



FROM TRADITION
FTTI
TO INNOVATION

FROM TRADITION TO INNOVATION

Erasmus + project
2022-1-ES02-KA210-YOU-000084045



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1. Introduction to the Erasmus+ project 'From Tradition to Innovation'

The Erasmus+ project "From Tradition to Innovation" (FTTI) (2022-1-ES02-KA210-YOU-000084045) aims to train young people in traditional craft skills, increasing their employability in the labour market. The project is coordinated by the Spanish association Pacto Verde, together with two European partners, RDA Backa from Serbia and AFYONKARAHISAR SARIKIZ KALKINDIRMA DERNEGI from Turkey.

The FTTI aims to equip participants with expertise in four key areas of traditional crafts: weaving and sewing techniques, leather processing, earthenware and clay household items.

Project objectives

The project has two main objectives aimed at the integral development of the young participants:

- Acquisition of Craft Skills:

The youth will acquire knowledge and skills in the fundamental areas of traditional handicrafts. This will not only increase their employability in the sector but will directly contribute to the project priority of "Youth: Increasing youth employability". Through hands-on experience, participants will learn the skills needed to excel in the handicraft sector.

- Artistic and Creative Development:

The project also focuses on revealing and developing the artistic aspects of young people. By encouraging creativity, participants will be motivated to produce original designs, thus fulfilling another priority of the project: "Youth: Increasing quality, innovation and recognition of young people's work".

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Project activities

The FTTI consists of three main activities/mobilities, designed to provide a comprehensive and multicultural learning experience:

Through these activities, the FTTI project aims not only to preserve and revitalise traditional craft techniques but also to inspire a new generation of artisans who can innovate and contribute to the craft sector with creativity and solid knowledge.

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2. Introduction to the methodology

The methodology presented in this document focuses on the teaching of traditional crochet, pottery, leather and woodworking processing techniques, adapted to meet the educational and employability needs of the young participants of the Erasmus+ project "From Tradition to Innovation" (FTTI). This project, coordinated by the Spanish association Pacto Verde together with two European partners, RDA Backa from Serbia and AFYONKARAHISAR SARIKIZ KALKINDIRMA DERNEGI from Turkey, has as main objective to train young people in traditional craft skills in order to increase their employability in the labour market.

The methodological approach adopted in this course is designed to provide a comprehensive and practical learning experience. It seeks not only to transmit technical knowledge about crochet but also to foster creativity and innovation among participants. This is achieved through a series of structured activities ranging from an introduction to basic tools and materials to the creation of more complex projects that integrate all the skills acquired throughout the course.

Through this methodology, the aim is to equip young people with the necessary skills to excel in the craft sector, while promoting the preservation and revitalisation of traditional crochet techniques. The ultimate goal is to inspire a new generation of artisans capable of innovating and contributing to the sector with creativity and solid technical knowledge.

This methodology was developed taking into account best pedagogical practices and the specific needs of the target group, ensuring that each activity and course content is aligned with the FTTI project's objectives of increasing the quality, innovation and recognition of young people's work.

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3. First mobility: “Introduction to Knitting course”

From 8 to 12 May, the Pacto Verde Training and Innovation Centre in Huelva hosted an event specialising in crochet, led by the expert Eulalia Hernández Romero. The course, which lasted five days, was attended by 20 people and was held in room 1 of the centre, located in Plaza Tallista M. Hierro Barreda, 9A, Huelva.

The agenda for the event is as follows:

- Monday 08/05 (12:00 - 16:00, Room 2): Introduction to tools and materials, reading crochet patterns and learning basic stitches such as the slip knot, chain stitch and single crochet.
- Tuesday 09/05 (10:00 - 14:00, Room 1): Spiral crochet technique, including the magic ring, increases and decreases, and making a crochet ball with stuffing, finishing off and embroidering details.
- Wednesday 10/05 (10:00 - 14:00, Room 2): Selecting and following a simple pattern, with a coffee break.
- Thursday 11/05 (10:00 - 14:00, Room 2): Continuation with choosing and following simple patterns, plus finishing touches and incorporating accessories.
- Friday 12/05: Best practice day in El Rompido, Huelva.

This event was managed by Pacto Verde

Tool and supplies needed:

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- **Crochet hook** (or **crochet needle**) is an implement used to make loops in thread or yarn and to interlock them into crochet stitches. It is a round shaft pointed on one end, with a lateral groove behind it. The point eases the insertion of the hook through the material being crocheted and the groove makes it possible to pull a loop back through the material. The shaft is then divided into a working area that determines the hook's nominal diameter and ensures the uniform sizing of the loops formed on it, and a handle.
- **Yarn:** Yarn in crochet is the thread or fiber used to create various crochet projects. It plays a crucial role and comes in different materials, thicknesses, and colors.
 - Cotton
 - Wool
 - Synthetic
- **Tapestry needle/ Yarn needle.** Tapestry needles are made specifically to be used with yarn because the eye of the needle is much larger than your normal sewing needle
- **Scissors.** Crochet scissors are used for cutting yarn when starting or finishing projects, changing colours, trimming ends and correcting mistakes. It is essential that they are small and sharp for precise and clean work.
- **Stitch markers.** A stitch marker is simply a memory device used to denote important locations when knitting or



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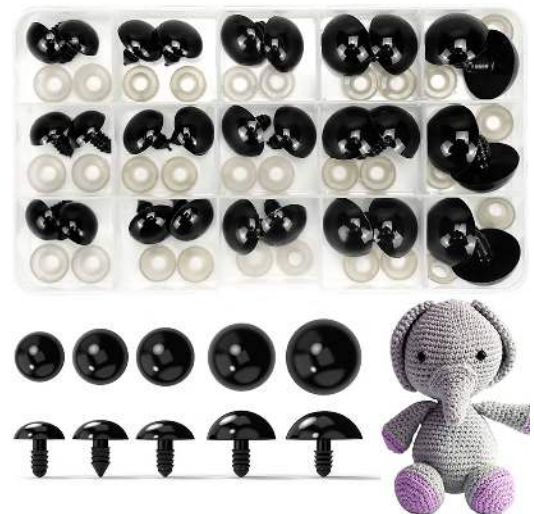


crocheting. Stitch markers can be used to indicate upcoming increases, decreases, pattern changes, yarn changes, track rows of stitches and to aid counting blocks of stitches on the needles for large projects.

- **Stuffing.** In crochet, stuffing refers to the material used to fill the inside of crocheted items, particularly amigurumi (crocheted toys or figures), pillows, and other soft projects. Common types of stuffing include polyester fiberfill, cotton, wool, and scrap yarn. Stuffing gives shape, volume, and stability to the crocheted items, making them soft and huggable or allowing them to hold their form.



- **Safety eyes.** Safety eyes are plastic bulbs that help give some character and life to your amigurumi, crochet stuffed toys. Safety eyes are easy to attach but difficult to remove. They come in multiple shapes, colors, and sizes. They're measured in millimeters, which represent the diameter of the eye.



Training objectives:

- Basic stitches
 - Aim: To learn the basic crochet stitches, such as the chain stitch, the single

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crochet, the double crochet, the double crochet and the slip stitch.

- What is to be achieved: Mastering these basic stitches allows the student to begin any crochet project and lay a solid foundation for more advanced techniques.
- Creating a swatch
 - Aim: To practice the stitches learned by creating a small sample or "swatch".
 - What is to be achieved: To ensure that the student understands how to maintain even tension and how to count stitches and rows, which is crucial for projects to be the desired size and shape.
- Reading patterns
 - Aim: To learn how to interpret and follow crochet patterns, including common symbols and abbreviations.
 - What is intended to be achieved: To enable the learner to work independently on more complex projects by following written instructions and diagrams.
- Magic ring
 - Aim: To learn how to make a magic ring (or magic circle), a technique used to start projects in the round without leaving a hole in the centre.
 - What is intended to be achieved: To facilitate the creation of circular projects such as hats, amigurumis and rugs, ensuring a neat and tight start.
- Making a crochet ball
 - Aim: To apply the knowledge gained to create a crochet ball, using basic stitches and increase and decrease techniques.
 - What is to be achieved: To practice 3D construction, which is essential for amigurumi projects and other three-dimensional shapes.
- Crocheting a pattern
 - Aim: To complete a project following a specific pattern, from start to finish.
 - What is to be achieved: To integrate all the skills learned (basic stitches, pattern reading, special techniques) into a finished project, building the

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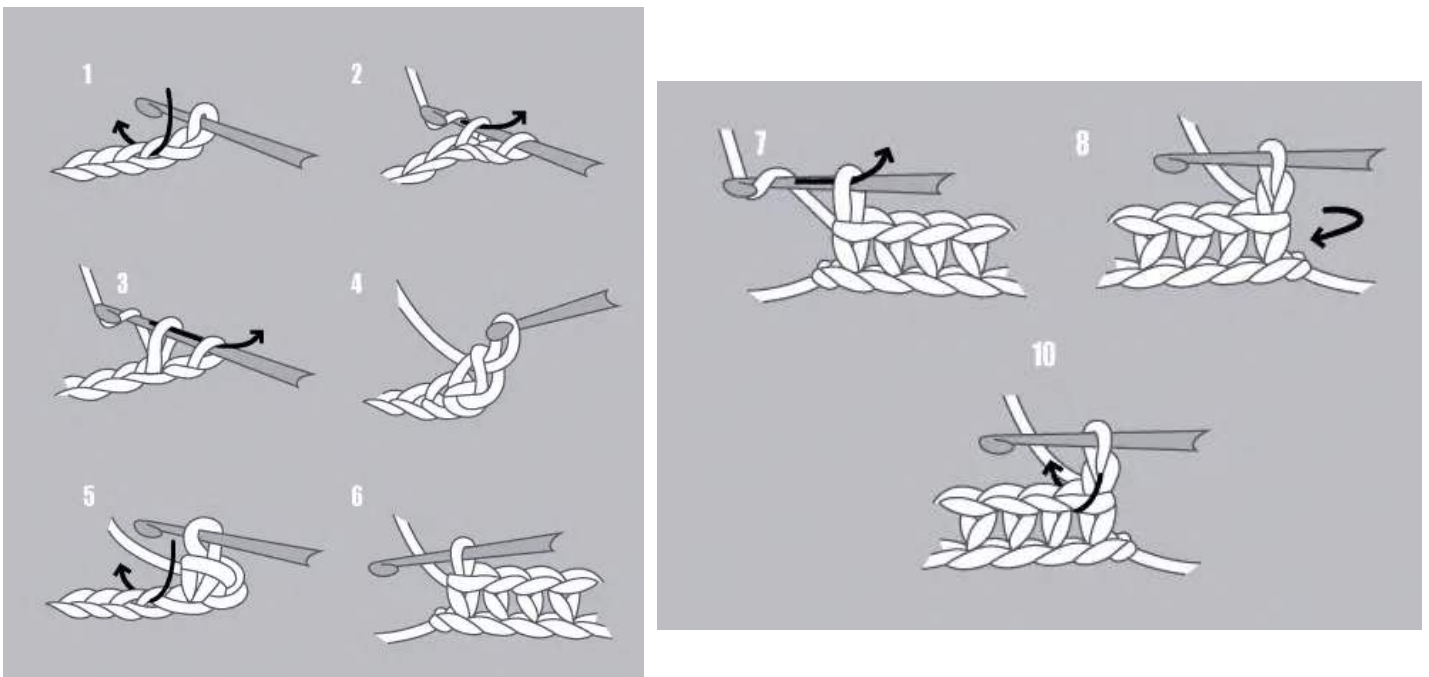


student's confidence and ability to tackle more complex projects on their own.

Upon completion of this training, students will have a solid understanding of the fundamentals of crochet, allowing them to create a variety of projects and continue to explore and expand their crochet skills.

Chain Stitch

This is the starting point for most crochet projects. It consists of making a series of loops connected to each other that will form the base on which the other stitches will be worked.



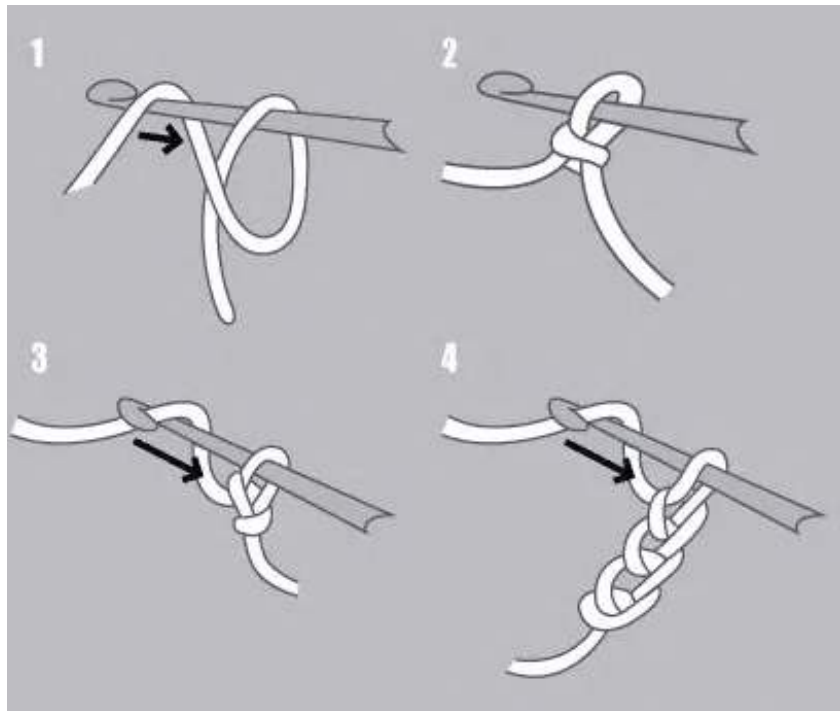
Single Crochet

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This is one of the basic crochet stitches, known for its dense and compact texture. It is made by inserting the hook into the stitch, taking yarn and pulling it through the stitch, and then looping and pulling the yarn through the two loops on the hook.

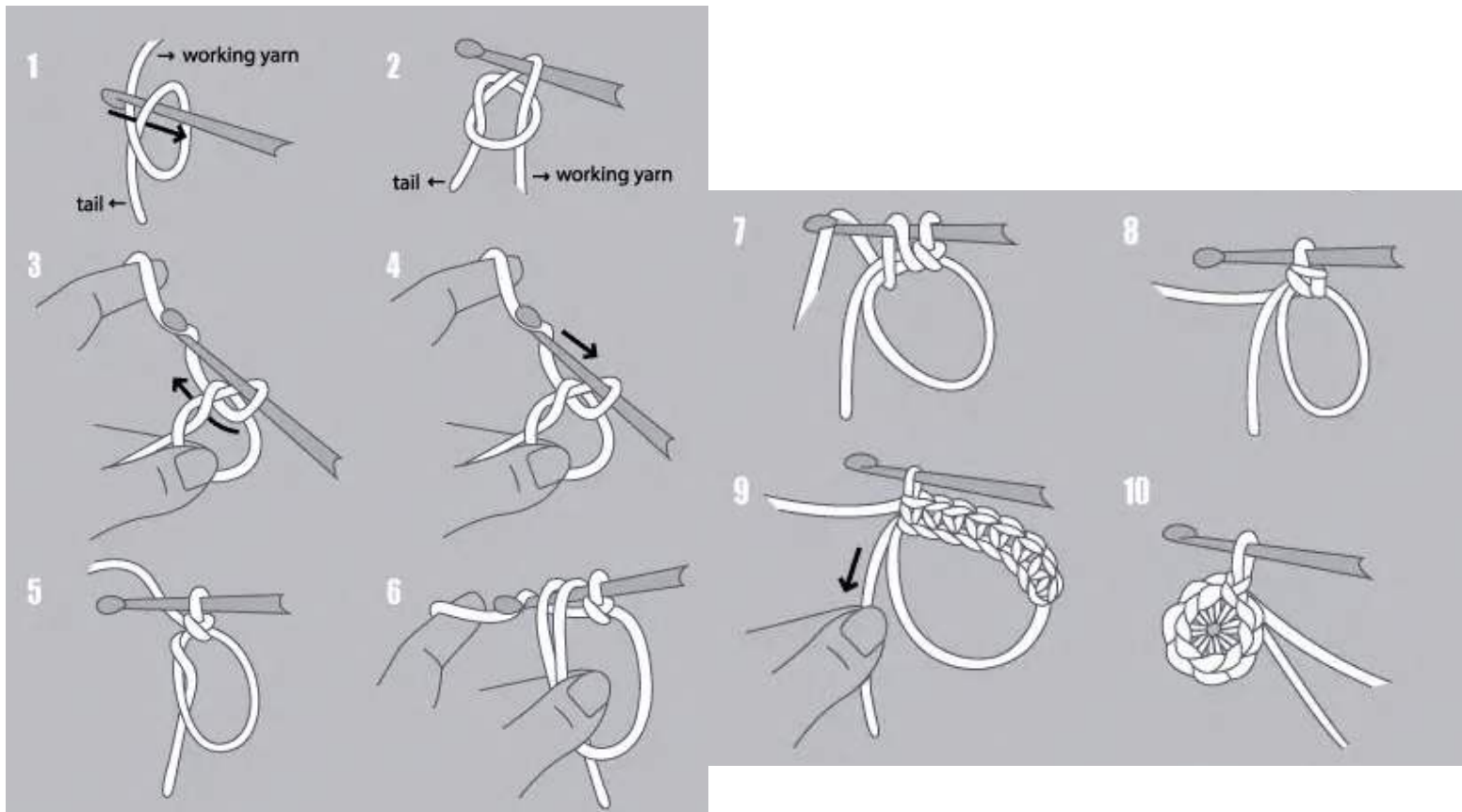


Magic Ring

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It is a technique used to start circular projects, such as hats or amigurumis. It allows you to adjust the size of the initial circle by pulling the end of the yarn, eliminating the central hole that sometimes remains with other techniques.



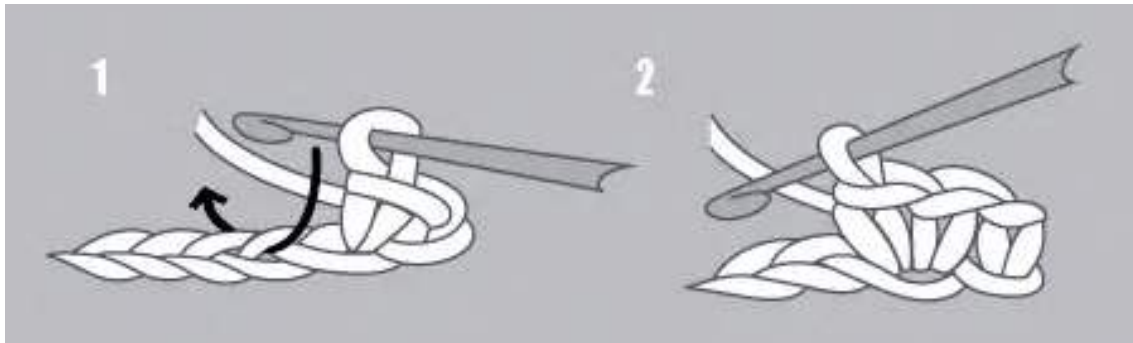
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Increased

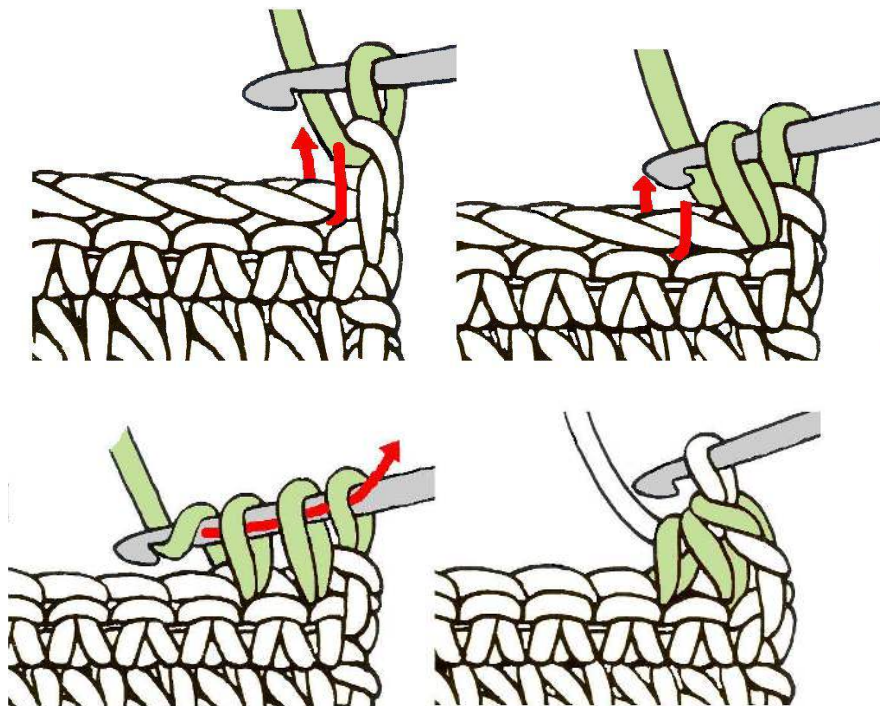
Used to add more stitches to a row or round, which increases the size of the work. It is



usually done by knitting two stitches in the same base stitch.

Decreased

Used to reduce the number of stitches in a row or round, which helps to shape the work. It is commonly done by knitting two stitches together.

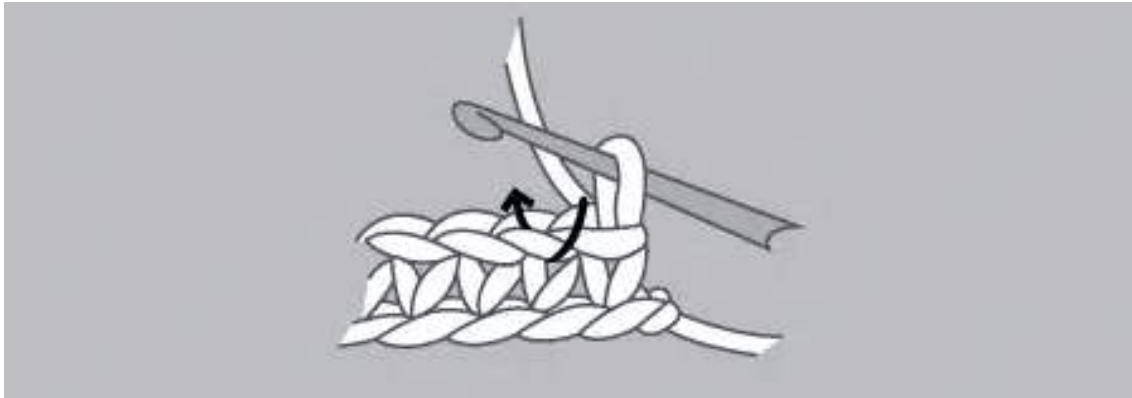


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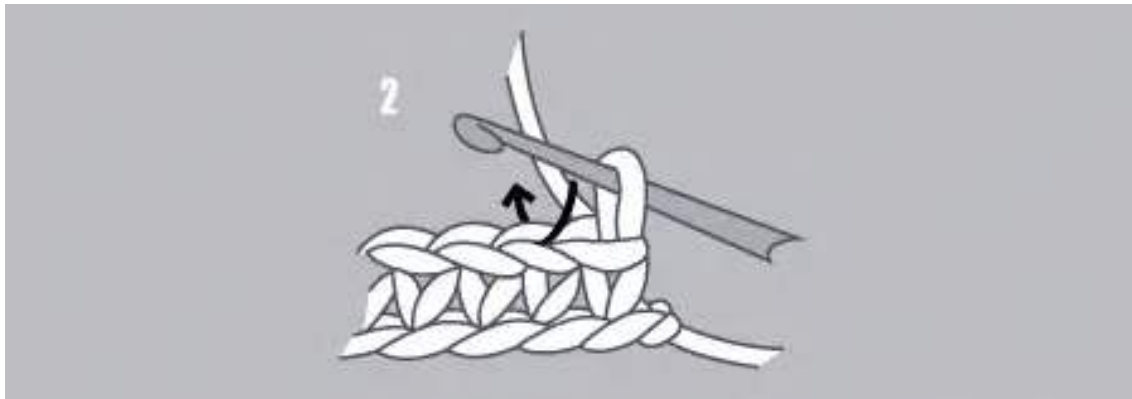
Front Loop Only

This technique involves working only the front loop of the stitch, leaving the back loop free. This creates a distinctive texture and pattern in the work.



Back Loop Only

Similar to the previous stitch, but in this case only the back loop of the stitch is worked. This also creates a unique texture and pattern.

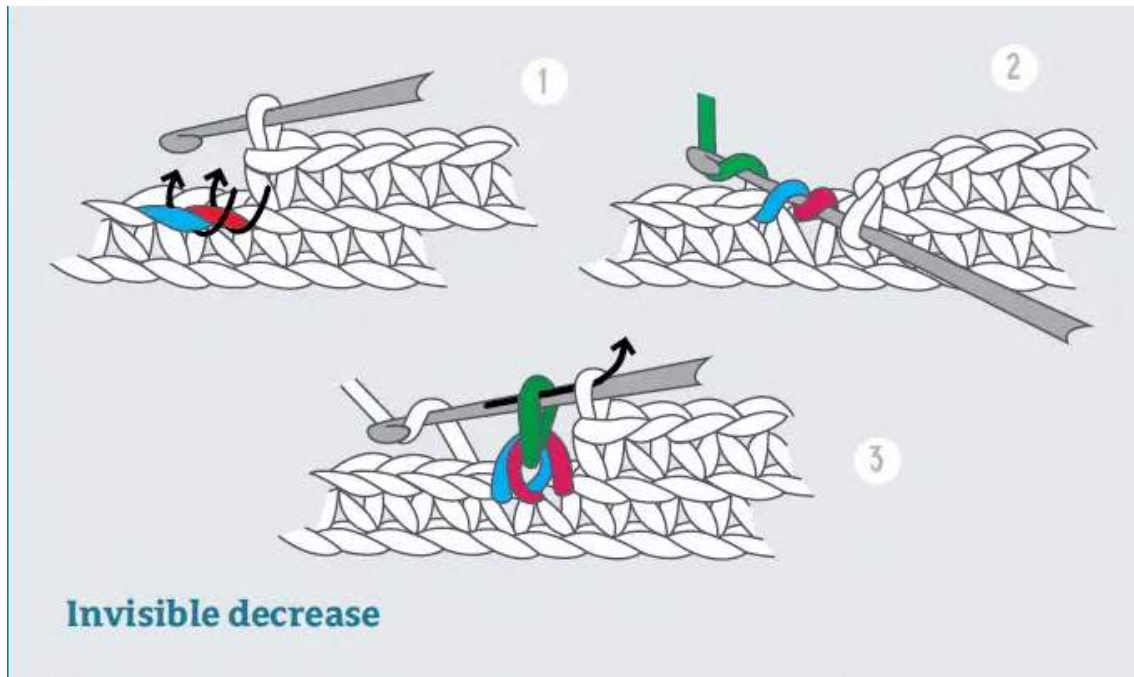


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Invisible Decrease

This is a decrease technique which is less visible than the standard decrease. It is performed by taking only the front loops of the two stitches to be decreased and knitting them together.



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4. Second mobility: “Introduction to Clay course”

From September 25 to 27, 2023, the Regional Development Agency Bačka d.o.o. Novi Sad along with the Gemini Artists Association - GEMINI HANDMADE CERAMICS hosted an event specialized in handmade ceramics. Sandra Mihajlović Kršev and Slobodanka Šatara led education in ceramics and pottery. The course, which lasted three days, was attended by 16 people and was held on the first day in the room of the Svilara Cultural Station with the address Đorđe Rajković 6b in Novi Sad, where a theoretical lecture and introduction to this old craft was held in the first hour and in the remaining three hour ceramics were painted on already prepared bisquit. On the remaining two days, the participants visited the ceramic studio at the address Stevana Mokranjca 4, Novi Sad and learned the basic techniques of working with clay.

Schedule:

- First day 25th September
 - 12pm-1pm a theoretical lecture and a PowerPoint presentation were held where the participants were introduced to this old craft
 - 1pm-4pm decorating biscuit plates with underglaze color
- Second day 26th September (Group work- students divided into 2 groups of 8 members each)
 - 10am-12pm First group starts pottery course, they learn the techniques of building with coil and working on the potter's wheel.
 - 12pm-14pm Second group starts pottery course, they learn the techniques of building with coil and working on the potter's wheel.
- Third day 27th September (Group work- students divided into 2 groups of 8 members each.)
 - 10am-12pm First group starts pottery course and starts decorating objects which were made the day before, also they will glaze plates.
 - 12pm-14pm Second group also starts decorating objects which are made the

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day before, they will also glaze plates.

The educator for the first group is Sandra Mihajlovic Krsev and for the second group is Slobodanka Boba Satara.

Equipment

A wide range of equipment is involved in the creation of ceramics, from the various specialized types of kiln, to the more everyday tools that can make all the difference in the creative process.

What equipment is used in pottery?

For all potters, an essential set of tools will include the basics like

- A needle tool
- Metal or wood potter's rib
- A wire cutting tool
- A couple of trimming loops
- A sponge

These are the basics that a beginner in pottery will find helpful, whether you are hand building, sculpting, or wheel throwing

Working with ceramics is a long-term process.

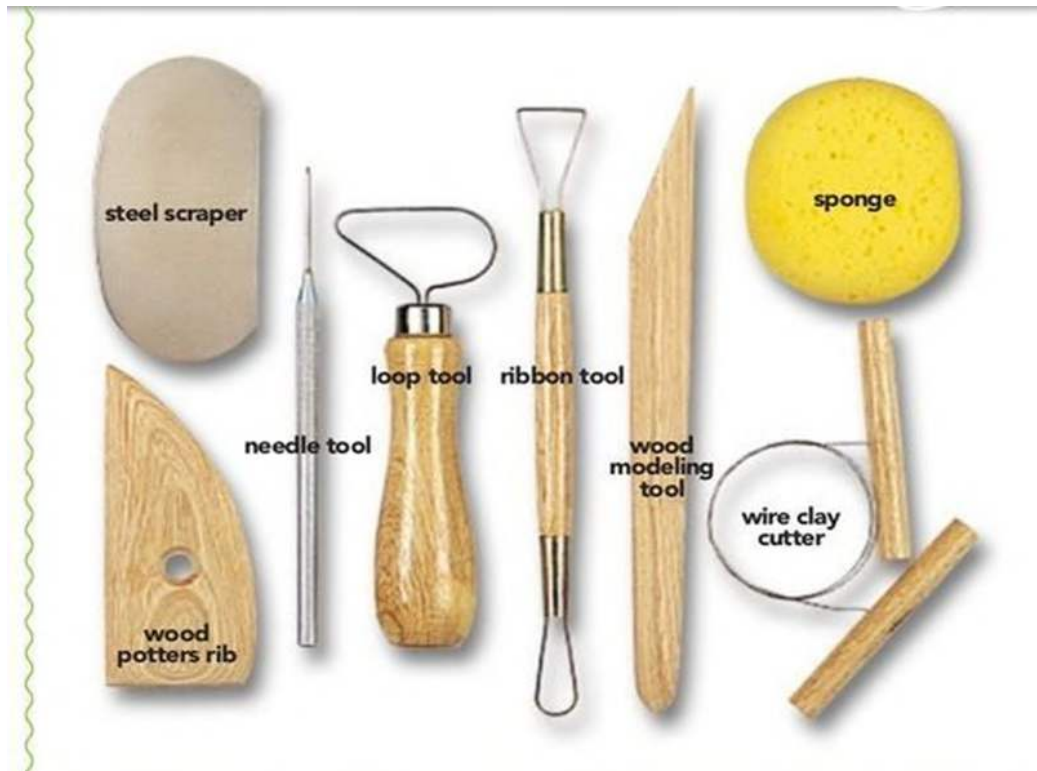
- The first step is to prepare the clay for work.
- Whatever you are using the clay for, you first need to ensure an even consistency throughout the clay's mass.
- This involves physically coaxing the clay into a homogenous state by kneading.
- It is the first step before shaping the clay into an object.
- The prepared clay is not too soft and does not stick to the hands. It is enough that the object we are making does not bend by itself. It is not too hard because it would be difficult to shape and would crack.
- We store the prepared clay in nylon bags and in a plastic barrel. Clay is not thrown away because it can be recycled and reused. We collect all the small pieces that

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remain in a bucket and store them in water, later we pour off the water and dry the clay on plasterboards that extract additional moisture from the clay. Move it again and use it.

- Glazing is the final process.
- Glaze is a vitreous protective and decorative final layer on a ceramic object.
- It improves the color, texture, porosity and design of a piece of work.



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Pottery

Pottery and terracotta or baked earth are different names for objects shaped from red earth. They are baked at a temperature of 700 to 900 degrees.

Most often they are unglazed and porous, and ethnic ceramics, pots, bowls and cooking pots belong to this category.



Earthenware



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Earthenware is clay-fired at relatively low temperatures of between 1,000 to 1,150 degrees. This results in a hardened but brittle material which is slightly porous (small holes through which liquid or air can go) and, therefore can not be used to contain water.

To remedy this, a glaze is used to cover the object before it is fired in the kiln for a second time and rendered waterproof.

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Stoneware

Stoneware is made from a particular clay which is fired at a higher temperature of 1,200°C. This results in a more durable material, with a denser, stone-like quality. The finished product will be waterproof and unlike earthenware, does not need to be glazed.



Porcelain

Porcelain comes from a refined clay which is fired at very high temperatures of approximately 1,200–1,450°C. The result is an extremely hard, shiny material often white and translucent in appearance.

The earliest forms of porcelain originated in China around 1.600 BC and this association popularised the term “fine china”, or bone china when the porcelain has had ground animal bone added to the clay, in order to create an even more durable material.

Basic clay modelling techniques

- Technique Pinching

The technique of pinching is one of the simplest ways of manipulating clay and as a result is often underestimated in its potential to create different surfaces or tensions.

At the start always pinch out the bottom area of clay first., leaving the rim until last, to avoid cracks forming.

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Take a ball that fits comfortable in your hand.

Press your thumb down into its center to within 5mm of the ball's opposite wall. Started at the deepest point, pinch the clay between your finger and thumb. Rotate the ball as you continue to pinch, moving up to the top edge while supporting the opened ball in your other hand.



- Technique Coiling

This fast, practical and versatile method can be used to construct complicated or simple forms. It permits a freedom to create large, imaginative, unrestricted forms that are built up.

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- Technique slab building

The slab-building technique involves rolling out clay to an even thickness - usually 1 cm - then cutting shapes, folding, bending, manipulating and joining together to form a finished object.

There are two areas of slab building: leather hard and soft slabbing, although, technically speaking, there will be times when you will need slabs of certain flaccidity that fall somewhere between the two. Leather hard slabs are required for work that has straight edges and planes and are worked with precision and order similar to cutting and joining cardboard or wood. Soft slabbing is a more spontaneous and immediate method of working with slabs, suited to fluid, curved, folded, or swollen forms. A slab that falls between the two will stand upright, but can still be curved.



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- Using molds

Molds can be used in many ways in ceramics- for producing repeat forms, for making components that can then be assembled to create shaped bases or starting points from which a piece can begin, or to applying texture and decoration.

All of these previously mentioned techniques can be combined with the help of plaster molds.



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- **Working on the potter's wheel**

1. Working on the potter's wheel is specific and very interesting and it's an amazing feeling as the clay slides through your fingers. The work technique is completely different compared to manual techniques, more accurate, circular objects are obtained and a lot of patience is required.
2. As the wheel spins, the clay is inclined to stretch and move outward. The potter controls the clay with their hands to push it towards the center and shape it in an even manner. The potter clay is at the center of the wheel, adding water to assist in the smooth, slow movement of the clay upwards.
3. Keep your hands touching, using them together as one for better control. Use your entire body to work the clay, focus on the center. Always move your hands into/out of contact slowly while the wheel is going round. Jerky motions will result in an uneven pot.



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Basic Steps for Throwing on the Wheel

1. Wedge clay well, form into a round ball.
2. Throw the clay onto center of a bat on the wheel. Seal base, pat into cone.
3. Center clay: Brace arms on legs, have wheel speed medium-fast. Place hands around base of clay, slowly squeeze clay to center and cone up.
4. Push clay down: With the heel of your left hand, push the left side of clay and with side of your right hand press down on the top of it.
5. Repeat steps 3 & 4 until clay is centered.
6. Open up clay: Slow wheel, place thumbs together, push down into middle of clay. Leave ½” clay at bottom - measure with needle tool.
7. Create floor: Start in center, pull fingers of right hand outward. For cylinder, keep floor flat. For bowl, let fingers curve up wall to establish curve.
8. Pull walls: Slow wheel. Left hand inside, right hand outside (3 o'clock). Right hand pushes at base to move clay up & rises just above left. Gently squeeze and let hands travel up with clay. Keep clay in a cone shape.
9. Shape: To shape in: outside fingers above inside, press slowly in and up. To shape out: inside fingers above outside, press slowly out and up. Use a rib to refine and smooth curves, also to remove water from surface.
10. Finish: Trim rim to level. Trim excess clay at base. For bowls leave clay at base to support walls. Pull string under base.



5. Third mobility: “Introduction to Leather course”

- What is Leather Art?

Leatherworking is an occupation that covers the processes required for the manufacture of leather products. These processes include leather processing, dyeing, cutting, shaping, stitching and other processes.

- What do you call a leatherworker?

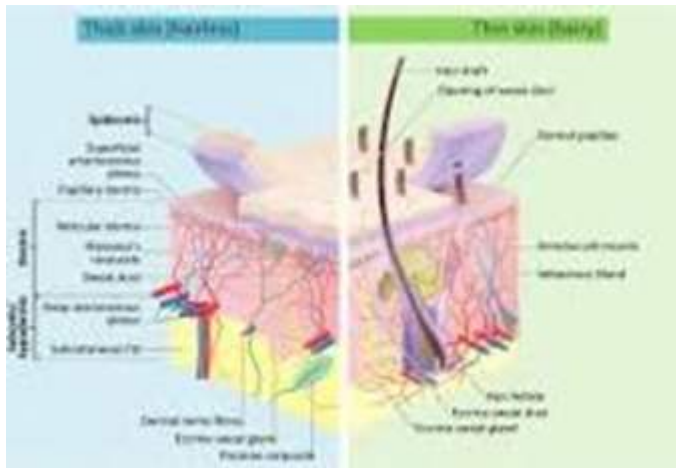
Debbag was the name given to the person who processed leather in the old language, and the place where this work was done was called debbaghane. Today, this word has come as tannery.

- What do you call a leatherworker?

Debbag was the name given to the person who processed leather in the old language, and the place where this work was done was called debbaghane. Today, this word has come as tannery.

- What is the definition of skin?

The skin is the uppermost layer covering the bodies of some animals and is an organ of the cover system, consisting of layers of tissue that protect the muscles and organs underneath. Beneath this layer is a layer of fat. The fat layer keeps the body warm and protects against impacts.



How many types of skin are there?

1. Calfskin
2. Sheepskin
3. Goat skin
4. Capricorn Skin
5. Snake Skin
6. Leather Types

A: Crazy leather : It is obtained from calfskin. It has a vintage, aged look. ...

B: Vegetal - Vaketa Leather: It is obtained from calfskin. It is one of the most durable and hard leather types.

5.1 Leather craft in Turkish Culture

Leather has been one of the natural resources used first and mostly by humans after wood and stone since ancient times. Leather crafts started with the invention of leather handiwork by people; developing gradually in time it converts into an art branch fallen within most areas from tenth to home decoration and to clothing.

Leather craft is shown first in Turks and then in Central Asia steppe culture. Leathercraft was spread from Central Asia to Anatolia; tanning and leather products reached the peak in

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quality in the Ottoman age. The modernization movement appearing at the end of the 19th century influenced leathercraft. This ancient art inherited by a son from a father has gone on despite several problems. Tanning started factory-made production in the Republic age and has been an important industrial branch nowadays. In this study, the historical development of the art of leather craft was studied from the past to the present time and its importance and situation were pointed out.

5.2. Introduction

Leatherworking emerged in the early ages with the need for people to cover and shelter to resist the natural conditions. Leather protects people's naked bodies from natural factors.

It was the first garment and armour to protect. The first people discovered primitive leather processing methods to utilize the skins of the animals they hunted and for this purpose, they utilized every natural opportunity. It is known that the production of leather and leather goods existed in every region where human beings chose to live. The most important evidence of this can be seen in the paintings, reliefs and sculptures on the cave walls. Leather processing and the use of processed leather in many areas of daily life

It is known that it started with the domestication of animals. It is reported that leatherworking in Turkish culture is an ancestral occupation that started in Mesopotamia and Central Asia (Yelmen, 1998: 226-227). Before the Turks developed leatherworking in Anatolia, it is stated that they were engaged in leatherworking in Mesopotamia, Egypt, Hittites, Persia (Iran) for the early period, in Greece and Rome for more recent times, and finally in Central Asia before the Turks came to Anatolia (Sakaoğlu and Akbayar, 2002: 17-18). Leather and leatherworking in Turks is a very broad subject. Leatherworking has become a second profession of the tribes that breed and raise animals. For this reason, leatherworking reached a very advanced level in the Turks and especially in the Ottomans. If we look at the cultural



history of Central Asia, leatherworking plays a primary role in the daily life and clothing of Turks and their ancestors (Öğel, 1991: 102).

Today, some of these artefacts, which have cultural and artistic value, especially from the Ottoman period and attract attention with their fine workmanship and beautiful decorations, are in museums in Turkey and abroad are exhibited. It is possible to see the vast taste and creativity of Turkish society in these works.

5.3 The art of leatherworking

The leather craft of Turks, which started in Central Asia, continued its development by moving to Anatolia with the migration to the West. In this long process, depending on the socio-cultural structure, the usage areas of leather have expanded and the designs have multiplied. In this study, the art of Turkish leatherworking is analyzed under four sections: leatherworking in Central Asia, leatherworking during the Ottoman Empire, leatherworking after the proclamation of the Republic and leatherworking today.

5.3.1 Leatherworking and Leather Art in Central Asia

In Central Asian Turkish Communities, natural conditions and the way of life, leather was widely used in daily life. Leather ornamentation in Turkish communities emerges with the importance given to the horse. From the wars in the Central Asian tribes to all the expeditions they made, they attached great importance to equipping themselves and their horses. In addition to horseback riding, another reason why they kept herds of horses was that they ate their meat, made koumiss from their milk and used their skins for clothing. In Central Asia, leather pants, boots and furs are the most common forms of clothing. Harnesses, leather overalls, water canteens, and food plates were all made of leather. Saddles, headdresses, horse harnesses and chariot harnesses were made of leather, leather leather and oak in a superior way. In addition, decorations on leather were made with great skill. It is stated that both the decorations on leather and leather appliques¹ were at a very advanced stage (Diyarbakirli, 1972: 78-79).

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It is known that there are examples such as clothing items, boots, horse harnesses, saddles made of leather belonging to the Turks excavated from the Pazırık kurgan in the Central Asian Turkish regions (Yelmen, 1998: 227). Apart from the Hun kurgans, items made of leather were also found in the kurgans belonging to Turkish communities such as Gokturk and Uighur. The oldest examples of Turkish leather art are the leather goods recovered from the Hun kurgans. The Huns decorated their leather horses, saddles and harnesses, saddle covers, utensils, and sarcophagi with appliqué motifs made of leather. The Huns painted the leather, which they processed skillfully, and after shaping it according to their daily needs, they decorated it with geometric motifs or animal figures, which are seen extensively in the art of the steppe culture. The animal figures were glued or sewn onto leather surfaces painted in different colors. Animal figures (animal struggle scenes) are mostly seen on leather saddle appliques (Figure 1 and 2) (Gargı, 2000: 24). In Central Asia, leather accessories such as belts, boots and bags were made in accordance with the steppe life. Animal figures, and geometric and floral motifs were embroidered on these accessories.

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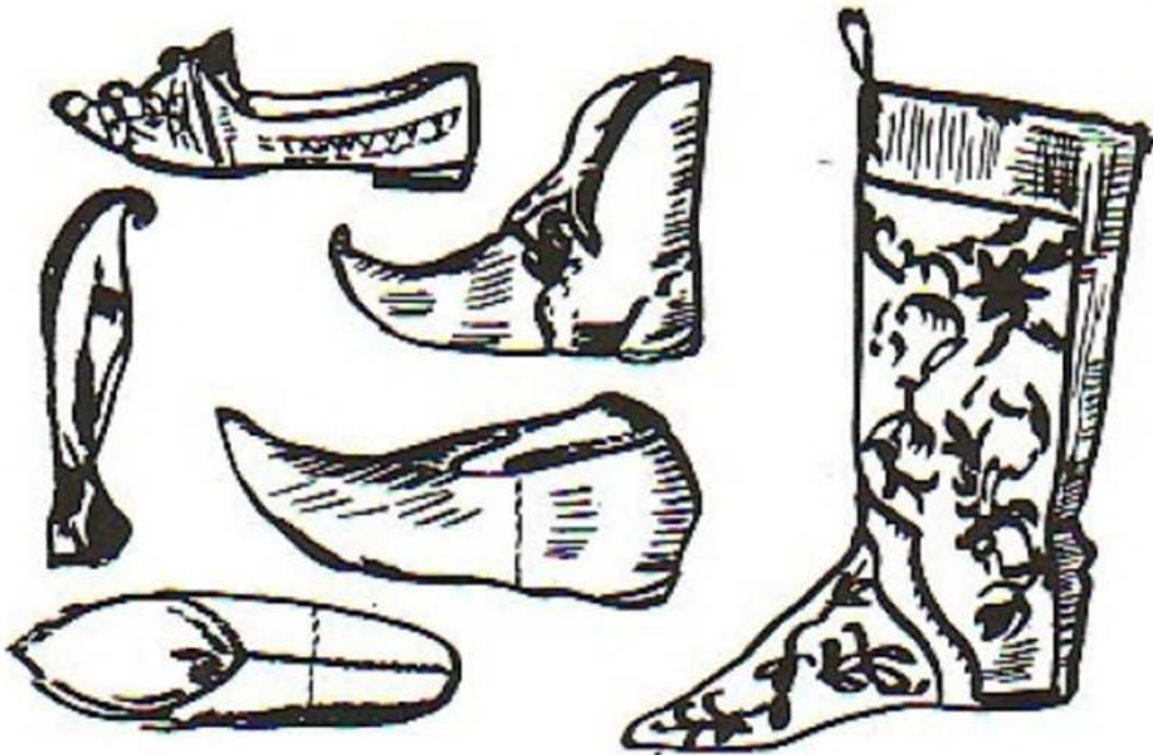
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The areas of use of leather in Central Asia are very diverse. Footwear, one of these areas, has been diversified and called by different names starting from Central Asia in Turkish cultural history. In Central Asia, mainly boots, sandals, eduk-etik, basmak and other types of shoes were worn. (Figure 3) From the sources and pictures describing this period, it is seen that boots were made with geometric and stylized motifs, sewing and embroidery techniques, and according to the finds recovered from the kurgans of Hun aristocrats; they were embroidered with gold and silver glazes.



While leatherworking was a craft branch that developed in Central Asia; it was also the source of the formation of a leather art that could shed light on centuries beyond.

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5.4 Obtaining Raw Leather

- **Mechanical Operations**

Cutting Process Before My Face: The cut starts from the neck and continues through the chest and abdomen to the tail. The cutting line on the leg should be perpendicular to the length line. However, this order of cutting is not followed in practice.

* Skinning Process: Skinning, that is, the separation of the skin from the subcutaneous connective tissue, is carried out with the help of a knife. Today, skinning machines that completely separate the skin from the animal are used. These machines provide the opportunity to obtain flawless skins without scurvy or knife cuts.

- **Conservation of Animal Skins**

* Conservation: It is a process carried out in order to increase the durability of a material that can be broken down by microorganisms by killing putrefactive bacteria and mold fungi or by preventing the vital activities of microorganisms.

For this purpose, the amount of water in the leather is reduced and the development of microorganisms is prevented. Air drying of leathers is called air dry conservation. It is the oldest method used. No auxiliary substances are used. With a sufficient drying, the water that causes the growth of bacteria that spoil and ruin the skins and hides is removed from the skin. Treating the skins with salt is also called salt conservation.

- Salty dry conservation

by sprinkling the skin with salt is made in the form of brine as a result of the treatment of the skin with salt solutions. First of all, the water in the leather is removed. Both methods should have the effect of preventing rawness definitively. *

Peel conservation: It is used on leather types that have had their hairs removed. The main effect of pickle conservation is primarily to prevent the growth of bacteria and fungi. is the very strong acidity of the pycylene.

**Leather Production Stages



Storage and asorting, Softening and liming, Fleshing, Splitting, Sama-pickle-tanning, Squeezing, Assorting, Shaving, Tanning, Neutralization- Dyeing and Oiling, Drying, Opening, Sanding, Finishing, Control, Shipment

- **Age Prospects**

In leather production, water is generally needed in all production processes. In other words, since water is used in all the processes of preparing the leather for tanning, this process step is called wet processing. These include:

- Softening
- Liming
- Descaling

Sama and other mechanical processes are also included.

The first stop of the leather in the production factories is the raw leather warehouse. In the raw leather warehouse, the leathers are firstly cleaned from the conservation agents (rock salt) or disinfectants left on them.

- **Softening:** Raw hides lose more or less water depending on the type of conservation. Leathers that have lost a significant part of their water are hard and difficult to bend. Again, the thickness of the skins has decreased due to water loss. They are softened in order to restore the water loss of the skins and to be processed easily. There are also blood stains, disinfectants, dirt and fecal residues on the leather. Traditional cabinets, wooden cabinets, propellers, wells and pools are used in softening.

The tasks of softening are

- To restore the amount of water that the leather had before conservation,
- To restore the swelling of raw hides and skins to the condition before conservation,
- To remove blood, feces and dirt from the leather,
- To remove disinfectants and conservation agents from the leather. Although the softening process is the same for all leathers, there may be differences in its application. * Liming: After the softening process, the process of preparing the leather material for tanning is called **liming**.

- **Liming:**

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The tasks of liming are

- Loosening and easy removal of hairs and upper skin,
- Removal of subcutaneous tissue or meat and fat residues found here,
- Removal of proteins that do not participate in the formation of skin, i.e. shapeless proteins,
- Removal of natural oils from the skin,
- To provide more or less opening of the skin tissue. (Opening of the skin tissue; It is to provide the mobility of the collagen fiber network in the skin by loosening.)

The softer the skin is desired to be, the stronger the liming should be done.

- **Other Processes of Tola Production**

After the calcination process is finished, the calcination residues are drained and subjected to washing, rinsing, fleshing, rigging and hair removal processes.

Calcined leathers contain the residues of the broken hairs and calcination chemicals. These were previously removed from the leather by rinsing.

Today, the so-called washing process is preferred. This process not only saves water, but also provides excellent cleaning for the skins that have been descaled. Etching is a process to remove the subcutaneous connective tissue and any meat or tissue adhered to it.

The skins of cattle are very thick and in order for them to be usable, the splitting process is applied with splitting machines. By adjusting the settings on the splitting machines, the skins can be split in the desired thickness. Liming is the process of removing the wool and hairs on the skins according to the intended use of the skins; In fur skins, the process carried out in order to strengthen the main fur part by removing weak wool and hairs is called hair protective liming.

- **Tola errors**

Most defects in raw skin are recognized when the hair is removed from the skin

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- **Tola Defects Occurring in Lime**

- Lime Stains: Tola lime is formed when lime combines with carbon dioxide to calcium carbonate and is trapped as crystals in the glaze layer of the skin. Calcium crystals try to force the glaze tissue apart from each other. For this reason, thin fibrils in the glaze layer are damaged and calcium crystals settle there, making the glaze in these parts rough.

Lime stains are seen on the skins that are left outside as a result of the long inactivity of the cabinets in which the hairs have been removed. They also occur as a result of the tolas taken outside being kept open on the coffee tables. Another reason is that carbon dioxide in the water can cause lime stains.

- Solution: The tolas should not be kept in the cabinets in the flotte for a long time. In addition, the tolas taken from the cabinet should be placed on coffee tables with the flesh side up or covered with a foil. Perhaps these stains can be removed at other stages of production. However, it is not possible to correct the rough appearance left on the glaze.
- Sulfur and Iron Stains: These are stains on the leather that appear black when viewed from a distance but are green when viewed closely. Very dark-looking ones have penetrated into the inner part of the skin. These stains may be caused by blood stains on the skin, transportation vehicles used during transportation, iron tanning, iron particles contaminating the skin or sulfur in substances used as reinforcers. If recognized in advance, these stains can be removed during descaling.

- **Leather Weight**

- If the leather is to be fleshed after pre-softening or primary softening, it is weighed after liming and the weight obtained is used as the basic measure in subsequent processes, including tanning.
- If fleshing and possibly splitting will be applied after liming, salted weight is taken as basis for softening and liming recipes.

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- In the processes from descaling to tanning, the weight of the fleshed and split leather materials, i.e. tola weight, is taken as the basic measure.

- **Descaling and Strawing**

Descaling and watering are two different processes with their own specific tasks.

- Tasks of Descaling: - The tolas obtained after descaling has a strong alkaline property such as pH 13. Since this value is also very high in other processes of leather, the pH value should be reduced in descaling (pH 5 - 5,5)
- The obtained tolas contain many calcining chemicals. These chemicals affect the process negatively by combining with sama, pikle and tanning agents. Therefore, these substances should be removed from the leather.
- The tola obtained is not swollen enough. In order for the next process to take place, the tola needs to be inflated a little more. Because the chemicals used in the subsequent processes have larger molecules and do not fit into the empty parts of the leather. This prevents a good tanning.
- Tasks of Sama Process: - To ensure the opening of the leather tissue,
 - To isolate the fibers with each other (to ensure the mobility of the fibers),
 - To clean the glaze side from hair, epidermis and pigment residues,
 - To give a thinner and more beautiful appearance to the glaze side of the leather. The softer the leather is desired to be, the more intensive the stitching process should be. Sturdy, hard leather leather leathers are not subjected to the stitching process. While a small amount of stitching is applied to soft leather, very intensive stitching is applied to glove leathers that are desired to be soft and very durable.
- Stitching Errors:

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. Inadequate Strawing: Low temperature or inadequate steeping time are two important factors in inadequate staining with low amounts of enzymes. This causes the glaze of the tolas not to be cleaned well and for soft leather types, the leather structure is not opened well. This results in a brittle glaze and a glaze cavity.

In order to prevent inadequate strawing in leathers; the suitability of the material used, the temperature and duration of the strawing process and whether the leather structure is opened or not should be checked very well

. As a result of insufficient strawing, tanning process will not be carried out properly, defects will occur in the leathers and leather quality will decrease.

- Excessive Strawing: It is a long-term and high-temperature sieving process. In intensive stinging, it causes excessive loosening of the skin fiber tissue, and in advanced cases, it becomes spongy. Excessive sama creates a skin cavity in the skin. To prevent this, it is very important to check the skin at frequent intervals. For the control, a piece of skin is taken from the cabinet. It is pressed between the thumb and index finger. If the skin on the pressed part returns to its original shape in a short time when you release it, then the pressing process is normal. If the pressed part is too soft and the leather does not recover for a long time and fingerprints remain, it means that excessive pressing has been done. In addition, a few pieces of leather are taken from the cupboard, laid on a smooth surface and sprayed with water. If there is a gap in the glaze, the water will leave stains where it touches. Excessive sama creates a dull appearance on the glaze.

- **Mechanical Processes in Wet Finishing**

Mechanical processes in wet finishing include fleshing, splitting and hair removal or wool plucking. In the past, the hair removal process was done manually on the cavaletto with the help of iron knives

. Nowadays, all of these mechanical processes are carried out with the help of machines. Numerous machine models have been developed in this regard. These are as follows;

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- Meat removal machine
- Hair removal machine
- Splitting machine

- **Tanning of Tile**

Tanning Methods

- Vegetable tanning
- Mineral (Crom) tanning
- Oil tanning
- Resin tanning
- Combined tanning

- Vegetable tanning: Tanning agents are mostly found in the bark, leaves and sometimes in the fruits and seeds of plants. The tanning agents in vegetable tanners can only be taken up by the skin after they are dissolved in water. Here the tanning agents penetrate the skin and are slowly absorbed and bound by the skin.

This process continues until a balance between the collagen fibers of the leather and the tanning fibers is formed. Depending on the type of syrup used, leathers with different properties are obtained after tanning. Since the vegetable tanning process is carried out in wells, the tanning solution is moved to ensure more homogeneous binding to the leather. It is especially used for tanning leather hides.

- Mineral Tanning (Crom Tanning): Unlike vegetable tanning agents, they are found undissolved in nature. These minerals are converted into water-soluble salts by various chemical methods. Chromium tanning is of great importance in the tanning method with mineral substances. Tanning of leather with chromium salts happens in two ways. Either the tola is exposed to salts with tanning ability and this is called single bath method. Or the tola is first treated with chromium acid. The chromium acid is then reduced to chromium salts with tanning ability. This method is also called the double bath method.

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- Chromium tanning is the most preferred method because it is cheap, can be used in all kinds of leather tanning and gives good properties to the leather.
- Oil Tanning: One of the oldest tanning methods used in history is the treatment of leather with animal fats. Whale oil is used as the main tanning agent. This method is generally used to obtain soft and durable leathers.
- Resin tanning: Resin tanning method is generally used in the retanning of chrome tanned leathers. With the retanning done in this way, a full thickness is provided in the hollow parts of the leather.
- Combined Tanning: These are tanning agents obtained as a result of the combination of various tanning agents in order to obtain different desired properties in leather.

- **Leather Craftsmanship**

Leatherworking is an occupation that covers the processes required for the manufacture of leather products. These processes include leather processing, dyeing, cutting, shaping, stitching and other processes.

Leatherworking can be applied in a wide range of applications, from handicrafts to fabricated productions. In handicraft practice, leather workers use a variety of tools to process, shape and decorate products by hand. In fabricated production, leather workers use machinery and equipment to mass-produce products.

Leatherwork is often used in the manufacture of shoes, bags, wallets, belts, gloves, jackets, pants and similar products. Leatherworking is designed to improve the appearance and durability of leather products by using many different materials and techniques.

Leather craftsmanship, one of our traditional Turkish arts, people's desire to use products designed by themselves and the happiness of producing increases the interest in this

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occupation day by day. The natural structure of leather and the visuality it offers also have a separate share in this.

You want to start leatherworking but don't know where to start. Let us answer your questions in a few steps.

1. Our priority is to have technical equipment and sufficient knowledge.

Leather craftsmanship works on 3 main bases.

1. Measurement (Design)
2. Cutting
3. Strut

Measurement:

1. It is the process of dying the product we plan to make with the necessary tools on the skin. Materials required for this:

- a. Ruler

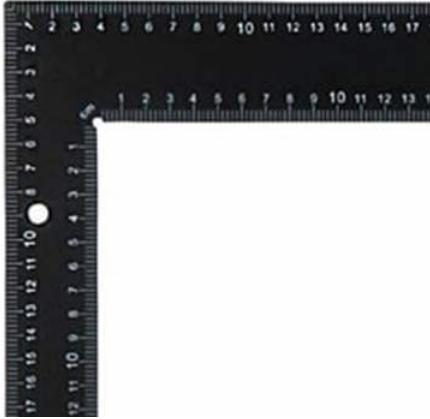


- b. Miter (L ruler)



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c. Leather



d. Jib

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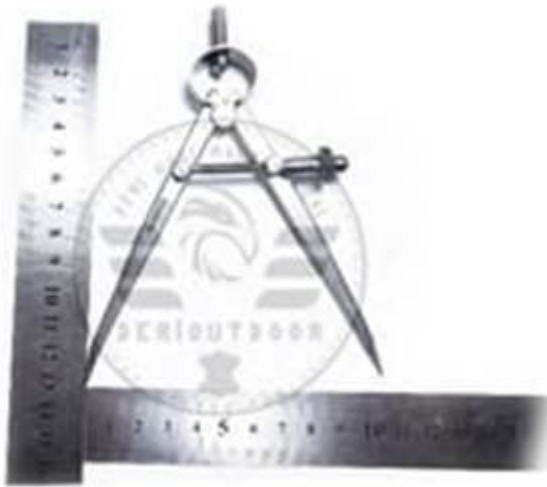


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e. Pencil

DERİ İŞARETLEME KALEMİ



Cutting:

2. Now that you have finished measuring the leather, it is time to cut the leather.

Materials required for this:

a. Safe cutting tools such as Utility Knife etc.

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b. Cutting Table



Sticking:

1. Now we are ready to sew and slowly our design is coming to an end. The following equipment will help us during the sewing phase.

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a. Punching punch for sewing hole



b. We are



c. Sewing Needle

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EL DİKİŞ İĞNESİ



d. Waxed rope

1,0 mm Mumlu İp 500 Mt.



No:1

No:4

No:7

No:624

e. Mallet



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f. Wax

BALMUMU



g. Sewing Vise



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6. Introduction to Wooden Dioramas

Building dioramas is a creative and detailed way of presenting scale models in a realistic environment. This methodology is designed to guide you through the process of building a diorama using carpentry techniques, focusing on the use of wood as the main base. The information will be complemented with images from the document provided.

Materials Needed

- Base: A thin sheet of plywood.
- Frame: Decorative mouldings to frame the base.
- Terrain: Styrofoam, modelling putty (such as Durham's Water Putty), and natural materials (soil, small stones).
- Tools: Fine-tooth saw, miter box, sharp knife, paintbrush, paint brushes, putty knife or trowel, tape, drill, pin vise.
- Adhesives: Epoxy glue, white wood glue.
- Paints: Acrylic paints (recommended Tamiya), Liquitex matt medium.

Construction Steps

1. Design and Planning

Before starting, make a sketch of the diorama to visualise the layout of the elements and set concepts in the physical space. This will help to identify the materials needed and structure the process.

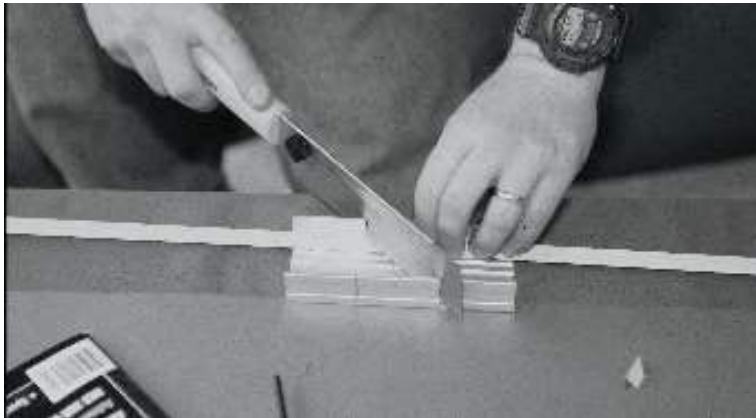
2. Base Construction

Cutting and Framing: Use a sheet of plywood as a base. Cut the mouldings with a fine-toothed saw and a miter box to ensure accurate corner cuts.



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Assembly: Attach the mouldings to the base with epoxy glue or wood glue. Make sure the corners are properly aligned and use clamps if necessary to hold the pieces in place while the glue dries.



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3. Preparing the Ground

Cutting the Styrofoam: Cut the Styrofoam into the desired shape and contour for the terrain.

A sharp knife will facilitate quick and smooth cuts.



Adhering the Foam: Glue the layers of polystyrene to the wooden base with white glue.

Check that the glue is dry before proceeding.

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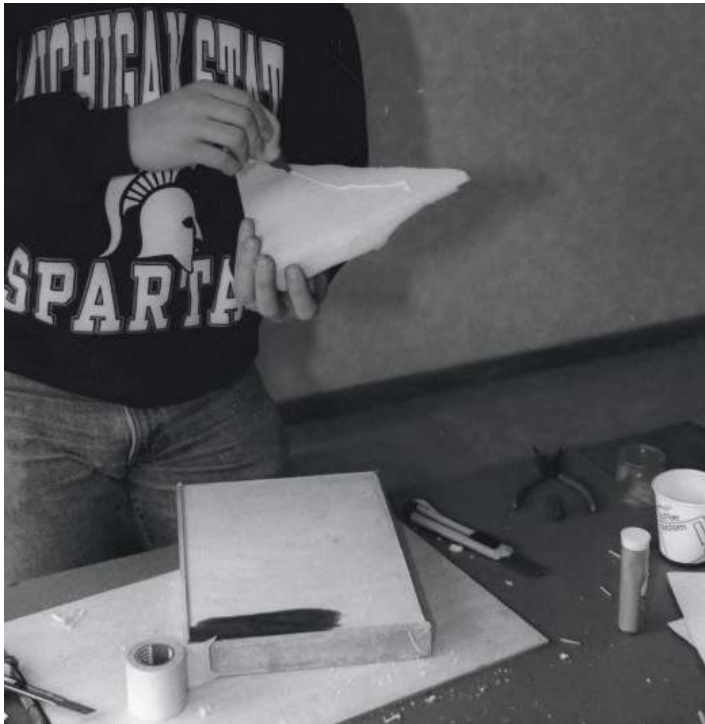


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4. Application of the Ground Material

Putty Mixing: Mix the modelling putty (such as Durham's Water Putty) in a disposable container. Add water to obtain a dough-like consistency and, if necessary, a little vinegar to slow setting.

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Application: Spread the putty over the Styrofoam with a spatula. You can use a sieve to sprinkle powdered soil over the still wet surface of the putty to create finer textures.

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5. Detailing and Texturing

Incorporating Natural Elements: Insert small stones, bricks and other elements into the putty before it hardens completely. Use your hands to shape the terrain.



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Track Marking: Press spare pieces of tank tracks or other models into the surface of the still malleable putty to create realistic tracks.



6. Protection and Painting

Base Protection: Apply masking tape around the wooden frame to protect it from paint.



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Paint Application: Once the ground is dry, apply a coat of matte medium to prepare the surface for painting. Use acrylic paints to colour the ground, starting with base tones such as flat earth, desert yellow, reddish brown and flat black.



Details: Airbrush the static grass with mixtures of olive green and desert yellow, then enhance the details with brushstrokes in lighter tones.



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7. Final Assembly

Insert Elements: Plant the vegetation and other details on the ground. Use glue at the base of tree trunks to ensure stability.

Fixing Models: Drill holes in the base to secure models such as tanks or figures with screws and nuts.



8. Conclusion

The process of building a wooden diorama is not only an excellent way to present scale models, but it is also an activity that can be relaxing and fun. Experimenting with different techniques and materials allows you to improve your modelling skills and create increasingly realistic and detailed scenes.

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7. Conclusion

The methodology detailed above underscores the importance of a structured and comprehensive approach to traditional craft techniques and creative development. Through the Erasmus+ project "From Tradition to Innovation" (FTTI), young participants were provided with the unique opportunity to immerse themselves in the rich heritage of traditional crafts while acquiring contemporary skills that enhance their employability and artistic capabilities.

Each of the mobilities, focused on knitting, clay, leather, and wooden dioramas, was meticulously designed to offer a blend of theoretical knowledge and practical experience. The courses not only taught specific craft techniques but also fostered a deeper appreciation for cultural heritage. By learning from experienced artisans and engaging in hands-on projects, participants were able to develop a solid foundation in each craft, which they can continue to build upon in their future endeavors.

The "Introduction to Knitting" course, for example, guided participants through the basics of crochet, from mastering fundamental stitches to creating intricate patterns and 3D objects. This methodical progression ensured that students gained confidence and competence, enabling them to tackle more complex projects independently. Similarly, the "Introduction to Clay" course provided a comprehensive overview of pottery techniques, from hand-building to wheel-throwing, culminating in the creation and decoration of unique ceramic pieces.

The "Introduction to Leather" course and the workshop on wooden dioramas further exemplified the project's commitment to offering diverse and enriching experiences. These courses not only highlighted the technical skills required in each craft but also encouraged creativity and innovation, urging participants to incorporate their personal artistic visions into their work.

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Throughout the project, a significant emphasis was placed on the use of appropriate tools and materials, ensuring that participants were well-equipped to pursue their crafts beyond the classroom. The inclusion of detailed instructions and hands-on practice with essential tools such as crochet hooks, pottery wheels, leatherworking tools, and diorama materials facilitated a practical understanding of each craft.

Moreover, the collaborative nature of the mobilities fostered a sense of community and mutual support among participants. Working together, they were able to share insights, troubleshoot challenges, and inspire each other, creating a dynamic and supportive learning environment. This collaboration not only enriched their learning experience but also built a network of young artisans who can continue to support and collaborate with each other in the future.

The project's success can be attributed to its holistic approach, which not only aimed at skill acquisition but also at personal and artistic development. By promoting creativity, innovation, and cultural appreciation, the FTTI project has empowered participants to become not only skilled artisans but also ambassadors of traditional crafts. They are now equipped to contribute to the revitalization and sustainability of these crafts in their communities, ensuring that these valuable cultural traditions are preserved for future generations.

Funded by the European Union, this initiative exemplifies a commitment to nurturing the talents of young people and ensuring the sustainability of traditional crafts through education and innovation. The successful implementation of these methodologies highlights their potential to inspire and empower the next generation of artisans. As these young people continue to develop their skills and share their knowledge, they will play a crucial role in maintaining the cultural and economic vitality of the craft sector, making a lasting impact on their communities and beyond.

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