Using Data to Understand Cultural Destruction

Cultural Heritage at Risk: In Defense of Civilization
University at Albany, State University of New York
October 27, 2017

- Defined cultural destruction as “cultural cleansing.”

- Two components to cultural cleansing:
  1. Intentional Cultural Destruction.
  2. Illicit Cultural Property Trafficking.

Photo Credit: UNESCO/Michel Ravassard - with permission
Intentional Cultural Destruction: Bamiyan Buddhas

Image Credit: CNN
Intentional Cultural Destruction: Palmyra
Intentional Cultural Destruction: Nebi Yunis
Intentional Cultural Destruction: Nebi Yunis

[Images of satellite views on 19 July 2014 and 30 July 2014 showing changes at the site with a yellow arrow indicating the area of destruction.]

Image Credit: DigitalGlobe / US Department of State NextView License; Analysis by the AAAS
Intentional Cultural Destruction: Nebi Yunis
Intentional Cultural Destruction: Aleppo

6 December 2011

Image Credit: DigitalGlobe/US Department of State NextView License; Analysis by the AAAS
1. Intentional cultural destruction may reflect a policy of social genocide aimed at removing a civilian population, and its history, from a country (e.g., Balcells & Steele, 2016).

2. Intentional cultural destruction may be an attempt at civilian control (e.g., Balcells, 2010; Kalyvas, 2006; Kalyvas, 2012).

3. Intentional cultural destruction may be a collateral consequence of larger scale mass-killing (e.g., Fjelde & Hultman, 2014; Sullivan, 2012; Valentino et al, 2006; Valentino et al, 2004).
4. Intentional cultural destruction may be a strategy to build allied ethnic support (e.g., Bloom, 2007; Kidd & Walter, 2006).

5. Intentional cultural destruction may signal a group’s ideology (e.g., Conrad & Geene, 2015; Hoffman & McCormick 2010).

6. Intentional cultural destruction may be a gateway to other forms of civilian targeting (e.g., Arva et al, 2013; Ward et al, 2013).
Intentional Cultural Destruction: Criminal Accountability

Jurisdiction of the International Criminal Court:

• genocide (Article 6)
• crimes against humanity (Article 7)
• war crimes (Article 8)
• crimes of aggression (Article 8 bis, but not within jurisdiction)
• offences against the administration of justice (Article 70)

Image Credit: Associated Press
Kupreskic Trial Judgment, No. IT-95-16-T, para. 636 (ICTY 2000)

"the mens rea requirement for persecution is higher than for ordinary crimes against humanity, although lower than for genocide .... Persecution as a crime against humanity is an offence belonging to the same genus as genocide .... In both categories what matters is the intent to discriminate .... From the viewpoint of mens rea, genocide is an extreme and most inhuman form of persecution. When persecution escalates to the extreme form of willful and deliberate acts designed to destroy a group or part of a group, it can be held that such persecution amounts to genocide."

Image Credit: Associated Press
Illicit Cultural Property Trafficking: Dura-Europos

Image Credit: DigitalGlobe / US Department of State NextView License; Analysis by the AAAS
1. Looting may occur as a form of civilian resource hoarding prior to conflict or political/economic destabilization (e.g., Parcak et al., 2016; Stone, 2008).

2. Looting may occur to fund state or non-state actors.

3. Looting may occur after an armed actor has stabilized an archaeologically rich area, normative international laws are suspended, and community support for cultural heritage preservation is absent at the subnational level (e.g., Mackenzie and Davis, 2014).

4. Looting may not occur because communities at the subnational level adhere to norms or underlying beliefs about cultural heritage preservation.
Characteristics of the traditional illicit cultural property trade:

- The illicit cultural property trade has involved stable, hierarchical, and functional multi-decade supply chains.

- Actors in the illicit cultural property trade include regional networks of looters, intermediaries who purchase from looters, distributors who purchase from other intermediaries, and collectors.

- Some intermediaries and distributors are also connoisseurs with formal training in art history or archaeology.
Illicit Cultural Property Trafficking

Photo Credit: Peter Watson and Cecilia Todeschini/ The Medici Conspiracy (2006)
Illicit Cultural Property Trafficking: Recent Changes

1. Organized criminal and terrorist actors are now participating in illicit cultural property trafficking.

2. New intermediaries are appearing in the illicit trade, who are opportunistic and treat cultural property as an exploitable resource similar to other illicitly trafficked conflict resources such as diamonds, oil, and coltan.

3. Criminal and terrorist actors are likely to be involved with the illicit cultural property trade only insofar as it is profitable and market access is possible.
Illicit Cultural Property Trafficking: Recent Changes
There are testable theories on “cultural cleansing” developed from the literature about civilian targeting and illicit trafficking.

Interoperable datasets of cultural sites and event-level datasets about cultural destruction that can test theories are lacking (Brosché et al, 2016).

Systematic data development is a challenge.
Considerations in the development of cultural sites datasets:

- There is a desire for cultural site datasets to be multipurpose.
- Cultural heritage is a slippery definitional term.
- A single cultural site may have multiple locations across the landscape.
- A single cultural site may have multiple sub-sites within it.
Developing Cultural Datasets

An open source data management platform for the heritage field
Developing Cultural Datasets

A State-of-the-Art System for Jordan’s Archaeological Sites

MEGA-Jordan is a purpose-built geographic information system (GIS) to inventory and manage archaeology sites at a national level. It has been developed using state-of-the-art technology and requires no more than basic computer skills to enter site and site element boundaries and buffer zones; site details such as condition, threats, and other monitoring updates; and to print out detailed, up-to-date reports on Jordan’s vast number of archaeological sites. The system, in both Arabic and English, is web-based and will standardize and centralize data throughout the Kingdom.
## Definitions of Cultural Heritage

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<tr>
<td>(a) moveable and immoveable cultural property</td>
<td>“[portable] property which, on religious or secular grounds, is specifically designated by each State as being of importance for archaeology, prehistory, history, literature, art or science”</td>
<td>(a) monuments</td>
<td>“a museum is a non-profit, permanent institution…, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity[.]”</td>
<td>“based on the Western national and elite class experiences, and reinforcing ideas of innate cultural value tied to time depth, monumentality, expert knowledge and aesthetics”</td>
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<td>(b) cultural repositories (museums, libraries, archives)</td>
<td>(b) groups of buildings</td>
<td>(c) sites</td>
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<td>(c) centers containing monuments</td>
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Definitions of Cultural Heritage
Definitions of Cultural Heritage

Photo Credit: Richard M. Leventhal
Definitions of Cultural Sites

[Map showing cultural sites in Syria, including: Jebel Barisha, Jebel Seman, Aleppo, Jebel Al A'la, Jebel Wastani, Jebel Zawiye, Qal'at Salah El-Din, Crac des Chevaliers, Palmyra, Damascus, Bosra.]

Sources: USGS, ESRI, AND, TANA, UNESCO
Definitions of Cultural Sites

Image Credit: DigitalGlobe/US Department of State NextView License; Analysis by the AAAS
Sources of existing cultural site datasets:

- Proprietary research datasets.
- U.S. Committee of the Blue Shield.
- U.S. Department of State (ECA/HIU).
- National Geospatial Agency.
- Open Street Maps.
Definitions of Cultural Sites

Number of Cultural Sites on Existing Lists for Syria

- State HIU: 1061
- National Geospatial Agency: 4913
- Open Street Maps: 6468
Definitions of Cultural Sites

Number of Palmyra Sites in Existing Cultural Sites Lists for Syria

- **State HIU**: 41 sites, 3.9%
- **National Geospatial Agency**: 1 site, <0.01%
- **Open Street Maps**: 6468 sites, 1.0%
Analyzing Cultural Cleansing: Raqqa

Image Credit: DigitalGlobe, US Department of State NextView License; Analysis by the AAAS
Alternative approaches to studying intentional cultural destruction:

- Focus on evidence of destructive activity by an actor directed toward another actor or civilians at a culturally significant location over a specific temporal duration, or evidence of destructive activity by an actor directed toward a culturally significant location over a specific temporal duration.

- Use event-level data interoperable with the ACLED and UCDP datasets.
Preliminary Case Study:


- Using the Factiva database, the University of Pennsylvania and Smithsonian Institution created an event-level dataset of intentional cultural site damage.

- Results:
  Approx. 627 events in Syria.

Award #1439549
Event-Level, Intentional Cultural Destruction

Conflict Culture Research Network
Georeferenced Damage Dataset (CCRN-GDD)

Codebook Draft 1.0 Issue
March 2016

Brian L. Daniels, University of Pennsylvania Museum

The purpose of this dataset is to record instances of reported damage to cultural heritage sites in countries experiencing conflict or unrest. As of Version 1.0 beta, it includes reported instances of heritage destruction in Syria (2011-2014) and Iraq (2003-2014). Location codes for time, location, event type, and event definition are adapted from the UCIP (GID) codebook version 1.5, and the Syria Conflict Event Dataset (SCED) Codebook developed at the University of Maryland's Center for International Development and Conflict Management. Section 1 provides a definition for an "instance of damage." Section 2 discusses the procedure for locating news articles that contain instances of damage. Section 3 provides a description of information that should be obtained and arranged for each instance of damage.

Penn Cultural Heritage Center,
University of Pennsylvania Museum

Office of the Under Secretary for History, Art, and Culture,
Smithsonian Institution

Geospatial Technologies Project,
American Association for the Advancement of Science
Center for International Development and Conflict Management,
University of Maryland, College Park

This project has been supported by the National Science Foundation (Award #1138541) and the University of Maryland/Smithsonian Seed Grant Program.

## Event-Level, Intentional Cultural Destruction

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<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
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<td>year</td>
<td>active_year</td>
<td>date_start</td>
<td>date_end</td>
<td>event_type</td>
<td>temp_prcs</td>
<td>source_article</td>
<td>site_name</td>
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- **Calendar year of event.**
- **Was the event reported within 365 days of the event?**
- **Start date of the event.**
- **End date of the event.** Note: Summary events may or may not have an end date; continuous events are likely ongoing and will not have an end date.
- **Denotes event type:** 1 = single-day events, 2 = summary events, 3 = continuous events.
- **How precise the information is about the event’s occurrence?** 0 = not applicable since the event is a summary, 1 = the exact day of the event is known, 2 = the exact day of the event is not known, only the time period between 2-6 days; 3 = the exact day of the event is not known, only the week; 4 = the exact day of the event is not known, only the month; 5 = the exact day of the event is not known, only the year.

This variable is the aggregate of the sources from which the event is described. List the PD in YYYY-MM-DD form, SC, and HD fields from the Factiva search (e.g., 2011-03-23, ABCNY). Syrian forces accused of shelling, pretexts. In the case of multiple sources, separate each with a semicolon.

The location as specified by the source material. Streamlined in spelling and structure for easy reference. Follow the format: SITE, NAME, CITY.

- **Assigned site:**
  - Garden
  - Library
  - Archaeological site
  - Church
  - Monastery
  - Museum
  - Temple
  - Church
  - Mosque
  - Tomb
  - Other archaeological site

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<td>2011-04-08, BBCMNF. Syrian activists at Abu-Ghur el-Gidding mosque, Banias.</td>
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Event-Level, Cultural Destruction: Afghanistan

Preliminary Case Study:
• Afghanistan, 2004-2009

• Jacob Aronson (University of Maryland), Laurie Rush (US Army), Brian I. Daniels (University of Pennsylvania).

• Villages that experienced Coalition-caused damage to religious heritage sites experienced a statistically significant increase of 0.71 insurgent attacks over the subsequent three-month period compared to similar villages that did not suffer such damage.

• Reflects an absolute 33% increase in attacks.

Photo Credit: UNESCO
Conflict Culture Research Network
Little social science literature about cultural cleansing exists and many critical questions—and avenues of research—are, as of yet, unstudied.

A primary reason for this lack of scholarly attention is the absence of cultural datasets.

As a field of study, cultural heritage is behind data developments in other fields and the digital humanities.

There is a great need among the emergency preparedness community for cultural site data.