

Learning with Intangible Cultural Heritage for a Sustainable Future







Learning with Intangible Cultural Heritage for a Sustainable Euture

Production: UNESCO - Beirut Office

Lebanese National Commission for UNESCO

Supervision: Mr. Joseph Kreidi - Programme Officer for Culture at UNESCO-Beirut Office

Coordination and Follow up: Ms. Christiane Jeitani - National Coordinator of UNESCO Associated Schools Network at the

Lebanese National Commission for UNESCO

Author: Dr. Annie Tabet - Member of UNESCO Global Network of Facilitators for ICH

Linguistic Revision: Ms. Zeina El-Hage, Coordinator of the Lebanese Network for ALF

Graphic Designer: Mrs. Ann Berberi

Photography: Mr. Joseph-Gérard Tohmé p. 7, p. 8, p. 10, p. 12, p. 21

Table of contents

Foreword	3
Introduction	5
A Participatory Approach with the Schools of Saida and Jezzine	6
Selection of Schools	7
Training of Trainers	8
Training Materials for Trainers	10
What is Intangible Cultural Heritage?	- 11
Safeguarding Measures for Intangible Cultural Heritage	12
Intangible Cultural Heritage, Transmission and Education	13
Intangible Cultural Heritage and Education: Challenges of Sustainable Development	15
Integrating Intangible Cultural Heritage in Education	22
Project Implementation Approach	24
Selection of ICH Elements	25
Integration of ICH Elements into the School Curriculum	26
Wooden Fishing Boat Industry in Saida	27
Arak Artisanal Distillation in Machmoucheh - Jezzine	36
Jezzine Cutlery	45
Hand Making of Olive Oil Soap in Saida	51
Evaluation	57
Conclusion	58

Foreword

Lebanon, a country of diversity, is characterized by its rich intangible cultural heritage. Oral traditions and expressions, performing arts, social practices, rituals and festive events, knowledge and practices concerning nature and the universe, skills to produce traditional crafts, cross communities and define the distinctiveness of each. These elements, accumulated in the course of history of a country that has always been a refuge for Middle Eastern minorities, shape original identities in the villages and cities that blend into the national mainspring through their common characteristics.

The importance of this cultural diversity is underlined in the 2003 UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage, which recognizes this heritage as "a guarantee of sustainable development".

Lebanon ratified the 2003 UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage in 2007, and has, since then, executed several projects for its implementation. The present project "Learning with Intangible Cultural Heritage for a Sustainable Future: pilot project in four Lebanese public and private schools" (2018-2019) aimed at integrating intangible cultural heritage into the school curricula.

Carried out as an experiment, the project consisted of selecting intangible cultural heritage elements in each of the three regions where the chosen schools were located, in order to introduce them into the scientific and literary subjects of the secondary cycle. These elements were the subject of discussions and exercises in classes. Field visits to local practitioners were organized, to highlight the important role recognized by the Convention of the communities and groups, and, in some cases, individuals, "in the production, safeguarding, maintenance and re-creation of the intangible cultural heritage".

The conclusive results obtained, and particularly the restored positive ties between the students and their local and national identity encourage UNESCO-Beirut Office and the Lebanese National Commission for UNESCO to present the pilot project in this leaflet, in the hope that it will serve as a model for raising awareness on the different safeguarding measures for intangible cultural heritage among young generations, and that it will be officially adopted in school curricula.

Dr. Hamad bin Saif Al-Hammami Director UNESCO-Beirut Office

Dr. Tala Zein
Secretary General
Lebanese National Commission for UNESCO

Your children are not your children.
 They are the sons and daughters of Life's longing for itself.
 They come through you but not from you,
 And though they are with you yet they belong not to you.

You may give them your love but not your thoughts, For they have their own thoughts.
You may house their bodies but not their souls, For their souls dwell in the house of tomorrow, Which you cannot visit, not even in your dreams.

You may strive to be like them, but seek not to make them like you. For life goes not backward nor tarries with yesterday. »

> Gibran Khalil Gibran Extract from The Prophet

Introduction

The project "Learning with Intangible Cultural Heritage for a Sustainable Future": a pilot project in four public and private schools in Lebanon, initiated by the Culture Unit at UNESCO-Beirut Office and the Lebanese National Commission for UNESCO in collaboration with the School Network of Saida and Neighboring Towns, aimed at integrating intangible cultural heritage in education as both a subject and a tool for learning and teaching in all relevant disciplines. It seeks to disseminate and promote the principles of the 2003 UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage as well as good safeguarding practices amongst the students in the member schools of the local community within the framework of formal education. This project serves several objectives of the 2030 Agenda for Sustainable Development, in particular Sustainable Development Goal 4 on quality education, and more specifically target 4.7.

This leaflet describes an experiment carried out in four Lebanese schools that consists of introducing elements of this heritage into the content of scientific and literary subjects of the secondary cycle. It aspires to raise the awareness of officials and teachers in public and private educational institutions in Lebanon on the importance of integrating intangible cultural heritage in school curricula. Through referring to familiar elements extracted from the cultural environment of the students in the lessons, it contributes to the valorization of the Lebanese identity in its diversity, to the promotion of a tool for reconciliation and peace as well as to the familiarization with the contribution of culture to sustainable development.



Selection of Schools

The four schools selected for this experiment are members of the School Network of Saida and Neighboring Towns (Cazas of Saida and Jezzine) established by MP Mrs.Bahia Hariri, Head of the Parliamentary Committee for Education, Higher Education and Culture:

- Dr. Hikmat Sabbagh Youmna Eid Public High School for Girls - Saida
- Rafic Hariri High School Saida
- Jezzine Secondary School
- Collège Notre Dame Machmoucheh Jezzine

In addition two of them, Dr. Hikmat Sabbagh - Youmna Eid Public High School for Girls - Saida and Rafic Hariri High School - Saida, are members of the UNESCO Associated Schools Network.

These schools are deeply rooted in the sociocultural fabric of the environment where they operate. The balance between the urban and rural settings as well as the religious diversity of the schools where the project is implemented shall reflect the richness and the variety of the intangible cultural heritage in Lebanon.



Photo 1: A weaver in Zouk Mosbeh (Lebanon)



Photo 2: Training participants together with Member of Parliament Mrs. Bahia Hariri

Training of Trainers

During a workshop held at the OLA Academy (Outreach and Leadership Academy) in Saida on 14 December 2018, 15 science and literature teachers in the secondary cycle in the four selected schools were trained on the key concepts of the intangible cultural heritage and its linkages with the education for sustainable development. They also discussed the modalities for choosing and incorporating the elements of this heritage relevant to sustainable development into their curricula, as well as the elements specific to the local communities that can be used in the different contents of the materials.



Photo 3: Meeting participants together with Mayor Mr. Khalil Harfouche

A mid-term meeting was organized, in cooperation with Mr. Khalil Harfouche, Jezzine Mayor and President of the Federation of Jezzine Municipalities and with the participation of the organizers, school principals and teachers on 19 March 2019 at the Municipality of Jezzine. During the meeting, each school team reported on its project progress.

Training Materials for Trainers

The training materials have been partially covered by the capacity-building material prepared by UNESCO's Living Heritage Entity. However, the modules pertaining to the transmission and education, which are two topics not included in this material, were prepared by the facilitator from the UNESCO Global Network of Facilitators on ICH the 2003 Convention.

The content of the training material focuses on the following topics:

- Definition of the intangible cultural heritage
- Safeguarding measures for the intangible cultural heritage;
- Intangible cultural heritage, transmission and education;
- Intangible cultural heritage and education: issues/challenges of sustainable development.

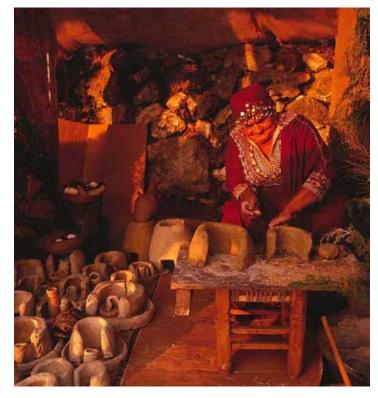


Photo 4: A potter making clay braziers in Assia (Lebanon)

What is Intangible Cultural Heritage?

The intangible cultural heritage is a category of the heritage issued from the Convention for the safeguarding of the cultural intangible heritage adopted by UNESCO in 2003. It refers to:

- « the practices, representations, expressions, knowledge, skills
- as well as the instruments, objects, artefacts and cultural spaces associated therewith
- that communities, groups and, in some cases, individuals recognize as part of their cultural heritage. » (UNESCO, 2003: art. 2.1)

This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity. (UNESCO, 2003: art. 2.1)

For the purposes of this Convention, consideration will be given solely to such intangible cultural heritage as is compatible with existing international human rights instruments, as well as with the requirements of mutual respect among communities, groups and individuals, and of sustainable development. (UNESCO, 2003: art. 2.1)

The intangible cultural heritage is manifested inter alia in the following domains:

- oral traditions and expressions, including language as a vehicle of the intangible;
- cultural heritage;
- performing arts;
- social practices, rituals and festive events;
- knowledge and practices concerning nature and the universe;
- traditional craftsmanship. (UNESCO, 2003: art. 2.2)1

^{1.} https://ich.unesco.org/en/convention#art2

Safeguarding Measures for Intangible Cultural Heritage

Also according to the same Convention, "safeguarding" means measures aimed at ensuring the viability of the intangible cultural heritage, including:

- Raising awareness
- Inventorying
- Identification
- Documentation
- Research
- Preservation
- Protection
- Promotion
- Enhancement
- Transmission, particularly through formal and nonformal education
- Revitalization of the various aspects of such heritage. (art. 2.3)

At the international level, the inscriptions on the List of Intangible Cultural Heritage in Need of Urgent Safeguarding (art. 17) and on the Representative List of

the Intangible Cultural Heritage of Humanity (art. 16), as well as the Register of Good Safeguarding Practices (art. 18) mobilize a broader support for the systems to transmission and resource persons. They promote the development of safeguarding plans, the visibility of the elements and good programs, projects and activities aiming at the safeguarding of the intangible cultural heritage.



Photo 5: A fisherman repairing his net while singing Zajal in Okaibe (Lebanon)

Intangible Cultural Heritage, Transmission and Education

The 2003 Convention for the Safeguarding of the Intangible Cultural Heritage includes a reference to "transmission, particularly through formal and nonformal education" as part of the proposed safeguarding measures (art. 2.3).

Education is designed with the objective of developing the heritage that provides living examples of educational contents and methods. It is therefore no longer only about strengthening the attachment of communities, groups and individuals to the intangible cultural heritage.

Article 14 states that State Parties shall ensure development of the intangible cultural through education. They are encouraged to ensure, within their respective education systems and policies, the "respect" and "enhancement" of intangible cultural heritage in society (O.D. paragraph 180).

The viability of the intangible heritage practices rests on the continuous transmission of the special knowledge and skills that are essential for their representation or incarnation. The transmission of the intangible cultural heritage ensures the continuity between the past, the present and the future in a perspective of intergenerational solidarity.

Communities have always found ways to systematize and pass on their knowledge, know-how and life skills to future generations, especially those that are pertaining to their social and natural environments. In the systems of formal education, these knowledge and methods cover a wide range of fields and disciplines: from mathematics and physics to health and sustainable use of natural resources; from the cycle of human life to the resolution of conflicts and tensions; from understanding oneself and one's place in society to the creation of a collective memory.

A quality education for all must not alienate young generations from this rich resource, connected so strongly to their cultural identity. Quality education must therefore recognize the Wealth provided by intangible cultural heritage and harness its educational potential by, on the one hand, integrating it as fully as possible as the content of educational programmes in all relevant disciplines and, on the other hand, seeking to harness the potential of traditional modes and methods of transmitting intangible cultural heritage within education systems¹.

For this reason, UNESCO promotes its inclusion in all the relevant disciplines within the curricula and encourages the countries to make full use of the potential of traditional modes and methods aiming at transmitting intangible cultural heritage within their education systems. Intangible cultural heritage can hence provide context - specific content and pedagogy for education programmes, and improve learning outcomes².

Figure 1: Intangible cultural heritage and formal education

Formal education Knowledge and transmission methods Intangible cultural heritage (ICH)

^{1.} https://ich.unesco.org/doc/src/34299-EN.pdf

^{2.} https://ich.unesco.org/en/education-01017

Intangible Cultural Heritage and Education: Challenges of Sustainable Development

The Convention for the Safeguarding of the Intangible Cultural Heritage recognizes « the importance of the intangible cultural heritage as a mainspring of cultural diversity and a guarantee of sustainable development. »

What is Sustainable Development?

« Sustainable development is the idea that human societies must live and meet their needs without compromising the ability of future generations to meet their own needs. » Brundtland Commission, (1987).

Concretely, sustainable development is a way of organizing society so that it can exist on the long term, which implies taking into account the present needs as well as the future ones, such as the preservation of the environment and natural resources or social and economic equity or the promotion of peace and security.

Sustainable development is at the crossroads of three pillars traditionally used to define it: the environment, the economy and society.

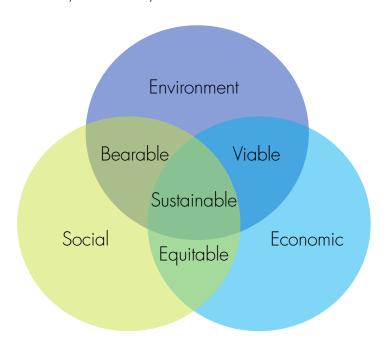


Figure 2: The 3 pillars of sustainable development

The 2030 Agenda for Sustainable Development and the Intangible Cultural Heritage

The 2030 Agenda for Sustainable Development is an action plan that covers the three aforementioned dimensions and breaks them down into 17 Sustainable Development Goals (SDGs) in accordance with the three fundamental principles of human rights, equality and sustainability.

The intangible cultural heritage can effectively contribute to sustainable development in all of its three dimensions, and can fulfill peace and security requirements. Its safeguarding is therefore essential so that communities can achieve a better future.

Inclusive Social Development

Inclusive social development cannot be achieved without sustainable food security, quality health services, access to safe water and sanitation, quality education for all, inclusive social protection systems and gender equality.

Human societies have constantly developed and adapted their intangible cultural heritage to meet their basic social needs and major challenges in time and space. Traditional health practices, dietary practices, water management systems, celebrations and social events or knowledge transfer systems all play a vital role within the communities in their quest for inclusive social development.

Environmental Sustainability

Environmental sustainability requires ensuring a stable climate, sustainably managing natural resources and protecting biodiversity.

The contribution of intangible cultural heritage to environmental sustainability is recognized in many fields-such as biodiversity conservation, sustainable natural resource management and natural disaster peparedness and response.

Inclusive Economic Development

Sustainable development depends upon stable, equitable and inclusive economic growth, based on sustainable patterns of production and consumption.

Intangible cultural heritage constitutes a driving force for economic development, encompassing a diversity of productive activities, with both monetary and nonmonetary value, and contributes in particular to strengthening local economies. As a living heritage, it can also constitute an important source of innovation in the face of change and help achieve inclusive economic development at the local and international levels.

Peace and Security

Peace and security include freedom from conflict, discrimination and all forms of violence.

Intangible cultural heritage can help to prevent or resolve disputes. Local social practices of dialogue, conflict resolution and reconciliation have a determining role to play in societies around the globe. Created over centuries to respond to specific social and environmental contexts, to help regulate access to shared spaces and natural resources, as well as to enable people to live peacefully together, such systems may be informal or highly elaborated.

Development Program Sustainable by 2030 and Culture

The cultural aspects play a crucial role in the success of the 2030 Agenda for Sustainable Development. Cultural rights, heritage, diversity and creativity constitute central components of human and sustainable development. The 2030 Agenda for Sustainable Development includes several explicit references to the cultural aspects, although none of the 17 SDGs exclusively focus on culture.

The contents of the Following Targets Deserve to be Mentioned:

- Target 4.7 refers to ensuring that all learners acquire the knowledge and skills needed to promote sustainable development, including among others, through education for global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.
- Target 8.3 refers to the promotion of developmentoriented policies that support productive activities, as well as creativity and innovation.
- Targets 8.9 and 12.b refer to the need to devise and implement policies to promote sustainable tourism through local culture and products, as well as the need to develop appropriate follow-up tools in this regard.
- Target 11.4 highlights the need to strengthen efforts to protect and safeguard the world's cultural and natural heritage.

Education for Sustainable Development

- « Education in the 21st century must now forge theglobal consciousness and identity¹. »
- « Education for Sustainable Development (ESD) emphasizes the need to foster knowledge, skills and behaviors that allow individuals to take informed decisions, for themselves and for others, today and in the future and to translate these decisions into actions² ».

It is a long-term educational approach that seeks to change mindsets and behaviors with regards to the environment, society, economy and peace. Education for Sustainable Development should not therefore be seen, strictly speaking, as a subject or as an additional issue that merely needs to be added to the formal education system, since it relates to both the content and the method. Education for Sustainable Development is a broad process of teaching and learning that promotes an interdisciplinary and a holistic approach and fosters critical and creative thinking at all the levels of the education system.

The objective is to develop the learners' planetary awareness, so that tomorrow they can be aware of the implications of humans on the environment, society and economy, but above all to equip them with the will and the capacity to act to protect them.

^{1.} Interview with Philippe Saugier, Climate Change Education Specialist and Education Coordinator of the CarboSchools Project: http://www.unesco.org/new/en/brasilia/about-this-office/single-view/news/interview_with_philippe_saugier_education_coordinator_of_th/

^{2.} http://www.unesco.org/en/esd/

The components of education for sustainable development are as follow:

Learning Content

Integrating critical issues such as climate change, biodiversity, disaster risk reduction, and sustainable consumption and production into the curriculum.

Pedagogy and Learning Environments

Designing teaching and learning in an interactive, learner-centered way that enables exploratory, action-oriented and transformative learning. Rethinking learning environments - physical as well as virtual and online - to inspire learners to act for sustainability.

Learning Outcomes

Stimulating learning and promoting core competencies such as critical and systemic thinking, collaborative decision-making, and taking responsibility for present and future generations.

Societal Transformation

Empowering learners of any age, in any education setting, to transform themselves and the society they live in.

- Enabling a transition to greener economies and societies.
- Equipping learners with the skills for "green jobs".
- Motivating people to adopt sustainable lifestyles.

¹ https://en.unesco.org/themes/education-sustainable-development/what-is-esd

• Empowering people to be "global citizens" who engage and assume active roles, both locally and globally, to face and to resolve challenges and ultimately to become proactive contributors to creating a more just, peaceful, tolerant, inclusive, secure and sustainable world.

Education for sustainable development is closely linked to international solidarity, which corresponds to the defense of human rights, the means of living better together and sharing human cultures.

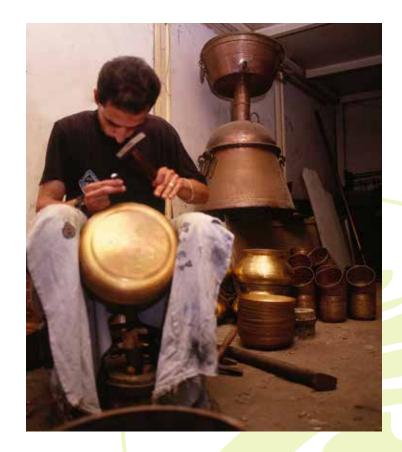


Photo 6: A coppersmith in Tripoli (Lebanon)



Mixing physics, mathematics, history... with a real life experience is a great adventure for students. This adventure makes them aware of the importance of the hard and human sciences in their daily lives and helps to improve them. It creates a great motivation for them and gives rise to the conviction that « each one of us is can make the world a better place ».

Khaled Chalah, Physics Teacher at Dr. Hikmat Sabbagh - Youmna Eid Public High School for Girls - Saida

In the project « Learning with intangible cultural heritage for a sustainable future ».

This pilot project implemented in four schools in the School Network of Saida and Neighboring Towns in Lebanon, two of which belong to the UNESCO Associated Schools Network, called for a partnership between formal education and practitioners in the local society.



Photo 7: A student at Dr. Hikmat Sabbagh - Youmna Eid Public High School for Girls - Saida in drawing class

Project Implementation Approach

1. Preparatory Phase

Selection of ICH elements, classes and materials

2. Integration of ICH element (s) in the school curriculum

Selected subjects: Mathematics • Physics • Chemistry

• History • Arabic • French • Sociology • Drawing

3. Activities developed

Lessons and exercises

Activities of: Definition • Description and

Documentation • Laboratory Experiments • Drawing

4. Field visits and interviews

Soap Museum, Hammam

Practitioners visited: • Manufacturers of fishing boats

• Cutlery makers • Arak Distillers

It is an education "on" the intangible cultural heritage that refers to the disciplinary contents. However, education "with" intangible cultural heritage, which refers to values such as promoting local and/or national identity or sustainable development, has not been ruled out.

Selection of ICH Elements

Each school has chosen one or more emblematic elements of the local intangible cultural heritage.

School	Selected element(s)
Dr. Hikmat Sabbagh - Youmna Eid Public High School for Girls - Saida	Fishing boat industry Olive oil soap making Orange blossom water Distillation Rituals of marriage and grief
Rafic Hariri High School - Saida	Fishing boat industry Olive oil soap making Rituals of the month of Ramadan
Jezzine Secondary School	Cutlery
Collège Notre Dame de Machmoucheh - Jezzine	Arak Distillation

Table 1: ICH selected element(s)

Integration of Eements into the School Curriculum

The integration of one or more selected ICH element (s) in subjects has been done in one or more classes of the secondary cycle. Only one school has chosen to integrate intangible cultural heritage into the intermediate and secondary cycles.

School	Class(es)	Subject(s)
Rafic Hariri High School - Saida	Grade 11	Physics, History, Geography and Sociology, Laboratory
Dr. Hikmat Sabbagh - Youmna Eid Public High School for Girls - Saida	Grades 6, 7 and 8 (Intermediate cycle) Grades 9, 10 and 11(Secondary cycle)	Physics, Mathematics, Arabic Language, Chemistry, History, Sociology, Drawing
Jezzine Secondary School	Grade 12	Education, Life Sciences, Physics, History
Collège Notre Dame de Machmoucheh - Jezzine	Grade 10, Grade 11, Grade 12	Sociology and Economics, Life Sciences, Arabic Literature, French Literature, Mathematics, Computer Science, Sports

Table 2: Choice of classes and subjects

The following examples illustrate the project implementation process including the activities developed and the visits made.



«Tell me and I will forget, teach me and I will remember, involve me and I will learn». Growing up in Saida helps the students to closely observe the ships and the fishing boats and to even learn how to use them.

Khaled Chalah, Physics Teacher at Dr. Hikmat Sabbagh - Youmna Eid Public High School for Girls - Saida

In Saida, the shipbuilding industry is considered one of the oldest crafts. It traces its origins back to the Phoenician period known for the development of navigation in the Mediterranean Sea.

To date, fishing boats are made of wood. The wood of local trees (mulberry, sycamore, cypress, eucalyptus and Indian lilac) is used to build the internal structure, and imported wood (Swedish, iroko and mahogany) to build the exoskeleton. Cotton threads are also used to seal the

wood joints. Many tools are used, including planers and saws, for the woodworking.

The manufacturing time of each boat varies from three to six months. The average lifespan of a wooden boat is 20 years. Everything depends on its maintenance.



Photo 8: A young member of the Sounbol family working on the boat structure

Attieh, Sounbol and Accad families make fishing boats in Saida. Generally, two or three members are mobilized to exercise this exclusively male-dominated occupation. The transmission is from father to son. A very long learning process is required to acquire experience and dexterity.

(Information collected by the students of Dr. Hikmat Sabbagh - Youmna Eid Public High School for Girls -Saida and Rafic Hariri High School - Saida).

Integration of the Wooden Fishing Boat Industry into the School Curriculum

Subject(s)	Grade(s)	Integration of the ICH element
Physics	Grade 9 Grade 11	Buoyancy and immersion: the Archimedes' principle
Mathematics	Grade 10	Trigonometry and vectors
History	Grade 10 and 12	History of the Phoenician "Industry and Commerce" and the importance of the construction sector of warships and merchant ships

Table 3: Integration of the wooden fishing boat industry into the school curriculum

In History course, the theme of "the Phoenician Industry" allows to raise the topic of the shipbuilding industry.

The Phoenician coast, which extended over a sea front from Ugarit, in northern Syria, to Mount Carmel in Palestine, was too narrow and rugged. The sea provided the Phoenician people with the easiest way to move between the Phoenician cities and in the Mediterranean Sea.

Phoenicians were particularly famous for the manufacturing of warships and merchant ships. They developed this know-how thanks to their sense of innovation and borrowed heavily from the Egyptians, Babylonians and Persians. Such industry distinguished them from the other people, given that its essential material, the cedar wood, was particularly abundant in Phoenicia.



Photo 9: A drawing of a Phoenician ship by a student Dr.
Hikmat Sabbagh - Youmna Eid Public High School
for Girls - Saida

In Physics, the Archimedes' principle was studied as an example for the shipbuilding industry in the Phoenician times.

The density of cedar wood used by the Phoenicians for shipbuilding is about 580 kg/m³, which is much less than that of salt water, which is about 1030 kg/m³. It simply means that the density of the liquid is much greater than that of the wood used in shipbuilding, which allows the boat to float.

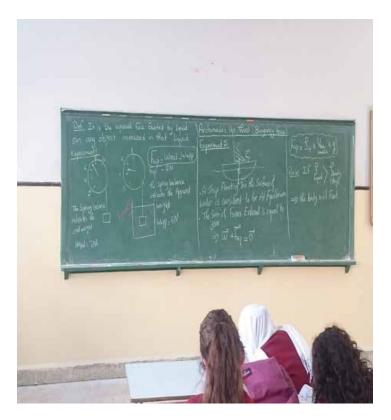


Photo 10: Students in Physics class at Dr. Hikmat Sabbagh -Youmna Eid Public High School for Girls - Saida



Photo 11: Boat under construction: its interior is empty to embark passengers and cargo.

However, a problem lies in the fact that the boat contains, in addition to the wood, passengers as well as cargo. This certainly increases the density of the system (wood, people and goods). To solve this problem, the craftsmen increase the boat concavity. The submerged part of the boat is made of wood filled with air. This lowers the density of the system (boat, air) and enables the boat to carry more passengers and loads.

Application of the Upthrust of Archimedes

To reduce pollution by using recycled plastics for sustainable development, a group of students suggested using recycled plastic bottles to make a floating raft that can be used by swimmers in summer and/or as a floating floor on Zireh, an island located off Saida.



Photo 12: Boat made of plastic bottles

Use of Flotation in the Transport of Wood

A group of students suggested using the Awali River to transport the wood from the Bisri Valley used for boat building. This means of transport reduces the cost of wood and consequently that of construction.

Visits to Wooden Boat Manufacturers



Photo 13: Dr. Hikmat Sabbagh - Youmna Eid Public High School for Girls - Saida



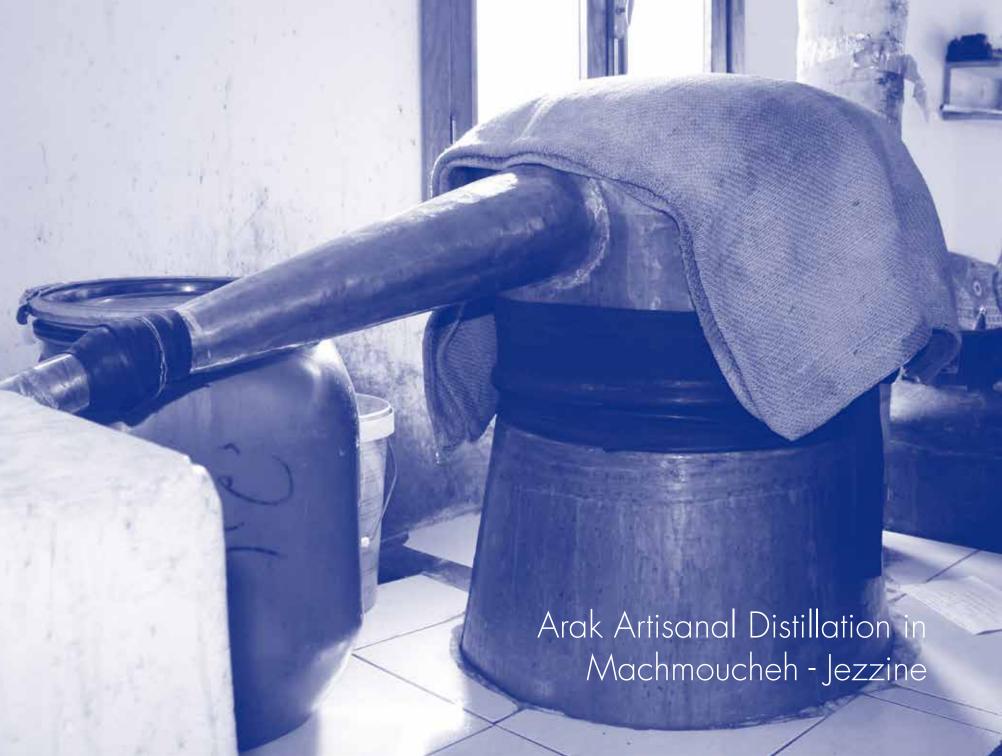
Photo 15: A craftsman at work



Photo 14: Rafic Hariri High School - Saida



Photo 16: Rafic Hariri High School - Saida students listening to a craftsman's explanations



By documenting, writing, speaking, drawing, photographing and conducting extracurricular activities, we transmitted to our students, through our different teachings, the notion of intangible cultural heritage through a local element, the artisanal distillation of Arak. We are confident that this project has left a huge imprint on them.

Sonzinia Aoun, Arabic teacher at Collège Notre Dame de Machmoucheh - Jezzine

Arak in Jezzine is part of the *mouneh* stored by households for the winter. Its artisanal distillation is a festive event to which relatives and friends are invited.

Several types of grapevines grown in Jezzine (maghdouche, obeidi, zitouni, tafaifihi, maqasasi and others) produce a grape suitable for the artisanal distillation of Arak. Grapes, usually picked at the end of September, are carefully washed, pressed and transferred to wooden or plastic barrels.



Photo 17: Students of Collège Notre Dame Machmoucheh -Jezzine watching the measurement of alcohol content

After fifteen days of fermentation, the grape must to which fresh water is added, is distilled in a copper alembic pot still *(karake)*, sealed with a paste of flour and water to prevent steam leakage. This first distillation transforms the must into eau-de-vie whose alcohol content must be lower than 24 - 25%. The eau-de-vie, mixed with anise, is then distilled twice.

Men, women and children participate partially or totally in theArak artisanal distillation. Children, who only learn the principles of its manifacture, are not allowed to drink it. The Arak artisanal distillation is a highly anticipated rural social event and annual tradition in Jezzine. It entails meetings of families and friends around the still (karake) that turn into parties. Lebanese mezze food is served and accompanied by zajal recitation and dabkeh dance. The card game and backgammon can also accompany the distillation.



Photo 18: Barrels of must

Most of these activities are part of the intangible cultural heritage.

The people of Jezzine nickname Arak as the "milk of lions", the "white gold" or "tears of the Virgin Mary".

(Information collected by the students of the Collège Notre Dame de Machmoucheh - Jezzine)



Photo 19: Distilled Arak

Integration of Arak Atisanal Distillation into the School Curriculum

Subject(s)	Class(es)	Integration of the ICH element
Life Sciences	Grade 10	Chapter of the Plants: the culture of vine and the transformations of the grape. An example of research, documentation and field visits.
Mathematics and Computer Science	Grade 11	Statistics (Excel program): A comparative and analytical study about the quantities of grapes, eau-de-vie and Arak produced by each producer on the long term.
Sociology	Grades 10, 11 and 12	Intangible cultural heritage and social cohesion. Illustration through the rituals of social solidarity as a mutual aid (awneh) practiced by the inhabitants of a same village during distillation.
Economy	Grades 10, 11and 12	Economic development : The Arak distillation is a craft production, very popular with consumers. It can generate income and develop tourism : visits to manufacturers and to local touristic places.
Education	Grades 10, 11and 12	Intangible cultural heritage and local and national identity. Strengthening the nation-wide principle of living together.
Arabic Language	Grade 10	Courses in Arabic on the benefits and the harmful effects of Arak on the health. Analysis and writing of explanatory and educational texts.
French Language	Grade 10	Courses in French on Arak distillation based on research and description.

Table 4: Integration of Arak artisanal distillation into the school curriculum

In Sociology, mutual aid or *awneh* is a collective work done by neighbors or parents, in a place that requires a lot of work and does not support postponement, such as harvesting.

Mutual aid is a spirit of collaboration imposed by the village customs and traditions and by the agricultural life. The inhabitants of the villages come together to do a work that cannot be done by one man, such as harvesting, building a house, building or repairing a terrace, and building an irrigation canal. Mutual aid also consists of providing the working tools.

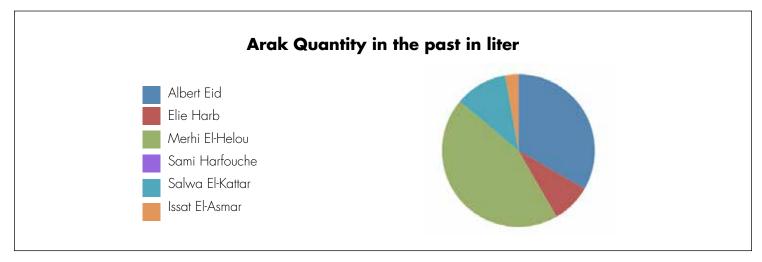
Mutual aid is not only limited to men. Women also participate in the harvesting and manufacturing of different food supplies stored for the winter. Besides manual and agricultural work, mutual aid also covers social aspects in case of fire, natural disaster or urgent need for cooperation. It intervenes during the celebration of life events such as births, marriages and deaths.

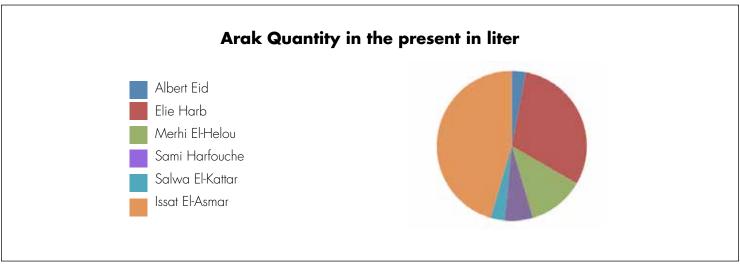
Awneh is an integrated voluntary service based on reciprocity. It is not obligatory; but when a person or a family benefits from it, they are obliged to demonstrate reciprocity. The social value of "awneh" is about strengthening social bonds and promoting community life.

In Statistics, the average amount of liters of must, alcohol and Arak obtained by local producers in the past and present has been collected by the students. The data, entered in Excel, was processed in the form of tables and graphs to be analyzed orally in the classroom by the students. The figures indicate that artisanal distillation of Arak is declining. They also show that production has been declining among formerly very active practitioners, while it is increasing amongst others.

Name of the producer	Past quantities in liter	Present quantities in liter
Albert Eid	192	16
Elie Harb	48	160
Merhi El-Helou	256	64
Sami Harfouche	0	32
Salwa El-Kattar	64	16
Izzat El-Asmar	16	240
Total	576	528

Table 5: Quantities of Arak produced in the past and present





Visits of the Students of Collège Notre Dame Machmoucheh - Jezzine to Arak Distillers and Experience at School



Photo 20: Explanations of an Arak producer



Photo 22: Lighting of a fire by students



Photo 21: Preparation of anise before mixing it with eau-de-vie



Photo 23: Dosing of Arak by a student



The tradition of cutlery dates back to the 18th century, specifically to the 1770s, with the Haddad family. Currently, in addition to the Haddad family, craftsmen belonging to Chahine, Abu Rached, Aoun and Abdelnour families master this know-how. This craft was once an important source of income in the region of Jezzine. More than 250 families used to earn income out of it. Currently only 12 practice this profession.

Initially, swords and gun handles were made with bones or horns. It was only in the 20th century, from the 1930s, that craftsmen started making cutlery and table services. The shape of the cutlery handles has evolved over time, from camel, fish and other animals' heads to a Phoenix head, the legendary bird of Phoenician mythology

symbolizing immortality. The handles were inlaid with colored ivory, thus representing a bird that scratches its chest with its beak, with copper wings, a head adorned with a crest and red-tinted bones.



Photo 24: Knife handles of different shapes

The handles were originally carved in ivory or made of buffalo, sheep or goat horns. Currently, animal horns, apart from elephant tusks, are still used. They are becoming rarer and very expensive. Cellulose acetate tends to replace them. The blades are shaped with stainless steel, silver steel and copper.

Jezzine cutlery, has become a precious present offered by the Lebanese authorities to world leaders and heads of state.

Previously, there were more than 20 workers in each workshop, but with technological development and internal and external conditions, the number decreased

to 8 workers. It tends to decrease in view of the difficult transmission of know-how between generations.

(Information collected by students of Jezzine Secondary School).



Photo 25: From the horn to the phoenix head

Integration of Jezzine Cutlery into the School Curriculum

Subject(s)	Class(es)	Integration of the ICH element
Biology	Grade 11 Humanities Grade 12 ES	Chapter of the nervous system. Consequences of the craftsmanship on the nervous system and the physical health of the craftsman.
Chemistry	Grade 11 Humanities Grade 12 ES	Chapter of the matter. The materials used for the manufacturing of cutlery and their evolution over time.
History	Grade 11 Humanities Grade 12 ES	History of Jezzine and in particular that of cutlery.
Education	Grade 10 Grade 11 Humanities Grade 12 ES	Chapter of Professional Ethics - Cooperatives and professional trade unions.

Table 8: Integration of Jezzine cutlery into the school curriculum

In Biology, a scientific result has been incorporated in the chapter of the nervous system. A reflection has been developed about the consequences of craftsmanship on the nervous system and the physical health of the craftsman.



Photo 26: A cutler from Jezzine at work

Since the dawn of time, artisans work all day ignoring the health problems that can occur. Nowadays, a scientific research shows that the craftsmanship refreshes the memory in a permanent manner. The brain continues to work and reduces the risk of developing Alzheimer's disease

It is a common belief that people who keep their brains active as they get older, like solving crossword puzzles for example, can slow down cognitive decline related to age. A new study now claims that social, craft, artistic and computer activities can have the same effect.

Visits of the Students of Jezzine Secondary School to the Cutleries



Photo 27: Interview with a cutler from Jezzine



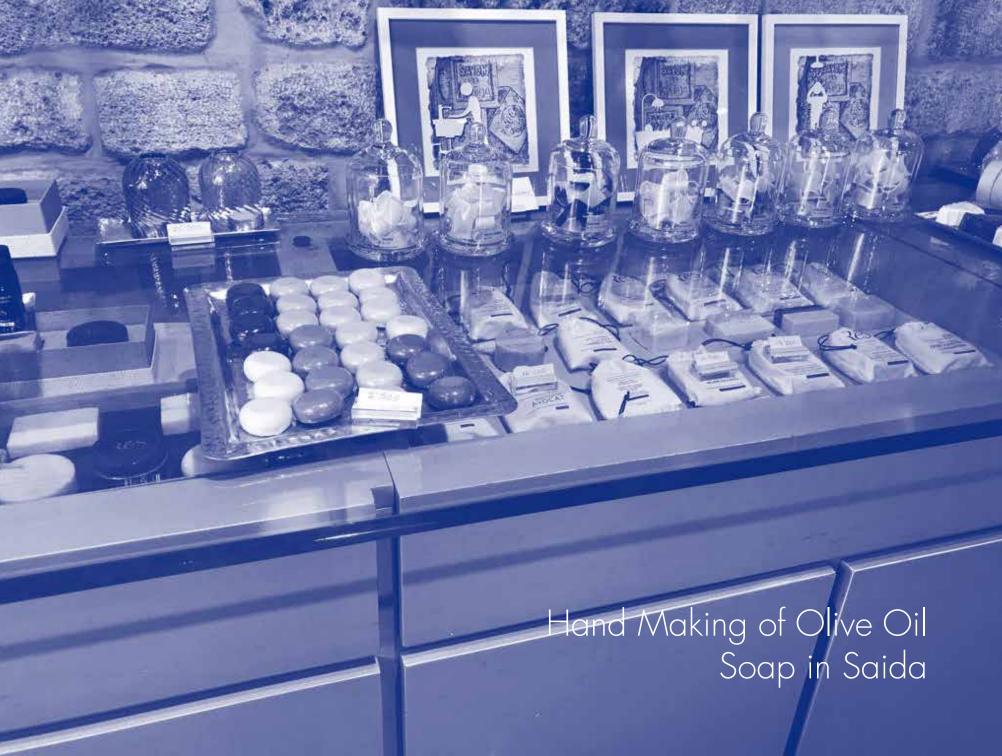
Photo 29: A cutler showing a sword of his manufacture



Photo 28: Recording the interview



Photo 30: Making a handle with a Phoenix head



In rural Lebanon, farmers who grow olive trees make their own soap. In big cities, like Tripoli and Saida, it is made in soap factories. The soap industry is considered one of the oldest traditional industries in Saida. In 1935, it grew rapidly in the old city. In the 1950s, some soap factories turned into factories adopting modern manufacturing processes. Others have retained ancestral know-how. In 1996, one of the old soap factories was converted into a museum by a family of Lebanese notables, the Audi, who owned it.

Composed of olive oil to which are added caustic soda and natural plant oils, the natural soap is manufactured according to the artisanal process preserved until now, generation after generation.

The handmade soap, made with few chemicals and without dyes, is used in homes, but also in Turkish baths "hammam". It has medicinal and therapeutic virtues. It nourishes the skin and gives it strength and freshness, which helps to delay the appearance of wrinkles. It nourishes the roots of the hair and gives them vitality and prevents their fall. It rids the body of odor-causing bacteria and gives it a natural scent. It helps with the treatment of certain skin diseases such as eczema and psoriasis.

(Information collected by the students of Dr. Hikmat Sabbagh - Youmna Eid Public High School for Girls -Saida and Rafic Hariri High School - Saida).

Integration of the Artisanal Hand Making of Olive Oil Soap into the School Curriculum

Subject(s)	Class(es)	Integration of an ICH element
Chemistry	Grade 12	Chapter on soap making
Arabic Language	Grade 8 (Intermediate cycle)	Documentation of the artisanal soap making process
History	Grade 8 (Intermediate cycle)	Chapter: Economic and Urban life in the Ma'an Emirate
Laboratory	Humanities	Experiment

Table 9: Integration of the artisanal hand making of olive oil soap into the school curriculum

In Chemistry, the materials for the hot process soap making are as follows: 250 mL Erlenmeyer flask, magnetic stirrer and hot plate, condenser, funnel, water pump, ring clamps, filter paper, essential oil, ethanol, sodium chloride, sodium hydroxide pellets.

To make soap, pour 10 g of olive oil in an Erlenmeyer flask containing 8 mol.L-1 of sodium hydroxide solution, then pour 10 mL of ethanol, boiling stones and a magnetic bar in the Erlenmeyer flask.

Adjust the condenser and place it on a heated magnetic stirrer. Hold it with ring clamps on a stand. Let it cool for 30 minutes. Add 20 mL of sodium chloride solution to the hot solution. Use vacuum filtration to remove the soap formed, wash with salt water if necessary.

For a cold process soap making, mix a few milliliters of olive oil with the appropriate amount of sodium hydroxide solution and a hardening agent. Mix them with a blender for 3 minutes. Then add a few drops of lavender oil and a few grams of dye. Pour the mixture into molds and let it rest for 24 hours for the soap to take the chosen shape.



Photo 31: Two students of Rafic Hariri High School in Saida mixing soap ingredients

School Experiment and Visits to the Museum and the Hammam



Photo 32: Two students of Rafic Hariri High School - Saida pouring soap in molds



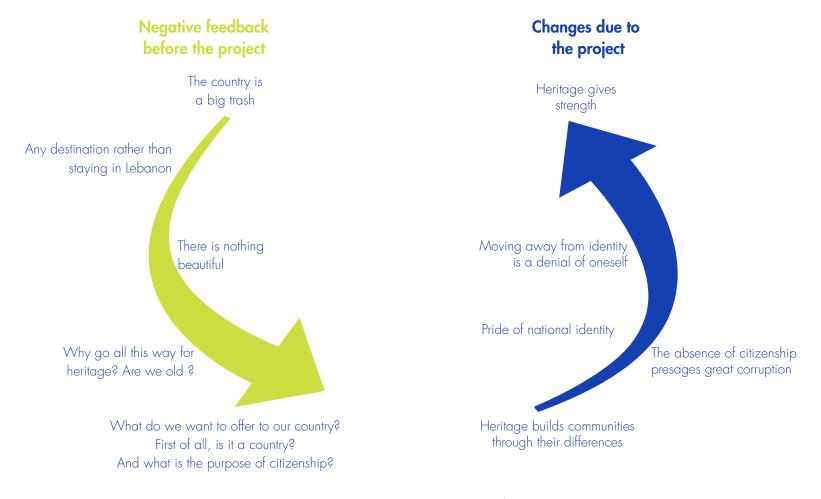
Photo 33: Students of Dr. Hikmat Sabbagh - Youmna Eid Pubic High School for Girls - Saida visiting the Soap Museum



Photo 34: Students of Dr. Hikmat Sabbagh - Youmna Eid Public High School for Girls - Saida visiting Hammam El Sheikh



Project Evaluation by the Students



Dr. Hikmat Sabbagh - Youmna Eid Public High School for Girls - Saida

Conclusion

This project, implemented in 6 months, raised awareness among school officials, teachers and students on safeguarding cultural heritage in formal education. On the one hand, it showed how this heritage can be transmitted through school programs, and on the other hand, how can it enrich these programs by giving live examples from the students' immediate environment. This project also strengthened the link between schools and practitioners belonging to local communities. This relationship has highlighted the living dimension of intangible cultural heritage.

Despite cyclical difficulties and school constraints such as strikes, snowstorms for schools in high mountains and exam deadlines, teachers and students were mobilized to implement the project. Efforts made to select elements of intangible cultural heritage, to integrate them into school subjects, to develop co-curricular and extracurricular activities represented a challenge. But the challenge was met.

The results though somewhat timid, are still convincing. Analysis of the data provided in the reports reveals that the objectives defined by the project are articulated with real needs. The desire to consolidate local and national identities is significant. It is reflected in many ways through the selection of intangible cultural heritage elements and the modalities of their integration into school subjects. More timid but equally present is the question of sustainable development.

This pilot project laid out the way forward; but much remains to be done to achieve real integration of intangible cultural heritage at the national level.

