced this craft to the western hemisphere. In Central America and the West Indies, it is used to make handbags, purses, belts, and small decorative items (Depas, 1973) [14]. According to Peter (2012) [28] this craft is divided into three parts: Micro, cavandoli and chinese macrame. Micro-macrame uses fine thread and cord to create intricate jewellery. Cavandoli macrame became popular among the Ghanaian, Kenyan, and Navajo tribes of North America for making baskets using the half-hitch knot. Chinese macrame, known in China for the decoration of chairs, mirrors, eyeglasses, dresses, fans, and purses by

using very tight knots to create a look resonant of Chinese calligraphy, paintings, and porcelain (Women, 2014) [42]. The best method to revise any craft is to alter it with modern styles and combine it with the contemporary techniques (Anderson *et. al.*, 2003) [2]. Currently, this craft is combined with crocheting to create lace. It is used to make a variety of garments and upholstery items. This craft reveals an individual's hidden talents. Regular practice of this craft keeps the body and mind calm and healthy. It provides flexibility and strength to the fingers, hands, and arms (Amble 1987; Gentry, 2002; Mireku, 2016) [1, 17, 25]. It is very famous for making bracelets and has obtained unique importance amongst children, teenagers, and college students. Vendors at malls, theme parks, seasonal fairs and other public places sell macrame jewellery and decorative products as well (Anonymous, 2009) [5].

Types of Macrame Knots

Macrame is a handicraft made using one, two, three, or even more strings, cords, and rope. One must have knowledge and good skill in macrame techniques for knotting. Learning this technique requires calculating knots and adjusting the length of thread according to the length of the product (Anon, 2018) [3]. This craft is also known as mathematical knotting, based on the knotting technique, as it creates geometric patterns (Nimkulrat and Matthews, 2013) [27]. In this technique, multiple threads are tied to a dowel ring and hoop. The threads are knotted in various ways and directions, creating patterns that are categorized based on their function and appearance. Several types of macrame knots are described here.

Lark head knot is used to start making any product. In this technique cord was folded in half and a loop was placed in front of anchor. Two ends were put through loop and then it was pulled tight. This knot is also known as the anchor knot. It is This knot has many variations such as reverse lark head knot, lark head chains and interlocking lark head knot (Shehzadi, 2024) [35]. Hitch knot is used to form geometric patterns and lines. These include half hitch, double half hitch, alternating double hitch, horizontal, vertical and

diagonal double hitch, clove hitch knots. The right hand side of the cord was held straight and left cord was brought in front and then up and behind it from right to left. Then it was brought through the loop formed then the cord was tightened. It has a filler cord as the second moving cord. The pattern of macrame depends on the orientation of the filler cord (Elradi, 2016) ^[16]. Square knot created textured, woven, net and spiral twisted pattern effects. Each square knot was tied with at least four cords. A square knot was made by continuing the half knot. The right cord was brought over the two center cords and under the left over cord. The left cord was brought under the two center cords and up through the loop formed by the right cord. An opposite knot was tied by putting the right cord under and

the left cord over the center cords after initial half knot was tied. This knot is known for its strength, compact, good for joining and stopper. A variation of this knot is the alternating square knot, which creates a net-like effect (Mate, 2019) ^[24]. The overhand knot is derived from the way shoelaces are tied and is used to finish the edges of products. It is a basic knot made by creating a loop with a cord and pulling the working end through it. Then tightening it to create decorative and secure stopper.

There are also some other knots that are made from combinations of these basic knots, such as the gathering knot, to secure and finish a piece. The berry knot creates a raised and bumpy texture. The josephine knot creates an interwoven and braided look (Mate, 2019) ^[24].

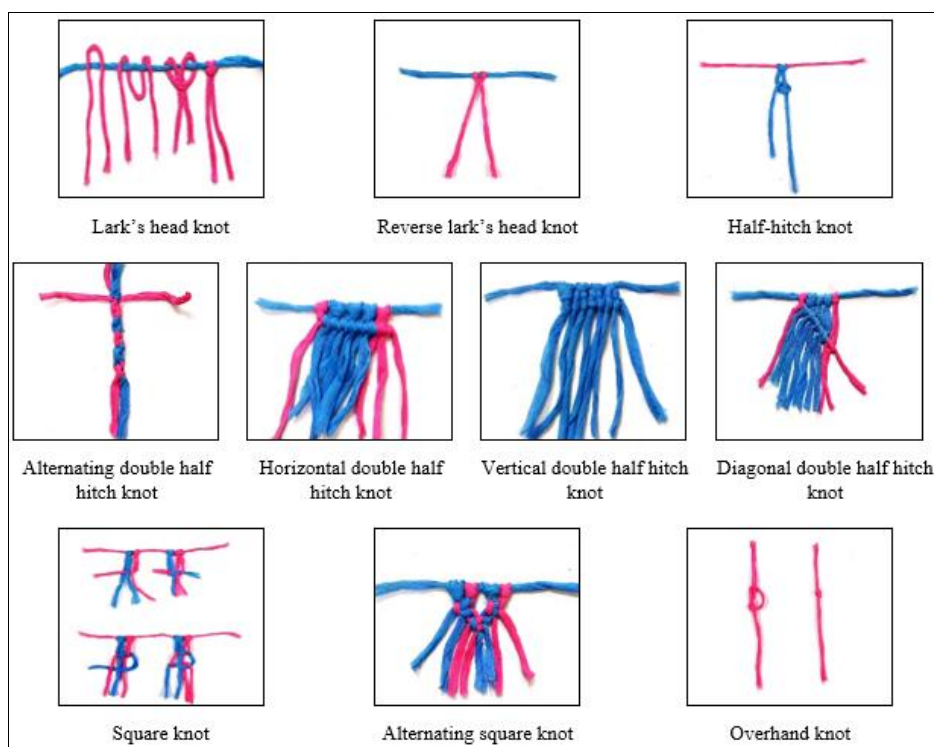


Fig 2: Types of Macrame Knots

Materials used for Macrame Craft

Materials play a primary role in developing macrame craft. Tools used to make macrame craft are scissors for to cut the cord, measuring tape and ruler to measure the length, comb and brush for untangling cord, fringes and tassels, clipboard and macrame board to secure the macrame work, dowel, hoops and rings for the base of wall hanging and plant hanger, S hooks and nails to hang the project. The main material for developing any craft is cord, which is made of cotton, jute, nylon, polyester, etc. These have their own texture and characteristics. In modern times, keeping in mind the sustainability under the SDG (Sustainable Development Goal), through this craft can reuse, recycle and minimize the waste fabric from household and industrial waste threads. Macrame cords can be of many types such as rope, string, yarn and waxed cord (Shehzadi, 2024) ^[35].

Previous research studies related to Macrame craft

Many researchers, in their research, made various products and dresses using different knotting techniques and

materials. Some developed teaching modules and digital media which will be useful for future researchers and helpful for macrame learners. This paper is the essence of the research of many researchers.

According to study of Asmah (2005) ^[9], jute, linen and cotton are the best materials for macrame work because they can easily have dyed and many variations were available in the market. Similarly, Swami and Babel (2006) ^[40] developed the value added articles such as belt, bottle, pot holder, *jhula*, key rings, magazine holder, and wall hanging from goat hair. The lark's head, square, half knot twist and diagonal double half hitch knots were used with coloured yarns to develop these articles. Different accessories like beads, shells, mirrors and "*hungroo*" were used for surface enrichment. Followed by Jonathan (2015) ^[22] in his research, made female bags and footwear using synthetic twines and overhead, square and josphine knots. Uдеми (2017) made wall hangings and art pieces using textile waste. In the same sequence, Anon (2018) ^[3] utilized acrylic, cotton, jute, kur, nylon and linen ropes in his study, which are nowadays used for wall décor, pot hangers and

hammocks. Yussuf *et al.*, (2018) explained that macrame craft is used for pot decoration in Ghana.

Annaur and Daud (2011) created macrame jewellery using basic knotting techniques, using coloured silver wire, coated wire and bedding wire instead of macrame cord. Baise (2014) created clutches, hats and sandals using traditional organic dyed fibres using macrame techniques. Widyawati (2015) used silk fibre waste to make fashionable dresses and Nikita (2015) made accessories using knitware waste. According to research by Arthur (2016)^[8], vegetable tanned leather was used to make macrame products like purses, handbags and ladies sandals. Mireku (2016)^[25] developed interior textile artifacts using crochet and macrame techniques. Using monochrome and polychrome colour themes, sofa coverings, wall hangings and light shade covers were created by her. Soodsang (2016)^[38] designed furniture using hea jute rope and macrame techniques. Hea jute rope was made by binding the dry grasses with jute. This rope constituted of synthetic fibers which made it durable, strong, easily mouldable, less fraying and easy to wash as well. Elradi (2016)^[16] constructed the women garments through concept of zero waste fashion using Nubian motifs and macrame technique as decorative purpose. Lake, half hitch and half knot were though using geo-cut technique and the thin strips of fabric cut from leftover scarps of fabric. Macrame technique could be used for women's clothing with the application of zero waste fashion as a step towards environment safety. Yih (2017)^[43] created stool covers using old t-shirts as macrame material. Rani (2017)^[31] developed fashionable dresses and products using basic macrame techniques. She used flat and double flat, cordon, pearl and wrap knots.

In the modern era, macrame craft is more popular due to digitalization and technology. At this time, many types of handcraft courses are being introduced in the curriculum which is important for the mental and physical growth of the students. Singh *et. al.* (2014)^[36] explored macrame as a training package for skill development. In this research, for the skill development of the respondents, the training package of 21 days was organized by the researcher and it was evaluated by ten members of an expert panel. Macrame booklets and audio video CDs were also developed by the researcher for use by respondents. In first five days of the training, respondents learned all about basic knots of macrame. In the last 15 days, macrame articles were developed by the respondents. These were accessories, pot holder and lampshade. The result of the research reveals that 25 percent respondents liked the training package and 47.5 percent wanted to setup their own enterprise of macrame products through the concept of self-help groups. Similarly, Jonathan (2016)^[21] developed macrame female dress accessories, handbag and footwear using the methodology of ADDIE (Analyse, Design, Development, Implementation and Evaluation) model, in which square, Josephine and overhead knot were used. Measuring tape, scissors, needles, candle, matches, rubber band and fishing line were used as the supporting materials.

Herdiono and Mortono (2018)^[19] developed interactive media for macrame learning which was for VIII grade students. This media was created in the form of DVD using Adobe Flash CS 6, Corel DRAW X 7 for product design and tutorial video using Corel Video Studio Pro X 5. In this

media, there was as introductory step: macrame material, definition and history, main material: sample macrame works, tool material, macrame basic knot tutorial and tutorial video of macrame bracelet making process and evaluation form in the form of multiple choice questions. This media was made in an enjoyable and creative way with colourful pictures and audio music. Which is a good source for interested learners to learn macrame craft. Pushpitari *et. al.* (2021) also developed interactive multimedia as a learning and teaching aid for macrame bag. In which there was macrame knot techniques, materials and step by step tutorial was available for macrame bag. This aid was developed sequence wise through analysis, design, development, implementation and assessment stage. In similar way, Ibrahim *et. al.* (2020)^[20] developed many macrame patterns on the basis of successive approximation model in three phases namely evaluating, design and development phase respectively. In which first of all the knot pattern had to be analysed and evaluated, then it had to be designed by sketch, graph or by digital form, then knots had to be developed. In this accessories were made using square and clove hitch knot.

Marlina (2020)^[23] developed an instrument in textile craft course to assess the macrame work of the students. In which preliminary study stages were included *i.e.*, design products of macrame techniques, production and manufacturing of macrame products, valuation tool, validation, revision and analysis. In this study, experts recommended six indicators which were macrame motif, function of macrame product, design element, design principles, use of materials and completion techniques.

Conclusion

Since ancient times, macrame has been a well-known worldwide craft that uses knots to create articles. This craft serves both practical and aesthetic purposes. It requires perseverance, inventiveness and the capacity to become an expert in this field. Individuals or entrepreneurs can start their own small business and use their own ideas to generate a variety of designs. This craft is well-known for both the development of clothing and home items. This sustainable craft needs only few basic tools and leftover cords or wool to practice. It doesn't require a lot of money or expensive materials to begin. In order to create clothing like as women's pants, shrugs and dresses, this skill can also be combined with other textile techniques like embroidery, crocheting, printing, or painting. Preserving our traditional craft for future generations is crucial.

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