



Traditional Craft Heritage Training , Design & Marketing in Jordan and Syria (HANDS)

Project Number: 610238-EPP-1-2019-1-JO-EPPKA2-CBHE-JP

### Craft Technology

Course Offered by: zu, u, hu, just, mu, abu, tu

#### Responsible partner(s):

Training and Technical Group (TTG)

Scientific and Supervising Committee (SC)

Module 6

Basics of Ceramics
Handcrafts
fundamental of Printmaking
Weaving Technology

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### Basic of ceramic

RESPONSIBLE PARTNER(S): DR. SAMAHER WANNOUSM DR. RANA BADR, TU, LATTAKIA/SYRIA, AOUT /2022.



### Contents

This course is intended for students of fine art and is a comprehensive introduction to the craft of working in clay. The primary focus is on studio work that leads to a set of pieces ready by the end of the semester. In addition to technical demonstrations and artistic assignments, you should take a field trip to see historical and contemporary examples of fine ceramic art. The main objective of this course is to be able to create and appreciate expressive and beautiful 3D clay shapes.



### Contents

### This course helps students to develop a basic mastery in three-dimensional design. Students are expected to:

- 1) Show an understanding of the elements of art and principles of design in the creation of three-dimensional art
- work.
- 2) Study a variety of artist and cultural styles in three-dimensional design.
- 3) Use basic ceramic and sculpture vocabulary.
- 4) Discuss additive and subtractive techniques.
- 5) Use three basic hand building methods in clay.
- 6) Create three-dimensional pieces from sketches or maquettes.
- 7) Recognize the relationship between surface treatment and the overall form in three-dimensional art work.



### Sequence of exercise

- •Introduction to clay the material... where It comes from, how It was formed, how it is gathered, early methods for forming clay objects, pinching and coiling.
- •Introduction to the potter's wheel, centering the clay, forming bowls and cylinders... trimming and burnishing on the wheel.
- •How sculpture is made with clay, slab construction, extrusion, tile making and slip casting.
- •Texturing and coloring clay, color used in clay and slips, engobes, oxides and underglazes as well as non-traditional decorative techniques including acrylic paint and dye.
- •Glazing: The function of glazes and how they are made up... simple glaze testing... proper application, health and safety.
- •The main emphasis will be on your work, your growth in the medium, your ability to create expressive, unified and cohesive three-dimensional forms in clay.





### Learning Outcomes for this Class:

#### Technical:

- learning about clay and glaze composition and formulation.
- learning to increase the scale of the work all the while keeping control over the quality, coherence and contour of student's work.
- exploring a variety of hand building methods including extended pinch, slab built and extruded forms.

#### Aesthetic:

- appreciate how a unified, coherent form that is finely crafted is beautiful in its own right.
- understand how finishing and decorating contribute or detract from your intention as an artist.





### List of projects due by the end of class:

3 round forms in increasing size and elongation ranging in size from 10- 20 cm with emphasis on elegant, refined contour.

3 slab cylinder vessels, 15-25 cm, emphasis on texture and process.

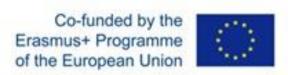
2 slab bowl forms, "hump mold" method, with foot, diameter: 20 - 25 cm, emphasis, clarity and simplicity.

5 wheel thrown bowl and or cylinder forms, 10 - 20 cm tall. Emphasis: understand wheel thrown ceramics, learn to center.









### Academic expectations

The final grade is based on a portfolio of fifteen vessels showing good progress in the medium. The portfolio will include wheel thrown, slab built, pinched or extended pinch, or extruded pots.

The Fundamentals of Art Curriculum will help students to develop an important foundation for observing and

interpreting what they see around them, the importance of art in human history, and how to work with a variety of modes of expression and materials.

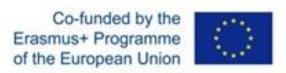
The students will work on drawing, painting, and various media projects. For each unit students will develop

their knowledge of art, demonstrate the language of art, brainstorm and plan projects, respond to art and art forms, and practice new art skills.









### **Detailed Course Outline**

Week 1: Ceramics as a course of study

- Definition of the term of study
- Scope of the development of the ceramic industry
- Different areas of ceramic industry
- Studio ceramics versus industrial
- Historical review of ceramic practices and its trends through ages
- Some concepts about ceramics
- Ceramics as an art and design

- • Origin of clay
- Feldspar and how to identify
- Kaolin (primary clay) and its characteristics
- Ball clay (secondary clay) and its characteristics
- Fire clays and other types of clay

Week 3: Characteristics of Clays

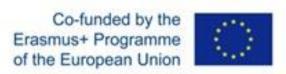
- Nature of clay •
- Physical nature of clays
- Drying and particle orientation
- Different types of ball clays
- Identification of clay to be used in ceramic production

Week 4: Preparation of plastic clay

- Definition of plastic clay •
- Dry process and wet process
- Formulation of clay bodies
- Raw materials for clay bodies
- Filler for clay bodies
- Classification of ceramic bodies
- Earthenware, stoneware and porcelain
- China ware and oven proof ware

Week 2: Introduction to ceramic materials





### **Detailed Course Outline**

- Requirement for clay preparation in studio setting •
- Requirement for clay preparation the industrial setting
- Step by step of plastic clay preparation: soaking clay, mixing clay and sieving clay
- Dry methods on plaster moulds
- Slip method and industrial slip house

Week 7: Coiling methods

- Step by step of coil hand forming methods •
- Coiled shapes
- Creative and innovative methods in coiling techniques

Week 6: Introduction to Hand forming methods and techniques

Week 5: Preparation of

plastic clay continued

- Pinching Hand forming methods
- Possible forms by pinching techniques
- Exploration of creative and innovative forms using pinching methods
- Introducing decoration on pinched pots

Week 8: Student's project in coil method

- Design process for coiled forms •
- Drawing from sources of inspiration
- Design and making large ceramic forms
- Pieces with exposed coils over its surfaces as decoration.



Week 9: Slab making

methods

### **Detailed Course Outline**

• E

• Step by step of slab method •

- Slab shapes
- Exploring possible shapes in slab-making techniques
- Creative and innovative slab-making methods

Week 11: Combination of hand forming methods

- Designing and making forms from a
   combination of all hand forming methods
- Execution of creative forms from nature and man made objects
- Execution of large forms from combined methods

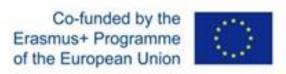
Week 10: Student's Project in slab building method

- Drawing for slab-making techniques•
- Exploration of varying surface textures in slab forms
- Fractional and decorative slab forms in ceramics

Week 12: Introduction of Decorative Techniques in Ceramics Production

- Decorative techniques at plastic state •
- Decorative techniques at leather hard state
- Decorative techniques at bone dry and fired state
- Impressed relief, sprigging, modeled relief, marbling, slip decoration, burnishing and slip painting
- Designing and applying design motifs on ceramic forms.





### **Detailed Course Outline**

Week 13: Introduction to machine production in the studio setting

- Introduction potter's wheel throwing method
- Preparation of throwing clay
- Step by step throwing method
- Centering process
- Throwing simple ceramic forms

Week 14: Potter's wheel throwing method continued

- Exploring throwing method
- Exploring different shapes
- Making creative forms by altering thrown shapes
- Introducing decoration thrown forms

Week 16 & 17
University
Examination
Learning
Outcomes

- By the end of the course students will have
   developed an increased knowledge and
   adeptness of ceramic material with clear view
   of their potentials and limitation.
- The student will have an understanding of the issues involved in design and increased awareness of the problem solving.
- The students will be able independently execute simple design process from concept stage to final product.
- The student will have capacity to be sensitive and appreciative of ceramic materials and techniques.
- The students will have ability to develop ideas directed towards specific materials and studio forming methods and techniques.





### Method of Teaching/delivery

- Studio Demonstration, instruction and technical inputs
- Lecture notes
- Practical studio work and experimented
- Group discussion/presentation/critique
- Self directed studio assignment/project and course work
- Visual research and image collection





### References or Suggested Further Reading

- **1.** Bryan Sentence; Ceramics a world guide to traditional techniques, Themes and Hudson, 2004.
- 2. David Cowley; Moulded and Slip Cast Pottery and Ceramics B.T Batsford Ltd London, 1992.
- **3.** Dolors Ros; Ceramics, Decorative Techniques, Barron's, 2002.
- **4.** Glenn C. Nelson; Ceramics: a potter's handbook 4th Edition Holt, Rinehart and Winston, 1971.
- 5. Harry Frase; Ceramic faults and their remedies, A & C Black, London, 1998.
- 6. John Colbeck; Pottery techniques of decoration, B.T Batsford Ltd, 1991.
- 7. John Colbeck; Pottery, the technique of throwing, B.T. Batsford Ltd, London, 1991.
- 8. John Gale; Teach yourself Pottery Hadder and Stoughton Ltd, 2001



## Craft Technology

RESPONSIBLE PARTNER(S): DR. SAMAHER WANNOUSM DR. RANA BADR, TU, LATTAKIA/SYRIA, AOUT /2022.





#### CONTENTS

- HANDS LOS
- Project Description
- Project Requirements
- Project Schedules
- Students Work





#### **BASIC OF CERAMIC**

#### **REQUIRED**

Each student will be required to proceed with the "practical training" for the fourth year.

Training is provided in the summer, for two weeks of practice.

#### **OBJECTIVE**

The goal of the "hands-on training" is to enable students to gain the type and scope of practical experience that will prepare them for their potential responsibilities, immediately after graduation.

Apply a variety of studio-specific techniques, materials, and processes to create studio work.

#### **OPPORTUNITY**

The Hands Center offers practical training to students in the Faculty of Architecture. Training provides the necessary information for the programs used in the department of design, and the use of technology CNC leaser, CNC router, 3D printer,





#### **CONTENTS**

- This course is intended for students of fine art and is a comprehensive introduction to the craft
- of working in clay. The primary focus is on studio work that leads to a set of pieces ready by the
- end of the semester. In addition to technical demonstrations and artistic assignments,
   you
- should take a field trip to see historical and contemporary examples of fine ceramic art.
   The
- main objective of this course is to be able to create and appreciate expressive and beautiful 3D

clay shapes.



#### SEQUENCE OF EXERCISES

- 1. Introduction to clay material... Where it comes from, how it was formed, how it is collected, early methods of forming clay bodies, pinching and winding.
- 2.Introduction to potter wheel, clay centering, forming vessels and cylinders... Trimming and polishing on the steering wheel.
- 3.How clay carving, panel construction, extrusion, tile making, sliding casting are done.
- Composition and coloring of clay, color used in clay and glides, engobes, oxides and underglazes 4-as well as unconventional decoration techniques including acrylic paint and dye.
- 5-Glazing: the function of glass and how it is configured... Simple glaze test... Proper application, health and safety.
- 6.The main focus will be on your business, your growth in the middle, and your ability to create expressive, uniform, and coherent three-dimensional shapes in clay.



#### LEARNING OUTCOMES FOR THIS CLASS:

• 2

- 1- Identify the composition and formulation of clay and glazing.
- 2- Learn to increase the volume of work all the time while maintaining control over the quality of the student's work, cohesion and surroundings.
- 3. Explore a variety of manual construction methods including extended, board-based and extruded forms.

Aesthetic:

Technical:

- 1. Appreciate how a uniform and cohesive shape meticulously crafted is beautiful in itself.
- 2. Understand how finishing and decorating contribute to or detract from your intention as an artist.





# LIST OF PROJECTS DUE BY THE END OF CLASS:

3 round shapes in size increase and elongation ranging in size from 10-20 cm with an emphasis on a neat and refined contour.

- 3 slab cylindrical bowls, 15-25 cm, focusing on texture and practicality.
- 2 slab bowl shapes, "camber mold" method, with foot, diameter: 20-25 cm, focus, clarity and simplicity.
- 5 bowl throwing wheels and / or cylinder shapes, 10-20 cm. Focus: understand the ceramic throwing wheel, learn the center.





### **ACADEMIC EXPECTATIONS**

The final grade is based on a portfolio of fifteen vessels showing good progress in the medium. The portfolio will include wheel thrown, slab built, pinched or extended pinch, or extruded pots.





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### **ACADEMIC EXPECTATIONS**

The Fundamentals of Art Curriculum will help students to develop an important foundation for observing and interpreting what they see around them, the importance of art in human history, and how to work with a variety of modes of expression and materials.

The students will work on drawing, painting, and various media projects. For each unit students will develop their knowledge of art, demonstrate the language of art, brainstorm and plan projects, respond to art and art forms, and practice new art skills.

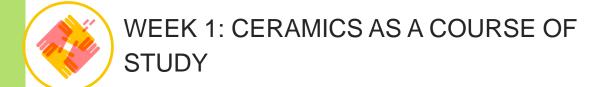








#### **Detailed Course Outline**



Definition of duration of study Scope of development of the ceramic industry

Different fields of ceramics industry Studio Ceramics vs Industrial

A historical review of ceramic practices and trends through the ages

Some concepts about ceramics Ceramics as art and design



- The origin of clay
- Feldspar and how to identify it
- Kaolin (base clay) and its properties
- Ball clay (secondary clay) and its properties
- Fire clay and other types of clay







### WEEK 3: CHARACTERISTICS OF CLAYS

- Nature Clay
- The physical nature of clay
- Drying and particle orientation
- Varieties of spherical clay
- Determination of clay to be used in ceramic production



### WEEK 4: PREPARATION OF PLASTIC CLAY

Definition of plastic clay

Dry process and wet process

Formulation of clay objects

Raw materials for clay bodies

Filler for clay bodies

Classification of ceramic bodies

Porcelain, porcelain stoneware and porcelain

China ware furnace manual ware







### WEEK 5: PREPARATION OF PLASTIC CLAY CONTINUED

- Requirements for clay preparation in studio setup
- Requirements for the preparation of clay industrial preparation
- Step by step for the preparation of plastic clay: soaking clay, mixing clay and sifting clay
- Dry methods on plaster moldings
- Sliding method and industrial sliding house



# WEEK 6: INTRODUCTION TO HAND FORMING METHODS AND TECHNIQUES

- Pinching hand forming methods
- Possible formats by tweaking techniques
- Explore creative and innovative forms using disk methods
- Introducing décor on pinched pots







#### **WEEK 7: COILING METHODS**

- Step by step of coil hand forming methods
- Wrapped shapes
- Creative and innovative methods in winding techniques



### WEEK 8: STUDENT'S PROJECT IN COIL METHOD

- The process of designing rolled models
- Leveraging inspiration
- Design and manufacture of large ceramic shapes
- Pieces with exposed rolls on their



### WEEK 9: SLAB MAKING METHODS

- Step by step of the slab method
- Slab shapes
- Exploring possible forms in panel making techniques
- Creative and innovative panel making methods



WEEK 10: STUDENT'S PROJECT IN SLAB BUILDING METHOD

- Drawing for panel making techniques
- Explore the diverse surface textures of panel shape
- Forms of fractional and decorative panels in ceramics

surfaces as decoration.







### WEEK 11: COMBINATION OF HAND FORMING METHODS

Design and manufacture of models from a combination of all manual forming methods Implementation of creative forms of nature and man-made objects Implementation of large models of combined methods



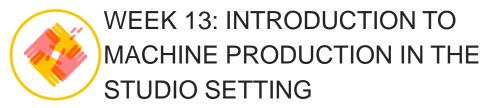
# WEEK 12: INTRODUCTION OF DECORATIVE TECHNIQUES IN CERAMICS PRODUCTION

- Decoration techniques in the case of plastic
- Decoration techniques in the case of hard leather
- Decorative techniques in case of dry bones and fire
- Impressed Relief, Forging, Relief Style,
   Marbling, Sliding Decoration, Polishing &
   Sliding
- drawing
- Design and application of design motifs on ceramic shapes.





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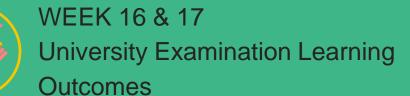


- Introduction to the potter wheel throw method
- Mud throwing preparation
- Step-by-step throwing method
- Centering process
- Throw simple ceramic shapes



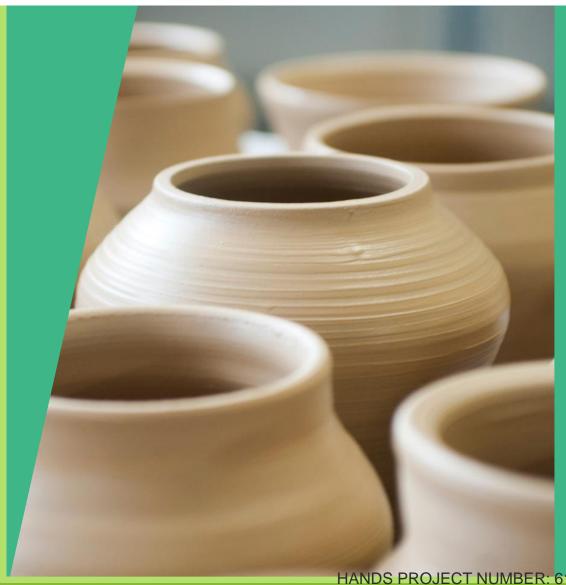
WEEK 14: POTTER'S WHEEL THROWING METHOD CONTINUED

Explore different shapes
Make creative shapes by changing the thrown shapes
Insert dumped decoration shapes



- By the end of the course, students will have developed increased knowledge and
- The versatility of the ceramic material with a clear vision of its possibilities and limitations.
- The student will have an understanding of the issues involved in design and increase
- Awareness of problem solving.
- Students will be able to independently carry out a simple design process from the concept stage to the final product.
- The student will have the ability to be sensitive and appreciative of ceramic materials and techniques.
- Students will have the ability to develop materialoriented ideas and studio formation methods and techniques.

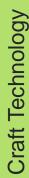




### METHOD OF TEACHING/DELIVERY

- •Studio presentation, education and artistic input
- Lecture notes
- Practical and tested studio work
- Group discussion/presentation/criticism
- Self-directed studio assignment/project and course work
- Visual search and image collection

HANDS PROJECT NUMBER: 610238-EPP-1-2019-1-JOEPPKA2-CBHE-JP





# WORKSHOP AND MODEL traditional architectural elements in the contemporary context

#### CONTENTS

In this subject, students learn heritage and technical elements in detail that have previously been used and that have environmental and service functions; in addition to the aesthetic value and how they are manufactured and used as elements of modern architecture.





#### **CONTENTS**

#### INSTRUCTIONAL STRATEGY

#### Direct Instruction

- A series of lectures and introductory videos on traditional crafts.
- •Slide presentation showing traditional architectural elements in Syria.

Independer Study

- · Student research on traditional architectural elements.
- Student completion of design folder and illustrations

Interactive Instruction

- Design techniques, block studies.
- · Materials composition and external affects review.

#### STUDENT ACTIVITIES

oral

- Presentation on design studies.
- Class discussion related to design, environment, elements of traditional architecture and contemporary design.



- Graphics and illustrations
- Using engineering software to model designs and their applications using the Hands Center equipment





#### **CONTENTS**

#### **COMMON ESSENTIAL LEARNINGS**

Communication

New terms and definitions

Enhance non-verbal communication skills.

Creative and Critical Thinking

Understand the basic components of design

Understanding Traditional
Architecture in
Contemporary Design

### Independent Learning

Integrate the principles of visual language and design in the development of studio work.

Independent study of established design concepts and applications.

### Design Experiences

The use of two- and three-dimensional design programs in the development of studio work.

### Personal Social Values and Skills

An enhanced knowledge base for the built environment.

Environmental and context awareness in relation to design solutions.

Understand cultural influences related to architectural design.





- TRADITIONAL ARCHITECTURAL ELEMENTS IN SYRIA
- TRADITIONAL ARCHITECTURE IN CONTEMPORARY DESIGN





# TRADITIONAL ARCHITECTURAL ELEMENTS IN SYRIA

Introduction

Traditional Syrian architecture is one of the most valuable products of urban and architectural developments. Because they reflect historical social and cultural values. It is characterized by an architectural style that is unique in terms of aesthetics and distribution of use. One of the most important examples of Syrian architecture is the old house in Damascus and Aleppo. These houses enrich the city aesthetically and consist of many active factors in social, economic and environmental aspects. They had valuable properties in comfort and tranquility. In this topic, we explain well the elements of traditional architecture in Syrian homes. Which are divided into two types:

General design elements: Salamlak, Haramlak, Khadamlak.

Interior design elements: entrance, patio, iwan, hall, kitchen, bathroom,

toilets, bedrooms





# TRADITIONAL ARCHITECTURAL ELEMENTS IN SYRIA

#### Salamlek

- Halls (Qa'a)
- Courtyard

#### Haramlek

- Iwan
- Courtyard
- Bedrooms

#### Khadamlek

- Kitchen
- Toilets
- Bathroom

In the past, homes were designed to secure privacy for home residents. The houses were very simple on the outside, while they were luxurious and rich in decorations, plants and gardens on the inside.

We explore well the most important features of the traditional Syrian house witch that clearly appears in the yard, the design of doors, windows and ornaments.



# TRADITIONAL ARCHITECTURAL ELEMENTS IN

العناصر المعمارية التقليدية في سوريا

The courtyard

SYRIA

The courtyard is the main part of the traditional Syrian house, it represents the family paradise at all times (summer to winter). In addition to its social role, it has an environmental role by allowing air, light and heat to flow throughout the halls and rooms.

The decoration of the courtyard is about how rich the family is. In each perimeter, the courtyard is decorated with bespoke furniture, and the decorative balustrade leads to a special entourage.

The patio leading directly to the Ewan Witch is the open space living area in summer due to its orientation to the north side away from the sun.







# TRADITIONAL ARCHITECTURAL ELEMENTS IN SYRIA

- The design of the ceiling, walls and floors in the courtyard is often neglected because the patio takes center stage. The walls are made of stone, and they were laid in layers using an architectural technique called ablaq. Dark and light stone will be alternated.
- Interior decorations are based on the following four types of styles:
- Calligraphy based on verses from the Holy Quran or verses from poetry.
- floral patterns derived from the stems and leaves of various plants;
- patterns derived from animal forms such as birds;
- Geometric patterns derived from a combination of circles, squares, rectangles, and triangles.



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# TRADITIONAL ARCHITECTURAL ELEMENTS IN

# SYRIA

#### doors and window:

- Door: The entrance to a building, or city.
- Bokeh door (gap in door):
- It is a form of doors that were widespread in a number of Damascus constructions and was known as "Khoja Gate", which is a small low door inside the large main door, which does not accommodate the passage of more than one person at a time, and this may have to bend due to its low.

#### GATE (RORTAL):

• The gate is a name usually given to the gates of important structures that are distinguished by the size of their construction, the splendor of their decoration and the breadth of their area, such as mosques, nursing homes, corners, schools, bimestan, palaces, castles, walls, cities, etc...



باب بمصراع واحد من الخشب المدعم بالأشرطة النحاسية بعلوه عقد حدودي مدبب من العهد الأتابكي في السمارستان النوري



باب خوخة في بوابة زقاق





# TRADITIONAL ARCHITECTURAL ELEMENTS IN SYRIA

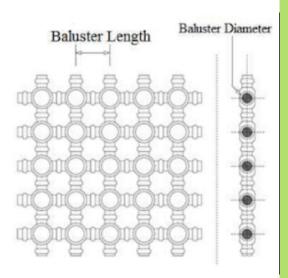
#### Mushrabiya

Mashrabiya is the prominent window that overlooks the street or courtyard of traditional Arab houses.

It consists of a lattice screen made of wooden balustrades with a circular section. This screen was entirely handmade and varied the design of the balustrades in different artistic ways, for example, geometric and floral decorative shapes or Arabic inscriptions.

It is designed to respond to people's physical, environmental, social, physiological and religious requirements.

The spread of Mashrabiya was not limited to Egypt, but included Syria. Both countries had highly skilled wood workers, especially in the use of finely cast wood, filled with Arabic and Islamic characters, and this soon spread to other countries.







Light Control
Mashrabiya controls
three issues related to
the light:

- Heating caused by direct solar gain
- Daylight interior
- Optical apertures of light, such as glare

### Airflow Regulation

- Mashrabia is used to ensure air circulation inside the building
- Air is drawn into the room through the small dividers of the mashrabia at the bottom and hot air is rejected through the large dividers of the upper part

#### Visual Privacy

 Mashrabiya provides privacy to passengers from abroad, while allowing them, at the same time, to look through the network

# Temperature Regulation

- Mashrabiya limits solar energy gain by shading indoor spaces during the hot summer months
- They also provide some heat in the cooling months of the year,

### Humidity Control

- At night, mashrabiya absorbs moisture carried on the wind and passes through the dividers
- When heated by sunlight, it releases the hole into the air passing through it, thereby increasing the humidity inside the house and reducing its temperature





# PATTERNS OF MASHRABIYA

Mashrabiya styles were made up of simple geometric shapes due to the simplicity of their construction by hand.

The principles of building mashrabia as a regular climatic element influence the decision:

Distance between commas

The size and size of the balusters

The witch affects the glare and temperature, as well as the level of humidity and air flow inside the room.

We can name these types of patterns:

Gun

Church: The design consists of long and narrow balustrades

Maimoni style Cross Pattern

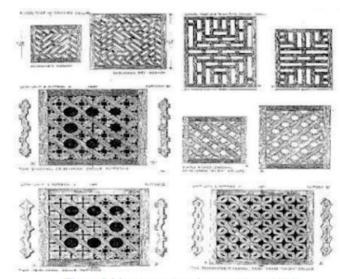


Figure 3.26: Some styles of screens (Jean, 1976)

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# TRADITIONAL ARCHITECTURE IN CONTEMPORARY DESIGN

It is our responsibility to bring crafts back to storytelling, support artisans and give an identity to the regional flavors of our country. When architects and craftsmen meet, they develop a unique vocabulary, focused on the material, and the charming says what the solution is.

Nowadays, sustainable design is an important factor in contemporary architecture. By integrating traditional techniques into modern architecture, we respect elements of sustainability.

These techniques can be divided into the following:

**Open courtyard** 

**Traditional art** 

**Traditional furniture** 

Carved doors

Stone or wooden slabs



# TRADITIONAL ARCHITECTURE IN CONTEMPORARY DESIGN

- Open Courtyard
- Today, we can witness different contemporary interpretations of traditional open spaces due to their useful features. These open courtyards form an indoor garden for the dwelling, where the lighted space in the sky eventually intertwines with the interior space to provide better lighting and ventilation of the interior space.













# TRADITIONAL ARCHITECTURE IN CONTEMPORARY DESIGN

#### Traditional art

One of the most important ways to involve local artisans in design is by incorporating the dynamic and complex patterns of traditional artwork on walls, tiles or charming furniture that bring life to the space.

Traditional art is characterized by the expertise of skilled craftsmen who will complement the modern look of the interior space.







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# TRADITIONAL ARCHITECTURE IN CONTEMPORARY DESIGN

#### Traditional furniture

Pre-modern houses are known to feature spectacular pieces of ornate carved wooden furniture. Diwans, wooden chairs, hammocks, woven reed benches and stools are the most popular. They are often left without upholstery and instead covered with decorative brass elements.

Such distinctive pieces of furniture, when properly arranged, can lead to a spectacular interior look.



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# TRADITIONAL ARCHITECTURE IN CONTEMPORARY DESIGN

**Carved Doors** 

The main entrance to housing in previous eras was considered an important element because it sets the tone for what is to come. The beautifully carved custom double door not only gives your modern home a stunning traditional look, but also helps create an excellent first impression.



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# TRADITIONAL ARCHITECTURE IN CONTEMPORARY DESIGN

Stone or wooden Panels

Nothing screams more traditional than a beautifully carved stone or wooden column. A simple simple space can be transformed into a witch by placing some beautiful columns around the house.

They can be an excellent alternative to a simple and uninteresting brick or cement column. Not only does it provide stronger ceiling support, but also adds a quiet charm to the space.





# TRADITIONAL ARCHITECTURE IN CONTEMPORARY DESIGN

Most of these traditional methods are designed to be sustainable in nature. The reflection of sustainability in the basic framework is a commendable aspect of traditional architecture. The contemporary interpretation of traditional designs not only pays homage to the traditional architecture of the past, but also brings uniqueness and character to the building.



# SEQUENCE OF EXERCISES

Based on the previous information, each student aims to design a door from his memory that reflects traditional architecture in a modern spirit.

The work is presented in the form of a three-dimensional model with a scale of 1/10 using the equipment of the Technical Hands Center

The duration of this project is 4 weeks.

It is divided into two parts:

In the first part, the students present there work using different types of paper to make the model.

The second part, each student prepares the digital file for his concept, and then they realize the model using the equipment of the hand center.



Al-Aghabani

The art of making this handmade fabric with its distinctive gold and silver embroideries originated in Damascus more than 150 years ago.

The Aghabani fabric was originally made of natural silk that was abundant in Syria at the time. Nowadays, high-quality Syrian cotton is often used to make this beautiful fabric. It is mostly used for table linen and some clothes.

Al-Aghabani Syrian Handicrafts





Damascene Brocade

Damask brocade is a rich woven fabric made of natural silk with gold and silver threads.

The art of weaving this magnificent fabric has flourished in Damascus for several decades.

Having historically been used as a fabric for luxury clothing, Damascene brocade today is mainly used in furniture upholstery and other fashion accessories such handbags.

Syrian Handicrafts

The best brocade is a trademark of Damascus, so much so that British Queen Elizabeth II made her wedding dress out of it.







Pottery and Ceramics

According to archaeological discoveries in northern Syria, pottery and handmade ceramics date back to the early fifth millennium BC.

This original craft became internationally famous during the Fatimid era when some of the most intricate ceramic pieces were made in Syria.

These pieces can still be seen today in many museums around the world.

Mamluk era, faience porcelain became dominant, but the craft continued to develop

In Damascus to the stage where ceramic works decorate various Damascene The monuments were simply referred to as the court of Damascus.

The works of the court of Damascus today can be seen in museums as well as in many

City landmarks such as Sulaymaniyah Tekke and Sinan Pasha Mosque and Darwish Pasha Mosque.

# Pottery and Ceramics Syrian Handicrafts









Mother of Pearl Marquetry

t mother-of-pearl vaccinations.

Damascus Mother-of-pearl Grafting School is known worldwide for producing the finest furniture and other decorative pieces.

The oak trees that were abundant in the famous orchards of Damascus along with the oysters from the Euphrates River have provided Damascene artisans over the centuries with everything they needed for these handicrafts.

Today, mother-of-pearl grafting skills are transferred from the father

To the son, with many workshops in the old city of Damascus still producing
fines

# Mother of Pearl Marquetry Syrian Handicrafts



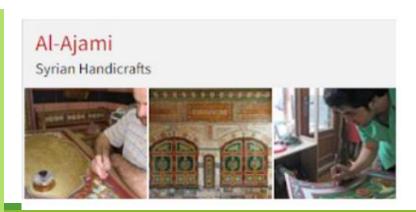


Al-Ajami

The Ajami art of adding hand-decorated wooden fixtures to ceilings and walls flourished in the early Umayyad Empire, when it was widely used to decorate mosques and palaces.

Ajami decorative motifs usually depict illustrations of stories with an emphasis on vegetation patterns and handwriting.

These Damascene handicrafts are still flourishing today as many of their products are exported to Arab and Islamic countries.







Copper Engraving

Damascene Jewish craftsmen were famous for making the finest engraved copper utensils.

Initially produced for household needs, these pots along with other engraved copper elements eventually turned into decorative pieces.

Today, despite technological advances in production processes, copper engraving as a handicraft is still present throughout the Old City of Damascus.

# Copper Engraving Syrian Handicrafts











#### **Damascus Steel**

Despite the tremendous technological progress in steel production, modern attempts to reproduce the legendary Damascus iron suddenly failed.

Damascus steel with its distinctive pattern and characteristics has been forged exclusively in Damascus since the thirteenth century for use in swords and daggers.

The very strong, sharp and very flexible blades made of this metal amazed the crusaders when they tried to capture Damascus in the XII century.

In addition to the unusual properties of forged metal, Damascene metallurgists also had Master the art of decorating the weapons from which it is made.

Although the secrets of Damascus Steel industry have been mysteriously lost as they were They were obtained, and ancient specimens of them are still found in museums and with private collectors.

Today, decorative Damascene swords made of ordinary steel are manufactured and sold in Old Damascus.

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Damascus Steel
Syrian Handicrafts



**Glass Blowing** 

The art of blowing glass is a very fun and enjoyable process to watch, because it involves a high level of skill and a beautiful end product at the end.

The process was developed by the Phoenicians in ancient Syria and remained relatively unchanged throughout the ages.

Today Damascus is still home to this ancient craft with many blowers that still produce the finest glassware.

Glass Blowing Syrian Handicrafts







Stained Glass

Both glassmaking and the art of making stained glass were developed in ancient Syria during Phoenician times.

Stained glass production continued to develop in Damascus throughout the Roman era and later during the Umayyad period.

These beautiful handicrafts were widely used in homes, churches and mosques in the past, and are still practiced by many Damascene craftsmen today.

# Stained Glass Syrian Handicrafts









Wooden Mosaic

Damascene wooden mosaic workmanship reached world fame in 1880, when a local Damascene craftsman named Jerji Bitar received an award from the Ottoman Sultan for the magnificent wooden mosaic furniture collection he produced.

Today, wooden mosaic furniture and other decorative elements are still made in many workshops around Bab Sharqi and Bab Touma in the Old City of Damascus. Local craftsmen use wood from oak, beech, lemon and other flower trees, as well as mother-of-pearl and silver inlays, to make these beautiful products.

Fine examples of Damascene wooden mosaics can be seen in Beit Nizam, Beit Sibai, Maktab Anbar and Maktab Khaled al-Azm.





**Wood Engraving** 

The craftsmen working in this handicraft depict different patterns of engravings, spread throughout the Old City of Damascus.

Many of the patterns used in wood engraving are derived from the architectural styles of various historical periods such as the Ayyubid, Maluki and Fatimid periods.

Today, most wood carvings are used as part of high-end furniture lines, with some still being produced as independent pieces.





Al-Qishani

Taking its name from the Iranian city of Qashan where this craft flourished during the Mamluk era, the art of hand-coloring ceramic tiles dates back to Damascus to the Umayyad period.

The name given to the Hammam al-Qashani market in the Old City of Damascus is attributed to the faience porcelain that adorns some of its walls.

Today, the art of making hand-painted glazed ceramic pieces is still practiced by many Syrian artists.







Charcoal Casting صب الفحم

تم استخدام هذه التقنية الأساسية لاستخدام كتلة من الفحم لتسخين وإذابة المعادن المعدنية في الأيام الخوالي قبل إدخال الأفران المتخصصة.

اليوم، لا يزال العديد من صائغي المجوهرات في مدينة دمشق القديمة يستخدمون الفحم لإذابة وصب حشوات من الذهب أو الفضة.

Charcoal Casting
Syrian Handicrafts

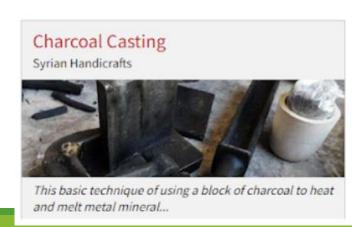




**Charcoal Casting** 

This basic technique of using a mass of coal to heat and melt mineral metals was used in the old days before the introduction of specialized furnaces.

Today, many jewelers in Damascus's Old City still use charcoal to melt and pour gold or silver fillings.





# DIGITAL TECHNOLOGY AND CONTEMPORARY DESIGN

Research related to this topic reflects how the world's most renowned architecture practices use technology to support the design and implementation of its projects.

Design technology has only recently been established as a distinct stream in architectural practice, with tangible links to both information technology as well as the creative design process. Research on this topic highlights the variety of approaches applied by the world's leading designers to support their distinctive design with matching techniques to advance the architecture career in non-tenant areas.

A key aspect of the topic focuses on the cultural significance of design technology. How design technology is changing contemporary practice, and how it is positioned at the organizational level. The associated research delves into detail on how to create an infrastructure to support relevant design technology and capacity development within a design firm. Activities related to the main design technology are analyzed, as well as the way in which they unfold during the stages of architectural projects.

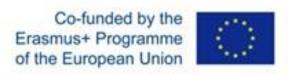
The other key element of TOPIC is dedicated to exploring how design technology is applied in progressive practice. How to put it inside the studios



# Course handcraft of weaving

RESPONSIBLE PARTNER(S): DR. SAMAHER WANNOUSM DR. RANA BADR, TU, LATTAKIA/SYRIA, AOUT /2022.





# Plan of course

- **□** Introduction
- **☐** Tools of handcrafts of weaving
- **☐** Traditional Syrian fabrics



#### Traditional crafts

- Bilad ElSham is an extremely ancient land with a rich cultural heritage. Some of the oldest known civilizations grew up there. One of the world's first alphabets was developed in Greater Syria, and regional artists and scholars greatly influenced the cultures of ancient Greece and Rome.
- Greater Syria lies along major trade routes linking Africa, Asia, and Europe. Camel caravans followed these routes more than 4,000 years ago carrying goods between Asia and Mediterranean ports. Such Syrian cities as Damascus and Aleppo grew up along the caravan routes and became centers of world trade as early as 2000 B.C.
- Bilad ElSham (Greater Syria) region is proud of the traditional crafts its artisans are great in making. Some of its crafts go back to 2000 years, while others are a few hundred years old. Old and not so old crafts are being modernized and revived in the modern age in an effort to keep it alive among our young population.
- Part of the region's culture and identity revolve around its' handicrafts. These crafts are still made in the same way they were used to be made thousands of years ago. The skills of Embroidery, Ceramics, Pottery, Jewelry are all carried down from generation to generation. These age old traditions simply exemplify the region's Culture.



Textile weaving

The oldest textile materials produced and used in the Middle East - linen and wool - go back to remote antiquity. Cotton and silk, which originated in India and China, respectively, came into the region during the Roman Empire. By the early Middle Ages, quantities of flax (for linen) were exported to Europe, chiefly from Egypt; of raw cotton from Syria and Egypt; of silk thread from Iran, Syria, and the Bursa region (northwest Turkey).

- Flax and silk fibers and fabrics were traded to Europe for many centuries. In the nineteenth century, however, the introduction of <u>long-staple cotton made</u> Egypt an important producer, and in the twentieth century, Egypt was joined by <u>Turkey, Syria, and Sudan</u>.
- In the 1990s, the Middle East produced 75 percent of the world output of long-staple cotton but only about 8 percent of the total world output of all cottons.
- The number of Middle Eastern <u>handlooms</u> and their total output declined sharply; <u>In Aleppo and Damascus combined</u>, the number of looms dropped from about 12,000 in the 1820s to some 2,500 in the 1840s. Middle Eastern weavers were able to recover by using improved looms, importing cheaper and better European yarns, concentrating on inexpensive products, and drastically reducing wages. <u>Hand-crafted fabrics continued to form a large proportion of the textile output until after World War II. In Syria, in the 1930s, there were some 40,000 handweavers</u>



#### Textile weaving

- For thousands of years, man developed the necessary skills to turn the surrounding raw materials into cloth/fabric, where he started using cortexes, papers, and the nearby fibers like wool, linen, cotton, and fibers without changing or improving their features and properties, so he can make something that covers his body and protects him from the heat of summer and the cold of winter. He also used palm and saffron fibers to make ropes and baskets that are needed for his daily life.
- The spinning method in the past was the manual spindle, which is a wooden disc with a small cone-

shaped wooden finger attached to it.





#### Textile weaving

Embroidery is the art of decorating fabric or other materials by stitching designs using thread or yarn and a needle.
 Often, other materials such as metal strips, precious and semi-precious stones, and sequins are used to add to this decorative stitching technique.

• Hand embroidery involves stitching embroidery designs by hand onto the fabric. This

process is time consuming and painstaking, but produces amazing results









## Tools of handcrafts of weaving

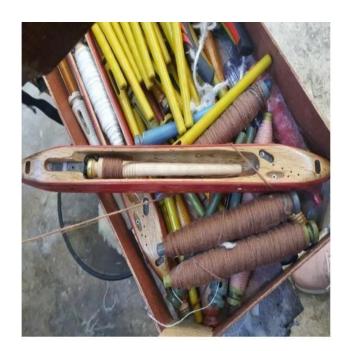
• The loom was the first step that man needed to provide his clothes, where he started from just a wooden frame on which the weaving process is carried out in the simplest ways and with fewer preparations, where the length threads (warp) stretched on that tire intersect with width threads (weft) to form a surface, delicate texture. The weaver works with his hands to eject the shuttle to make this interlock between the warp and the weft happens. He also folds the woven fabric with his hands and adjusts the tension on the warp.



The first loom in history was known in Damascus city, formed from two wooden columns and gathered from the top by a wooden baton where the threads are hanging down from it under the influence of weights



• The method of insertion the weft thread evolved to the manual shuttle, where the weaver insert the weft thread by a wooden shuttle carrying the spur rail.



Shuttle Jacquard loom





The main looms of the manual textile can be classified into simple looms, tapestry looms (pendants, kilim, and carpets), table looms, and floor looms.

#### 1 Simple Loom: it has three kinds:

A) Frame Loom







### 1- Simple Loom

B) Rigid Heddle Loom



Plastic Comb

Wooden Comb

C) Inkle Loom



Inkle fabric loom with wooden reel

Folded inkle loom



#### 2- Tapestry Loom

There are two main types of these looms: vertical loom and horizontal loom. Both of them do the same job with the difference in their position to the ground;











Manual loom for towels of 100% natural cotton



## <u>Traditional</u> Syrian Fabrics

#### 1- Damask Brocade or the fabric of kings

Natural silk, gold and silver based fabrics have been traditionally woven in Damascus, dressing up sultans, princes and kings. They have always been known globally for their quality, accuracy and texture, mainly "Brocade", "Damasco" and others, which are still catching attention around the world, being still considered as the best so far.

• Damascus was globally known for its "Brocade" (Damasks) cloth, associated with the name of the city. The wedding dress of Queen Elizabeth II "Queen of Britain" was made using brocades cloth in 1947, in response to the special request of the Syrian Embassy in London. Marie Antoinette, wife of French King Louis XVI, the last French king, wore the same fabric, too.



#### 1- Damask Brocade or the fabric of kings

Brocade is classified in terms of its utilization to:

- A lightweight Brocade that is used for fashion, especially for brides and party clothes.
- A medium-weight Brocade used for making jackets.
- A heavyweight Brocade used for making furniture



Damask Brocade



#### 1- Damask Brocade or the fabric of kings

#### Its types:

• Silky Brocade: Silky Brocade still represents a big part of the supply of Brocade in the world, and silk is simply considered one of the smoothest texture materials and the brightest on the face of Earth, and these fibers are extremely durable.





#### 1- Damask Brocade or the fabric of kings Its types:

• Embroidered Cotton: although its appearance is less elegant, Cotton Brocade, in many cases, is much easier to produce than Silky Brocade, and the ornamentation in Cotton Brocade is less complicated than the existing patterns in the Silky one; the manufacturers usually use Cotton Brocade to make casual clothes.







#### 1- Damask Brocade or the fabric of kings

#### Its types:

• **Himmer (Himro) Brocade:** this kind of Brocade fabric is distinguished with a combination of silk and cotton; as a result, it is reasonably stretchy, allows ventilation, and is soft, while still having the durability and attractive glitter of silk. Himmer Brocade is mostly produced and used in India.





#### 1- Damask Brocade or the fabric of kings Its types:

• **Industrial Brocade:** although industrial Brocade is less common than Cotton and Silky Brocade, it is one of the least expensive types of Brocade in production; yet, Brocade fabrics, which contain polyester or other kinds of industrial fabrics, are less comfortable and may be harmful to workers and environment.







#### 1- Damask Brocade or the fabric of kings

#### Its types:

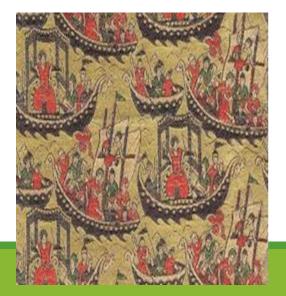
- Continuous Brocade (Al-Debag): it is a type of Brocade textile where the remaining threads are left hanging on the back side of the Brocade fabric or cut.
- Intermittent Brocade (Al-Debag): using Intermittent Brocade, textiles manufacturers weave the remaining threads in the Brocade fabric to create additional patterns.
- Zari Brocade (Al-Debag): traditionally, it is distinguished with gold
- Or silver, or copper threads. .





#### 1- Damask Brocade or the fabric of kings

- Brocade patterns are mainly inspired by and derived from the Syrian environment; you will find Syrian flowers, animals, stories, Islamic geometrical shapes, and even shapes influenced by the far East such as Cashmere pattern.
- Brocade fabrics are used in furniture as a fancy cover. You can see it in the government official offices since it does represent a very old Syrian handicraft. It is also used as scarf and to some extend in traditional Syrian men clothing and you can find it mainly in the old markets in Damascus in Al-Tikia Al-Solaimania or on Al-Hamidia Souk











#### 1- Damask Brocade or the fabric of kings

During the Syrian crisis that occurred in 2011, raw materials and experienced workforce decreased, and craftsmen and trainers emigrated abroad. However, that did not discourage Damascus, as the government worked on opening a market for handicrafts in Al-Soleimania's Hospice to preserve what is left of original handicraft industries, promoting manufacturing, attracting tourists, and taking care of them to preserve the history and heritage of the area which the former colonizer and the current Zionist entity tried to obliterate its landmarks and steal its Syrian identity



#### 2-Aghabani Fabrics

Aghabani fabrics are <u>embroidery type of fabrics</u> with unique designs of leaves, flowers, branches or other arabesque geometry inspired by the environment of Syria. <u>Silk yarns</u>, <u>colourful or golden</u>, are used in the stitch and silk fabrics are used to form the base of the Aghabani. However, nowadays <u>rayon viscous threads and cotton fabrics</u> are used instead. This fabric first appear in <u>Aleppo</u> and then it flourished in <u>Damascus</u>. It is believed the name is generated form the two families who started this type of fabric in Damascus, Al-Agha family and Al-Bani family.









#### 2- Aghabani Fabrics

Al-Aghbani has three kinds of embroidery, each kind of it is distinguished by certain features and characteristics.

#### These kinds are:

- 1 Talisman Embroidery: it means embroidering the entire piece within a particular drawing.
- 2 Spray Embroidery: it means embroidering a side of the piece and keeping the rest plain.
- **3 Embossing Embroidery:** it is a kind of light, wavy embroidery that gives the shape of a crystal on the piece, and it is the finest embroidery type.

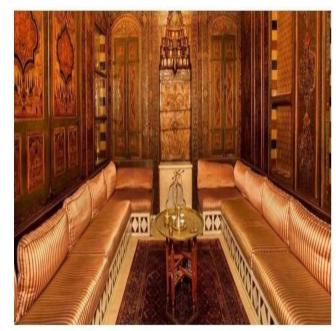


#### 2- Aghabani Fabrics

• Al-Saya: the fabric of Al-Saya was admired for its bright colors and its silky cotton threads, and it spread as a folk outfit, identifying the population of central and northern Syria in an era









#### 2-Aghabani Fabrics

• Al-Aghbani Al-Yabroudi: it uses the auger thread (a combination of velvet silk), its embroidery is reluctant and is executed on special orders. Al-Aghbani Al Yabroudi has an outstanding social role in the preparations of bridal suits and it is one of the bedroom requirements for the bride. It is made at home and shows a classy taste; it may take months to prepare one piece of it and has a high quality. However, its industry has stopped these days.







#### 2-Aghabani Fabrics

- **Organza:** The base fabric for this types is thin woven silk fabric and the stitch yarns used are thick silk yarns. This type is mainly used in wedding dresses.
- Damascene Aghabani: The base fabric for this type is linen with 1/1 design. Thick silk threads are also used for stitching. In this design there are no empty spaces left on the face of the base fabric. There is another name for this kind which s also 'Tals'.

• Aghabani Rush: Cotton base fabric is used in this type. And for the design there are many spaces are left, design is smaller than the base.





2-Aghabani Fabrics



Organza



Damascene









Various Damascene bathroom towels of 100% natural cotton







100% Natural silk scarfs with gold threads (Brocade)







Manually embroidered Cap of 100% natural cotton











Manually carpets of 100% natural cotton and velvet









Fezzes, ties, and gift boxes of 100% natural silk (Brocade)



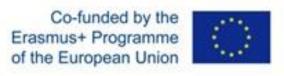






Natural cotton tablecloths manually embroidered (Kanfa)



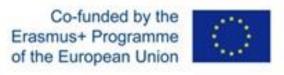






Natural cotton cloaks, embroidered manually (Kanfa)









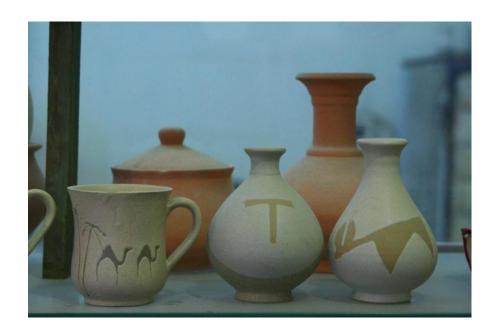
Satin tablecloths embroidered with shiny and bright threads (Aghbani)



# Handcraft course material

RESPONSIBLE PARTNER(S): DR. SAMAHER WANNOUSM DR. RANA BADR, TU, LATTAKIA/SYRIA, AOUT /2022.











#### Introduction to Jordanian Handicrafts

- Brief overview of Jordanian handicrafts' cultural significance.
- Emphasis on preserving traditional craftsmanship in a modern world.
- Introduction to the two projects: Jordanian-style pottery and rugs





#### **Jordanian-Style Pottery**

- Overview of Jordanian pottery history and significance.
- Discussion on the importance of clay as a natural resource.
- Introduction to the pottery-making process, including clay preparation, shaping, firing, and decorating.





#### **Pottery Project: Steps**

- Clay Selection and Preparation
- Shaping Techniques: Wheel-throwing and Handbuilding
- Drying and Trimming
- Firing Process: Kiln Types and Temperature Control
- Glazing and Decorating
- Final Firing and Finishing Touches





#### **Pottery Project: Design Inspiration**

- Introduction to traditional Jordanian pottery designs.
- Incorporating geometric patterns, nature-inspired motifs, and cultural symbols.
- Encouraging creativity while staying true to Jordanian pottery aesthetics.





#### Jordanian-Style Rugs

- Brief history of Jordanian rug weaving and its role in local culture.
- Discussing the significance of natural fibers and dyes in rug making.





#### Rug Project: Steps

- Design and Pattern Planning.
- Selecting Natural Fibers: Wool and Cotton.
- Preparing the Loom: Warp and Weft.
- Weaving Techniques: Knotting and Pile.
- Incorporating Traditional Motifs and Colors.
- Finishing: Trimming, Binding, and Washing





#### Rug Project: Design Inspiration

- Showcasing traditional Jordanian rug designs.
- Highlighting the importance of storytelling through rug motifs.
- ▶ Encouraging students to create designs that reflect local stories and heritage.



#### **Cultural Significance**

- Exploring how Jordanian pottery and rugs represent the country's history and cultural identity.
- Discussing the role of these crafts in daily life, ceremonies, and traditions.





#### Sustainability and Modern Adaptations

- Addressing sustainability in handicrafts: using eco-friendly materials and practices.
- Exploring modern adaptations of Jordanian-style pottery and rugs for contemporary markets.





#### **Showcasing Student Work**

- Displaying examples of pottery and rug projects completed by students.
- Celebrating the creativity, craftsmanship, and cultural understanding demonstrated in the projects.





#### **Additional Resources:**

- Provide recommended readings, websites, and videos for students to deepen their knowledge.
- Suggest visiting local handicraft markets, museums, and workshops to experience Jordanian crafts firsthand.





#### **Assessment:**

- Each project should be assessed based on craftsmanship, creativity, cultural authenticity, and adherence to project guidelines.
- Encourage students to reflect on their learning experience, the challenges they faced, and the cultural insights they gained.



# Thank You for your attention!

RESPONSIBLE PARTNER(S): NAMES, INSTITUTION, CITY/COUNTRY, MONTH /2022





# Thank you

HANDS PROJECT NUMBER: 610238-EPP-1-2019-1-JOEPPKA2-CBHE-JP