C.A.A.D.
The Crisis Areas Archaeological Database

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Abstract: The situation of instability in the Near East creates the problem of the security and protection of cultural heritage respecting the international conventions and the laws concerning the conservation and fruition of cultural property in each State.
Although the problem is very well known in the international community and there are often articles in specialized papers, a uniform and coherent report on damage from the start of the new century and about the causes of decay directly and indirectly due to political instability is still missing.
The possibility of creating an on-line database with as much information as possible about sites, documenting the extent of the damage with photos, maps and a comparison with existing archaeological documentation, where possible, will be an important element in understanding types and causes of damage and will give a chance to prevent them.
In this regard, a preliminary database regarding archaeological heritage of southern Levant (Palestine and Israel), was created using GIS programs. The data were collected during my PhD project about damage to pre-classical sites in Palestine and Israel due to the israeli-palestinian conflict.
By clicking on a specific site in an interactive map, in the database, one can read the following information: Name, Geographical references, date of the survey, presence of regular excavations/restorations, type of damage, date of damage, link to a folder with pictures of the place.
The goal of the project is the creation of an online open source program updated by all the scholars who, in their work, come across damage to the archaeological heritage of the area and (why not?), in all the Near East.

Keywords: Heritage, Conflict, Database, GIS, Levant.

Introduction
Today, there is not a single place in the Near East safe from conflicts (both unconventional conflicts and civil wars). In a crisis area, after the damage to the peoples involved, especially to the civilians, a major problem is the loss of cultural properties and archaeological heritage.
The situation is going worse and worse, especially in Syria and Iraq, but also in countries like Lebanon, Israel and Palestine. In these countries the loss of cultural heritage is not so striking like the huge destruction causes by the so-called Islamic State, but it's in any case terrible: a never-ending bleeding, drop by drop, caused by illegal digging and, in general, by the lack of a central administration controlling the heritage.
It's surely possible to affirm that the Near East is losing its cultural and historical heritage, in other word, is losing its history so fast that we risk to lose it all in few years (NIGRO 2014, 1-2).
This means that, when, hopefully, the crisis will end, there will be, together with economic and social problems, also cultural and historical identity problems for the population. In addition, as it’s well known, a people without a history cannot exist (MANISCALCO & MENGOZZI 2002, 79).

Of the utmost importance is to start the study of the various problems that cultural heritage is confronting in the Near East. Different situations with different problems and solutions will be faced in the next years, from ethnical cleansing of the cultural heritage, to illegal commerce of objects (BLUM 2002). Therefore, it is time to start safeguarding the heritage starting with a deep knowledge of the present state of the archaeological sites, the causes of the decay and the possible solutions.

Although the problem is not new for the international community and there are often articles in specialized papers, a uniform and coherent report on damage from the start of the new century and about the causes of decay directly and indirectly due to political instability is still missing.

I dedicated my PhD researches to investigate effects of conflict and geo-political crisis on archaeological heritage in Palestine and Israel (MERLONGHI 2015). The relative safeness of the region (confronting with, for example, Iraq and Syria) and, at the same time, a situation of never-ending conflict, a never-ending «non-peace», contribute to make Southern Levant, unfortunately, a laboratory for developing techniques of intervention in post-war situations (RUGGIERO-MANISCALCO 2014, 93.94).

**Working method**

In this regard, it was possible to define a working method of emergency survey and intervention. A reflection on how to work together with peoples involved in the conflict in order to restore respect for the culture of the other, of the different and even on the enemy1 was also developed.

The working method was based on the experiences of Professor Fabio Maniscalco in Albania, Kosovo and Bosnia during 90’s. Maniscalco as officer in the Italian army developed one of the first programs for monitor and protect cultural heritage in times of conflict (SUDIRO & RISPOLI 2015, 40-44). He also introduced the protection of cultural heritage in the army and trained a team of soldiers of the Italian army in Albania2, as an application of the 7th article of the Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict, signed in the Hague in 19543 (SUDIRO & RISPOLI 2015, 64-68).

His pionieristic surveys in Bosnia, Albania and Kosovo started a new phase in the protection of cultural heritage during wars. In the surveys conducted during the peacekeeping mission in Albania and Bosnia, Maniscalco used a sheet form developed by himself, the “Form for the immovable cultural heritage in crisis areas” (MANISCALCO 2007, 89). This form allows to write, during the survey of a monument, all the main

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1 Community archaeology is a good way in order to involve local population in a constructive dialogue with archaeologist and experts and, at the same time, to create a micro-economy using the cultural property, as the projects conducted in Palestine prove (BENELLI et.al 2007; VAN DEN DRIES and VAN DER LINDE 2012, 49-56).

2 During the so-called “Operation Alba” in 1997.

3 Or simply the Hague convention.
information needed to check the state and the damage to historical buildings, monuments and archaeological sites (Fig. 1).

The use of this form, with some little changes, was very helpful in order to analyse the situation of the archaeological property in Southern Levant. The research started with the choice of a number of sites. Pre-classical sites, more fragile due to the building materials, were the main choice. First step was the study of the history of the archaeological researches and all the available bibliographic and photographic material on the chosen sites (a sample of 101 archaeological sites).

Fig.1 – Form for immovable cultural heritage
Second step was to go on the ground looking and searching for transformations and damages the sites suffered in the last 50 years (from 1967 to today); the fieldwork is very important in order to have the best understanding of the problems and in order to develop solutions (that, of course, could be different for every single situation).

Third step was to conduct some interviews with local archaeologists and peoples living near sites, especially in the occupied West Bank, in order to understand better the ties between population and archaeological heritage.

To be more precise as possible, it was elaborated a numeric scale, from 0 to 5⁴:

- 0 means a site disappeared or non-accessible for military reason;
- 1 means a site in very bad condition where there is a risk to lose the heritage;
- 2 means a site in bad conditions;
- 3 means a site in adequate conditions but with many damages;
- 4 means a site in good condition with some deterioration;
- 5 means an archaeological park or a protected area in very good conditions of preservation.

Using this scale is easy to extract statistic data. For example, in the total sample of 101 sites almost 12% have grade 0, 11 % have grade 1, 20% have grade 2, 25 % grade 3, 17% grade 4 and 15% grade 5 (Fig. 2)⁵.

Finally, the challenge was to manage all the data collected, and that is why CAAD was created.

From the survey emerged four kinds of damages, military or war damages, damage from modern constructions, damage due to illegal diggings and general damage due to deterioration or missed restoration. Often a place can suffer from two or more different kinds of damage.

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⁴ This is very useful when you have to use statistic data and also in putting the data in an interactive map

⁵ Therefore, we can affirm that in Palestine and Israel, the conservation of pre classical sites is not so good. The causes are, generally speaking, related to the situation of the occupation and to the ideological and physical struggle between Jewish and Arab population.
**Four main kinds of damage.**

The division of in four main kinds is, obviously, instrumental to the statistical analysis. The shades of a damage to an archaeological monument could be innumerable. A rough division is possible in order to have a first impression of the issue⁶.

Military damages are those related directly with a conflict situation, such as bombing, rockets, use of weapons on archaeological monuments, military installations on a cultural or archaeological site, occupied and closed areas (Fig. 3). This damage are a violation of the articles 4th and 5th of the Hague Convention (LEANZA 2002, 29) and, therefore, are war crimes, as stated by the article 8th of the Statute of the International Criminal court signed in Rome in 1998 (LEANZA 2002, 30).

This kind of damage are widely spread, for example, in Syria. This is the more dangerous kind of damage since a rocket or a mine can cancel in a few second an entire monument (MANISCALCO 2007, 67-96).

In Southern Levant (Palestine and Israel), on a sample of 101 sites, just the 10% suffered direct military damage, especially sites in rural areas and near the “separation wall”.

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⁶ In the form compiled during the survey is possible to find a more detailed description of every single situation.
Modern construction affects the conservation of archaeological sites especially in places where there is low attention to cultural heritage or where a central agency for building management is missing or where there is a high rate of demographic increase (IWAIS et al.2010).

It is a common problem all over the countries rich in archaeological remains. In addition, it is a main problem in places where a sort of sensibility and a tie to the past is missing.

Fig.4 – Damage caused by the construction of a building in the settlement of Tell Rumeidah, Hebron.

In the sample I studied, 33% of the sites were covered by modern construction such as houses, streets and infrastructures (Fig. 4): one of the main causes is also the high rate of population increase in a very small territory, limited, for the West Bank, also by the occupation and by the illegal settlements (IWAIS et al.2010, 103)\(^7\).

Illegal diggings are sadly spread in all Near East and, usually, they are due, mainly, to the request of the illegal market. The illegal excavation spread where there is need for money (YAHYA 2008, 498) and also where the local population have negative feelings (or not feelings at all) for their own past and the archaeological

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\(^7\) Especially in 70’s and 80’s the management plans developed by the Israeli military authority, the Civil administration for Judaea and Samaria, did not take into consideration the archaeological heritage on the Palestinian hills, caused the destruction of ancient landscapes and sites (PICCIRILLO 2002, 271-273)
remains (AL-HOUDALIEH 2010, 36). In a conflict area, the illegal traffic of ancient objects spread whenever the national authority is no longer able to control sites and antiquity shops (BLUM 2002). Illegal diggings are cause of the destruction of archaeological stratification and damage to the structures underground (Fig. 5). Examples are Kamid el-Loz in Lebanon (FISK 1989, 249-252), Nippur and numberless places in Iraq (FALES 2004) and in Syria. These places were almost destroyed by looters. For the Southern Levant, from 1967 to 1987 about 11,000 sites were looted (ILAN et-al, 1989, 38). In the sample investigated in 2011 and 2012, almost the 50% of sites were looted, some also very recently at the time of the survey.

General deterioration (Fig. 6), fires, vandalism are the last kind of damages investigated. General deterioration of architectonical remains should be normal for an excavated site. Nevertheless, there are some factor that influence the politics of in situ conservation (BANDARIN 2011, 7-16): a value-based approach could penalize some sites just because they are not tied with the predominant stakeholder groups (VALENTINO & MISIANI 2004, 30-33). A correct approach to the heritage should underline the universal importance of the historical heritage, going toward the concept of shared heritage as a modern and valuable approach to the interpretation of a cultural site. Using the shared heritage concept in a post-conflict situation is possible to avoid vandalism conducted as reprisal against the cultural heritage of the enemy (BANDARIN 2011, 7-16).
Fig. 6 – Samaria, Omri’s Palace. The site is in an occupied area of the West Bank claimed by Israelis. No one take care of the place.

The CAAD database

The possibility of creating an on-line database with as much information as possible about sites was a need in order to manage data from more than 100 sites and their landscape. I called this database C.A.A.D: crisis areas archaeological database. Actually, CAAD is an interactive map with information about site’s damage in Southern Levant. It has, today, a database of 101 items and an archive of 9 Gigabytes of pictures.

CAAD use application of ArcGIS on line: this on line program and its various applications make possible to share open data with the greatest numbers of scholars who want to join a project (TSONEV and NEKHRIZOV 2011). It is very important to use a program that gives possibility to create different layers. ArcGIS is also easy accessible and free, user friendly, easy up dating.

ArcGIS allow to organize the information in a very simple excel file.

The entries the excel file of CAAD use currently are:

- name
- date of survey
- last excavation year
- main damage
- other damage
- score of the grade of damage (see below)
- name of the compiler of the form on field
- link to a folder with pictures and digitalized original form written during the survey.
By clicking on a specific site in the interactive map is possible to read all the information and the geolocation of the site. Changing the research parameters and the map layers, is possible to see the archaeological sites as dots in different colours: the colours can be based on the severity of damage (from 0 to 5), or on the kind of damage, or on the different location of the sites (city, country, desert)\(^8\). It is in this way, very easy to elaborate models and patterns to study a specific problem or the various problems of a specific area.

The database and the ArcGIS map are still under construction, since we want to work also in different layers enriching the map with more information, graph, statistical data etc. The information of CAAD are, currently, only about the territory of Israel and Palestinian West Bank (unfortunately I were not able to have permission to enter Gaza). However, since the maps used in ArcGIS are global, is possible to use CAAD in all the post-conflict contexts to survey the state of archaeological and historical heritage.

**The CAAD project**

Using an interactive map is possible to understand general and specific problems of conservation in a crisis area manage different sources of information, identify patterns in grade of deterioration and in type of damage. Since they are on line, these maps are a source of information for scholars all over the world: a tool to spread knowledge about heritage in danger using a uniform recording system.

In ArcGIS on line a working group will be soon available at http://www.arcgis.com/home/group.html?id=1d4e1ddaf23c42bc8d35ba5152af097#: easy access, easy (but controlled) registration to the group and easy updating of new information are positive factors. The goal is to create an on-line form of the “Form for immovable cultural heritage in Crisis Areas” that can be downloaded and used by the scholars who want to join the project.

Instructions will be developed and attached to the downloadable form in order to have a coherent record for all the items.

Basic rules to join the CAAD project will be:

- Insert only archaeological sites surveyed on the field.
- Attach recent pictures.
- Attach a copy of the form compiled during the site survey.
- Follow the division in four main kinds of damage.
- Follow the scheme to give the score to every site.
- Insert only sites from a conflict area or a crisis area.

The final goal of the project is to develop an online open source application updated by all the scholars who, in their work, come across damage to the archaeological heritage in all the Near East.

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\(^8\) See demo version of CAAD at http://www.arcgis.com/home/webmap/viewer.html?webmap=d5b30f0a879e4c2284b1676ca867d341 .
In this way, it will be possible to have information on a growing number of archaeological sites in conflict areas, monitoring their changes through time. Maybe, it will be possible to contribute to mark important sites with the Blue Shield sign (Fig.7), as stated by the Hague Convention of 1954 (CARCIONE 1999). It's today of the utmost importance improve the application of the Hague convention, especially the application of the article 6th that state that a cultural property “*may bear a distinctive emblem so as to facilitate its recognition*”. This emblem, as stated in article 16th, is the Blue Shield.

![Image of the Blue Shield of the Hague Convention](image-url)

**Fig.7 – The blue shield of the Hague Convention.**

Syria, Iraq, Jordan, Lebanon and Palestine signed the Hague Convention and its two protocols, Israel sign just the convention and the first protocol9. Improve the application of the Hague Convention is an important tool to enhance protection of our past. This ambitious goal could be done only after a coherent work on monitoring and profiling cultural properties in order to find and, if possible, to fix, most critical situations. Collaboration with scholar across the Near East is essential in order to start a new phase of Near Eastern archaeology, a phase of reflection about the new role of archaeologist in the Near East.

For sure, some mistakes were done in the past two centuries: the indifference to the cultural heritage and, especially, to the role of the heritage as property of the whole humankind, testify the gap created between eastern populations and western scholars10. The loss of cultural heritage in conflict areas is not just an archaeological or academic problem. It is a wound for the whole humankind, is a pauperization (cultural, economic, social, historical) for local populations and for us, also.

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9 The States that signed convention and protocol are obliged to respect conventional norm. The Hague convention is not effective in case of civil wars of unconventional conflicts. The second protocol introduce the respect of the norms also in case of occupation, civil wars and unconventional conflicts (BOYLAN 2003, 50-51).

10 Edward Said wrote that, during the excavations of the 19th and 20th century, arab population living near an archaeological site was considered just as a problem to remove (SAID 1991, 24-28).
We, as cultural heritage experts, should improve the use of new technologies and web sharing instruments in order to improve our efforts to save archaeological heritage in conflict areas. It is also notable understand the very deep causes behind the destruction of cultural heritage and be ready to work, together with local populations, in post-conflict time so to restore cultural proud for the past. This would be the last step on the preservation work: to fight side by side with local population in order to restore dignity and to give the cultural property an active role in the reconstruction of society and economy. For sure, it is not possible to stop the wars and their effects on archaeological heritage in Near East but, at least, is possible to improve the knowledge of the effects on it. It is still possible to save the Past and, in doing so, save the Future.

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Imprint:
Vienna 2016
http://www.chnt.at/proceedings-chnt-20/
ISBN 978-3-200-04698-6
Editor/Publisher: Museen der Stadt Wien – Stadtarchäologie
Editorial Team: Wolfgang Börner, Susanne Uhlirz
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