Formal educational curricula and Cultural Heritage: the case of the Jordanian National Curricula

Los planes de estudios formales y el Patrimonio Cultural: el caso de Jordania

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Abstract
Formal educational systems supported by suitable resources, teaching material, outreach material, activities, and trained educators can play a great role in influencing children knowledge, attitudes and behaviour in cultural heritage (CH) issues. Many international curricula include case studies about CH factors and how they affect the development or downfall of a civilization. However, in most conservative educational systems in Asia, especially in the Arab world, local cultural knowledge and local resource people are accorded lower priority than national or institutionally recognized knowledge or knowledge keepers. Often the school syllabus promotes a selective, simplistic and idealized view of the national achievements, national heroes, staple produce, and national culture. In Jordan, CH education in the national educational system is still considered a relatively new subject that has been addressed only modestly.

This paper attempts to discuss and evaluate:
• What is the place of CH in Jordanian national curricula?
• Do all areas in the curriculum have an equal weight?
• Are these CH curricula responding to the development of new technology, new media and orientation for cross-curricular work?
• What and how should the Jordanian curricula cover the CH aspects and concepts according to the requirements of our digital age?

Key words: Archaeology, Cultural Heritage, Education, Immersion, Assessment, Virtual Reality, Computer.

Resumen
El Patrimonio Cultural es la herencia de elementos tangibles e intangibles de un grupo o sociedad que se heredan de generación en generación, se mantienen en el presente y se conservan para el beneficio de las generaciones futuras. Los sistemas educativos formales apoyadas por recursos adecuados, material didáctico, material de divulgación y actividades, y los educadores capacitados pueden desempeñar un papel importante para influir en la infancia en el conocimiento, las actitudes y el comportamiento frente a las cuestiones del Patrimonio Cultural. Muchos programas internacionales incluyen estudios de casos sobre los elementos del Patrimonio Cultural y sobre cómo afectan al desarrollo o al declive de una civilización. Sin embargo, en los sistemas educativos más conservadores de Asia, especialmente en el mundo árabe, las personas que se dedican a la gestión cultural local han dado menos prioridad a estos conocimientos que los gestores que se dedican a ello de forma institucional o nacional. A menudo, el programa de la escuela promueve una visión selectiva, simplista e idealizada de los logros nacionales, héroes nacionales, los productos de primera necesidad, y la cultura nacional. En Jordania, el sistema educativo nacional, en relación con la educación sobre Patrimonio Cultural, todavía se considera un tema relativamente nuevo que se ha tratado tan sólo en parte.
Este trabajo trata de analizar y evaluar lo siguiente:
1. Introduction
Cultural Heritage is the legacy of tangible and intangible attributes of a group or society that are inherited from past generations, maintained in the present and bestowed for the benefit of future generations. Evolving heritage management practice is increasingly seeking the participation of people who have connections with heritage places and also to value community-held knowledge. Heritage illiteracy equals heritage loss.

The educational system may be viewed as a means of preparing children for their role in an increasingly uncertain world. Schools have a significant part to play in helping children to develop a secure sense of themselves, both as individuals and members of various groups within society. Curricula, however, can become ‘sites of struggle’ between ideas about what education is for, and what are appropriate content and contexts for learning and development in childhood [1]. On the other hand, parents, teachers, researchers and politicians often have strong and conflicting views about what is right for young children in the early year’s school.

Teaching children about the cultural heritage (CH) of their country will promote a sense of appreciation and develop national identity and a sense of national and personal pride. Helping and encouraging children, however, to appreciate and enjoy the tangible and intangible aspects of CH will make children recognize CH as a personal expression of creativity. Meanwhile encouraging children to be proud of their identity, culture and traditions can assist them to understand that every citizen has a duty towards heritage properties and practices. To ensure that children will become knowledgeable of their country’s heritage and traditions, and will be encouraged to take part in preserving and protecting their CH, it is of important to review school curricula and investigate what is being taught to children about CH and how it is being approached.

There is also a recognised need to encourage children to develop a wide range of skills and interests, to identify and foster their potential and to encourage creativity. Beginning in the early years, attitudes and values can be shaped, while in later grades, cultural heritage for the youth needs to trigger action to effect change in their schools and local communities. Hence, increased participation is expected in later grades, whereas knowledge, awareness, and attitudinal statements are expected in younger grades.

In influencing children’s knowledge, attitudes and behaviour towards Cultural Heritage (CH) issues, the formal educational systems supported by suitable resources, teaching material, outreach material, activities, and trained educators, can play a great role. However, developing an understanding of the meaning and the importance of CH and CH sustainability issues, depends on the students’ willingness and ability to ask questions about the world around them,
speculate and hypothesize, seek information, and develop answers to their questions. These needs are still not reflected in the national curricula, particularly in the way the concepts are tackled in the textbooks. Still, and in order to sensitize the child to heritage, one has to begin with the locality, immediate surroundings, trips to museums and sites, then introduce concepts of CH management and sustainability, taking into consideration the different interactive multimedia tools. The approach and methodology of this research proposal can be summarized in four key components:-

• Looking at existing curricula, organisations and networks in relation to cultural heritage education at various levels and settings that can contribute to or hinder learning processes.
• Indicate and propose the framework – the aspects and principles, and main pillars/concepts of CH Education.
• Revision and evaluation of the presence of CH aspects, principles and concepts that exist in the Jordanian curricula.
• Identification of the form in which these CH aspects and concepts are covered in the Jordanian curricula, and the manner in which they are tackled in order to place and suggest some recommendations.

2. Curricula development and Cultural Heritage Education
Curriculum is focused on acquiring knowledge of local assets and developing resources based on a combination of new technology and traditional knowledge and values. Place-based curriculum calls for a serious study of cultural and natural assets that are an outcome of the immediate location [2, 3]. The school curriculum may be conceived of as comprising many separate subjects (for example, including chemistry, history and music), or as comprising fewer broader areas of study (such as sciences, humanities and arts). In relation to this, art-form areas (such as visual arts, music, drama, theatre and dance) may be considered as belonging to the same ‘family’ of artistic disciplines. This is reflected in the way in which the school curriculum is conceptualised at national level (for example, the way official documents describe the curriculum).

Currently, from a survey of arts education in Europe that took place as part of the Council of Europe’s initiative on Culture, Creativity and the Young, the study found that all national policy statements on education routinely emphasise the importance of the cultural dimension and the need to promote the artistic and creative abilities of young people [3]. Kailash, K. M., emphasises that, “there is a problem due to the lack of cultural heritage input in our curriculum both at school level and at the level of college and higher studies”[4]. Meanwhile, Singhvi, L.M, President IGNCA Trust, addressed and underlined that, “Without education there can be no culture and without culture there cannot be education” [4]. Though, the modern educational system that will make our children feel secure in their edentates and will be part of a society that is at peace with itself and with the world, this needs concrete and practical suggestions on how to incorporate the cultural heritage awareness, values, appreciation, ethos, and care for the preservation of identity, in addition to the significant tools of digital information technology, which enable pupils to use Information and Communication Technologies (ICT) as part of the creative process.

Alternatively, children’s access to arts and cultural experiences (such as visits to museums) have been a matter of interest in many research studies [5], especially because schools have the potential to redress inequality by providing access to cultural resources for children from disadvantaged backgrounds. Many international curricula include case studies about CH factors and
how they can affect the development or downfall of a civilization. There are many opportunities for children to learn through CH and Archaeology, both in their History studies and when it is gainfully applied in other curriculum subjects. Actually, the new “Classroom 2000” developments, focus attention on the student’s experience, bringing students closer to the technology and letting them interact with and add to the captured content. Classroom 2000 is evolving into an augmentable, reusable repository and an anchor for collaboration. For example, the Living Schoolbook in New York State is working with Video on Demand and demonstration projects for K-12 [6]. Useful publications for a cross-curricula approach of Geography and the Historic Environment, Maths and Science, produced by English Heritage Education Services [7].

On the other hand, Digital libraries are a special kind of online resource. Millions of others exist, on all manner of topics, with widely varied depth and authority. These range from major institutions such as museums and other governmental agencies to sites run by individuals. If digital libraries are to become more accessible and useful resources spread to enhance learning, teachers and learners first need to know about them. Perhaps a portal of libraries would be useful. There is, however, an “Information Portal for Science, Mathematics, Engineering and Technology Education” [6] directed toward educators and librarians [8].

3. General evaluation of organisations and networks for promotion of cultural education

UNESCO, as a leading force in the development of policy initiatives in education and culture within the last decade, in the field of arts and cultural education, made an appeal to all stakeholders to do what is necessary to ensure that the teaching of the arts gains a special place in the education of every child, from nursery school to the last year of secondary school [6, 9]. In parallel, several policy developments have taken place also in the context of the European Union. In 1995 the Council of Europe launched a major project focusing on Culture, Creativity and the Young. This examined existing provision for arts education in the schools of member states as well as the involvement of professional artists and the availability of extra-curricular activities [6]. It resulted in a survey of arts education in Europe and an international colloquy. The definitions for the terms ‘cultural and creative education’ were based on the work of the National Advisory Committee on Creative and Cultural Education (NACCCE) in England [10].

In this report, culture within education is defined as the shared values and patterns of behaviour that characterise different social groups and communities, commonly including the transmission of national, regional or local identity and/or the promotion of inter-cultural understanding. Creativity is defined as imaginative activity fashioned so as to produce outcomes that are both original and of value.

In 2005, the Council of Europe launched a Framework Convention on the value of cultural heritage for the society which identified the need for European countries to preserve cultural resources, promote cultural identity, respect diversity and encourage inter-cultural dialogue [11]. Article 13 of the framework acknowledged the important place of cultural heritage within arts education but also recommended developing linkages between courses in different fields of study [10, 11]. In 2008 the Council published a White Paper on intercultural dialogue, which offered an intercultural approach to managing cultural diversity. The paper identified educational organisations (including museums, heritage sites, kindergartens and schools) as having the potential to support
intercultural exchange, learning and dialogue through arts and cultural activities [12].

On the other hand, in South-East Asia advocates of ‘place-based education models’ have been calling for educational reform since the 60’s, but they have long been ignored by policy-makers who generally steer education in the direction of the national ‘economic policy’. With the economic downturn in the 90’s, however, Asian countries were forced to restructure their economies by moving away from national-scale projects and striving towards greater diversification, innovation and place-based autonomy. In the hard hit Asian countries, economic restructuring was followed closely by educational reform with policy focused more on local rather than national agenda. These developments all place new demands and challenges on the curricula departments and division members in the ministries of education, educators, teachers and schools which require a creative leadership and support at policy level. In most conservative education systems in Asia, especially in the Arabic world, local cultural knowledge and local resource people are accorded lower priority than national or institutionally recognised knowledge or knowledge keepers. Often the school syllabus promotes a selective, simplistic and idealised view of the national achievements, national heroes, staple produce, and national culture.

4. General review of education and reform curricula of Jordan
Jordan is only one of many Middle-Eastern countries in this region of the world, it is practically in the center of the Middle East, where Arabic is the primary language. Education, however, has played a transformative role in the development of Jordan from an agrarian, subsistence economy to a predominantly urban, industrialized nation. Since the early 1920s, Jordan has forged a comprehensive, high-quality system to develop the human capital of its citizens. Today there are 2787 government schools, 1493 private schools, 48 community colleges, and 19 universities. In Jordan, access to basic education has been emphasized in all the country’s development plans [13].

Since the early 1950s, Jordan has made concerted efforts to combat illiteracy through the implementation of strategic policies for and sustained investment in educational development. As early as 1952, the Government instituted the Adult Learning and Illiteracy Elimination Program (ALIEP). Because of this and other related educational programs (such as the provision of free and compulsory education for people aged 15 years and below), total illiteracy rates in the country had dramatically dropped to 7.7% by 2008, of which males and females constituted 4.1% and 11.4% respectively. Currently, Jordan has the highest levels of literacy for adults (89%) in the Arab region [14].

In Jordan, generally, publicly-sponsored education at the elementary levels comprises a series of ten years, similar, where K-12 in sequence is standard. Secondary education comes after this ten-year period, which usually begins at age 16, and it consists of a two-year track of sequential study in which students, between 16 to 18, can enroll in either academic or vocational programs. When students reach the end of this full educational route, they are then automatically qualified to gain admission to universities [15].

In 1996, environmental education concepts were first introduced in the national curriculum by the UNDP. A conceptual framework was prepared for all environmental concepts that needed to be tackled in the textbooks. Later on, in 2004, the Education Reform for Knowledge Economy Project (ERFKE) was launched. The project aimed at transforming education programs and
practices for the knowledge economy. This meant that the Ministry carried out a comprehensive reform for the curriculum grades 1-12, with emphasis on classroom learning and an outcome-based curriculum. To fulfill this objective, curriculum division members were trained to use the newest strategies in introducing concepts which focus on exploration and critical thinking in young learners. All textbooks were changed. Under the vision of the ongoing (ERFKE 2), each school will have a resource centre where they will be able to obtain support materials such as environmental bulletins, books, activity workbooks, e-learning materials, etc. One important element of this project will be to introduce as many resources as possible for teachers to use. The teachers will be trained both in the use of the new integrated concepts and in enhancing learning through the use of resources from the resource centres.

However, CH themes, aspects and principles were not clearly addressed. Indeed any process should start with the pure knowledge behind CH issues, to be tackled in the sciences, as well as with associated social problems, moving towards ethics and value-shaping. In addition, a comprehensive mapping of CH concepts needs to include all subjects and precede any work. The intention of such curricula should offer avenues that are creative, innovative, avoid conventional fragmentation of CH concepts, artistic from the aesthetical aspect, and using the digital tools of ICT.

5. Other efforts to encourage cultural heritage/ archaeological children education
Several local efforts were initiated to encourage archaeological education in schools by a local NGO: The Friends of Archaeology and Heritage (FoAH) holds activities with schools in addition to heritage days. Few schools include an Archaeology club, such as al Ahliyah School. The Department of Archaeology (DoA) has an outreach unit that holds limited awareness activities with governmental schools.

The FoAH, as a non-governmental organization, has initiated efforts in offering archaeological education for school children through its education committee. The education committee designed joint activities with local member schools to increase their appreciation of their archaeological heritage. Heritage days were also held:

- **National Heritage Days**: 1998, 1999, 2001, and 2002: The main aim of this initiative was to spread awareness among the general public about the importance of the Jordanian cultural heritage and archaeological sites. The school students (from school members of Amman and students from the local communities and related educational directorates) in cooperation with FoAH committees and with the support of DoA organized festivals in different archaeological sites, concentrating on the significant historical events, that happened at those sites.
- **Museums and outreach activities**: Moreover, two major museum, the National Museum of Jordan and the National Children’s Museum, both, have considered school education services as an integral aspect of their mission.

Other international efforts, within Jordan, were launched under the umbrella of UNESCO to encourage archaeological education in schools. This can be seen in the UNESCO initiatives in publishing and distributing internationally a World Heritage education kit in several languages, including Arabic, as part of the World Heritage in Young Hands project. The kit is designed to be a resource for teachers with an active
and multidisciplinary approach to use in classroom teaching (UNESCO, 2003). The kit aims to develop pupils’ knowledge and awareness of world Heritage sites.

Finally, there is a national Jordanian Educational Multimedia Edutainment project “Hikayat Simsim”, which is a co-production by Jordan Pioneers for Multimedia in Jordan and Sesame Workshop in New York. The project aims to create a new generation of Jordanian children proud of themselves and their country, their own culture, respectful of other cultures, and empowered to embark on both formal and informal educational endeavours. Hikayat Simsim had developed a document which serves as the Educational Framework for the project (television and outreach initiative), where most of the topics and areas are directed to goals set by Jordan’s education reform and knowledge economy project (ERFKE). In the section about Culture, Heritage, and Art the statement emphasizes how to instill in children a pride of their country, heritage and traditions, archaeological sites and monuments, the formal and informal arts of Jordan and local arts and crafts, in addition to appreciating art and cultural aspects from different cultures. Hikayat Simsim, can offer infinite possibilities as a platform for young children (4-8 of age) in Jordan to explore heritage and archaeological themes with the Muppet characters that already entertain and educate them.

6. Towards defining principles and concepts of CH education

The purpose of establishing ambition of CH Education is to make students familiar and culturally-aware citizens keen to act locally and collectively from an intrinsic motivation to defend and sustain the CH for future generations. This knowledge helps students acquire the necessary foundation to understand and comprehend CH significance and importance. Perceptual awareness, however, only occurs when students appreciate and acquire sensitivity to the CH (tangible and intangible). This is essential for taking CH actions. Thus, CH skills can help students develop the ability in identifying, investigating, communicating, and be prepared to take action for the prevention of CH losses.

On the other hand, CH ethos is used to develop worldwide ethics that students can act upon regardless of their culture and religion. CH ethos ensures that the student is enthused by their ethical principles to practice positive CH behaviour for the general good. Meanwhile, CH participation helps and encourage the student to apply the acquired perceptual awareness, knowledge, while CH skills and ethos force him to take action for the anticipation and resolution of CH issues at the various levels of society. According to these motivations and the recent approaches and particularity of CH, and based on a case study of USAID-Jordan 2010-Final report on the survey findings of Mapping the concept of water and energy conservation in the National Jordanian Curriculums environment strategy for education [16], the suggested principles and concepts of CH education, can be categorized into three main aspects:-

Aspect 1: focusing on CH product and their benefits and uses.

Aspect 2: cover human influence and impact on CH product.

Aspect 3: focus on CH resource management and their sustainability. More analytically:–

• Aspect 1 consists of two principles; 1) CH and meaning. This principle includes the meaning of CH in relation to the natural and built environment that is in harmony and balance. 2) Human dependence and influence on CH (benefits & uses). This principle focuses on the human benefits and uses of CH, and their mutual interdependence.
• Aspect 2 consists also of two principles; 1) Human influence on CH (Positive and negative impact). 2) CH problems and issues related to human impact (anthropogenic threats and deterioration). It highlights the main CH problems related to over-usage by human communities.

• Aspect 3 consists also of two Principles; 1) CH resource management. This principle focuses on socio-cultural, political, and technical and CH implications; problems and management methods for solving these problems. 2) Reaching towards CH sustainability. This principle advocates a holistic approach to CH and evaluates relevant interconnections and deals with some of the bigger issues of sustainability, focusing on the role of societies and countries but based on the individual.

In order to develop a holistic approach, the three CH educational aspects with their six principles, that had been identified, will form and illustrate our conceptual approach and methodology.

Though, only an initial mapping of CH in textbooks was undertaken, it was integral to assuring that the age-specific comprehensive capacities of the students align with the CH content present, as well as it is placed in an organized, logical manner while building on concepts learned and adding dimensions as students get older. In this judgment we shall consider the following: What is the place of CH in national curricula? Do all areas in the curriculum have an equal weight? Are the CH curricula responding to the development of new technology, new media and orientation for cross-curricular work?

7. Review and notes on the ministry of education curricula in Jordan in relation to CH

History (grades 1-10); the subject of history presents itself as part of social studies from first through fifth grade. Upon reaching the sixth grade, history is introduced as a separate subject from social studies. The history curriculum covers a wide spectrum of historical epochs starting with ancient societies of Syria, Iraq (Mesopotamia), Egypt, India, China and the Moslem Empire. The subject also covers the revolutions of the world, including the Russian, French and American revolutions. Table 1 is an example of our approach of reviewing, assessment and recommendations for the textbook of “History of Arabs & Muslims, Sixth grade”.

It was found that most CH principles in the history curriculum are related to general issues. There are no references on how those people lived in the past. Little is mentioned about how those people erected buildings and monuments and how objects were made. Even what is there contribution in our world is almost absent. CH and its resources are not clearly examined and presented. It was also found that CH principles in the history curriculum while related to presentation of epoch, there is no consideration to chronology issues. As an example, concept of timelines and prehistory are introduced in grade seven for the first time. However, CH human influence and impact on CH material, management of CH resources and their sustainability issues are completely absent from grades 1-10. While some, historical and archaeological sites are present; reference to them is scant and is limited to a quick reinforcement of a basic reading of a chart.

Nothing was mentioned about archaeologist and excavations. There is even no explanation of how the past is constructed according to the concept of evidence. Archaeology, however, could be investigated in different ways: to learn about the everyday lives of society’s ordinary people who may have been overlooked by ancient writers, or about which written works may simply not have survived over the centuries. With regards to presentation of the CH aspects, a substantial amount of the principles
are presented in the form of knowledge, which is considered to be the first level of knowledge attainment. The curriculum also lacked projects and hands-on activities to help instill said concepts, as well as contextualize them through real-life activities. The negative and positive impact of humans on CH resources and solutions to some natural and anthropogenic threats were also not present. However, CH and its resources could be easily integrated in the history curriculum. Other skills such as analysis, synthesis, decision-making, and problem solving are completely absent. The students’ problem solving and decision making skills could be further reinforced by being asked to come up with solutions to CH importance, significance and problems during different historical periods, which could be easily identified and thus provide solutions. Adding concepts of varied CH ethics will have a positive effect on a society once it is rooted in the individual.

For discovering archaeology in National Curriculum History, a guide to the work of Archaeologists and ways to use Archaeology in the school curriculum, was written for the Archaeology in Education Service by Marion Green Education officer at Canterbury Archaeological Trust [17]. The main issues of this guide can be summarized as follows:-

• Archaeology is exciting.
• National Curriculum and History Special Needs. A cross-curricular approach.
• A guide to excavation techniques and finds processing.
• Introducing some basic concepts and using objects to find out about people.

Though, the archaeological perspective may also be integral (or at least, useful) to a local area study. For prehistoric periods of our past, material evidence is virtually the only source we have to know how people lived, about the technologies, building materials etc, of the past and therefore people’s practical skills and resourcefulness. For the classic periods, for example, looking at surviving buildings and artefacts from the Nabataean times will also support the Nabataean world, while an awareness of the work of archaeologists will underpin the Ancient Greeks, Roman and Nabataean. The history of the ancient Petra is a classical example of learning about land use and organisation by examining the structural remains of different periods (eg. from a Roman town, a Nabataean landscape and built environment) and seeing how an area changes over time, how the water problem in city prompts the inhabitants of the city to create hydraulic system in the rock-cut city and seek for creative solutions. Ancient theatre can also be presented as a full educational package to cover and integrate the three CH aspects and the principles. They could be presented as socio-cultural, architectural and acoustical, still in use in our digital age, anthropogenic threats, management for sustainability. This can support Jordan theatre heritage (till now 14 ancient theatres), while some of them are in use for modern functions. Such case studies may be easily be included in the grade seven curricula that has a panoramic collection of ancient civilizations that can assist to engage students in the process of interpreting the past.

Social Studies (grades 1-10); In grades 1-5 of the Ministry of Education social studies curricula, the integrated approach is employed in delivering the curriculum whereby some CH principles are embedded about the main heritage sites (mainly Petra and Jerash). Grades 6 – 10 have a separate curriculum called National and Civic Education where the focus is primarily on legal issues pertaining to the Jordanian State, some ethical values, economics and human rights. Few CH principles about benefits and uses are scattered in the curriculum whereby some attempts were made, although not consistent, to shed light on them.
**Islamic Education:** Islamic education contributes to the formation of human values and ethics, especially since religious morals in Arab states have a very strong impact on how an individual deals with his/her surroundings. However, Islamic education can effectively contain concepts on CH ethics, relating positive cultural behaviours to Islamic values. Students could participate in community awareness campaigns by designing and distributing brochures and flyers on CH issues from an Islamic heritage perspective. Students could also make field visits to heritage religious sites and mosques.

**English:** study begins in the first grade but it is not until the third grade that any CH concepts appear in the curricula. Meanwhile the historical Petra is mentioned in the third and fourth grades, but overall the first four

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<td>-Historical narration of events.</td>
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<td>-Reference to historical monuments with images, and some questions</td>
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years of public English schooling contain virtually no CH concepts. Curriculum revision should incorporate a more logical flow and development of CH concepts, beginning with intrinsic attitudinal, practical and CH ethics statements and activities. Talking and writing about virtually any project experience! Talk or write about a visit to a ‘dig’ and talking to an archaeologist. Discuss and list the main features of a finding (colour, material etc.) and describe how it may have been used. Build a story around the ‘life’ of a single finding (where and how it was used, how it became buried, how it was discovered and what happened to it then).

Science (grades 1-8); sciences are taught from grades 1-8 as integrated subjects of geography, biology, and physics. Again, some CH concepts are covered in abundance. These concepts were mainly presented in the form of knowledge and some as skills, and less often as attitudes; only occasionally did some concepts carry an ethical component.

There is a need to invest in looking at artefacts, standing buildings, reconstruction models and drawings based on archaeological evidence. Comparison of different technologies throughout time should be included. How do they compare with the present? Why does some designs change while others remain the same? Does this relate to function? Were the technologies of one necessarily any ‘better’ than the other, or were they simply fulfilling different needs and desires? In addition there is a need to emphasize looking at types and uses of materials in finds and buildings. What materials were used and why? Consider the survivability of different materials when buried in the ground and in different soil conditions, and conservation methods for artefacts.

Geography (grades 6-10); Generally, CH concepts were presented in the form of knowledge, which meant that students had to memorize large amounts of information. This made the subject undesirable and as a result a student acquires negative attitudes towards CH. The subject of geography could be considered a perfect venue for shaping CH attitudes and promoting participation. Unfortunately, the vast number of concepts introduced in a knowledge-base format results in that students receive vast amount of concepts without really contextualizing them. Moreover, specific emphasis needs to be stressed regarding CH resources in Jordan.

It is recommended to feature social research projects that allow students not to only study people’s cultural behaviours, but to also find the reasons behind these behaviours. There is a need for using different sources to discover the development of a local site over a long period of time (e.g. maps, archaeological evidence, landscape reconstructions, documents, aerial photographs, place-names). Even questions like, can any historical event, monument, be identified in the site’s development over a period of many centuries? How does the present use of the area compare with its history?, these questions incorporate critical thinking, problem solving, debates, analyzing current issues, and advocating for change. This way, attitudes can be changed and positive ethical values can be instilled in CH education for students.

Art (grades 8-10); The subject of art contains textbooks starting from grade 8. The survey of the art books from grades 8-10 found that there were no concepts covering the second and third aspect of the CH education. A review of the textbooks is recommended to engage youth in art activities while focusing on the relating CH themes and contextualizing and visualization it, in relation, to Jordan, like drawing, recording intact standing buildings and making estimates from ruins and only partial remains, shape of a complete vessel using fragments.
of pottery, and investigate tessellation and create mosaics.

**Arabic:** The concepts appeared randomly, without any particular progression, while the goal of the textbooks being primarily linguistic. Nevertheless, there is generally no gradation in the built heritage concepts. Presentation of CH concepts included mainly pictures. The textbooks, however, incorporated Quranic verses referring to, and Hadiths (Prophetic sayings) that encourage the rationing of heritage values.

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