



Newsletter

of the Faculty of Archaeology and Anthropology

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Yarmouk University is the first locally in the field of archaeology according to the international "QS" classification

Preserving the intangible cultural heritage in Jordan within the framework of UNESCO agreements

Finding Irbid

Early Bronze Age Tabular Scrapers from Northern Jordan
Khirbet Ez- Zeraqoun Case Study

Preservation of Marginalized Archaeological Sites

Newsletter

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Vol. 39 / 2023

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PREFACE

LAMIA EL-KHOURI

The Faculty of Archeology and Anthropology is one of the distinguished faculties of Yarmouk University. The faculty is notable not only at the university level, but also at regional and international levels. We are proud this year that the faculty has been ranked first locally in the field of archaeology according to the global QS ranking, and we are all confident that this faculty has been and still a pioneer in the field of archaeological studies and research, though it also has a distinguished scientific reputation at the international and regional levels in this field. This pioneering faculty also hosts a number of distinguished faculty members at the local and international levels, who have contributed their knowledge and experience to the study, analysis and documentation of Jordanian heritage for years, in cooperation with many scientific research teams from different countries of the world, and this reflects its distinguished position and its important role in preserving the history and the cultural heritage of Jordan. The faculty's interest in the importance of the history and the cultural heritage of Jordan was very obvious through hosting the fifteenth International Conference on History and Archeology of Jordan, under the auspices of His Royal Highness Prince Hassan bin Talal, and with the participation of a large number of specialists from 25 Arab and foreign countries. We were all pleased with the success of this conference in our beloved university.

The Editorial Board of News of the Faculty of Archeology and Anthropology at Yarmouk University is pleased to present to its readers Issue No. 39 - in the year 2023. This issue contains a group of specialized researches and field reports, in addition to a review of the faculty's activities, such as seminars, workshops and public lectures. This issue has been completed with the distinguished efforts of the faculty members and the technical and

administrative staff in the faculty. All thanks and gratitude are due to them.

In this issue, the published reports and articles varied to include the topics of recent archaeological excavations, surveys and discoveries in various sites such as Umm Qais, Qweilbeh, Tell Ya'moon, Deir 'Alla and Zeirqoun, and topics related to the importance of preserving archaeological and heritage sites. Some reports in this issue focused on the importance of fieldwork and training the faculty students on archaeological excavations. The last part of this issue includes summaries of master's theses that have been completed in the faculty through the last three years.

YARMOUK UNIVERSITY IS THE FIRST LOCALLY IN THE FIELD OF ARCHAEOLOGY, ACCORDING TO THE INTERNATIONAL "QS" CLASSIFICATION."

LAMIA EL-KHOURI

Yarmouk University, through the Faculty of Archeology and Anthropology, recorded a distinguished academic achievement, according to the "QS" world ranking of universities, by reaching the rank of 201-240 at the level of world universities in the field of archaeology, and thus being the first at the level of Jordanian universities in this field.



PRESERVING THE INTANGIBLE CULTURAL HERITAGE IN JORDAN WITHIN THE FRAMEWORK OF UNESCO AGREEMENTS HANI HAYAJNEH

The United Nations Educational, Scientific and Cultural Organization (UNESCO) is a United Nations agency with a global mission to contribute to building a culture of peace, poverty eradication, sustainable development, and intercultural dialogue, as the political and economic arrangements of governments are often not sufficient to secure the lasting support of people, UNESCO has been developing educational tools to help people live as citizens free from hatred and intolerance, by promoting cultural heritage and equal dignity among all cultures, and by strengthening ties between nations, support scientific programs and policies as platforms for development and cooperation, it seeks to defend freedom of expression as a fundamental right and essential condition for democracy and development, acts as a laboratory for ideas, and runs programs that promote the free flow of ideas, exchange of knowledge, and support for cultural diversity against new forms of intolerance. As an intergovernmental organization, UNESCO works in partnership with the Government of Jordan by helping to design and implement its national plans aimed at developing a knowledge-based economy, protecting its natural environment and rich cultural heritage, establishing systems that promote cultural and natural heritage, intercultural dialogue, and cultural diversity, and supporting culture-based institutionalization for development. The cultural field covered by UNESCO is vast and is governed by its cultural conventions, of which the World Heritage Convention is the most famous, it entered into force in 1972 and is concerned with preserving cultural and natural sites around the world. Other agreements include the 1954 Convention for the Protection of Heritage against Armed Conflict, the 1970 Convention for the Suppression of Illicit

Traffic in Cultural Property, the 2001 Convention for the Protection of the Underwater Cultural Heritage, the 2003 Convention for the Preserving of the Intangible Cultural Heritage, the 2005 Convention for the Protection and Promotion of Cultural Expressions, Jordan is a party in all of these conventions, and thus needs to fulfill specific obligations to ensure the continued preservation and preservation of the country's heritage.

The Jordanian Ministry of Culture will oversee the implementation of agreements related to intangible heritage and cultural expressions (2003 and 2005), while the Ministry of Tourism and Antiquities, specifically the Department of Antiquities, organizes and implements the conventions relating to tangible heritage (1954, 1970, 1972, 2001). This article will discuss Jordan's efforts to protect the intangible cultural heritage in the context of the 2003 UNESCO Convention in this regard. Intangible cultural heritage was defined in it as: "The practices, traditions, knowledge, and skills – and the associated tools, pieces, artifacts, and cultural places – that communities and groups, and sometimes individuals, consider to be part of their cultural heritage. This intangible cultural heritage is inherited from generation to generation and is constantly recreated by groups and groups in accordance with their environment and their interactions with nature and their history, and it develops in them a sense of their identity and a sense of their continuity, and thus promotes respect for cultural diversity and human creativity."

This concept is manifested in areas including, but not limited to, oral traditions and expressions, including language as a tool for intangible cultural heritage, performance arts and traditions, social practices, rituals and ceremonies, knowledge and practices relating

to nature and the universe, and skills associated with traditional craftsmanship.

Since Jordan's ratification of the aforementioned agreement, it has tried to mobilize institutional action by calling for the establishment of a Jordanian Higher National Committee for Intangible Cultural Heritage, headed by the Minister of Culture, to draw policies and develop strategies related to this sector, and to promote awareness of the importance of preserving intangible cultural heritage with the participation of communities, groups and individuals, and to achieve a system classification of intangible cultural heritage on the basis of a common methodology among stakeholders by taking into account UNESCO's cultural policy and orientation in this field.

Jordan succeeded in registering 5 elements in the Representative List of the Intangible Cultural Heritage of Humanity as follows:

1. The cultural space of the Bedouins in Petra and Wadi Rum. The main purpose of including the element was to show its role in ensuring an awareness-raising vision of the intangible cultural heritage of Jordanians, and to encourage dialogue that respects cultural diversity, as the cultural space of the Bedouins in Petra and Wadi Rum consists of the living relationship maintained by nomadic communities in the spaces they inhabit and derive their livelihood as nomadic herders, farmers and individuals involved in tourism-related activities.
2. Al-Samer in Jordan, a performance art known in large areas in Jordan and considered one of the original arts in it. It is practiced on various occasions, especially at weddings. It is transmitted from generation to generation and encourages the public to participate in it spontaneously. The inclusion of Al Samer in the representative list will encourage the groups that practice it to dialogue, communication, and engagement with other parties because its performance requires collective participation.
3. Palm trees and the knowledge, skills, traditions, and practices associated with it. Jordan succeeded in registering this element jointly with 14 Arab countries, namely Bahrain, Egypt, Iraq, Jordan, Kuwait, Mauritania, Morocco, Oman, Palestine, Saudi Arabia, Sudan, Tunisia, the United Arab Emirates, and Yemen. The date palm has long been associated with the inhabitants of these countries, serving as a source of many crafts, professions, social and cultural traditions, customs and practices, and a major form of nutrition. The date palm and its associated skills, traditions and practices also played a pivotal role in strengthening the connection between people and the land in the Arab region, which helped them to meet the challenges of the harsh desert environment, rituals, traditions, and ceremonial customs.
4. Arabic calligraphy: knowledge, skills, and practices. Jordan succeeded in including this element as a joint file that included 16 Arab countries, namely Saudi Arabia, Algeria, Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Mauritania, Morocco, Oman, Palestine, Sudan, Tunisia, the United Arab Emirates and Yemen. Arabic calligraphy skills are transmitted through formal and

informal education using the twenty-eight letters of the Arabic alphabet written in cursive script. The art of Arabic calligraphy has become an Arab and Islamic art for traditional and modern works carried out on various surfaces such as marble, wood, embroidery, and metal.

5. Mansaf in Jordan: a festive feast and its social and cultural meanings. It is the main ceremonial dish at social and cultural events in Jordan and an important and well-known symbol that evokes a deep sense of identity and social cohesion. It is associated with an agricultural and pastoral lifestyle in which meat and dairy products are readily available. The preparation of Mansaf is itself a social event.

Among what Jordan has achieved in the field of implementing the Convention is a range of achievements and projects. In cooperation with the UNESCO office in Amman, Al-Hussein Bin Talal University succeeded, under the guidance of the author of this article, in establishing a UNESCO Chair for Heritage and Sustainable Tourism at the headquarters of the Petra College of Tourism and Antiquities in Wadi Musa, with the aim of studying and interpreting and preserving the Jordanian cultural heritage and providing a basis for its study through research, training and archiving, within the framework of heritage and sustainable tourism, and establishing the Princess Basma Bint Talal Center for Intangible Cultural Heritage at the headquarters of the aforementioned college to support the process of identifying and documenting intangible cultural heritage in the south.

Since the ratification of the UNESCO convention of 2003, the UNESCO Office in Amman has made great efforts to support the government in implementing this convention, towards launching awareness campaigns on

the importance of intangible cultural heritage, in cooperation with the Jordanian National Commission for Education, Culture and Science and the author of this article, with the aim of strengthening national capacities to implement the 2003 convention, involving a broad spectrum of Jordanian society in preserving the intangible cultural heritage, creating a public debate among Jordanians about it, stimulating dialogue on the social and educational aspects of preserving this heritage, and promoting its importance in sustainable development.

In 2010, Jordan participated together with Egypt, Lebanon, the House of Cultures of the World (Paris) and the Department of Living Heritage of UNESCO in Paris in the Mediterranean Living Heritage project, which was jointly funded by UNESCO and the European Union within Euro-Mediterranean Heritage with the aim of supporting the implementation of the 2003 convention and strengthening institutional capacities in the countries concerned in order to facilitate their effective participation in international mechanisms for the safeguarding of intangible cultural heritage. The project was able to establish inventories of Jordanian intangible cultural heritage, through investigation, interviews, and collection and classification of information. As a pilot project for the inventory of intangible cultural heritage, Madaba governorate was chosen to implement the first community inventory rules for intangible cultural heritage in accordance with the UNESCO Convention of 2003.

Since recognizing the value of intangible cultural heritage is vital for Jordanians, it has become necessary to establish a legal basis to create ideal conditions for children and youth to immerse themselves in their intangible cultural heritage and then transmit it. The UNESCO Amman Office initiated the establishment of an intangible cultural heritage education unit aimed at designing teaching aids. Within the framework of non-formal education that can be provided after school or during extracurricular activities to introduce students to the concept of intangible cultural heritage and to present

traditional children's games in Jordan in a fun, innovative and effective way.

Recently, the UNESCO Office in Amman facilitated a new project on “Community Inventory of Urban Living Heritage in relation to Income Generation in Irbid”. The project was part of a broader UNESCO program, generously funded by Chinese firm Yong Xin Hua Yun, with the aim of exploring how living traditions evolve in urban contexts in times of rapid social change, and how living heritage and creativity can play a role in building sustainable cities.

The challenges facing Jordan's heritage, both tangible and intangible, are still great. The contribution that communities can make to preserving and conserving heritage is enormous, and not enough steps have yet been taken to appropriately share and integrate it into heritage management and conservation. However, on the basis of what has been achieved over the past two decades, Jordan may be in a position to explore measures and initiatives with the full participation of communities, groups and individuals to further safeguard the intangible cultural heritage in line with the requirements of the sustainable development goals. It has become necessary to build the capacities of communities, groups, and individuals, in order to safeguard intangible cultural heritage and increase their awareness of its importance, support educational institutions to broadcast the contents of intangible cultural heritage in their educational plans, strengthen the role of non-governmental organizations working in the field of intangible cultural heritage, and amend existing legislation and provisions. constitutional, strengthening media and information channels to raise awareness of the importance of intangible cultural heritage, supporting institutions to conduct research on best practices for safeguarding intangible cultural heritage in cooperation with communities, groups, and individuals, and investing intangible cultural heritage in the sustainable tourism sector.

PRESERVATION OF MARGINALIZED ARCHAEOLOGICAL SITES

ZIAD AL-SAAD

This short article begins with the question "Of what value are ancient at-risk archaeological sites and how does one go about protecting them?" In response, the following comments focus on devising policies and strategies for the long-term preservation of a category of archaeological sites that are classified as "marginalized." This classification is based on different qualitative and quantitative parameters such as value and significance of the site; dimensions; site location; degree of knowledge of the site on the local, regional, national, and international levels; the existence of proper conservation and management policies; the existence of proper management policies and accessibility of the site.

No one of these parameters alone is enough to judge if an archaeological site can be classified as major or marginalized. This also means that a highly significant site can be classified as "marginalized" because of the lack of proper conservation and management policies. For instance, the famous and highly significant site of Ain Ghazal, which is among the most important pre-pottery Neolithic sites in the whole of the ancient Near East that reveals important evidence about human rituals and technological innovation can be classified as a marginalized site due to lack of proper conservation and management policies. Extraordinarily rare plaster statues about 9000 years old, probably the oldest large-sized statues ever discovered, were excavated from this site. Jordan contains a large number of archaeological sites that are of high value and significance nevertheless neglected and marginalized. This represents a major loss of opportunity to utilize a significant part of Jordan's cultural heritage for the benefit of the society and badly needed sustainable development of local communities of these sites.

The state of conservation of most marginalized sites is rather poor due mainly to natural weathering and deterioration in combination with human-induced effects such as neglect, urban expansion, outdated legislation, insufficient urban planning frameworks, and pressures from tourism. Marginalized sites are the most vulnerable cultural assets that face irreversible damage and destruction.

To ensure the long-term preservation and utilization of marginalized sites, a set of management and conservation policies are provided and briefly described below. These policies can be used for guidance in deriving strategies and actions to achieve the sustainable protection and utilization of these sites that they deserve.

Key Policies for Long-Term Preservation

- Development and Implementation of Holistic Conservation and Management Plans

Preceding any conservation intervention and development of marginalized sites, comprehensive conservation and management plans should be developed. Conservation and Management plans represent a set of principles for proper conservation and management of heritage sites that outline the legal foundations, administrative procedures, and structures including a detailed action plan. The efficiency of a management plan, however, is strongly linked with the action plan, which outlines the necessary steps for the full implementation of the plan.

- Thinking with All Stakeholders: A Community-based Participatory Approach

There is almost a universal consensus among scholars and organizations concerned with

the conservation and management of cultural heritage sites that long-term preservation of heritage sites, particularly marginalized sites, can only be achieved by adopting an inclusive approach to heritage management with the active engagement of all stakeholders, particularly the local community. A community-based, participatory approach to conservation and management requires true participation of all stakeholders in decision-making, assessment, planning, implementation and evaluation processes, and contributions of experience, knowledge, and skills.

- Archaeological Excavations

Although the archaeological research at marginalized sites has resulted in major revelations, the negative impact of the excavation works on these sites' preservation is of great concern. Excavation works at these sites should be kept to the minimum necessary to achieve research objectives in case of identified gaps in knowledge. Excavation projects should utilize the potential of non-destructive techniques as much as possible, and be accompanied by conservation, interpretation, and publication plans.

- Capacity Building

Most marginalized sites suffer from a lack of trained and experienced conservation specialists and a lack of availability of adequate materials for conservation. Effective implementation of conservation activities requires up-to-date knowledge and well-honed skills. This can only be provided through the implementation of serious capacity-building activities using national and international venues.

- Interpretation and Presentation

Most marginalized sites lack appropriate interpretation and presentation for visitors. Therefore, the values and meanings embodied in these sites are hidden and can't be easily identified and recognized by

visitors. This can adversely impact the understanding and appreciation of the values and meanings of the sites and consequently negatively impact their utilization and protection. Effective interpretation and presentation of these sites are so vital for their understanding, appreciation, and protection.

- Tourism Development

Sustainable Tourism is an effective approach that can be utilized to increase the economic value of marginalized sites and offer sustainable opportunities for economic development to local people. While the rich heritage assets of the sites provide the foundation for tourism's growth, tourism has the power to generate funds that make the conservation and development of these sites possible. However, finding the right balance between site protection and the development of competitive economic activity on the other side may be a challenge.

All archaeological sites are irreplaceable and best practices demand that we do everything possible to protect them, especially those most at risk.

NEW ARCHAEOLOGICAL DISCOVERIES IN THE CENTER OF THE ANCIENT CITY OF UMM QAIS, 2022 SEASON F EXCAVATION.

ATEF AL-SHAYYAB

A team from the Department of Archeology at the Faculty of Archeology and Anthropology at Yarmouk University conducted archaeological excavations at the Umm Qais archaeological site, under the supervision of Dr. Atef Muhammad Saeed Al-Shayyab, Project Manager, with the participation of the surveyor Mr. Mowaffaq Al-Batayneh and the photographer Youssef Al-Zoubi, and with the participation of representatives of the Department of Antiquities (Mr. Bashar Al-Subaihi and Mr. Muhammad Al-Khalouf). The archaeological excavations took place at the Umm Qais site “Gadara”, from the 11th of May 2022 until the 9th of June 2022. The excavation aimed at discovering more archaeological remains at the Umm Qais site, starting from Hellenistic to the Islamic periods. In addition, it aimed at training and educating the local population about the importance of the site in terms of historical, archaeological, and touristic aspects, and thus reaching a kind of rehabilitation of the selected area to be ready to receive tourists and visitors in the future.

Umm Qais (Gadara)

Gadara is located 30 km northwest of the city of Irbid, on the southern bank of the Yarmouk River, in the area called Al-Hamma. It rises about 375 m above sea level. It occupies an intermediate position between Beit Ras and Bisan, and the borders of this city extended in the Roman era to the Sea of Galilee.

Site history

The Greeks established new Hellenistic cities in Jordan, such as Umm Qais, which was called a (Gadara) since ancient times, as this city was built overlooking the Yarmouk River and was under Ptolemaic influence and was then controlled by the Seleucids in 218 BC. It later became one of the cities of the Decapolis, which appeared at the weakness of Greek control in the region, and the

emergence of the Nabatean Kingdom in Jordan and the state of the Maccabees in Palestine, where the Roman leader Pompey in 63 BC occupied these cities and the formation of this alliance to stand against the internal and external dangers that were facing these Cities and control of the trade routes in that region. Settlement continued in the city of Umm Qais in the subsequent Byzantine and Islamic periods until the Ottoman period.

City plan

The plan of the city consists of an organizational network of main streets that intersect with sub-streets where the city is divided into multiple areas of unequal size. The sub-streets were not parallel to the main streets. The streets of the city are paved and equipped with a water drainage system and an advanced water system that contains deep tunnels that cut through most parts of the city to distribute water to all parts of the city.

The Most Important Monuments in the City

Most of the monuments on the site date back to the Hellenistic and Roman periods, which indicate re-settlement in the Byzantine and Islamic periods, in addition to the Ottoman village located on the eastern side of the site. Umm Qais has many theaters, the most important of which are the northern theater and the western theater. To the north of the theater there is a courtyard paved with stone tiles surrounded by limestone columns and an octagonal Byzantine Basilica dating back to the fifth century AD. There are two main streets in Gadara, one of which runs from north to south and is called *Cardo*, which meets a colonnaded street called *Decumanus*. There are also two baths in Umm Qais, one of which is located on the southern bank of the main street, 100 meters from the market. Opposite this bath is the *Nymphs Path*, and the second bath, called *Heracles*, is located to the northwest of the first bath. Outside the

city walls there is a racing field and the memorial gate that was built in the era of Trajan. The city has a main gate located on the western side.

Location coordinate

North 39.50962 North 92.50860
 East 0.3616330 East 00.3616398

Excavation Works

The archaeological excavation work has been completed at Umm Qais, which was conducted from 2013 until 2017, especially in the area adjacent to Decumanus Street heading from east to west, area Z4, which is located to the east of area M, where digging continued and cleaning the tunnel that is below ground level, 25 meters away.

Archaeological Discoveries in 2022 Season

Excavations took place this season to reveal the extension of the water tunnel discovered by the project manager, which is located in the center of the ancient city, at a depth of tens of meters from the level of the main street, which was called Decumanus, and penetrates the city of Umm Qais from east to west. The most important characteristic of this new discovery is that it is located underground and at a depth of tens of meters. It consists of passages that a person can walk through and contain closed water channels that transport water to the various facilities of the city. The discovered tunnel system is also characterized by containing stone valves through which opening and closing to control the power and distribution of water to the city's various facilities.

A new square was opened near the main Street heading from east to west (Square No. I 14). During this season, pottery pipes extending parallel to the lower tunnel were discovered. These clay tubes transport water from the beginning of Decumanus from the east side to the city gate at the end of the street. Tiberias in the west, as it was revealed in this season, water tanks, the briquette of which is still excellent until the present day, into which water brought by clay pipes was poured to fill those tanks, after that the water was filtered through sediment gathering at the

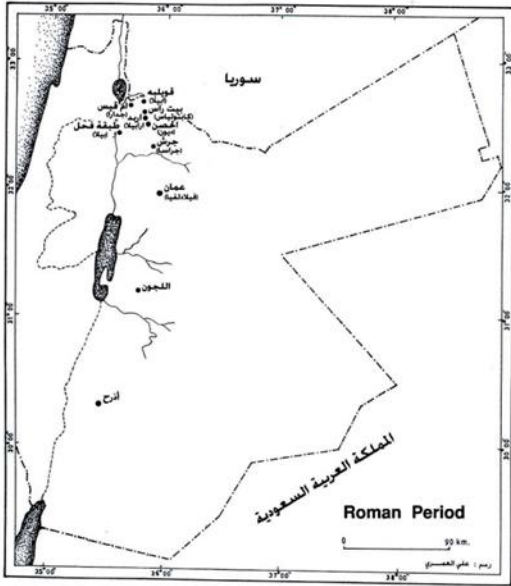
bottom of the tanks, and after that the water became pure and filtered. Also, through pottery pipes to other tanks located north of the main street. These tanks are connected to water channels that transport water to the tunnels, which also follow the filtration system through filling some tunnels with water so that sediment collects at the bottom of the wells associated with the tanks and water from the top to become filtered, and then it moves to tanks and channels to distribute water to all parts of the city.

The most important characteristic of this new discovery is that it is located underground and at a depth of twenty-five meters. It consists of passages that a person can walk through and contain closed water tunnels that transport water to the various facilities of the city, and to control the distribution of water to the city's various facilities.

It should be noted that these new discoveries are considered among the rare discoveries in Jordan and the neighboring region, and that these discoveries are the first of their kind in the city of Umm Qais, which will give great importance to this site and will greatly contribute to the process of interpreting the archaeological site of Umm Qais from the historical, functional and architectural point of view, and the interpretation of this water system and its relationship to the rest of the parts of the ancient city of Umm Qais and other cities of the Decapolis.



A picture showing one of the tunnels inside three wells.



A map showing the archaeological site of Umm Qais in relation to the sites of the other ten cities in northern Jordan.



A picture showing the archaeological excavations in Block No. I 14



FINDING IRBID

JESSE DIZARD

I went to the Hashemite Kingdom of Jordan with a Fulbright Scholarship (2021-2022) knowing relatively little about the country or the culture. I had lived in other Middle Eastern and North African countries (Egypt, Palestine, Morocco, Tunisia, and the United Arab Emirates) so was at least somewhat familiar with broad aspects of Arab and Islamic culture. Yet despite longing to see Petra, and to wander the ancient streets of Philadelphia (Amman), I had never crossed the Jordan Valley from Palestine heading East towards Syria and Iraq.

What finally compelled me to seek a Fulbright Scholarship to Jordan was the stark reality of Jordan's circumstances. I had to see for myself how ordinary Jordanian people were coping with the impacts of the region's current and looming crises.

This small nation of roughly 10 million has long been of critical value to American diplomacy in the region. For example, the largest United States Agency for International Development (USAID) mission in the world is in Jordan, and the United States Embassy in Amman is among America's ten largest. Jordan's geostrategic importance cannot be overstated, its borders touch Saudi Arabia in the south, Palestine to the west, Iraq to the east, and Syria to the north. Nor can the precariousness of Jordan's political, economic, and cultural institutions be overestimated, threatened as they are by the enormous influx of refugees from neighboring conflicts in Syria, Lebanon, Palestine, Iraq, and elsewhere, not to mention the dwindling supply of natural resources available to the population. In terms of available potable water alone, under current conditions and if nothing changes, some estimates give the kingdom another decade at best.

Indeed, if one needs an example of a potential tinderbox, one ought to look no further than Jordan.

My plan was simple. I would join the faculty in the College of Archaeology and Anthropology at Yarmouk University as a visiting professor, offer lectures and seminars on subjects that I teach here in the United States, and seek to understand the prevailing attitudes towards scarcity of natural resources such as arable land, freshwater, and electricity.

However, about one week before my scheduled departure from Los Angeles in August of 2021, I received a memorandum from the Fulbright Commission in Amman instructing me to find another university, one in the capital city, Amman. For the past two years there had been no Fulbright Scholars in Jordan, and apparently, the American Embassy wanted the first cohort since the Covid-19 pandemic to remain within the capital city's limits due to concerns for US citizens' safety.

Unfortunately, Yarmouk University is about 80 kilometers north of Amman, in the city of Irbid, a mere 12 miles from the Syrian border. And Yarmouk University is also the only university in Jordan with an anthropology department.

I managed to find a last-minute opportunity with the Department of Archaeology and Tourism at the University of Jordan in Amman, packed my bags, and departed, even though I was ill at ease and not sure how to proceed with this change.

A week or two after my arrival in Amman, I was delighted to receive another memo from the Fulbright Commission indicating that Yarmouk University's Dean of the College of Archaeology and Anthropology had somehow prevailed upon the Fulbright Commission and the US Embassy to persuade them to allow me to teach at Yarmouk and live in Irbid instead of Amman. This was my first indication that I was among formidable, serious people, who do not give up easily in

pursuit of their goals. Such determination is also reflected in the history of the region.

Irbid's origins date to early Bronze Age fortifications upon which subsequent settlement grew, and known as Arabella, 'Bride of the North', Irbid controlled extensive trade, both east-west and north-south across its broad and fertile plateau that produced excellent fruit, olives, and wines. It was one of the semi-autonomous cities in the Roman Decapolis. The neighboring cities of Gadara, Dera'a, and Qweilbeh cooperated for over 100 years (from 90 – 210 CE) to create one of the most significant hydrological systems of the era. They succeeded in building over 100 miles of rock-hewn tunnels with almost 3,000 access points to supply one another with fresh spring water two thousand years ago.

In 1961 the population of Irbid totaled roughly 50,000. Today, only sixty years later, Irbid is home to approximately 2 million people and is Jordan's second largest metropolitan area, boasting the highest population density of any city in the Kingdom. It is unclear at this time how much longer the existing municipal solid waste management system can continue to operate at sufficient capacity to manage this explosive growth.

For approximately 10 months, I taught several seminars to graduate students of anthropology and history, and team-taught large undergraduate lecture courses on "Schools of Anthropological Thought," "Gender and Culture," and "General Introduction to Anthropology." During holiday breaks and on the weekends, I packed in many of the adventures I had long dreamed of between invitations from colleagues and other friends to visit or join them on excursions to places they wanted me to see. I found my students to be respectful, shy, and exceedingly polite. And my colleagues at the university were deeply serious intellectuals, committed to their craft and yet generous with

their time. Several invited me to collaborate with them on their research, and as a result, I helped submit numerous grant proposals, assisted in drafting a variety of reports for the United Nations High Commission on Refugees, and even contributed to an article on tribal law and honor killings in Jordan. In retrospect, I hope my presence among such dedicated professionals on the faculty at Yarmouk University's College of Archaeology and Anthropology was of at least some value to them. I certainly benefited in myriad ways. Some of which I appreciated at the time, some I only came to understand much later, and others still may yet reveal themselves.

The Covid-19 pandemic has changed many things about our world, exposing shortcomings, and exacerbating problems, yet also reinforcing some of the more admirable aspects of our shared intellectual culture. And I cannot keep from wondering about how my time as a visiting professor at Yarmouk University has changed me. I will remain forever deeply grateful to my colleagues and friends in Jordan. Thanks in part to my time there, I intend to carry forward the commitment to leaving the world at least a little better than I found it, in particular by doing all I can to ensure that my Muslim students feel safe and welcome.

In short, and thanks to a tenacious Dean as well as amazing staff at the Fulbright Commission, I met many people in and around Irbid, regardless of the anxieties of pandemics, the ambiguities of language, and the vicissitudes of daily life. Some of these people became close confidants and friends. Without exception, everyone I met treated me with remarkable kindness and genuine respect. Despite the looming threats posed by climate change as well as international politics, I felt safer there than I ever have anywhere in the world.

EXCAVATION AND ARCHAEOLOGICAL SURVEY OF THE TOMBS OF QWEILBA (ABILA)

ABDULLAH AL-SHORMAN

As part of the field training course for students, a team of anthropologists from the Department of Anthropology at the Faculty of Archaeology and Anthropology at Yarmouk University, under the supervision of Dr. Abdullah Al-Shorman completed excavating and surveying number of tombs at the archaeological site of Abila, in cooperation with the Department of Antiquities. The students were trained on excavation methods, documentation, photography, mapping, and geophysical surveys.

In this season, a group of burials dating back to the Late Roman and Early Byzantine periods were uncovered. The most important of these burials was J33, which contained 23 burial niches found at the bottom of the altar room. It is worth noting that these niches were never used, and the rubble of the excavations of that era, which was found accumulated in the altar room and the entrance to the tomb were not cleaned. Evidence from this tomb, in addition to other nearby archaeological evidence, indicates that the period of preparing the tomb may have witnessed political or social instability, and this is what the excavations will focus on in the next season.



Picture of excavation team inside one of the tombs taking a measurements



RECONSTRUCTION OF JAMILA'S TOMB FROM THE ARCHAEOLOGICAL SITE OF BA'JA HUSSEIN AL-SABABAHA

The archaeological site of Baja is located within the Petra protected area in southern Jordan. Excavations were carried out at the site by the German mission from the Free University of Berlin, where many archaeological finds were found, most of which date back to the Neolithic period. Among the remains that were found at the site in the 2018 season is the tomb of a girl between the ages of 8-9 years (called Jamila). This tomb dates back to the Pre-Pottery Neolithic period (b). The girl was wearing a necklace made of 2,600 stone beads and shells.

Dr. Hussein Al-Sababaha and Mr. Musa Sarbal from the Faculty of Archaeology and Anthropology participated, with the supervision of the German mission, the excavation at the archaeological site. The task of the Yarmouk University team was to rebuild the tomb of Jamila, where Dr. Sabha dismantled and packed all the 102 sandstones of the tomb, using the scientific methods in this field. Special wooden boxes were made in the sizes of the main stones of the tomb, which numbered three, and their lengths were about a meter, their width was approximately 65 cm, and their thickness was 2.5 cm. A foam was poured around it, and it was transferred to the warehouses of the Petra Museum in 2019.

In 2021, the Yarmouk University team rebuilt the tomb in a space designated for it inside the new Petra Museum, to display it among the museum's treasures, so that the visitor can see this unique discovery specifically from this period, as this discovery adds archaeological value to the museum. The matter received the attention of the official authorities in Wadi Musa and the official Jordanian media, represented by the Jordanian TV, Al-Mamlaka News Channel and Roya TV. In April, the German TV channel ARTE launched a documentary program on the

archaeological site of Ba'ja. The program included part of the reconstruction process.



<https://www.dw.com/en/they-called-her-jamila-the-mystery-of-stone-age-baja/a-62837799>

PRELIMINARY REPORT OF TYRAS FIELD SEASON 2022

TARBOUSH, M.; ANTTI, L.; LORENZE, M; SABABHA, H.; SHORMAN, A.

The tell Ya'amun Regional Survey (TYRAS) is part of joined fieldwork project between University of Helsinki (Finland) and Yarmouk University (Jordan) carried out in collaboration with DoA. Our project examines the relationship between marginal entities and empires in the Middle East during the 1st millennium BCE through archaeological survey of the Tell Ya'moun area, located in the vicinity of the town of Balila (ca. 25 km south of Irbid), Northern Jordan (Fig.1). Our investigation aims at verifying sites we have previously identified through satellite imagery analysis and collecting composite data about the location, distribution, and organization of settlements in this area.



Figure 1. Survey area with sites

This project has three main aims:

First, to study how marginal identities are reflected in settlement formation of the peripheries of empires and to what limitations this can be assessed through the study of the archaeological remains. Second, to investigate the ways in which these marginal polities connected to each other and land use; and third, to record how these entities interact with the core of empires through networks and infrastructure analysis. The Tell Ya'moun Regional Survey has been structured both as a quantitative and qualitative comparative analysis investigating the area by intensively surveying ten artificial 5 x 5 km squares. Within these squares we investigated the

possible tell sites also quantitatively by collecting all pottery in the transect areas we set up with the help of GPS. In the rest of the area, we collected qualitative data, i.e., only recording diagnostic pottery fragments.

Methodology

An important reason for concentrating on Tell Ya'moun and its surroundings is that it lies along the King's Highway. Thus, even though the site itself was mostly of local significance, it was located along a major artery that connected it to the central regions of different empires and continued to thrive throughout the 1st millennium BCE. It thus enables us to study questions of continuity and change, long distance trade and contacts in the *longue durée*. Moreover, the previous archaeological and anthropological research carried out at the site by scholars from Yarmouk University offers us a basis for a deeper understanding of the materials collected during survey. Tell Ya'moun has been excavated in six consecutive campaigns between 1999 and 2005 under the supervision of Jerome Rose (University of Arkansas), and Mahmoud el-Najjar and Nizar Turshan (Yarmouk University) (Hindawi 2006, 2011; El-Najjar 2011). Occupation at Ya'moun spanned from the Early Bronze Age to the Ayyubid-Mamluk period, and features excavated included several tombs of different types, Bronze, and Iron Age architectural remains, as well as Hellenistic/Roman structures such as wine and olive presses, cisterns, and a Byzantine church with mosaics. The excavations demonstrated that Ya'moun was a thriving agricultural settlement with lively contacts across the Eastern Mediterranean world throughout millennia. TYRAS 2022 season focused on surveying the surroundings areas, which were never systematically surveyed, to

provide a better understanding of the occupational history in the region.

This fieldwork used a tried and tested methodology for targeted site survey, which has been shown to be very effective in Near Eastern archaeological contexts, especially those that are covered by a significant amount of modern urbanisation (Ur et al. 2013). The team first conducted an intensive satellite-imagery analysis across the entire survey area using primarily CORONA imagery from the 1960s and 70s, marking any visible sites and labelling them according to site type and clarity in a geodatabase (Figure 3). We then selected a representative cross-section of the potential sites identified to be visited in the field. Not all sites preliminarily identified in the CORONA imagery were archaeological sites, 11% of our 83 preliminary identified sites revealed to be new sites, while 12% were inaccessible to be checked and confirmed. Our site visits consisted of mapping features on the ground using the in-built GPS on handheld computer tablets, collecting material to be counted and analysed for preliminary dating and purpose, and measured and photographed as required. Specifically, we created a series of transects (i.e., survey sub section) inside which we walk in approximately straight line collecting all visible materials (Figure 4).



Figure 3. Corona images identifying architectural features



Figure 4. Transect and lines.

The field-walking strategy, which is a combination of previous effective methodologies (Ur et al. 2013; Bintliff et al. 2007) presents an ideal setting in which each person could search for a single line of 50 m length covering a corridor of 2,5m on each side. Every single line is inserted within a transect area (i.e., sub-divided survey area in which people walk), and usually five lines complete a full transect area of 25 m x 50 m. Thus, the field surveyors walk within a distance of ca. 5 m from each other, surveying a strip of land of 25 m width. It was often not possible to lay out perfect rectangular transect, but topography and land-use may have influenced the placement and size of the transect, although we worked towards making them as regular as possible. Within each transect and then each line the material was counted, washed, recorded, and preliminarily dated, however particularly diagnostic materials were also selected to be drawn and photographed.

Results

The combination of quantitative and qualitative data collected for all the sites identified in the satellite imagery within the area gives us a 360-degree representation/reconstruction of the region diachronic pattern over time. There are two lines of evidence collected during this first season to address the research questions. The first was the site verification originated from previously identified satellite imagery, which allowed us the discovery of new sites but also the monitoring of already discovered features documented in MEGA Jordan.

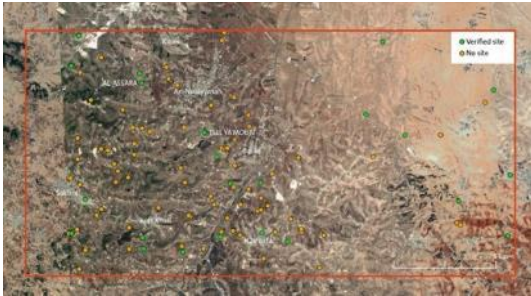


Figure 5. Sites first identified in the survey area.



Figure 6. Sites verified in the survey area.

The verification was done in person by accessing the site and material was collected following the methodology described above. Second, on the sites that were newly discovered and/or of particular interest, we progressed to create a transect grid and proceed to complete a quantitative intensive survey. We list below the sites that we have surveyed qualitatively and/or quantitatively in the May-June field season.

TYRAS 2022, Sites visited and recorded.

1. TYRAS 14, Sakhra, MEGA: 12605 (UTM N36 E = 768042, N = 3584859)
2. TYRAS 24, Khirbet Dayr Burak, MEGA: 7109s (UTM N36 E = 767347, N = 3591378)
3. TYRAS 27 Abkil, MEGA:11429 (UTM N36 E = 767373, N = 3583192)
4. TYRAS 30, Tmera, MEGA: 7261 (UTM N36 E = 7817901, N = 3589002)
5. TYRAS 54, Hattin MEGA:6682 (UTM N36 E = 770894, N = 3582440)
6. TYRAS 68, Tell Ya'moun MEGA:2823. (UTM N36 E = 773874, N = 3588116)

7. TYRAS 70, Zambuk Meleik MEGA:2787 (UTM N35 E = 767728, N = 3592853)
8. TYRAS 72, Ghzey MEGA: 2577 (UTM N36 E = 774488, N = 3586936)
9. TYRAS 74 (UTM N36 E = 788060, N = 3590187)
10. TYRAS 75 (UTM N36 E = 788888, N = 3586044)
11. TYRAS 76 (UTM N36 E = 783707, N = 3587997)
12. TYRAS 77 Beheirah (UTM N36 E = 772787, N = 3582217)
13. TYRAS 78 (UTM N36 E = 776697, N = 3583220)
14. TYRAS 79 (UTM N36 E = 776697, N = 3583220)
15. TYRAS 80 Deir Merwan MEGA 12604 (UTM N36 E = 770848, N = 3582975)
16. TYRAS 82 (UTM N36 E = 782618, N = 3592562)
17. TYRAS 83 (UTM N36 E = 782618, N = 3592562)
18. TYRAS 84 (UTM N36 E = 786340, N = 3584767)
19. TYRAS 85 Tell Al-Assara (UTM N36 E = 770805, N = 3590539)
20. TYRAS 86 (UTM N36 E = 770696, N = 3591001)
21. TYRAS 87 (UTM N36 E = 769453, N = 3586589)
22. TYRAS 88 (UTM N36 E = 776633, N = 3585666)
23. TYRAS 89 (UTM N36 E = 774666, N = 3583024)
24. TYRAS 90 (UTM N36 E = 775139, N = 3585623)
25. TYRAS 92 Tumeera (UTM N36 781854, N = 3586978)

In addition to recording sites on field, all the pottery and flints collected from the sites were washed, recorded, and analyzed at the facilities of Yarmouk University.

CLEANING AND RESTORING THE ANCIENT TEMPLE OF TELL DEIR ALLA

MARGREET STEINER

In October 2022, a team from Leiden University in the Netherlands worked to clean up the Late Bronze Age temple at Tell Deir Alla, which was excavated in 1961 and 1964 by Professor Henk Franken. The aim of this work was to assess the area of the temple still standing after 60 years, and to take C14 samples from the temple building and the earlier and later layers, in order to more accurately date the mud-brick temple building. There was no digging, just cleaning of the building. The temple is proven to be in good condition and sufficient samples have been taken for C14 carbon dating and we hope to continue our work in the future.



2011 SEASON OF EXCAVATION AT GADARA (UMM QAIS) OF THE DECAPOLIS

LAMIA EL-KHOURI

Recently published in PEQ: Lamia El-Khoury (2023) The 2011 Season of Excavation at Gadara (Umm Qais) of the Decapolis, Palestine Exploration Quarterly, DOI: 10.1080/00310328.2023.2165857

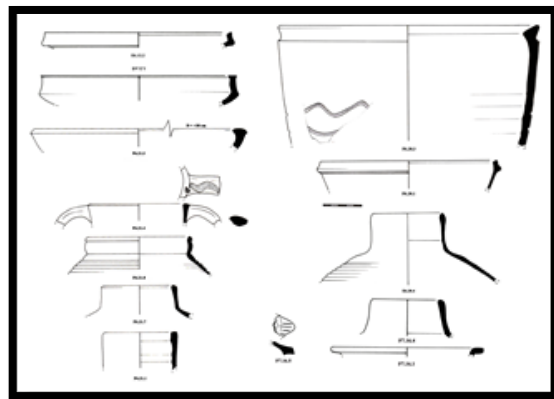
The excavation took place in Area Z, along the southern edge of the main colonnaded street (Decumanus Maximus), west of the Ottoman village. 17 squares had been excavated, each square measures 5X5 m. The main discoveries showed that this part of the city was occupied during several historical periods. It witnessed a continuous settlement from the Hellenistic until the Crusader-Mamluk periods. According to the recent disturbances in the area, caused mainly by modern occupation and army activities, several phases of occupation could be differentiated especially based on pottery readings. The phases could be hardly interpreted in some spots, however, numerous evidence of reusing the ancient architectural remains could be easily observed. By excavating the lowest levels, it was clear that the most ancient levels of occupation were completely cleared out in later phases to be replaced by other constructions and reused with some additional changes. Some ancient walls were reused as foundations of the newer ones, new walls that were built with different techniques were constructed to build small rooms. The majority of archaeological artifacts in the excavated area showed clear evidence of an intensive human activities mostly in the Late Byzantine, Umayyad and Abbasid periods, however, several pieces of artifacts were dated to the Hellenistic, Roman and Mamluk periods as well.

The original construction in the area of excavation has been uncovered in the lower phases. The building accordingly has perhaps three entrances, the largest is in the middle, and two smaller entrances on both sides.

Although it is still early to give a hypothetical interpretation of this complex, it is perhaps a sort of square-shaped palaestra on the atrium of a private house or a Gymnasium. The Palaestra was colonnaded with Ionic basalt columns along at least three sides; the northern, the eastern and the southern sides, creating a peristyle.



The southern edge and the south-eastern inner corner of the stylobate, parts of the original building



5th-mid 6th centuries pottery, found in the excavated area

FIELD WORK STUDENTS TRAINING, COURSES "PRESERVING ANTIQUITIES IN THE FIELD" AND "ARCHAEOLOGY IN THE FIELD" (SUMMER SEMESTER 2021-2022)

HUSSEIN AL-SABABAHA AND YOUSEF AL-ZOUBI

The field courses offered by the Department of Conservation and Management of Culture, and the Department of Archaeology are very important courses that give the student practical experience in how to excavate and how to deal with the archaeological remains, such as documenting and preserving archaeological remains. The field work course is equivalent to 6 credit hours. It is offered only in the summer semester, and there is no alternative to this course because of its importance.

The course aims to introduce students to the practical experience of how to deal with artifacts from the moment of their discovery until their arrival to the museum or warehouses for safe keeping. The student is also trained on how to document all information related to the artifact for future studies.

In the Department of Archeology, the course of (Archeology in the Field) is considered one of the main pillars through which the student takes practical experience in how to uncover archaeological sites and the various archaeological finds they contain. Where this goes beyond how to document these findings and how to study and analyze them in order to interpret and date archaeological sites and clarify the stages of settlement there.

The students of these two departments have been accustomed to field training for several years at the Umm Qais archaeological site.

In the summer of 2022, students from the Department of Conservation and Management of Culture under the supervision of Dr. Hussein Al-Sababeha, and the Department of Archaeology under the supervision of Dr. Maan Al-Amoush were get

trained at the site in the process of excavation and detection of archaeological remains, and documenting those remains with accurate scientific methods.

The students of the Conservation Department were also specially trained on how to deal with the artifacts at the moment of their discovery, in addition to learning ways to lift the artifacts, wrap them and document them using the correct scientific methods before the process of transporting them from the archaeological site to their safekeeping locations goes beyond how to document these findings and how to study and analyze them in order to interpret and date archaeological sites and clarify the stages of settlement there.

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EARLY BRONZE AGE TABULAR SCRAPERS FROM NORTHERN JORDAN: KHIRBET EZ- ZERAQOUN CASE STUDY

MOHAMMAD H. JARADAT, KHALED A. DOUGLAS,
MOHAMAD A. AL-DAIRY, ABDULRAOUF S. MAYYAS

The site of Khirbet ez-Zeraqoun lies in northern Jordan, about 12 km northeast of the modern city of Irbid. It is situated on a flat hilltop rising ca. 100 m above the steep western edge of Wadi esh-Shallaleh and encompasses a surface of about 8 ha. With this size, the settlement at Khirbet ez-Zeraqoun is considered as a medium sized fortified city in southern Levant. The site is enclosed by a fortification wall except for the east side where the very steep edge of the Wadi provided a natural defense for the settlement.

The site was excavated by a Jordanian-German joint team between 1984 and 1994 under the co-directions of M. Ibrahim from Yarmouk University in Jordan and S. Mittmann from Tübingen University in Germany with the cooperation with the Department of Antiquity of Jordan. Excavations results indicate that the settlement was first established during the EBII and continued through the EBIII. By the end of EBIII the settlement was completely abandoned with no indication of violence. Later during the EBIV the site was reoccupied in a form of seasonal camp of semi nomadic groups.

Tabular scrapers

Tabular scrapers are very distinguished stone tools in southern Levant. They started to appear in the late Neolithic, reached their peak in the Chalcolithic and Early Bronze Age. By the end of the EBIII it stopped suddenly and never showed up again in the following periods. Early Bronze Age sites in southern Levant yielded few numbers of tabular scrapers. Archaeologists believe that this type of stone tools was produced in certain workshops/quarries in remote areas in

the desert such south- and northeast Jordan and was shipped to those sites (permanent settlements/urban centers) in the northcentral and northern regions of Jordan through a well-established trade network. Excavations at the fortified EBII-III city at Khirbet ez-Zeraqoun in northern Jordan yielded thousands of flints tools and flakes. Three selected buildings (Temple complex, palace district and residential building) were chosen in this study as representative samples for the excavated parts of the settlement. Among 4000 flints pieces found in those three buildings just 10 tabular scrapers were identified. 60% percent of them found building B1.3 in the lower city. The function of these scrapers in some sites relates to ritual purposes or butchering and leather and wool processing.

The five different types of tabular scrapers from Khirbet ez-Zeraqoun: Fan, rounded, elongated, oval and irregular shape finds parallel with the Early Bronze Age inventories of the southern Levant, especially the assemblages of sites located in northern Jordan and Palestine.



Some forms of flint scrapers, the subject of the study

WORKSHOPS AND CONFERENCES

Yarmouk University, represented by the Faculty of Archeology and Anthropology, hosted the 15th international conference "History and Archeology of Jordan" in July 2022



Under the patronage of His Royal Highness Prince Hassan bin Talal, Yarmouk University, in cooperation with the Ministry of Tourism and Antiquities and the Department of Antiquities, held the 15th International Conference "The History and Archeology of Jordan ", under the title "Thoughtful Archeology in the Ecosphere and Sociosphere", during the period Between 2-4/8/2022.



The conference aimed to highlight Jordan's archaeological and historical importance, and to review the latest historical and archaeological studies and research related to Jordan from prehistoric times to the contemporary period, in addition to focusing on the importance of the impact of the surrounding environment and society on antiquities, and reviewing the latest

developments on Jordan's modern and contemporary history under The current circumstances, as the conference discussed 13 different scientific axes, the most important of which are "applied sciences related to archeology", "archaeological excavations and surveys", "archeology in different eras from prehistoric times to Islamic times", and "modern and contemporary history of Jordan", and "Tangible and Intangible Cultural Heritage", "Environment and Cultural Heritage", and "History and Heritage of Jordan on the Threshold of the Second Centenary: A Future View".

The President of Yarmouk University, Dr. Islam Massad, indicated that Yarmouk, as one of the leading national institutions in the field of research and heritage and archaeological studies, and has a distinguished scientific reputation at the international and regional level in this field, was keen to host this important international conference in its fifteenth session, especially since Jordan is rich in archaeological sites that prosper with ancient cultural heritage, many civilizations succeeded in it, and it was, through the ages, a strategic area on the commercial, social, and human levels.

He added that Yarmouk University, represented by the Faculty of Archeology and Anthropology, was and still a pioneer in the field of archaeological research and scientific studies, and embraces a number of distinguished faculty members at the international level, who contributed their knowledge and experience to the study, analysis and documentation of Jordanian heritage since the foundation of the university, in cooperation with many scientific research teams from different countries of the world.

This conference is held every three years. It was held for the first time at Oxford University in Britain in the eighties of the last century. It came as an initiative of His Highness Prince El Hassan bin Talal and with the continuous support of His Highness. It is considered one of the most important scientific and international conferences that

enable researchers in the sciences of archaeology, history, and related supporting sciences, to present a summary of their scientific output on the history of Jordan and the Levant and its antiquities. And it allows researchers to build scientific networks, exchange experiences and information, and promote Jordan's antiquities and history at the international, regional, and local levels.



- A workshop in November 2022, entitled "Aerial Photography and Remote Sensing in Jordan", in cooperation with the British Center for Research in the Levant.

Faculty members and students participated in a workshop on "Aerial Photography and Remote Sensing in Jordan" along with experts in the field of archeological photography: Dr. Robert Bewley, Firas Baqain, and Sufyan Karaymeh.



During the workshop, the importance of aerial photography of antiquities has been discussed, showing how it reveals the

changes affecting architectural structures or development in the use of land for agriculture and construction, in addition to clarifying other knowledge and technical aspects related to this new branch of science that affects archaeology, geography, and culture.

The workshop participants also explained that aerial exploration and photography is considered as a step forward in the field of archeology in general and archaeological investigations, through which scientists were able to achieve tangible progress in the field of archaeological explorations, by collecting information and data using various imaging devices.



- Rebuilding Lives: Victims of War in the Middle East and Doctors without Borders Organization

On Tuesday 7/03/2023, the Department of Anthropology at the Faculty of Archeology and Anthropology, in cooperation with Doctors Without Borders, organized a lecture on the book *Rebuilding Life: Victims of War in the Middle East*. It was delivered by the researcher in medical anthropology and the author of the book, Dr. Vanja Kovacic, where the author reviewed the main titles of the book and distributed copies of the book to the audience.

- Presentation of the book "Unique and Distinguished: World Heritage Sites in Jordan."

In May 2022, the Hussein Bin Talal Library - Yarmouk University, in cooperation with the Faculty of Archeology and Anthropology and the Icomos Jordan Office, organized a dialogue session to discuss the book "Unique

and Distinguished: World Heritage Sites in Jordan", by Her Highness Princess Dana Firas, President of Icomos - Jordan and UNESCO Goodwill Ambassador for Cultural Heritage In the presence of Her Highness the Princess, President of the University, Dr. Islam Massad, and a number of specialists in the field of heritage and antiquities at the University.



The session was moderated by Dr. Omar Al-Ghoul, Director of Al-Hussein Bin Talal Library, and Prof. Lamia El-Khoury, Dean of the Faculty of Archeology and Anthropology and Professor of Classical Archeology in the Department of Archeology, Prof. Zidane Kafafi, formerly Professor of Antiquities in the Department of Archeology, and Prof. Abdullah Al-Sharman is Professor of Organic Anthropology in the Department of Anthropology. During the session, several important topics related to world heritage sites in Jordan and how to preserve them, and the role of the Faculty of Archeology in protecting Jordanian heritage, were discussed.

-Languages in the Heart of Exile: Syrians in Zaatari Camp as a Case Study

On Wednesday 11/30/2022, the Faculty of Archeology and Anthropology organized, in cooperation with the French Institute IFPO, a workshop entitled "Languages in the Heart of Exile: The Syrians in the Zaatari Camp as a Model". The meeting was moderated by researcher Amal Khalifa from the French Institute. She is a researcher specializing in linguistic and cultural studies, specifically language studies among refugees. She is

currently working as a researcher at the French Institute for the Near East in Amman. She obtained a PhD in the field of teaching languages and cultures from the Sorbonne University in 2020.

The researcher worked on a project looking at how the humanitarian and political management of the Zaatari camp affected the linguistic upbringing of the Syrian refugees there, so that their new language practices reflected their linguistic needs, and changed their relationships with place, with the mother tongue, and with the foreign language. The meeting was attended by several faculty members and students of the Department of Social Anthropology.

- Qualified industrial zones as laboratories for economic globalization in Jordan

In October 2022, the Faculty of Archeology and Anthropology hosted researcher Taher Al-Labadi from the French Institute for the Near East - Jerusalem Branch, in a scientific lecture titled "Qualified Industrial Zones as Laboratories for Economic Globalization in Jordan." Al-Labadi stressed during the lecture, which was attended by several faculty and administrative staff members and students at the college, that the free industrial zones have multiplied around the world and their forms have diversified, and the free zones had the same principle, which is to remove a specific area from the general law in force to allow low-cost production.

Al-Labadi presented in his lecture these areas in Jordan, and in particular the organization of production and work within them, as is the case in any other place, indicating that these enclaves represent the spearhead of an economic strategy based on attracting capital and opening to international trade. For Jordan, Al-Labadi indicated that these regions play a leading role in industrial, land-use and labor policies.



It is noteworthy that this symposium is part of a series of joint symposiums to be held by the College through the Department of Anthropology during the first semester, with the French Institute.

- Applications of the SR-FTIR infrared spectroscopy emitted from the synchrotron of the Jordan Atomic Energy Commission.

Prof. Dr. Wassef Al Sekhaneh, in the Faculty of Archeology and Anthropology at the University, gave a lecture on the applications of the SR-FTIR infrared spectroscopy emitted from the synchrotron of the Jordan Atomic Energy Commission, and this was winning research and supported by the Department (Synchrotron Radiation for Scientific Experimentation and Applications in the Middle East) SESAME. The research results focused on chemical and physical analyzes and their applications in archeology and anthropology.

- Preliminary results of archaeological survey and excavations for the archaeological site of Tell Ya'moun and its surrounding areas.

Dr. Ante Lahelma from the University of Helsinki - Finland gave a lecture entitled "Preliminary Results of Archaeological Survey Work at the Tell Ya'mon Site and its

Surrounding Sites". This work comes as part of a joint research project between the Department of Archeology - Faculty of Archeology and Anthropology at Yarmouk University and the Center of Excellence for the Study of Empires of the Ancient Near East of the University of Helsinki Finland in cooperation with the Jordanian Department of Antiquities. Where work took place in the survey area during the first season in May 2022, during which the archaeological sites were documented and recorded.



As for the second season, it extended from 9/20/2022 to 10/25/2022. During this period, the focus was on archaeological excavations in each of the archaeological sites of Tell Ya'moun in the town of Naima and the site of Tell al-Asara in the town of Shatana.

The lecture was attended by a large group of specialists in the field of archeology and students at the college.

- Within the framework of the Erasmus Program and in cooperation between Yarmouk University and the University of Rome – Sapienza

The Department of Inscriptions at the College of Archeology and Anthropology held two lectures delivered by Prof. Dr. Lorenzo Verdami from the Italian Institute of Oriental Studies - University of Rome - Sapienza, entitled: Nomadism, Pastoral Life, and Tribalism: Meditation on these terms and concepts, and a review of relevant ancient oriental sources, and another lecture entitled: The View of the Settled Communities in Mesopotamia (Ancient Iraq) to Pastoral groups: the Marto/Amorite groups are an

example. And that in the period between 19/05/2022 - 18/05/2022.

- Domestic violence under the Corona pandemic

The Secretary-General of the Higher Population Council, Dr. Abla Amawi, presented a lecture to faculty members and students at Yarmouk University on "Domestic Violence in Light of the Corona Pandemic", via visual communication technology (zoom), at the invitation of the Department of Anthropology at the Faculty of Archeology and Anthropology at the university.

Amawi indicated during the lecture that the Corona virus pandemic had great effects and repercussions on the various population groups in society, especially women, whether in terms of health, economic or social, which contributes to reducing their active and important role in the advancement of society.

And she indicated that the rates of domestic violence rise in emergency situations, including cases of epidemic outbreaks, and the situation becomes more complicated for refugee and displaced women, due to forced coexistence and complete isolation with the abuser, and limited protection services from violence, and the difficulty of accessing and receiving them due to the restrictions imposed on movement.

Amawi pointed out that women with disabilities, especially refugee women, are more likely to suffer from physical, psychological, sexual, or financial violence. They are also vulnerable to neglect, detention, and deterioration, as they are unable to escape or defend themselves, and they lack access to justice, indicating that in Under these conditions, they face difficulties in accessing sexual and reproductive healthcare services, along with negative attitudes of caregivers and costs of care.

And she indicated that the pressure on women increases in times of emergencies and crises such as the Corona pandemic, especially as she bears the burdens of care, whether for children, the elderly, the sick, or people with special needs, noting that women in the Arab region do nearly 5 times the unpaid care work that others do. There are men in it, and under the closure of schools and care homes, this burdens women, which leads to their exhaustion and the doubling of responsibilities on them.

In the health aspect, Amawi explained that the health conditions of females in Jordan put them at risk under the outbreak of the Corona pandemic, as females occupy the largest part in the nursing sector, which puts them in direct contact with the infected and increases the risk of transmission to them, and the prevalence of chronic diseases. Among females, it is greater than that of males, which reached about 13.9% among females, compared to about 11.8% among males.

And she showed that on the economic side, women in Jordan are more vulnerable to financial losses under the pandemic, especially since they account for 56.8% of the individual enterprises working from home, and it is expected that this sector will be directly affected by the pandemic, and women will be the first to be affected, and 25.6% will be affected. % of employed women work in elementary professions, which are professions with limited income and difficult to implement remotely, which threatens the continuity of those employed, which leads to the loss of their source of income.

Amawi indicated that the state can deal with the pandemic on three levels, which are represented by a strong state and serious good governance, the presence of strong institutions inside and outside the

government and the political system, and the existence of a cohesive and interdependent society.

Within the lecture, which was also attended by the Dean of the Faculty of Archeology and Anthropology at the university, Dr. Hani Hayajneh, and the Head of the Anthropology Department, Dr. Ruba Al-Akash, a general discussion took place on the topic, during which Amawi answered the participants' inquiries.

FACULTY NEWS

The academic activities and achievements of several faculty members at the college have varied, and they include the following:

- Prof. Dr. Hani Hayajneh was chosen as an advisor to the Director of the Directorate of Research and Studies in the Kingdom of Saudi Arabia.
- Prof. Ziyad Al-Saad got on a sabbatical at the American University of La Sierra for the academic year 2021/2022.
- Dr. Hussein Sabbah, Dr. Maher Tarboush, and Prof. Dr. Hani Hayajneh participated in the archaeological survey of ancient inscriptions in the villages of Zainab, Madaba Governorate, with the French Institute for the Study of the Ancient Near East, on 9/3/2021 - 9/10/2021 AD.
- Prof. Dr. Wassef Al Sekhaneh participated in the Sixth Conference at the University of Oxford, OXFORD INTERDISCIPLINARY DESERT CONFERENCE (Bedouin in Jordan, Kinship and Family), 16 & 17 March 2023, School of Geography and the Environment, University of Oxford. (Online).
- Prof. Wassef Al Sekhaneh participated in Mobility, Development, and the Environment in the Levant Conference, by Dawn Chatty, Speakers: Ariell Ahearn, Wassef Sekhaneh. in Amman.
- Dr. Hussein Sabahah participated in rebuilding the tomb of a child from the pre-Pottery Neolithic period from the site of Ba'ja in the new Petra Museum in cooperation with the German Free University of Berlin on 9/28/2021 - 10/10/2021 AD.
- Dr. Sahar Al-Khasawneh participated on the workshop organized by the Atomic Energy Agency in France 10/31/2021 and it was entitled: "Workshop on Radiation Technologies for Cultural Heritage Preservation."
- Dr. Abdel-Rahim Ahmed participated at International Conference: "International Symposium Stone Consolidation in Cultural Heritage – CONSOLIDATION 2021", which was held in Lisbon, Portugal, during the period 2325/03/2022. In the research paper: "Assessment of the effectiveness of ethyl silicate-based consolidants on weathered archaeological limestone from Jordan".
- Prof. Dr. Wassef Al Sekhaneh participated in a research visit during the summer semester (09/07 – 13/09/2022) to Germany with the support of Yarmouk University. With a paper entitled: "Characterization and Dating of Archaeological excavated human Bone from Jordan by High Resolution ³¹P and ¹⁴C NMR and Fourier Transformation Infrared.
- Dr. Maen Omoush participated as a keynote speaker in an International webinar which has been organized on 27

August 2020, by Hasanuddin University in Indonesia, and the symposium topic was about: (Rebuilding Islamic civilization through the study of Islamic Archaeology in the Middle East and Indonesia).

- Prof. Dr. Lamia El-Khouri gave a public lecture in April 2022, at the Cincinnati Museum in the United States of America, as part of a symposium entitled "The Ancient Middle East and the Museum of the Twenty-First Century", in research dealing with Nabataean art entitled "The Identity of Nabataean Sculpture Art, a Comparative Study with Sculptures from other concurrent civilizations.

- Prof. Lamia El-Khouri gave a lecture entitled "Jordan in the Roman and Nabataean Periods" to a group of students at Stanford University in August 2022, through an invitation from the Segal Institute for Arabic Language and Civilization.

-Dr. Abdul Rahim Ahmed made a research visit during the summer semester (09/07 – 08/09/2022) to Germany with the support of Yarmouk University. With a paper entitled: “Validation and application of an improved classification system for assessing the condition of historical marble by nondestructive ultrasonic technique.”

-Dr. Ahmed Abu Bakr, participated in the international conference: METAL 2022: 10th Interim Meeting of the ICOM-CC Working Group 9/9/2022 - 5/9/2022 with a paper entitled: An Analytical Study of the Corrosion Behavior and Microstructural Properties of a Group of Copper Alloy from the Khirbet Yajuz Archaeological site, Jordan

- Prof. Dr. Khaled Al-Bashaireh, Professor of Archeology with a specialization in Applied Sciences in Archeology at the Faculty of Archeology and Anthropology at Yarmouk University, won the Abdel Hameed Shoman Foundation Prize for Arab Researchers in its 40th session for the year 2022, in the field of human, social and educational sciences, on the topic “Antiquities and Ancient Languages”. He won the award jointly with Dr. Muawiya Mahmoud Ibrahim Youssef.

Al-Bashaireh indicated that the award is granted in recognition of the distinguished scientific production, whose publication and dissemination leads to an increase in scientific and applied knowledge, contributes to solving priority problems locally, regionally and globally, and spreads the culture of scientific research, pointing out that his award came based on the scarcity of his research specialization in the Arab countries in the field of dating archaeological materials using the carbon-14 method, and studying the trade of antique marble and determining its source.

ACADEMIC PROMOTIONS

The Faculty of Archeology and Anthropology celebrated the promotion of several of its family members:

- The Council of Deans of Yarmouk University headed by the University President, Dr. Islam Massad, decided to promote Dr. Mustafa Al-Naddaf from the Department of Conservation and Management of Cultural Resources to the rank of Professor. Al-Naddaf holds a PhD in the field of conservation and management of archaeological sites from

the Free University of Berlin in Germany in 2002.

- The Council of Deans at Yarmouk University, headed by the University President, Dr. Islam Massad, decided to promote Dr. Wasif Al-Sakhineh from the Department of Conservation and Management of Cultural Resources to the rank of Professor. Al-Sakhineh holds a PhD from the University of Duisburg-Essen in Germany.

- The Council of Deans at Yarmouk University, headed by the University President, Dr. Zaidan Kafafi, decided to promote Dr. Ali Al-Khuwaileh from the Department of Anthropology to the rank of Associate Professor. Al-Khuwaileh holds a Ph.D. in Environmental Dynamics from the University of Arkansas in the USA in 2009.

- The Council of Deans at Yarmouk University, headed by the President of the University, Dr. Zaidan Kafafi, decided to promote Dr. Maen Al-Omouh from the Department of Archeology to the rank of Associate Professor. Al-Omouh holds a PhD in Archeology from the University of Newcastle, UK, in 2006.

- The Council of Deans of Yarmouk University decided to promote Dr. Abdel-Rahim Ahmed from the Department of Conservation and Management of Cultural Resources to the rank of Associate Professor. Al-Ahmad holds a Ph.D. in the preservation of cultural heritage from the Technical University of Dortmund in Germany.

MISCELLANEOUS NEWS

Welcome party for the new students for the academic year 2022/23

The Faculty of Archeology and Anthropology organized a welcome party for the new students of the academic year 2022/2023.



Where the new students were welcomed by the Dean of the Faculty of Archeology and Anthropology, Dr. Lamia El Khoury, in the presence of the Vice Dean, his assistant, heads of departments and several faculty members.

The heads of the departments introduced the students to the departments and academic degrees awarded in the following: Department of Anthropology, Archeology, and Preservation of Heritage Resources and Inscriptions.

Honoring Ceremony for Prof. Jesse Dizard

On the end of the visit of Dr. Jesse Dizard, envoy of the Fulbright Foundation from California State University, to the Department of Anthropology in the College, the Department of Anthropology organized an honoring ceremony that included the Dean of the College, Prof. Lamia Khoury and head of the Department of Anthropology Dr. Ahmed Abu Dalo and a few faculty members and students.



During the ceremony, Dr. Jesse Dizard was honored for his efforts during his visit to the university.

The Canadian ambassador of Amman visits the Deir Alla Archaeological Research Station



The Canadian Ambassador of Amman, Donica Botti, visited the Deir Alla Station for Archaeological Research affiliated to the Faculty of Archeology and Anthropology at Yarmouk University, as part of her tour in the Jordan Valley. sustainable economic development supported by the Canadian government.

Yarmouk completes a solar energy project at Deir Alla archaeological station with Canadian support



The university recently completed a project to install a solar cell system to generate electric power at the Deir Alla Archaeological Research Station of the College of Archeology and Anthropology, supported by the Canadian government, as one of the sustainable energy and economic development projects.

Gallery "Pictures from Yemen"

Mr. Yousef Al-Zoubi, archaeological photographer from held an exhibition of photos from Al-Yemen. The pictures show several historical buildings in the Yemeni city of Ma'rib before it was affected by the civil war. The displayed images are the result of trips and field visits in 2005 through the participation of Mr. Yousef Al-Zoubi In the project of archaeological excavations in the "Awam" temple complex in the city of Ma'rib, 170 kilometers south-east of the Yemeni capital, Sana'a.

Anthropology students visit the French Institute

Students from the Department of Anthropology received an invitation from the French Institute in Amman to visit the institute and attend a workshop given by Dr. Jesse, the visiting professor at Yarmouk University.



Achievements Within the Faculty

- Restoration of Deir Alla station for archaeological studies.
- Documenting, photographing and archiving artifacts at Deir Alla station.
- Developing the research laboratories in the Faculty of Archeology and Anthropology by purchasing new scientific research equipment and moving the laboratories to the old economy building, second floor, for expansion.
- Equipping two halls in the faculty with the necessary furniture and equipment to give lectures.
- Activating the Samir Shamma Chair, and Prof. Dr. Lamia El-Khoury has been nominated as occupant of the chair, who occupies the position of Dean of the Faculty of Archeology and Anthropology as well.
- Activating Mahmoud Al-Ghoul's chair, and Dr. Omar Al-Ghoul has been nominated as the occupant of the chair, who occupies the position of director of the Husseiniya Library at Yarmouk University.
- A model of Ain Ghazal statue has been dedicated to the former President of the Republic of Kosovo, Mrs. Atifa Yahya Agha during her visit to Yarmouk University. The statue model is the work of our colleague Muwafaq Al-Batayneh in the Drawing and Survey lab of the faculty.

- The faculty participated as interaction with the local community of the city of Irbid in the celebration held by the "Zaha Cultural Center" entitled "Irbid, the capital of culture". The faculty, represented by the Jordanian Heritage Museum, displayed some heritage objects such as traditional dresses, and different vintage craft tools during the celebration.
- A logo has been selected for the Jordanian Heritage Museum. The logo presents a small statue found by an excavation team from the Department of Archaeology at the site of Basta in southern Jordan.



Designed and produced by Prof. Lamia El-Khoury and Walid Abu Al-Haija

- A specialized team headed by photographer Youssef Al-Zoubi photographed all the artifacts displayed in the Deir Alla Museum affiliated to the college. Where this work is considered an important achievement for the process of proper documentation of artifacts belonging to the college.

News of Deir Alla Archaeological Research Station



Deir Alla station in its new form

Side of documentation, photography, and archiving - Yousef Al-Zoubi

- The laboratories of the Faculty of Archeology have recently suffered from space constraints, and their place is not suitable for the safety standards that must be available in laboratories, especially those that contain hazardous materials. The college has continued its efforts to obtain a suitable place to place the devices used in the analysis of archaeological materials.

- To develop the teaching process in the college, two halls in the college have been equipped with the necessary equipment to present lectures electronically.

- Architectural restoration of the station.
- Installing additional surveillance cameras.
- Installing solar panels to generate energy.
- Photographing artifacts at Al Mahatta Museum.
- Receiving several archaeological missions that worked in the field at archaeological sites in the Jordan Valley, including the French mission in September 2022, a team from the French National Center for Scientific Research. and the Dutch Mission in October 2022, a team from Leiden University.

Design an introductory brochure for the Jordanian Heritage Museum

To introduce the local community to the Jordanian Heritage Museum of the Faculty of Archeology and Anthropology at the university, Prof. Lamia El-Khoury, in cooperation with Yasmine Moufid from the Design Department at the College of Fine Arts, designed a special leaflet for the Jordanian Heritage



**Master Theses Defended
at the Faculty of
Archaeology and
Anthropology
2019 – 2022**

Archaeology Department

**Byzantine Churches in the Ancient city of
Abila (Qweilba) Comparative
Architectural Study**

**Musab Abu Ghazal
Supervisor: Prof. Lamia El-Khoury**

This study discusses the churches of Abila during the Byzantine period in terms of their general architectural plans and internal details. This study aimed at highlighting the historical, architectural, religious, and political importance of Abila through its five churches which were built in different periods.

These churches were studied and analyzed in terms of architectural plans and methods, building materials and the ornaments used in each building. Moreover, some of the churches that were spreading throughout Jordan, particularly within the same administrative and religious divisions during the Byzantine period, were like the architectural styles of Abila churches. The most important results of this study showed that the five churches of Abila are distinguished in size and architectural style from the rest of the churches during the Byzantine period in Jordan.

In this study, the historical sources and references, archaeological reports, and traveler's documents, that are related to this study, were used. field visits to Abila were conducted to photograph and describe each church.

**Mamluk and Ottoman Mosques on the
Levantine Hajj Route in Jordan: A
Comparative Architectural and Artistic
Study**

**Ahmad Ababnah
Supervisor: Dr. Maen Omoush**

This study deals with the Mamluk and Ottoman mosques in Jordan. The study included the Archaeological Habras Mosque, Raymon Mosque, Ajloun Mosque, Beit Ras Mosque, Al-Fudain Castle, Al-Azraq Castle, and Khan Al-Zabib.

The study aimed to shed light on a comparative artistic architectural study that relies on the archaeological approach of mosques that were not of importance by researchers and specialists, especially since some of these mosques, were not known before. This research was directed towards surveying these mosques on the Levantine Hajj route in Jordan.

The study also relied on the methods and means that would enrich the research with interest, including: intensive field visits to study these mosques, a comparative archaeological study in the architecture of Mamluk and Ottoman mosque architecture, enriching the study with pictures and plans, referencing the historical sources and references for the study period (Mamluk and Ottoman) and in particular the sources and references related to the Mamluk and Ottoman mosques located on the Levantine Hajj road in Jordan.

**Documentation, Re-assessment and Re-
interpretation for Khirbet ez-Zeraqoun's
Religious Complex, and a Suggested 3D
Reconstruction During the Early Bronze
Age.**

**Amarah Abu Zaitoun
Supervisor: Prof. Zeidan Kafafi
Prof. Naif Hadad**

The chronology of the early Bronze Age in the southern Levant recently went through some significant changes. Based on these changes, the re-assessment of the early bronze age's archaeological sites and its

excavations results became a necessary step. This study aims to re-assess the excavations results of Khirbet ez-Zeraqoun's religious complex in the light of the new chronology and architectural typology. It also seeks to provide an architectural analysis for it, so that a 3D reconstruction could be made. This analysis will test the study hypothesis, which states that the religious complex had two constructional phases, and the temples in antis of Khirbet ez-Zeraqoun where the earliest of its type in the Levant. Through the revision of the early Bronze Age in the southern Levant and Khirbet ez-Zeraqoun literature of the major publication related to it, a comparative study was created between the temples of Khirbet ez-Zeraqoun and the other timbales of the early Bronze Age in the southern Levant. This division also led to the creation of religious complexes 3D reconstruction by using SketchUp software. The results demonstrate the Khirbet ez-Zeraqoun was occupied firstly by the temple B0.1 since the early Bronze Age I, and the temples B0.4 and B0.5 were constructed in the early Bronze Age II. Also, temples B 0.4 and B 0.5 are the earliest example of the temples in antis in the entire Levant. According to these statements, the outcomes suggest that Khirbet ez-Zeraqoun was one of the earliest urban centers that combined two religious orientations that reflected the society's nature; the first was connected with the village community and the second with the urban community.

**Coinage of Damascus in the Ayyubids
Period, from Jordan Ahli Bank
Numismatics Museum Descriptive -
Analytical Study**

**Revan Dagamseh
Supervisor: Dr. Maher Tarboush**

The study was highlights on investigating silver dirhams and copper follis, and their details of inscription and decoration in reverse end obverse of each coin, to get a clear idea about various conditions of life during the Ayyubid period, especially

politics, economic and social control conditions.

The research deals with analytical study of the Ayyubid coins in the city of Damascus, that includes the Ayyubid rulers. Damascus was one of the most important cities in the Islamic world, which witnessed prosperity and every stage it passed through, and where many researchers focus on political, social, and economic life without taking into accounts the importance of the coins that were issued by the Ayyubid state.

This study aimed at documenting aspects of the history of Damascus in the Ayyubid period according to the coins and studying it as a systematic study based on description, analysis, criticism, and documentation.

The coins were adopted in this study as source of history, and the researcher used the analytical historical research method for the coins circulating in the city of Damascus during the Ayyubid period and then supported this information from historical sources and books. The study dealt with the coins that were found and struck by the Ayyubid.

**Samples of Hellenistic Pottery Discovered
from Umm Qais: An Analytical Scientific
Study.**

**Mohammad Bataineh
Supervisor: Dr. Ahmed Al-Shorman**

This study aims at identifying the characteristics of Hellenistic pottery fragments from Umm Qais and their manufacturing process. Starting with the raw materials used in the production of the battery and ending with the manufacturing and firing techniques, the provenance of these fragments was determined too. These fragments were uncovered during the excavations extending from 2008 to 2014, which were conducted by the Japanese research team under the supervision of Ken Matsum Spototo, in the W Pageest paart of the archaeological site of Umm Qais, Turn off at the northern side of Decumanus Maximus street. To achieve the aims of the study, an integrated methodology was used that

combined the descriptive approach and the laboratory analytical method. The samples were described in terms of shape, type, color, and texture. Some measurements such as its thickness and diameter were taken. Then the samples were documented by photographing and drawing. After that, the samples were chemically analyzed using an atomic absorption spectrometers AAS to determine their chemical composition. They analyzed my neurologically used apologized light microscope and an X-ray diffraction XRD technique to identify the texture and mineralogical content of the pastes. The results of this analysis showed that the samples were made using ferruginous calcareous clay and ferruginous non-calcareous clay. Non-clay materials such as quartz and others were used to stabilize and decrease the plasticity of the clay; the pottery was formed, generally, using wheel-thrown technique, and some by hand. The potter fired his production at temperatures ranging from 850 to 1050 Celsius degree in different firing environments. The results also showed that most of the samples were locally made due to the availability of their components in the surrounding environment, except for the samples that contained marble fragments and polycrystalline quartz, which are believed to have been imported.

Documentation of the Water System of the Archaeological Site of Umm el-Surab/ Al-Mafraq: Archaeological and Geophysical Study.

Waseem Jaradat

**Supervisor: Prof. Khaled Al-Bashaireh
Dr. Rasheed Jaradat**

This study aims to uncover the water distribution system in Umm El-surab archaeological site NE Jordan and Harrat Badiat Al-Sham basaltic area, to learn about ancient water-supply techniques that were used in the region. The site overlooks Wadi al bottom, which branches off from Wadi al sham that originates from Jabal al Arab/Al-Druze in southern Syria. This study included

a comprehensive archaeological survey of the site and its surroundings to identify and document the remains of the visible water system at the site. Ethno-archaeology was also conducted with a group of residents who lived in the archaeological site during the past century, to obtain additional information that contributes to our understanding of the used methods of water collection in the area.

The archaeological survey revealed the presence of eight pools in the area, which were made from ancient stone quarries. We extracted stone for construction operations on the site. Additionally, two cisterns were found inside the church, which was characterized by the arched keystone system, and several basins and small basaltic carved channels were also observed. Several dams in the area were destroyed as a result of land reclamation and the establishment of farms in the area.

Given the disappearance of many remnants of water systems at the site, a geophysical study was conducted in the eastern region of Saints Sergius and Bacchus Church using the Electrical Resistivity Tomography ERT technique involving the Wenner and Dipole-Dipole electrode configuration.

To understand the relationship between the main pool and the cisterns inside the church, as well as to investigate the possible structures of the remains of the water systems and to determine their extents and depths.

8 ERT profiles were carried out horizontally and perpendicularly, and the results showed a clear discrepancy and anomalous electrical resistivity values. These variations indicate the existence of subsurface archaeological structure resulting from human activity, that might be interpreted as two subsurface cisterns located within the eastern area of the church. The dimensions of the 1st cistern are 25L * 24.5W meters, with a high of 3.5 - 7 meters, at a depth of 0.25 - 1.5 meters, and extends up to 5 - 7 meters, while the 2nd cistern has the dimensions of 22.5L * 12W meters, with height of 3 meters, located at adept of 0.25- 2meters, and extending up to 4 - 6 meters.

Abbasid pottery excavated from the archaeological site of Tell Al-Husn, Area A, season 2009-2010: (A descriptive and scientific analytical study)

Hutaf Al-Etawi.

**Supervisor: Prof. Zaidoun Al Muheisen
Dr. Ahmed Al-Shorman**

This is a descriptive and scientific analytical study of the Abbasid pottery uncovered from the archaeological site of Tell al-Husn. Region A, the 2009-2010 season. After the introduction, the first chapter handled the Abbasid period, Tell al-Husn archaeology, the records of archaeological research, and the most important monuments.

Archaeological Site: It additionally handled the importance of reading pottery in general, and the importance of the study, its goals and samples studying. The study depended on the descriptive and analytic technique of pottery shards, and the clinical analytical to get familiar with the chemical and mineralogical composition.

The 2nd chapter targeted at the descriptive approach through classifying and describing the study samples of the Abbasid pottery found from the archaeological Tell al-Husn, in phrases of shape, paste, and surface treatment and deduce the overall characteristics of every group of the samples of this study, and extract comparable examples.

The third chapter is dedicated to an archaeometric study of 13 pottery shards selected from the study samples. Using scientific analytical methods, mineralogy through the study petrographic and chemistry via the usage of AAS atomic absorption spectrometry, and the outcomes have been presented. Finally, the conclusions and recommendations reached through this study after Follow the descriptive and scientific analytical technique, and finally, a catalog of drawings and figures is listed at the end.

It was found through the descriptive study that there are numerous styles of pottery persevered to appear similarity in shapes in

terms of paste, the nozzle, the base and the decoration and the lining.

The archaeometric results suggested that the samples from the archaeological site of Tell al-Husn are locally made. They were made using high calcareous clay (marl) containing fine grains of quartz. These are matching the geology of the area, which is confirmed by the existence of basalt fragments and foraminifera in the pastes. Finally, the Abbasid potter used daily used wheel thrown technique to form the vessels.

Archaeometrical study of the wall painting of the roman tomb at abila (qwailbeh) of the decapolis.

Mansour Ali Ahmad Abdelaziz

**Supervisor: Prof. Zaidoun Al Muheisen
Prof. Dr. Wassef A Sekhaneh**

This study examines the mural drawings in the Roman tombs in the city of abila (Qwailbeh) Archeometric study Knowing the actual composition of the pigments used in the composition of the mural paintings is very important to archaeologists, especially with regard to restoration and preservation processes, due to the lack of knowledge of the techniques that were used to make these paintings.

This study aspires to provide a qualitative addition in this field by knowing the characteristics and components of these wall drawings in the city of abila and the techniques used in their implementation and identification of these dyes and collect information about them and determine the materials used in the creation of these wall paintings This research is also interested in presenting the factors affecting these drawings, which in turn threaten their survival in order to know the correct methods of preservation and protection of these drawings

The methodology used in the analysis of pigments included the use of different summer techniques, including: FTIR-XRD, XRF, ATR

In laboratories where these techniques were complementary to each other to provide sufficient information about the identification of pigments and binders for wall paintings. These techniques for testing samples showed that the main element of all samples is calcium, and this indicates that lime was used as a binder and white dye at the same time, and it was also noted that organic materials were used as binders by FRESCO_SECCO technique. Analyses also indicated the presence of high concentrations of iron oxide and copper oxide in the wall paintings. Accordingly, the study reached the need for rapid intervention by making a systematic plan to preserve and protect these paintings from damage and destruction resulting from various factors surrounding these paintings for their importance and high cultural value.

Iron Age Pottery Excavated from the Archaeological site of Tal El-Husn (season 2019)

Haneen AlEssa

Supervisor: Dr. Ahmed Al-Shorman

Co-supervisor: Dr. Maher Tarboush

This study aimed at characterizing the nature of Iron Age pottery from the archaeological site of Tel El-Husn and their production process, through the used raw materials in the paste preparation, manufacturing technology, firing, then determining their provenance, in order to fulfil these aims an integrated methodology combining between typology and archaeometry was used.

Typologically, the samples were classified into three main groups: cooking pots, jars and Kraters, and daily used pottery. The samples were described according to type, shape, color, texture (fabric), then the measurements such as diameter and thickness were registered. Finally, they were photographed, drawn, and compared with parallel examples from the literature. The chemical analysis of the samples was performed using atomic absorption spectroscopy (AAS) to determine the chemical composition of the samples. After that, the samples were subjected to mineralogical investigation using polarized

light microscope to determine the type and nature of the non-clay materials and the texture. In addition, X-ray diffraction (XRD) was used to determine the mineral phases in the pastes to shed light on the minerals that developed during firing. The results indicate that the samples are relatively homogenous, the pastes were prepared using ferruginous calcareous clays, non-clay materials such as micrite limestone fragments and primary calcite (marble fragments) and others were added, then the vessels formed through the wheel thrown technique. Finally, the potter fired the vessels on temperatures range between 800 and 1000 °C in different firing conditions. In addition, the results revealed that the majority of the samples were locally produced as the raw materials are available at the site and its surroundings such as micrite limestone, quartz, and basalts. However, it is worth to mention that a group of the sample's pastes contain marble fragments, this rock is not occurring in Jordan and the whole entire southern Levant, since it occurs at Anatolia and Cyprus, thus, it seems that these vessels were among the import and export process between Tel El-Husn and these sites during the Iron Age.

Anthropology Department

The socio-cultural representation of wedding costumes: An anthropological study in Northern Jordan

Esraa, BaniHani

Supervisor: Prof. Mohammad Shunaq

The study aimed at the cultural and social representations of wedding dresses. An anthropological study conducted in Northern Jordan, Field interviews were used to collect and analyze the data and the focused group was women from the local community of northern Jordan. The study concluded these results: the women that participated in this research have tried to create a balance between their own identity. Therefore, the researcher has noted that the act of choosing the style

of dressing in because of self and psychological reasons as well as social reasons at the same time, also it represents a dynamic image that reflects their cultural earnings and abilities in showing or hiding certain aspects of their identity through social discourse that is formed from this act. The Festive practice for wedding in the community of this research has gone under a series of transformations and cultural changes as a result of the evolution of modernity and modernity. Also, the local culture of the Jordanian family was subjected to a cultural diversity that led to a change in some ceremonial rituals. The knowledge and the inherited skills are liable to be lost; therefore, this study recommended that the heritage of Jordan regarding costume traditions should be preserved by passing it to the future generations by documenting, recording, and researching it, and by existence of reference to ceremonial rituals of Jordanian marriage. A study on the comparison between dress in the past and the present in northern Jordan is considered. Light can be shed on the phenomenon of immigrant families from the countryside to the city and study their behavior of holding on to the customs and traditions. Also, studies can be conducted about the quality of the dress worn by women in weddings and on occasions. It is also possible to conduct a study dealing with the social, cultural, and economic background of families who appear to have no change in dress style.

Virtual Communities and Their Role in Changing Local Societies: “An Anthropological Study of the Social Reality of the City of Irbid, Jordan”

Ala’ Aldeen Ababneh

Supervisor: Prof. Mohammad Shunaq

This study aimed at identifying the most important features of the social change in Irbid as a result of their integration into

virtual societies. The most used virtual communities, where a number of methods were used to collect data and information in order to reach the goal of the study, the questionnaire, interviews and observation off participation, the analytical descriptive approach was used through a questionnaire designed and disseminated through modern means of communication for the pioneers of the virtual groups to monitor their responses to changes that occurred socially and culturally, the sample of the surveyed community was 400 individuals, using the qualitative approach of participation observation, and interviews with a group of community members as a case study, the study reached several results, the most important:

- 1- there are new social aspects in the community created by virtual societies, by performing social duties and interacting with issues across virtual societies at a high rate.
- 2- The gap between the culture of traditional local communities and the external manifestations of the culture of the culture reduced by the globalized culture in terms of fashion and the formation and interaction of relations with the results indicated that there are changes at a high rate.
- 3-the positives that virtual societies have produced for society to study have been high in terms of information transfer and facilities in the speed of information transfer and knowledge sharing.
- 4- the results of the study on the rule of virtual communities on the cultural identities of the city of Irbid, where many of them use the virtual identities in the space of ultimate throw their account.
- 5- the manifestations of globalization and cultural tradition created by the potential of virtual societies and emerging clearly in the study society were high.

The study reached a number of recommendations: but reserving the customs and traditions no matter how the tools of globalization, and the spread of awareness among the members of the community of the tools of globalization of the threats to social life, the generation of various social problems, and be careful of dealing with the holders of virtual identities, and the non-blind imitation of products are promoted and works on the breakdown of local culture, long-term non-existence and integration into virtual societies add the expense of direct real social life, reservation of national and national identity, because the default identity is a volatile and unstable identity that changes by changing accounts.

The Current Situation of Syrian Refugees Through Syrian Children Stories: An Anthropological Study at Irbid City

Manar Naser Al-shgerat
Supervisor: Prof. Mohammad Shunaaq

The study aimed to highlight the role of narratives by the Syrian refugee children of the age group (14-17 years) in the society of the study in Irbid city, and its role in the uncovering of cases of violence in all forms that have been exposed to during the course of refuge or may still. Descriptive research method was used in this study; and (240) male and female refugees alike were targeted as a focus group, beside storytelling groups and individual interviews. The method of collecting field data was through group interviews through the application of the "My Story with Refuge" program with the individuals of the study sample, as well as the participant observation method during the implementation of the program. The study concluded that the category of adolescent children of the Syrian refugees was subjected to violence of all forms due to the outbreak of war in Syria, and that

there was an increase in violence within the refuge communities and its negative impacts on their behavior; and that oral narrative method by the victims themselves allowed them the freedom of expression of their feelings using their own dialect without any restriction. The study also denoted to some social phenomena within the refuge society (such as child labor, early marriage, non-acceptance of others) and the consequent damages that negatively affect the social fabric within the refuge community. The study recommended the application of "My Story with Refuge" program with all age groups of the refugees through international organizations and youth centers operating in Jordan. The study also recommended increasing the awareness of the community through social media.

The Role of Kinship in the Integration of Syrian Refugees in Bani Khalid's Tribe

Areej Semady
Supervisor: Prof. Mohmmad shunaaq

This study aimed at identifying the impact of kinship relations on the integration of refugees in the host country. The study population, which is Mafraq governorate in northern Jordan, was chosen due to the number of refugees received by some provinces in the governorate in recent periods due to the situation in Syria and the displacement of a large number of Bani Khaled members from Syria to Jordan. This study is qualitative in nature and focused on obtaining data by conducting interviews, using focus groups, and participant observation. Interviews were conducted with informants from the study community and multiple visits were paid to the study community that was represented by the villages of Zaatari, Hamra, and Housha

that are inhabited by Jordanian members from the Bani Khaled tribe in addition to Syrian refugees who started arriving after the Syrian crisis in 2011. to reveal the nature of their integration. A qualitative analysis of 50 interviews showed that kinship relations play a significant role in receiving and integrating refugees in the host community as kinship has a role in the choice of areas where refugees prefer to go. The study shows that most of the Syrian refugees from Bani Khaled were in contact with their relatives in Jordan before the Syrian crisis. Significant economic changes accompanied this asylum of Syrian refugees in the host communities. The Syrian refugees were the main factor in stimulating the trade movement in the study community especially in the village of Zaatari, which contains the most significant number of refugees with close kinship links that may not go beyond the first degree of relatives. Among the findings of this study are that the Syrian refugees of Bani Khalid are totally integrated among their own tribal members in Jordan. Further anthropological studies addressing this type of relationship in the integration of refugees into host communities should be conducted. Host communities need to be supported by investment projects financed by the government or international organizations and regional or local organizations that will benefit both Syrian refugees and hosts community members to promote integration, coexistence, and peace between the two parties.

New Patterns of Food Consumption and Obesity: A Comparative Anthropological Study in Northern Jordan

Eithar AlHawarneh

Supervisor: Prof. Mohammad shunnaq

Co-supervisor: Dr. Ahmad Abu-Dalu

The aim of this study is to compare between two communities: urban and rural, according to food consumption and obesity, to identify the effect of this food on the individual health, nutritional problems which result from fast food and find some solutions for them, to determine how much the interaction between biological and cultural factors of obesity. The study was conducted in Irbid and Inbeh schools (males and females), built on anthropological, cultural, social, economic and medical variables. The tools were questionnaire and semi-structural interviews within the study society. Kobo toolbox was used to collect and analyze quantitative and qualitative data together. The study showed that fast food effects on the nutritional habits of individuals, and this change leads to different effects on health of students, especially the prevalence of obesity. Fast food causes the loss of inherited cultural value of the meal concept. Urban students depend on fast food more than rural, and prevalence of obesity was higher among urban society than rural. This study recommends expanding public awareness about negative effects of fast-food consumption on individuals' health, culture, social and economic status. In addition, we have to be aware about food sources, preparation, and food ingredients, which help us having a balanced diet. In case of having a weight-loss program, a dietitian should be consulted.

Kinship and Family Structures in the Light of the Virtual World: A Social Anthropological Study of Howwarah, Irbid

Roa'a Alshatnawi

Supervisor: Prof. Mohammad shunnaq

This study aimed at identifying the changes that occurred in the kinship and family structures in the light of the virtual world. The study used both the qualitative method of participant observation and interviews and the descriptive analytical method. For this, a questionnaire was prepared and published via social media for a group of users of the virtual world to monitor their answers to the changes that occurred in kinship and family structures. The study sample consists of 581 individuals. The study reached the main conclusion that there have been changes in family social relationships and the broader kinship units in the study community because of using and integrating the virtual world which has become an alternative to traditional relations that are based on direct and actual communication. Many realistic social relations in the social environment have withdrawn to the virtual world and have become more extensive and deeper as result off continuous communication and interaction the virtual world contributed to changing the pattern of relations and social partnership sand it's use has implications for the family budget of because of buying and selling and offering job opportunities with ease.

Among the most important recommendations that the study reached are: spreading awareness to families about the importance of family solidarity, communication, and interaction; avoiding being affected by everything that spreads across the virtual world because there are some cultural, social, and economic values that may contradict the prevailing

values in the local community and caring to increase the capacity to indulge in the real world because the virtual world cannot substitute the true feeling based on direct and actual communication during the exchange of visits and social partnerships with relatives in the real world.

Inhabited Space: Domestic Life in Irbid City between Ruralism and Urbanism

Heba Shatnawi

Supervisor: Prof. Mohammad shunnaq

The purpose of this study is twofold to understand the characteristics of urbanization and to examine the association between urbanization and urban, and economic growth of the city, the knowledge of rural and urban values, and the cultural path and intellectual and behavioral changes in the new urban spaces, mixed design of The field anthropological approach and descriptive approaches was used. Field data was collected through participatory observation and interviews. study variables were measured by self-administered survey. The study sample consists of 400 individuals from the study community. The study found medium level of the extent of retaining rural values in the urban community, the extent of acquiring new values as a result of integration into the urban community is medium, and the extent of social change as a result of economic and urban growth in the new urban spaces.

The Role of the Syrian Refugee Women in Activating Small Entrepreneurial Project: An Anthropological Study in Irbid city, Jordan

Alshayeb,tasneem
Supervisor: Prof. Mohmmad shunnaq

This thesis, entitled "The Role of Syrian Refugee Women in Activating Small Entrepreneurial Projects in Irbid", aims to identify the role of refugee women in socio-economic life. It sheds light on the associated effect of women's work on their home duties and obligations. In addition, it is revealed changes in gender relationships as a result of Syrian refugee women working in entrepreneurial projects.

The study conclusion, the local, international, and community-based organizations play a key role in success entrepreneurial women through providing training and grant support for refugee women, the inclusion of refugee women in the host community, which prompted them to participate in small successful projects with Jordanian women. The negative role of the refugee women's family toward accepting the idea of working outside the home, which led to their frustration and the failure of their small entrepreneurial projects.

The thesis shows the Syrian asylum led to a change in the role of women in the family and a lack of sustainable support to cover the main expenses to continue projects.

The study recommended encouraging refugee women to implement various entrepreneurial projects and businesses, focusing on empowering them socio-economically through their participation in the labor market. There is a need to intensify anthropological studies that address with the role of refugee women in labor market, especially in entrepreneurship.

Voluntary Work and Social Symbiosis during the Covid-19 Crisis: A Socio-Anthropological Study in Irbid city, Jordan

Osama Al-Miqdad
Supervisor: Prof. Mohmmad shunnaq

The study aimed to understanding and analyzing the volunteering aspect and social symbiosis during the crisis of covid-19 spread, throughout studying the activities and services that were accomplished in the study community in the city of Irbid, also, society responding against such crises by offering all it has of services and capabilities voluntarily toward patching and filling the gaps that were caused by this pandemic.

The study was conducted on a group of subjects in Irbid city by conducting personal interviews, focus groups, creating and publishing surveys also participating in the field with many of the institutions and associations in order to answer the study's problematic questions and benefiting from the electronic and field methodologies such as "Kobo Toolbox".The results of the study were: that volunteering was very essential and considered to be an effective auxiliary for the private and governmental institutions to maintain the country's resilience, also, volunteering has shown very substantial features considered to be quickly responsive when it's needed and widely spreading in the community, also the great trust that the community has toward it to deliver services and accomplish many activities, although the governments neglect it and consider it to be a secondary role. On the other hand, there are mature volunteer institutions in the study community that can provide services in a strong manner, but they lack the organization and require more support. But they need more organization and support. Reliance on monitoring,

follow-up, evaluation, training, and motivation are among the most important elements that increase the volunteers' momentum and the quality of their performance. The study has produced a set of recommendations of which are most important are enforcing new laws and code of conduct that allows the institutions to organize the volunteering and implement it in a formal manner and a greater scale, also providing the logistical, methodological, and financial support to the voluntary institutions that operate properly under a good supervision system also integrate volunteers in government institutions and various activities and finally creating crises specialized centers in which volunteers can be involved with their services that they can provide according to their specialization, experience, and ability.

**Death and Burial Ceremonies:
Anthropological and An Analytical Study
in Northern Jordan**

Ahlam Miqdadi

Supervisor: Prof. Mohammad shunnaq

This study is concerned with the subject of death and funeral rites in Kufr Rakeb, located in the Koura district in northern Jordan, where the researchers consider death as a natural phenomenon and an extended stage full of great secrets and meanings. The study clarifies the secrets of death and the customs, traditions and rituals that revolve around it since its occurrence, then the beginning of the process of getting rid of the corpse, to the performance of death rituals. The study clarifies the roles that the cultural, social, and economic aspects play in changing the course of these rituals as they transform from past to present. Thus, the problem of the study centered on the change that occurred in the funeral

customs and rituals and the most important reasons behind this change, whether they were cultural changes, economic or social changes, or both. The research community included males and females who lived from the thirties to the nineties of the last century to compare what was practiced in funeral rituals and customs in the past with what is being practiced now. The researcher tries to find out the reasons that led to this difference between the practices of the past and the present. The researcher used the comparative historical method, where she collected field data in the research community through observation and participant observation and analyzed it historically by comparing the funeral rites in the past with those of the present. The results of the study showed that funeral customs and rituals changed due to the cultural changes of society and also showed that the economic and social factors played a significant role in this process. The study also showed that the age and gender of the diseased play a key role in the different funeral customs and rituals such as the method of mourning that includes dress, the mourning location and period, and the aftermath. The researcher found that the psychological state of the family of the deceased is what controls the highlights of the funeral rituals. The study concluded with a number of important recommendations.

**The Social and Educational Reality of
Basic Education in Light of the COVID-
19: An Anthropological Field Study in
Irbid City, Jordan**

Lubna Ruhayyel

Supervisor: Prof. Mohammad shunnaq

This anthropological study has been conducted to investigate the social and educational reality of Basic Education in Kasabat Irbid during the Corona

pandemic from a social and educational perspective. The study examined the effects of this disease on the field of basic education and diverse human roles that impacted this. The methodology that was used for this study was ethnographic fieldwork.

The data collection methods used were in-depth interviews, observation, and participatory observation and study cases. The views and opinions of respondents were carefully documented to be analyzed qualitatively.

The study population included three schools from Kasabat Irbid that were targetedly chosen to examine the social and economic circumstances of students in basic education classes. These schools are Sal Basic School for Boys, Jumha Secondary School for Girls and King Abdullah II School for Excellence. Thirty interviews with headmasters, teachers, students, fathers, and mothers were conducted for analysis. The study achieved significant results.

The study has shown that the social life of basic school students has been restricted to their homes where they start rebuilding their relationships with parents and their authority, and with their siblings at home. The lack of activities and student's dependence on electronic communication channels during the pandemic has limited their social interactions not only inside their homes, but also between them and the school and its components, the teachers, administrators, counselors, and fellow students.

Due to the unprecedented shift from the traditional school system to the home education system, educational relations were significantly restricted. Electronic devices became the only means to access virtual education and this caused fear on the part of parents concerning the type and quality of education that their

children receive. Parent's concerns are mainly over the new educational system which lacks the basic components of the traditional educational system that depended on face-to-face learning without the use of any modern devices or applications.

The study recommends that specialists attempt to resolve the issues and negative impact that may result from the confinement students in their homes, their lack of interaction with their peers, the effects of their physical inactivity, and the impact of social disconnectedness. Additionally, there are technological challenges related to the infrastructure that should enable students to pursue their learning through distance education. Further, distance education requires that students have acquired self-study skills because the responsibility of learning has been entirely transferred to the student in his home environment. Hence, the guardian parents have become partners in the learning process.

Acculturation and Cultural Identity: The Case of Millennial Saudi-Born Palestinians Returnees to Jordan

Abdallah Sami Abulouz

Supervisor: Prof. Mohammad Shunnaq

Many Palestinians have left the kingdom of Saudi Arabia after the new mandatory expat fee that was imposed in July 2017 over non-Saudis residents by the Saudi government. The researcher focused on this study was the Millennial Saudi-Born Palestinian returnees to Jordan, who were between the age of 20-39. The main objectives of the study are to investigate: how was the acculturation of the Millennial Saudi-Born Palestinians in Saudi Arabia? How the changes in socioeconomic and livelihood rights after returning to Jordan affected the acculturation process? And how will that

reflect on the identity? Using autoethnography as a research method that emphasizes and employs the subjectivity of the researcher, the study investigated the hypothesis of the dynamism of the Millennial Saudi-Born Palestinians' identity by using network sampling as a method. Particularly, the snowball sampling to conduct in-depth interviews. The research showed that cultural identity had been affected in each acculturation phase of the life of the Millennial Saudi-Born Palestinians. In the beginnings of the first phase of the acculturation process in Saudi Arabia; the identity had been constructed by intertwined Palestinian and Saudi cultural layers. Then, in the end, an unhealthy adaptation produced a confused identity due to the changing in the host policy toward non-Saudis. However, Millennial Saudi-Born Palestinians embraced the Saudi cultural layer in their Identity and built upon it. The second phase started after leaving Saudi Arabia for Jordan. Returnees suffered from changes in the quality of their livelihood, economic status, and social capital. That caused a multilayered cultural Identity for some returnees by x embracing Jordanian cultural identity as a layer, while many undergoing non-belonging and distortion in cultural identity

. Strontium Isotope Analysis of Late Roman/Early Byzantine of Human Dental Enamels of Sa'ad Archaeological Site, Jordan

AbuAllan, Maria

Supervisor: Prof. Abdulla Al-Shorman

Strontium isotope analysis has been used frequently in archaeological research and studies to investigate past human mobility. This study analyzed a total of 15 archaeological samples (11 human dental enamels and 4 faunal bones) for

Strontium isotope ($87\text{Sr}/86\text{Sr}$). The samples are dated to the Late Roman/Early Byzantine period from the archaeological site of Sa'ad. The results of the study revealed the presence of 9 individuals who were non-local to the area, while the remaining 2 were locals to the area bestowing to the faunal $87\text{Sr}/86\text{Sr}$ values. According to these results, previous $87\text{Sr}/86\text{Sr}$ results and the archaeological records of Sa'ad the nonlocals came probably from Jerusalem and Tell Dothan in Palestine and Qasr Bshir in Jordan. The archaeological site of Sa'ad had several external interactions with nearby and far urban cities, which made Sa'ad an ancient attraction site.

Mental Disorders and the Social Integration an Anthropological Study of a group of Syrian Refugee Children in Irbid City

Laeika Khasawneh

Supervisor: Prof. Abdel Hakim Al Husban

This is study tackles the crisis of the Syrian refugees and Jordan in terms of the psychological disorders among Syrian children and their impact on their chances for social integration in the surrounding social environments. To collect data and information, the study has used many tools including in-depth interviews with 15 mothers of Syrian refugee children and focus groups sessions on which around 30 Syrian women have participated. The methodology that has been used throughout the whole research is descriptive and analytical.

The most important results of the study were that the long years of the war left cytological problems and diseases for Syrian, especially children. They suffer from psychological consequences of the continuous bombardment, displacement and loss of loved ones and dear ones. Nine

years after the Syrian crisis, refugees in irbid have become more respective to Jordanian society, and Jordanian society has become more vulnerable. Receptive to Syrian refugees, the process of gradual reintegration of refugees has begun and some even do not wish to return to Syria. The researcher made several recommendations, the most important of which is the need to provide more effective protection for children, especially in the context of new and unprecedented conflict situations, and to identify the ICRC's humanitarian's efforts to provide humanitarian services to victims of war.

The role of economic and social factors of the family in choosing the Quality of school education for their children: an anthropological study of Irbid city – Jordan

Rewa'a Gharaibeh
Supervisor: Prof. Abdelhakim Husban

The study attempts to reveals the impact of economic and social factors of the Jordanian family in the process of choosing their children's schools, as it is found that there is a relationship between the economic and cultural factors of the family subject of the study and their school choices. The economic factors represented by the low income of the family have a great role in the mechanism of taking decision to choose government schools, while the well-off families are able to send their children to private schools whatever may the schools nature. However, the social and educational levels of the child's father and mother and their occupations have precise role on their process of choice; choices varied between the families, in which the parents, have higher education and occupations, that made them enjoy higher social positions, moved towards choosing

private school for their children, whereas, those families in which the parents are uneducated and occupy low status professions send their children to government schools.

The study also researched the variation in the family's opinions about the school that bear the religious nature. A clear difference was felt between the opinions of the supporters and the opinions of the oppositionists to the idea of sending their children to such schools. The study followed the methodology of personal interview with a group of families from Irbid who send their children to different schools whether governmental or private schools.

The study employed the method of follow up and pointed that there are set of basics represented by the quality of education, the extent of control and other matters upon which the Jordanian family establish the process of choosing their children's schools.

The Involvement of Women in the Political Space and Public Sphere: An Anthropological Study of the Palestinian Refugee Camps in Jordan

Mayyadah Shreideh
Supervisor: Prof. Abdelhakim Husban

This study aimed to focus on the involvement of women in Palestinian refugee camps in the public sphere and political space in Jordan. The study used participatory observation by conducting in-depth interviews and social media ethnography (Facebook) about what activists write on Facebook about women's participation in politics. The data were analysed based on the qualitative analysis and the descriptive approach. The structural functional theory was used to analyse the results and projecting the symbolic violence model develop by the sociologist "Pierre

Bourdieu” “male domination”. The analysis was formulated on three main axes First: Displaced Palestinian women and family conditions, on the second about: The locative, social and economic conditions, and third: women's involvement in the political space and sphere. This study found that Palestinian women suffered not only from the injustice of the Israeli occupation, but suffering from male domination in society, but they went beyond this domination and engaged in guerrilla action in order to defend their land in the liberation organizations that took upon themselves to defend the land of Palestine. After the wave of asylum after the 1967 war, she was subjected to forced displacement that led to her and her family's displacement from her land to many neighboring countries around Palestine, including Jordan, where the study community is Palestinian refugee camps, and in the beginnings of asylum, women suffered from living in the camps and the camp space due to the poor services provided to them. However, despite all the limitations that women suffered in the Palestinian refugee camps, they did not limit their resolve and determination to shift work and engage in the political and public space, and through life diaries and interviews it was obvious that Palestinian women worked and held many positions, including MP, minister, political parties, Secretary General, Doctor, Journalist, Poet, Writer. Etc. and other political positions and public work.

**Religion and Culture in Urban Context:
An Anthropological Case Study,
Amman, Jordan**

Luna Alshishani
Supervisor: Prof. Abdelhakim Husban

From ancient times to the present, anthropology has attempted to define, explain, and justify religious beliefs and practices as a comprehensive comparative analysis of human cultures. The relationship between culture and religion is strong, hence culture is one of the most important factors to consider while researching religious beliefs and practices in a particular group. Individuals' cognitive, behaviors and ideologies are influenced by age, gender, education, and mobility. This study aims to have a better understanding of some of these factors and motivations and its effect on religiosity, also to investigate the impact of culture in forming religious rituals and ceremonies, to discover new reasons for practicing religion, and to existing reasons that influence their beliefs. In order to achieve the goals of this study, an online survey was conducted which collected data of a random sample of 778 participants from Amman region in Jordan. Three basic questions were asked: age, gender, and educational attainment, as well as four research-specific questions about religious commitment, religious status, reasons for belief, and the conversion of religious rites to customs and traditions. The findings reveal that there is a considerable societal impact of age, gender, and educational achievement on religiosity and reasoning in Amman, Jordan's study areas. Age appears to lead to a certain level of conservatism, after which religiosity declines. According to various offered hypotheses and observations, gender has a key effect in religious belief since females are more religious. Religious belief is influenced by educational level, but not in the way that one might assume. Although there is some validity to this, it appears that a

greater education leads to a higher social status, which encourages people to be loyal and faithful.

The Family Role in Producing and Reproducing the Concepts and Practices of Gender: An Anthropological Study at Irbid City

Zohour Gharaibeh

Supervisor: Prof. Abdelhakim Husban

This study aimed to focus on studying the Jordanian family space, to find out how gender roles, practices and concepts are produced. The study used observation and participant observation by conducting in-depth interviews, focus groups and electronic questionnaire, and monitoring what activists write on Facebook about their own concepts of what is going on the topic of the study, The data was analyzed based on concepts post-modernist that tend to disassemble, and social theories such as functional constructivism theory, social role theory, and postmodern thinkers, and the analysis was formulated on three main questions: First: on what does the Jordanian family depend on in raising its male and female children a gendered upbringing? Second: What are the characteristics that a family wants its children to have practice? Third: What are the roles that the family desires for its male and female children?

This study concluded that the Jordanian family relies on the formation of their children gender based on customs and traditions and its own concept towards religiosity, where customs and traditions are the basic essence in nurturing minds with thought for family members, and the concept of gender formation has been formulated and means those concepts upon which males and females arise towards. The two are about the actions, practices, attributes, and roles that each party should behave and follow. The

family space produces practices towards males and females that define their gender identities as the family desires and not as desired by both sexes. The family according to the equation (It is true and not true) of defect based on sex, and the family system still looks at its females, no matter how far they reach from scientific ranks and leadership positions that lack the mind, the preference of males over females and enhances the male self over femininity.

Analysis of Salivary Cortisol Hormone Level among Syrian Children of Al-Zaatari Camp and of Irbid City, Jordan

Luqman Al-ababneh

Supervisor: Dr. Ahmad Abu Dalou

The study aimed to identify the relationship of between the level of salivary cholesterol hormone and psychological stress among Syrian refugee children living in Al-Zaatari camp and compare it with of its level among Syrian refugee children living in Sal village. 35 Syrian children from al zaatari camp, and 27 from Sal village of irbid governorate were selected randomly. Two saliva samples were collected from each child. While the first was obtained in the morning, second in the afternoon. In addition, a questionnaire and an interview were used to gather ethnographic data. Cortisol level was monitored in all collected saliva specimens. They were analyzed by cobas e 411 rack analyzers. The main findings of the study are the mean value of cortisol in both saliva specimens of Syrian children of Al-Zaatari camp is significantly higher than among those of Sal village. The significant difference in level of salivary cholesterol between these two groups of children as probably due to the differences in the level of anxiety and psychological stressors in

both groups mainly the harsh living circumstances including social environment in camp.

Furthermore, the afternoon saliva samples of our zatari camp sample of Syrian children had a significantly higher mean value of cortisol than of morning ones. Which is mostly due to afternoon school attending and child labor.

Ethnic Minorities Contributions on Jordanian Cultural Heritage: An Anthropological Study in Amman/Jordan

Lina Bakkar

Supervisor: Dr. Ruba Akash

Minorities are important and cross-cutting issues into various disciplines such as sociology, economics, politics and anthropology. There is a strong belief that cultural diversity is one of the most important added values and an opportunity for communities and public cultural institutions to promote intercultural dialogue. This positive understanding of cultural diversity is the foundation and strong outlook of this thesis, as it seeks to build greater spaces to deepen the understanding of other cultures, due to its fundamental role in connecting people and building more cohesive and open society. The importance of this study comes because it sheds light on the minorities in Jordan, particularly, Circassians and Chechens. Through personal interviews conducted by the researcher in the field, this study displays the significance of these minorities on the progression of Jordan in several areas. In this study, the researcher employed the descriptive analytical approach to present and analyze the results, she investigated minorities by tracing their migration to Jordan through verbal description. The researcher also presented narrated ethnographies and oral history about the communities under

study. The study concluded a number of results, including: the extent of suffering, fatigue and obstacles Circassians and Chechens faced in their countries, during displacement, and after resettlement. Such difficulties caused more attachment to their privacy, heritage and Islamic religion. The main reason for their migration was Russian persecution and huge pressure to change their religious affiliations. As a result, Chechens and Circassians aggregated in tribal groups to preserve the customs and values inherited from their homeland, and also to stay as a balanced social and political force. The communication between them and the host community was smooth, which helped them to live securely. This is manifested through some activities undertaken by members of these minorities in an attempt to adjust to the new home and integrate with the host community. This study has an introduction, four chapters and a conclusion. The first chapter includes theoretical framework, and an introduction which highlights the research topic and research methodology. While the second chapter looks at the Circassian and Chechen groups: History and Culture, which offered documented information as reported in other relevant studies. The third chapter has the ethnographic study and is based on field interviews conducted by the researcher, the fourth chapter contains discussion, analysis and results. Finally, the study ended with a conclusion as well as the researcher's recommendations.

The Impact of Social Media on the Daily Life of the Housewives in Irbid City Facebook as a Model: An Anthropological Study

Zaina Al-Naimy
Supervisor: Dr. Ruba Akash

This study aimed to discover the impact of social media sites on the daily life of the Jordanian housewives, by employing several tools. Represented in conducting in depth interviews with (35) women from Jordanian housewives who were chosen through purposeful method. The interviews were divided into face-to-face interviews, online interviews and observation, as well as off-line participation. The most important result of the study is that, Facebook is considered a significant source for the housewives to obtain information on diverse fields; Facebook also helped in enhancing the housewives perceptions and thoughts through views and information exchange. and familiarizing yourself with other cultures. The housewives have become aware of their rights through what Facebook has to offer on various issues relevant to women. The results revealed also that Facebook has two influences on the family and social relations of the housewife. On one hand, Facebook has strengthened the ties between the housewife and her children and with friends and relatives who live outside her geographical region, and on the other hand Facebook weakened the social ties with friends and relatives who live nearby. Regarding the relationship of the housewife with her husband, the study showed that this relationship has some disputes. About the freedom of the housewife when using Facebook, the results showed that the 65-privacy policy in the Face Book Site has restricted the freedom of the woman, and also revealed that certain husbands are restricting the woman freedom by not giving the woman enough area of privacy.

**An Anthropological Study to the Forms of
Traditional Medicine in Irbid City.**

Hafsah Olaimi
Supervisor: Dr. Ruba Akash

This study aims to find out the traditional forms of medicine in Irbid city, the reasons why women resort to traditional medicine, and the how healers become experts in this profession. The descriptive analytical approach applied in this study to analyze the data. The observation, participatory observation, and in-depth personal interviews were used to gather up all the qualitative data. The study found out that the tradition medicine in Irbid has many forms and types: traditional prophetic treatment, treatment with Arab medicine, treatment prevention and treatment with persuasion. As for the treatment at home, it includes prophetic medicine, herbal medicine, and some inherited habits. The treatment of the Qur'an is included in all forms of traditional medicine and is used by most therapists, except for the therapist who treat burns and the therapist with Arabic medicine, especially those who treat difficult diseases such as kidney failure. At home women at different levels of education use Qur'an to treat biological diseases, as well as, psychological complications, and to protect the house from evils. The study discovered that motives and reasons for women to resort to traditional medicine depend on the patient and on the healer, the most important reasons of the patient are cultural and religious customs, successful experiences of others, emotional comfort and privacy that the patient finds with the healer. Some reasons depend on the healer characteristics, such as good reputation, religiosity, strong personality, tact in speech, ability to persuade, and pleasant personality. Reasons for healers

to practice the traditional medicine is varied between inheritance of the profession, love of authority, and what many of the healers believe is God command through dreams and visions to take this work as a profession.

**From University Space to Cyberspace:
Yarmouk University Students
Experiences in Distance learning Through
Corona Pandemic**

**Qusai Obeidat
Supervisor: Dr. Ruba Akash**

This study aimed to uncover the experiences of Yarmouk University students in e-learning during the Corona pandemic. Information for this study has been collected through observation, participatory observation, and in-depth interviews with (40) male and female undergraduate students of various years and specializations, who were chosen in an intentional manner. The study concluded that E-learning was the only channel under the forced conditions (the Corona pandemic) to complete the educational process. Also, E-learning helped some students by relying on themselves to search for information and thus consolidate it. eLearning has been an effective way to save time, effort and money at times. On the other hand, the results showed that E-learning has adverse consequences as well. The transition from traditional space to cyberspace was previously unplanned, as educational platforms were often misused by students. The relationship between lecturer and student has also been negatively affected, due to the absence of face to-face interactions and gestures that take place in the traditional educational process.

**Political Cyberbullying: The New Moral
Boundaries**

**Nesreen Sharairi
Supervisor: Dr. Ruba Akash**

The study aimed to shed light on the issue of political cyber bullying, and the new moral limits imposed by new technologies, which has become practiced through social media, especially Facebook, the most widespread. The study used information-gathering techniques such as observation and participatory observation, as well as in-depth interviews with bullies and political figures who have been subjected to political bullying. The researcher spent time on Facebook observing written posts and comments on political events, news and processes, especially those associated to well-known and prominent politicians. The collected data collected have been analyzed by utilizing some anthropological theories such as diffusion, structuralism, and symbolic interaction. P the researcher also relied on works of some of the sociologists, Anthropologists and psychologists such as Bourdieu Durkheim, Freud and Margaret Mead. The data was analyzed and formulated based on the main questions of the study. The study concluded that there are significant negative effects of political bullying via the Internet. Cyber political bullying leads to an increase in the gap between citizens and the government, which is represented in undermining confidence and disbelief in any government statements or decisions and questioning any measures how serious they are. In addition, the results of data analysis indicated that this type of bullying has become widespread in society, and many factors have helped to increase it. The most important of which are the economic factors represented by poverty and unemployment. For the most part, this type of bullying lacks correct information

based on arguments, evidence, and irrefutable evidence, and it has taken the place of constructive criticism that is needed to alleviate some governmental decisions. The terms used in bullying are negative phrases that represent skepticism, blaming and distorting the image of politicians and accusing them in many posts and comments. As for individuals' motives for resorting to political bullying, analysis of the results indicated that the motives for practicing this behavior are the desire to blame politicians, question their decisions and intentions.

Conservation and Management of Cultural Resources Department

Characterization and Consolidation of Neolithic Plaster and Mortar from three selected sites in Jordan: An Experimental Approach

Samah Al Khasawneh
Supervisor: Prof. Mustafa Al-Naddaf

This work provides a comparative approach that focuses on the laboratory physical characterization of lime mortar and plaster dated back to the Neolithic period (Late Pre-Pottery Neolithic B (LPPNB)). For this, three techniques were used in this study, including compressive strength (Uniaxial), porosity, and density to evaluate the effect of the consolidation process – as a proper alternative for the common replacement process- by two different common consolidant families, carbonate, and silicate, on the physical properties of prepared mortar and plaster samples similar to those from three different prehistoric sites in Jordan: Ain Ghazal,

Basta, and Ain Jammam. The results showed that the use of ether KSE 500 E (elastic silicic acid ester) or KSE 300 HV (silicic acid ester) grants the highest compressive strength combined with the smallest porosity and improved the physical properties and increased the deterioration resistance of the prepared samples. That could provide a solution for severely deteriorated plaster and mortar from the three studied sites, The same also applied to the results obtained from the consolidation system that includes the nanolime as the first application and KSE 300 HV as the second. Moreover, the lowest results - that was varied from site to site - were achieved by lime water, nanolime, and silicate strengthener (silicate consolidant), that could use for less deteriorated mortar and plaster from (Ain Ghazal, and Ain Jammam) In some cases, such as Basta prepared samples, the physical properties became even worse after consolidation with nanolime and silicate strengthener (silicate consolidant).

The Impact of New Technologies in Museums Education Program

Renad Al-Ibrahim
Supervisor: Dr. Sahar Khasawneh

This thesis focuses on studying the impact of using educational technologies in museums educational programs. It is one of few studies that are applied to Jordanian museums, which aim to measure students' interaction with a designed educational technological game. The game is designed to introduce students to some of Jordanian heritage tools that are displayed in one of the most important museums in north Jordan (Museum of Jordanian Heritage at Yarmouk University). The museum was chosen because it is lacking in modern educational technologies in its

educational program despite the fact that the museum is located as part of a formal educational institution. The puzzle game was introduced to 5th and 6th grade female students from three local schools in Irbid city. Their interaction and attitude toward the museum before and after playing the game was observed and analyzed through a questionnaire.

Data were collected from students in two stages: 1) The questionnaire was distributed to students before experiencing the designed game to measure students' interest in three Jordanian museums and their knowledge about Jordanian heritage in general and heritage tools that are exhibited in Museum of Jordanian Heritage Museum, particularly in case they have been to the museum before. 2) The same questionnaire was distributed to students after they played the designed game to measure the effectiveness of the game in providing information in an interactive entertaining and attractive ways, and its impact in encouraging students to visit the Museum of Jordan heritage. The results of the questionnaire from both stages were analyzed and compared to each other in order to record the change in students' answers.

The results have shown that in stage one, students have little knowledge about Jordanian heritage tools or the museum of Jordanian heritage, and most important they showed little interest in visiting the museum and preferred Children's Museum. However, their answers had changed after playing the game. The results showed that the game effectively encourages students to visit the museum of Jordanian heritage and improves their knowledge about Jordanian heritage tools.

Recommendations were suggested based on the study results as follow, 1) Museum

of Jordanian Heritage in Yarmouk University has low number of school visits because of the lack of interactive educational programs, the museum and other Jordanian museums can increase these visits by adopting educational technologies in their educational programs.2) Museums should be aware of the adopted educational program to be suitable with the target visitors. In this research it was proved that simple puzzle games can be adopted by the museum for 11th and 12th year old. 3) Museums can use the design an affordable inside museum environment as an interactive method and can be used as promoting for the museum before visiting it, such as happened with the case of Syrian children where the game was their way to interact with the museum remotely.4) The Museum of Jordanian Heritage can benefit of its affiliation to Yarmouk University by adapting the different specialties (Professors and students) to develop these programs in affordable situation. This study is an example of how the museum can adopt and update the game to be published in its website.

Revisiting Dar Al Saraya: Documentation and Reviewing of Conservation works in accordance with international charters.

**Rawan Al-Taweel
Supervisor: Dr. Sahar Khasawneh**

Dar Al Saraya is one of the most important historical buildings in Jordan, which has been converted into a museum since (1994). Several changes and modifications have been applied to the building. However, few records of the changes at work are found. Most of those records are randomly and poorly documented. Moreover, changes and modifications have not been explained within the context of international conventions for protecting and preserving

cultural heritage. This study has focused on documenting and tracking the major changes that took place at the museum and review the compatibility of those changes with the international conventions. The study made use of comparing ICOMOS, Venice and Burra charters to evaluate and assess the compatibility of the demolition, removal, maintenance, restoration, and additional works applied to the museum. The study has also assessed the environmental conditions in the historic building, such as relative humidity, temperature, lighting, and the pests' management.

The evaluation was not conclusive and rather relatively judgment; this is due to the fact that the previous use of the museum (as a prison) was completely inappropriate. And because of the undocumented changes that have detracted the significance of the building, I had to focus only on the DoA works at the museum. There are many of the additions that didn't agree with the international standards mainly because of the use of new material. Part of restoration works were based on using reversible compatible materials which agreed with the standards. Assessing the environmental conditions, Dar Al Saraya building lacks control over the environmental conditions, such as controlling relative humidity, temperature, lighting, and the issue of pests, and that the date of changes in the museum is missing and unclear.

**Condition assessment of Hubras
archeological mosque for conservation
purposes**

**Hadeel Batarneh
Supervisor: Prof. Mustafa Al-Naddaf**

Archeological , hubris mosque in Hubras is considered the site which is still a monument witnessing temporal periods that have passed , the site characterized by roman and byzantine ruins which reflected on architectural design over a period of time in the history of the region, and it represents an important ovalized part it must be preserved and take care of it , and yet it's dissimilar to the other archeological sites near of it.

This study was based on the natural and humanity factors of the damage and their effect on hubras mosque, this must be stood and searching for solution that led to reduce those risks, and to preserve the site from disappearing.

To reach these factors, it was conducted a laboratory analysis to the study's sample by using Germany criteria (DIN) through identifying the mineral composition of the stone and mortals sample (the study's sample) by using Xray diffraction device(XRD) And determining the vesical characteristic for the constructions materials ,including porosity and the intensity and water uptake under vacuum , water uptake under atmospheric in addition to the ability of it capillary water value

Destructions of the damage have been advanced and emphasized the most important factors which have had an impact on the destruction of the site and when were carried out these experiments, it had been concluded with:

Identifying the main reasons for the destruction and finding appropriate solution.

Determining the type of mortar and the plaster which were used in the site.

Determining the chemical and physical properties by using German standards (DIN).

Using x-ray diffraction device (XRD)to determine the mineral composition.

The results showed the main composition for the limestone is calcium carbonate in a high proportion.

In addition to, the mortar sample showed that the calcium carbonate is existing in rates, additionally to the (Kaolinite metal) and quartz metal.

Plaster sample showed the existence of the calcium carbonate metal, in addition to the quartz metal.

Calcite metal is considered one of the metals which have its own expansion and shrinking factor, whenever it expands from one angle and shrinks from the other angle, so the component stone of the calcite metal could be more subjected to the natural conditions in all its forms.

Moreover, it was revealed that the mortar components are clay minerals, and the results revealed that the calcite metal has a great capacity to be susceptible to damage, knowing that the water is one of the most important corrupted factors, specially Hubras mosque is located in a valley, so it becomes more susceptible to rain's and flood's water.

After the research and the experiments of the components of the mosque, it was concluded that reason of losing Hubras mosque its parts and deteriorating its state is that there was no protection and rebuilding plans.

In addition to non- evolution the mosque state, to reduce the damage manifestations which they have the greatest impact to wipe out this monument which it comes back with a historical value on the region, knowing that it regards as unimportant site in comparison with the other site near of it.

Risk Assessment and Mitigation of Cultural Heritage Sites. A Case Study from Archaeological Site of Abila

**Noor Abu Al-Foul
Supervisor: Prof. Mustafa Al-Naddaf**

There has been a significant increase in the risks that cultural heritage sites may suffer all over the world (Jigyasu et al, 2014), and Jordan is not an exception. Risk assessment and mitigation has not been handled efficiently in Jordan, as cultural heritage sites in Jordan usually do not have risk assessment and mitigation plans, Petra is one of the most important archaeological sites in Jordan and the world, it is the only Jordanian site that has a risk management plan prepared by UNESCO. However, this does not mean that we neglect other sites.

Some important sites such as Decapolis have been neglected without proper risk assessment and mitigation planning, due to the lack of awareness. In this study, a model for Jordan to deal with this issue has been set. Guidelines have been developed to assess and mitigate risks for a specific site, in this study Abila has been chosen due to its importance and vulnerability. The ABC method has been applied to the risk assessment and mitigation for Abila the archaeological site by following value-led approach.

The results showed that the archaeological site of Abila faces seven natural hazards; Volcanoes, earthquakes, water shortages, extreme heat, landslides, wildfire, and the only human danger is unlawful excavations. After analyzing all the risks and finding the magnitude of risk for each of them, it was found that the risk of illegal excavation is the highest among them.

To mitigate this risk, solutions should be recommended to reduce the occurrence and severity of this risk, by tightening the security guard of the site and penalties for illegal excavators, educating locals about the value of Abila, the archaeological site, and the impact of this act on the value of Abila, which constitutes a large part of the Jordanian national identity.

**Towards Finding a Balanced Relationship
between The Local Community and
Archaeological sites: (The Archaeological
site of Umm al-Jimal as a case Study)**

**Rogayah Olaimat
Supervisor: Prof. Ziad Al-Saad**

This is the current reality of reality on the local community, which is what led to the development of the local version of the local community. Archaeology and tourism in Jordan, and by choosing Umm al-Jimal as a case study, the study focused on the extent to which they were integrated into management and development plans, in addition to activating their role in participating in the activities and events held at the site and cooperating with the institutions and events concerned with the institution.

The research also seeks to identify the nature of relationships between local community, management, planning and tourism development. Also, how it can be linked to archaeological sites. And the benefit reflected in the local community and to know the implications from this relationship, and the extent of its reflection on the local community and the site itself, and knowledge of the tasks for each party.

The current provides an assessment of the reality of the management on the site by identifying how to manage the site starting with the authority authorized to manage it, and the most important service on the site to serve the local community and tourists, and to identify the most important reasons that limit the development of the site and the most important factors affecting its management and development, the most important projects that were implemented in the site such as the rehabilitation and maintenance of the archaeological buildings at the study site, in addition to

the most important administrative and tourism developments works.

In order to assess the actual relationship between the local community and the archaeological site of Umm Al-Jimal, conducted a series of interviews with the official authorities and with the local community to find out their views, aspirations and their role towards the site. The topics raised in the interviews varied based on the experiences and field of work of the people, where they were the questions are specific to each person according to his specialization, and also prepared a questionnaire consisting of several questions about evaluating this relationship between them. The study sample consisted of 358 people from the local community surrounding the site at a distance limited by 15 kilometers.

The questionnaire consisted of two parts, the first part: it includes the personal information of the sample members, and the second part: it contained questions related to the subject of the study that focused on knowing the extent of interest of the local community in the site and its management and the relationship of the site management with them, and the extent of their participation in tourism and maintenance projects and restoration, excavations, archaeological survey, activities and events held on the site and the extent of their benefit, follow up and satisfaction from that, in addition to knowing the availability of information about the site, and the most important reasons that led to the non-involvement of some in the projects and activities established on the site from their point of view. The data of the study was analyzed statistically through the use of the statistical analysis program SPSS, and verified by the "one sample T test", and it was through this test that the relationship between the local community and the

archaeological site of Umm Al-Jimal is a relationship unfavorable below the acceptable level, and this means that the role of the local community is not activated in participating in management works, restoration and maintenance projects, archaeological excavations and archaeological survey and with the participation of the local community is not activated, as it turned out the tourist situation needs almost non-existence attention, and therefore there is no economic return for members of the local community from it.

This study recommends a need to develop a comprehensive and detailed management plan that outlines the tasks of all concerned parties in the development and management of the archaeological site of Umm Al- Jimal and to avoid overlapping powers, and the formation of a community of members of the local community concerned with community affairs and their organization to cooperate with the management and development of the site, and be the official body that it represents the local community and a link between them to facilitate the process of communication, and to activate the role of the local community and their participation in the stages of preparing management plans for the development and development of the site and to give them priority and employment for members of the local community and Umm Al-Jimal in a manner that suits their ability and potential.

Interpretation and Presentation Plan for Tell Mar Elias Archaeological Site

Marwa Al-Momani

**Supervisor: Prof. Wassef Al Sekhaneh
Prof. Ziad Al-Saad**

The archaeological site of Tell Mar Elias is one of the most distinctive and

important sites in Jordan. The site has a universal religious significance as it was the birthplace of Elias (Elijah) who is honored and venerated in the three monotheistic religions as a prophet, a spiritual master and a miracle worker. Despite its remarkable religious significance, the site has not lived up to expectations of being a major pilgrimage and touristic attraction site. The lack of proper interpretation and presentation of the site is the key factor that led to this unfortunate situation. The magnificent story of the site and its association with an important religious figure in the three monotheistic religions are not revealed due to this lack of interpretation and presentation. The main aim of this research is to change the present situation of the site by providing an integrated interpretation and presentation plan for the site.

The site effective interpretation and presentation can reveal the meanings and associations of the site in an undetstable and enjoyable manner by different group of vistors. This will hopefully lead to place the site on Jordan's tourism map as a key pilgrimage and touristic attraction site. The interpetaion and presentation plan was developed following an established step by step methodology.

The first step focuses on the value and assessment evaluation of the site based on published literature and field visits. On this basis the story of the site was reconstructed to reflect the highlights of the site. For proper communication of the site story to visitors interpretive themes and subthemes have been developed to focus the story of the site in short messages with universal values connection to appeal for vistors of different ethnicities and religions. The various groups of the site vistors in terms of their age groups, cultural and religious

backgrounds were determined based on the analysis of statistical data provided by the site visitors records and Ministry of Tourism and Antiquities statistics. In addition to the interpretation plan, this research provides a sample presentation component that can serve as guidance for the future presentation of the site. A virtual video tour that integrates realistic and virtual photography with three-dimensional imaging technology, and a plan for the route of visitors inside the site is provided.

Finally, the study questions were answered, and a presentation video was made for the site.

Analysis and Documentation of the Mausoleum of Germanus in Jerash

Hadeel Nawasreh

Supervisor: Dr. Abdelraheem Ahmed

Documentation is one of the basic steps in the process of preserving archaeological buildings, as it provides information that helps record the condition of the building and determine the procedures and actions necessary for its maintenance and documentation. There are many methods that can be followed in the documentation process, but it can be divided in general into traditional methods and modern methods. In this study, documentation and analysis of the Germanus Mausoleum in Jerash was carried out. Because it is one of the rare funeral monuments at the city level of Jerash. Despite the great importance of this shrine, it suffers from a lack of attention and few studies that can contribute to the process of preserving it. Therefore, this study aimed to document and analyze the Germanus Mausoleum using traditional methods through drawing, photography and description of its architectural parts and elements, to identify the factors and risks that led to its

damage and destruction of some parts, and to determine the nature and characteristics of the building materials used in it using modern scientific methods and devices.

This study dealt primarily with documenting the state of the Mausoleum and its architectural elements and providing important information about it, and the identification of the most important factors and manifestations of damage that he suffers. The nature and characteristics of the building materials used in its construction have also been determined through laboratory analyses of the study samples to determine the metal and chemical composition of the stone samples and the physical qualities of the construction materials. The results showed that the stone of the shrine consisted of limestone, almost entirely calcite metal, and the results of physical properties showed that the stone of construction of the Mausoleum had a good resistance and a great capacity to withstand various damage factors.

Analysis and documentation of heritage buildings case study: Bait Al Malkawi (Um Qais)

Manar Alyaqbeh

Supervisor: Dr. Abdelraheem Ahmed

This study provides an example of a clear scientific method for assessing the condition of historical buildings. This study aimed to survey and analyze a traditional historical building and Umm Qais - Jordan (Bait Al-Malkawi), and to build a model for documenting heritage buildings through the "Building Information Modeling software (BIM) and Geographical Information System (GIS). In addition, this study focused on the integration of appropriate methods and techniques for surveying and analyzing heritage buildings.

Provided a model for storing and analyzing digital information about the cultural heritage site (Bite Al Malkawi). In general, this proposed plan has created a reliable digital database with architectural plans and a three-dimensional model that forms a basis that can add more detailed and accurate information in the future for the purpose of preserving the building in the future. The result of analysis of samples of building materials mainly represented by basalt formed as a result of the volcanoes of the Golan heights showed that it is able to resist various manifestations of damage despite its exposure to various manifestations of damage. As for limestone, which formed a small percentage of the building that belongs to Al-Muwaqar's formation due to its yellowish-white color, its resistance to damage factors is low due to its high porosity under normal weather conditions.

Development of Policy Guidelines and Conservation Measures for the Protection and Safeguarding of the Traditional Houses (The 1920s – 1970s) of Jabal Amman

Maisa Abu-Alnaaj
Supervisor: Prof. Ziad Al-Saad

The protection of urban heritage is considered as one of the most important contemporary issues. Because it represents a great importance that expresses the identity of society and its historical image to the whole world. Where there are overlaps and political, social and economic variables that impede its preservation. Which requires awareness of its different values that are reflected on the community. By showing its local heritage identity. This is done by shedding light on the threats that urban heritage suffers from in its various

locations and forms. The most prominent of these threats; are divided into natural and human threats, in addition to the absence of laws and legislations that deter the neglect of heritage Urban. So, there is an urgent need to highlight the value of preserving and reusing it. Thus, achieving the rooting of the urban historical identity. Which constitutes the largest part of the tangible cultural heritage.

This thesis sheds light on the importance of the historical and heritage character of the city of Amman. By choosing the houses of the Jabal Amman area, which constitutes the largest part of Amman's traditional urban fabric. Its traditional houses witness important historical events that convey them to the Jordanian society. On the occasion of the centenary of the founding of Jordan as an independent Arab state. Where the roots of these 100-year-old houses go back to the roots and giving of the Hashemites in particular and the entire Jordanian society in general.

The main result of the study is to identify the distinctive historical architectural features of the traditional houses of Jabal Amman. And come up with specific recommendations and proposals for how to preserve, reuse and document these homes, taking into account their value and importance.

Preventive Conservation measures for the Islamic archaeological sites of Samarra - case study: AL-Mutawakkiliya (Abe Dalaf) Mosque

Haroon Al-Sammarai
Supervisor: Prof. Mustafa Al-Naddaf

Al-Mutawakkiliya Mosque (Abe Dalaf in Samarra city) in Iraq is considered one of the Islamic mosques (Abbasid) which is

distinguished and unique in design. It is the Jami Mosque, which was established by the caliph (Al-Moutawakel Ala - Allah) in the year 245 H, when the city of Samarra was the capital of the Islamic caliph in that era. It is considered a distinctive civilized and architectural landmark to the building styles at that era, which was distinguished by the greatness of its builders, its beautiful architectural designs, and its unique minaret, which is one of the unique features of Islamic architecture.

This study of the preventive measures of the Al-Mutawakkiliya Mosque (Abe Dalaf) has been chosen because there is no study documenting the damage risks and the environmental conditions surrounding the mosque, and there are no studies in analyzing the risks in the mosque.

This study focused on describing the mosque historically and architecturally, highlighting its distinctive universal value. describing, and documenting the cases of deterioration which has been exposed to, and analyzing it through the ABC scale developed by the (Canadian Institute for Heritage Conservation CCI and ICCROM) as a methodological plan and finding the best appropriate methods for preventive conservation. An example as a study case from a group of mosques, palaces and Islamic buildings in Samarra city and the most prominent risks surrounding the mosque have been documented, and the highest degree of danger is (physical forces represented by architectural damage) through analysis processes using the ABC scale, as well as intentional and unintentional damage represented by mismanagement and the impact of visitors to the mosque and so on.

The results of the descriptive and architectural study summarized and

highlighted the global values of the mosque, as it was considered one of the largest Islamic Abbasid mosques at the time, and had functional, architectural, historical, and unique values, and others. Multiple manifestations of physical, biological and chemical damage associated with human neglect as a result of insufficient awareness of the community of the importance and heritage of the place, which led to these results.

The researcher recommends referring to international standards and global conventions for preventive measures as an important source for choosing the most appropriate methods, solutions and proposing what is appropriate for the condition of the mosque. These methods and solutions included several preventive measures and almost realistic solutions relative to the nature of the region. The researcher recommends adopting and applying it to the Al-Mutawakkiliya Mosque (Abe Dalaf) to ensure that the danger surrounding it is warded off and that it remains an important civilizational witness to that era, and it can be generalized to the Abbasid monuments in the city of Samarra, due to the similarities in all the circumstances surrounding it.

**Developing a Heritage Building
Information Modeling for Qasr Al
Kharana**

Walaa Otoum

Supervisor: Prof. Dr. Wassef Al Sekhaneh

This work came from the desire to deepen the bridging knowledge acquired during my study in the department of Conservation and Management of Heritage Resources and Department of Architecture. On the one hand, the

architect with his years of experience, and on the other an expert in Heritage conservation and computer science. The appealing combination to be able to keep under control a series of reasoning and design solutions in both Architecture and Heritage is sometimes very complex. This was the result of the ability to realize in a three-dimensional model in a digital environment utilizing HBIM software, composed not by simple three-dimensional elements, but by other finite parametric elements (2D-7D) which faithfully represent the architectural elements in their cultural and functional characteristics.

In the constantly evolving world of the Conservation of Cultural Heritage, the Building Information Modeling (BIM) is no longer an absolute novelty, but at the same time still far from becoming an established and widespread methodology in Jordanian Heritage Management. The progress of smart technology in heritage brings more and more professionals to deal with an extremely difficult methodological change that is still too rigid in the Arabian Region. To review a platform created to allow compatibility between different BIM software, the potential of the HBIM Heritage Building Information Modeling of Qasr Al Kharana was studied as bridging of heritage and modern architecture in the eyes of the conservator. In this context, the analysis for reading the format and performing the structural code review is done. After defining the rules to be checked, the method for generating functions capable of handling the cultural data within a BIM file is investigated, with a subsequent charter of the Heritage Building. The analysis Qasr Al Kharana illustrates the critical points and the caution needed to conserve an efficient IFC export for structural code review.

Using flowcharts, special emphasis is given to the investigation of the sequence of operations to obtain the information in a more efficient way for different applications of HBIM.

Information Retrieval for Cultural Heritage Museum Using Smartphone Augmented Reality-Case Study: The Cultural Heritage Museum at Yarmouk University

Haya Al-Momani

Supervisor: Prof. Dr. Wassef Al Sekhaneh

While life is getting more complicated, many people try to make their environment safer and more comfortable, this thesis focuses on the relationship between the visitor/participant and museum installations.

It is assumed that the main purpose of museum installations is to enhance the creation of knowledge. In this sense, it explores a series of exhibition resources, in particular Augmented Reality that enables different readings of the same element/object and, in this way, expands the range of possible interactions. For the production and development of the museum installations, we took into consideration and interactive and participatory design process combined with in-the-wild evaluation, in order to develop the installations according to the feedback from visitors/participants at different stages of its development and check whether the proposed objectives were being met.

As the Jordanian cultural heritage which located in faculty of archaeology and anthropology, an installation was developed based on gestural recognition and focused on the iterative design process in Real-Time, although the changes were also made based on feedback from visitor/participants feedback, it focused on in-the-wide

evaluation, to identify different patterns of interaction, both with the installations and with the exhibition as a whole.

In this sense, it is understood that museum installations can be developed in a collaborative way, where the different stakeholders in this process are taken into consideration, such as visitors/participants, stakeholders, technicians, designers, or musicologists during the different development phases of museum installations. Through the development of musicological installations and a dynamic, participatory, and constantly updated, it is understood to be closer to producing installations that respond to its main objective.

Restoration of The Twelve Great Feasts Icon from the Baptism Museum using Zinc Oxide Nanoparticles

Rasha Al-Bader

Supervisor: Prof. Wassef Sekhaneh

The main priority of this thesis is to conserve a Christian religious icon under the title "Restoration of The Twelve Great Feasts Icon from Baptism Museum using Zinc Oxide Nanoparticles." An 18th-century icon of Russian origin based on signature behind the icon. This icon is one of Al Maghtas Museum collections on the eastern bank of Jordan River.

This icon has a historical and social value, it was necessary to conserve it to ensure its sustainability for the coming generations, the process of documentation and analysis according to the scientific and practical method, to identify the statement of damage, such as cracks, stain, and loss of the paint layer.

The intervention was to preserve the icon. The icon was photographed using radiography. Analyzing the colors and materials in the preserved layers helped to determine the restoration steps to be carried out and develop a strategy to

preserve this icon following the rules of the global cultural heritage and paintings. The natural components, such as binding material, were identified using Fourier spectroscopy Infrared FTIR. This technique is a well-established technique for the analysis and identification of icon materials, whether organic or inorganic; the measurements were made to identify all materials in the icon. Many publications in this direction have proved the use of this spectral application of materials and colors worldwide. A filling process was also performed to fill the gaps in the lost preparation layer using calcium carbonate and rabbit-skin glue, then the wooden support was consolidated with Zinc Oxide Nanoparticles and Colophony. After that, retouching using acrylic colors. Finally, the icon was varnished using paraloid varnish (B72). All in order to preserve a sacred and important icon. This work will be a renaissance work to restore the icons in Jordan to save them for future generations.

Documentation of Nabuchkhari Temple- Babylon, Iraq for Preventive Conservation Purposes

Ahmed Jassim

Supervisor: Prof. Dr. Wassef Al Sekhaneh

Papillion is considered a civilized place for human settlement on its lands, plains and mountains. Its archaeological constructions, especially temples, represent an essential element in the archaeological urban fabric. It reflects the authenticity and integrity of the historical

architectural identity of the city. It has experienced destruction and disfigurement as a result of wabesideside natural and human factors, which resulted thehat demolition of abandoned constructions rather than preservation, maintenance, and sustainability; they were threatened with danger and disappearance. Hence, there is a gap between Babylon in the past and Babylon in the present day. The study focuses on preserving a very important temple in the Neo- Babylon era's history, the" Temple of Nabu-chKhari". It was chosen because it demonstrates Babylon's religious, historical, and cultural beliefs. The study focuses on the importance of documentation of the temple of Nabu-chKhari to provide an opportunity for all specialists and their searchers and restoration, preservation, management, and sustainability for future generations. It highlighted the importance of finding the best modern ways to protect and preserve the temple of Nabu-chKhari and the temples of Babylon in general.