

# Using Data to Understand Cultural Destruction

Cultural Heritage at Risk: In Defense of Civilization  
University at Albany, State University of New York  
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**Penn Museum**  
UNIVERSITY of PENNSYLVANIA MUSEUM  
of ARCHAEOLOGY and ANTHROPOLOGY

## Cultural Destruction as *Cultural Cleansing*

Irina Bokova, “Fighting Cultural Cleansing: Harnessing the Law to Preserve Cultural Heritage,” *Harvard International Review* (2015).

- Defined cultural destruction as “cultural cleansing.”
- Two components to cultural cleansing:
  1. Intentional Cultural Destruction.
  2. Illicit Cultural Property Trafficking.



## Intentional Cultural Destruction: Bamiyan Buddhas



Image Credit: CNN

## Intentional Cultural Destruction: Palmyra



*From an image distributed by ISIS on Twitter*

## Intentional Cultural Destruction: Nebi Yunis

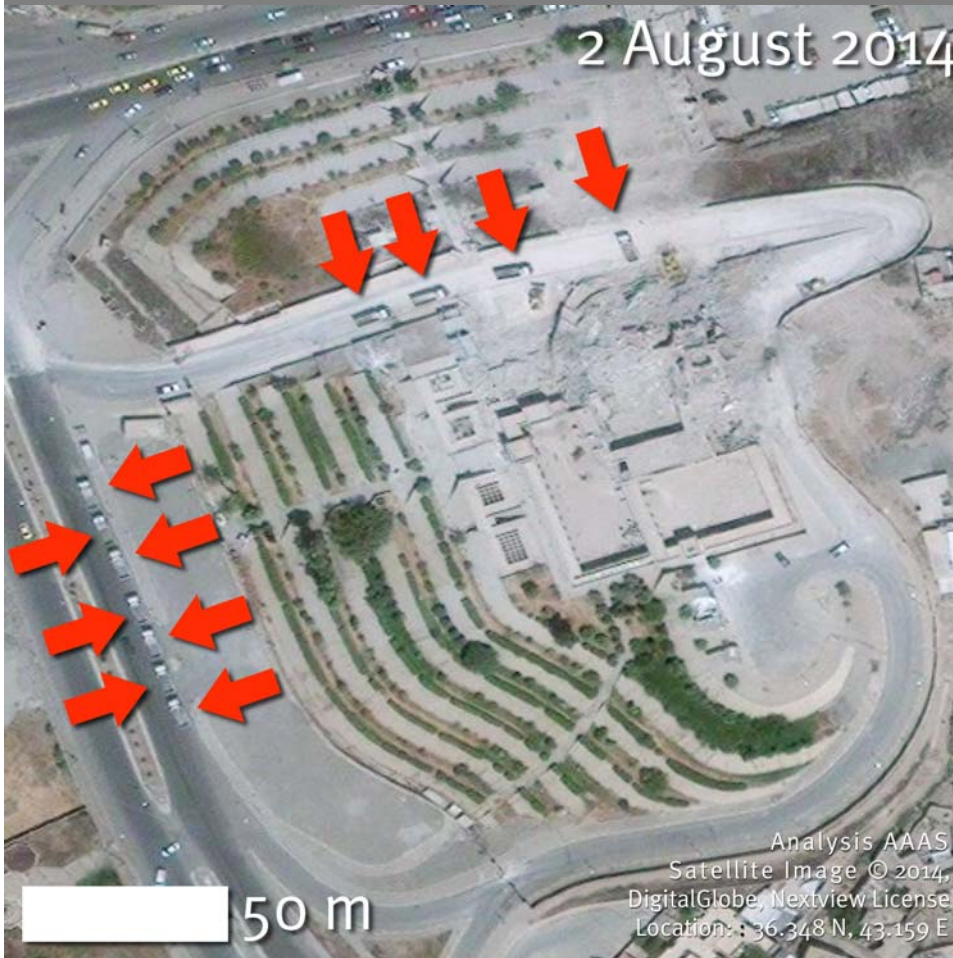


Photo Credit: [gatesofnineveh.files.wordpress.com](http://gatesofnineveh.files.wordpress.com)

# Intentional Cultural Destruction: Nebi Yunis



# Intentional Cultural Destruction: Nebi Yunis



# Intentional Cultural Destruction: Aleppo

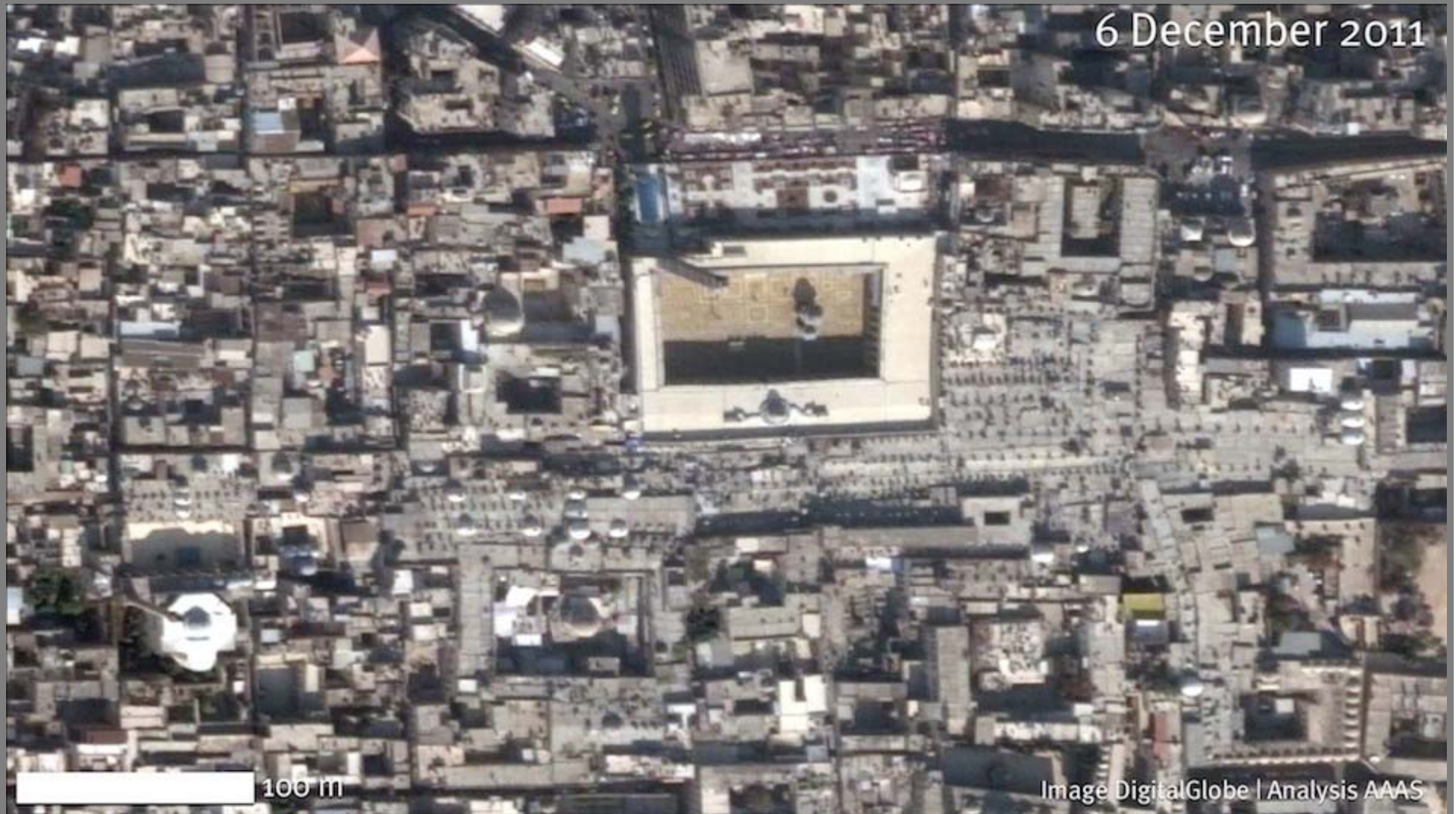


Image Credit: *DigitalGlobe/ US Department of State NextView License; Analysis by the AAAS*



# Intentional Cultural Destruction: Aleppo

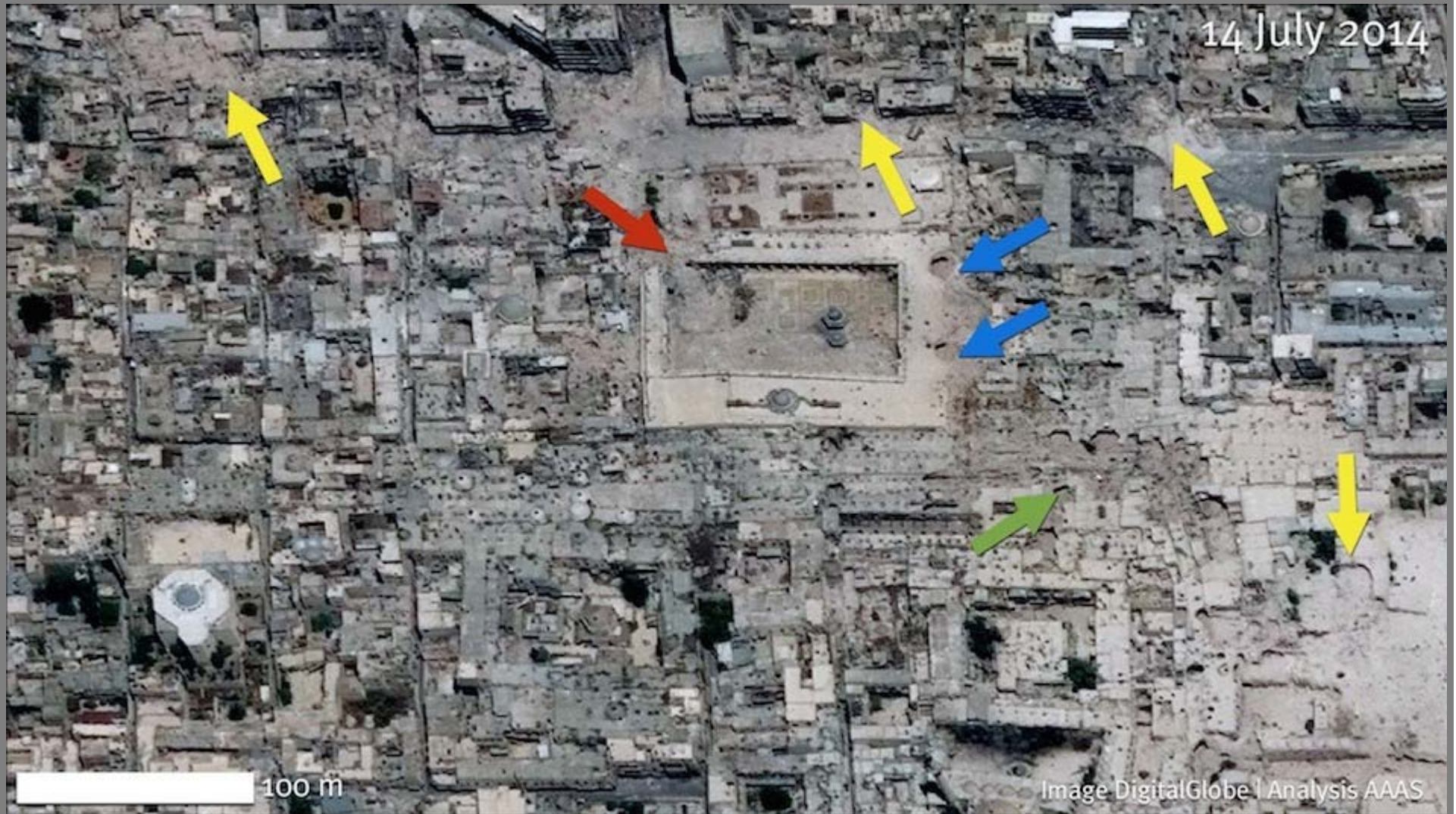


Image Credit: DigitalGlobe/ US Department of State NextView License; Analysis by the AAAS

# Intentional Cultural Destruction

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).



# Intentional Cultural Destruction

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)



# Intentional Cultural Destruction: Criminal Accountability

**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."



2 April 2014

# Illicit Cultural Property Trafficking: Dura-Europos

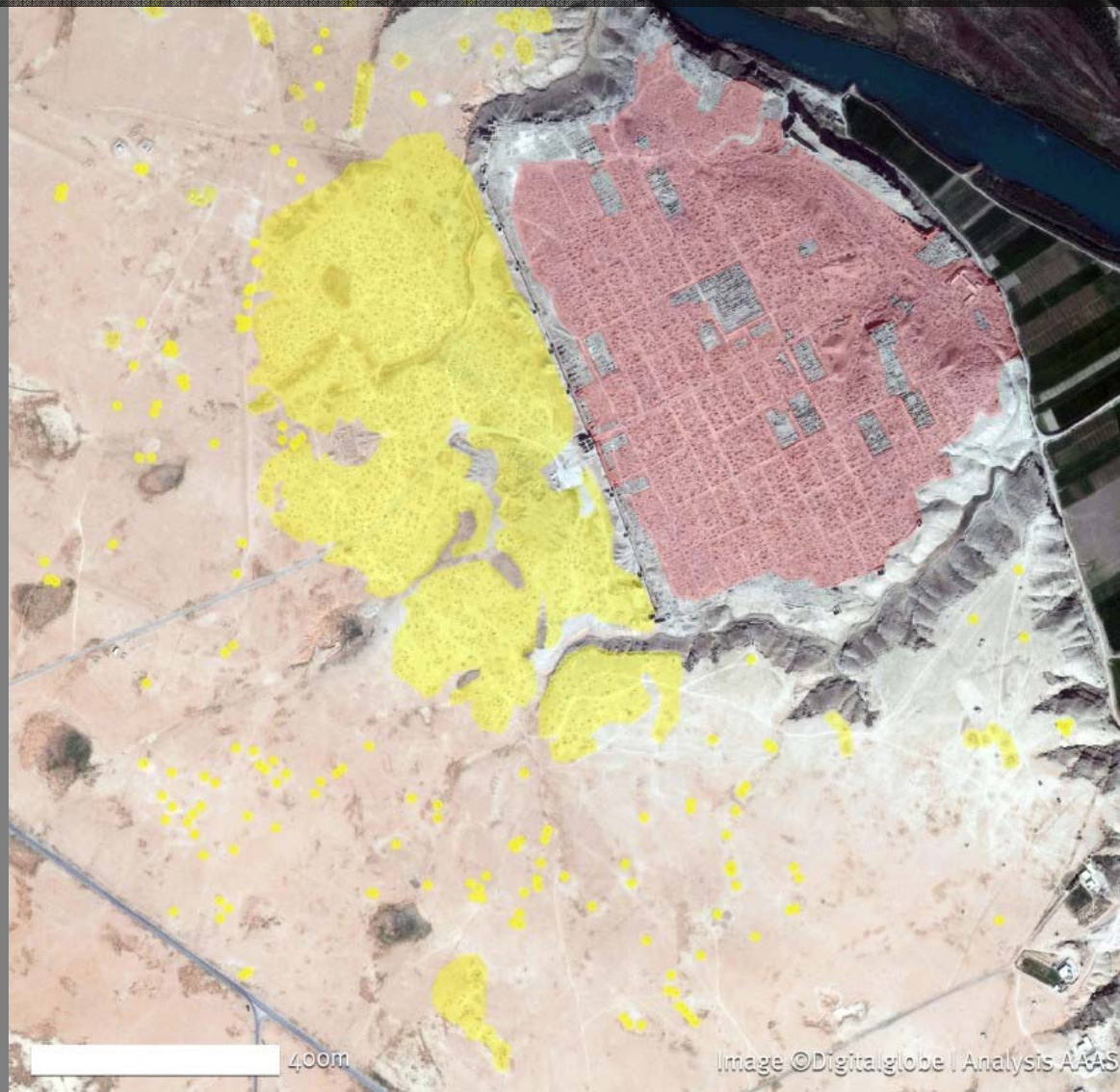


Image ©Digitalglobe | Analysis AAAS

Image Credit: DigitalGlobe/ US Department of State NextView License; Analysis by the AAAS

# Illicit Cultural Property Trafficking

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.



# Illicit Cultural Property Trafficking

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

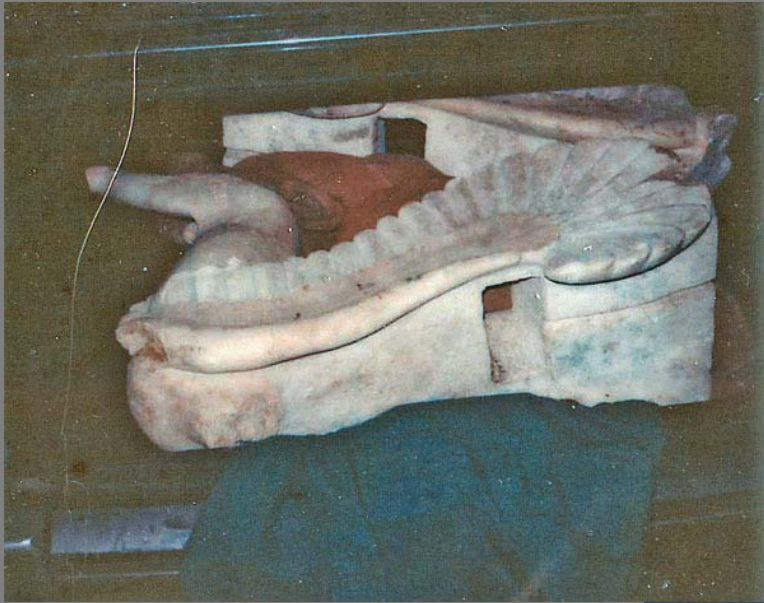


Photo Credit: Peter Watson and Cecilia Todeschini/ *The Medici Conspiracy* (2006)



# 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 in so far as it is profitable and market access is possible.



# Illicit Cultural Property Trafficking: Recent Changes



## Cultural Destruction as *Cultural Cleansing*

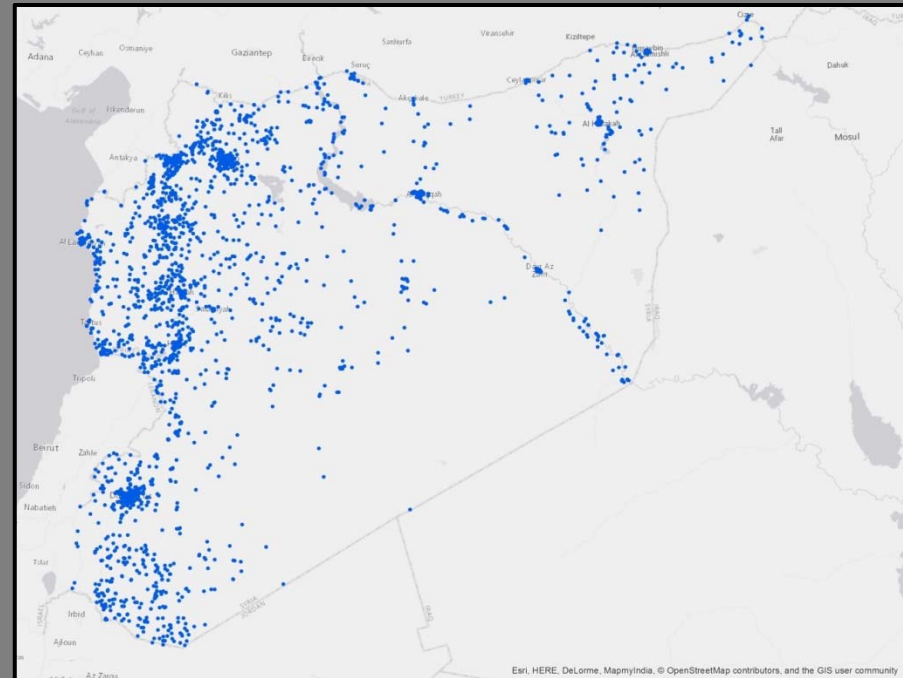
- There are testable theories on “cultural cleansing” developed from the literature about civilian targeting and illicit trafficking.
- Interoperable datasets of cultural sites and event-level datasets about cultural destruction that can test theories are lacking (Brosché et al, 2016).
- Systematic data development is a challenge.



# Developing Cultural Datasets

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.

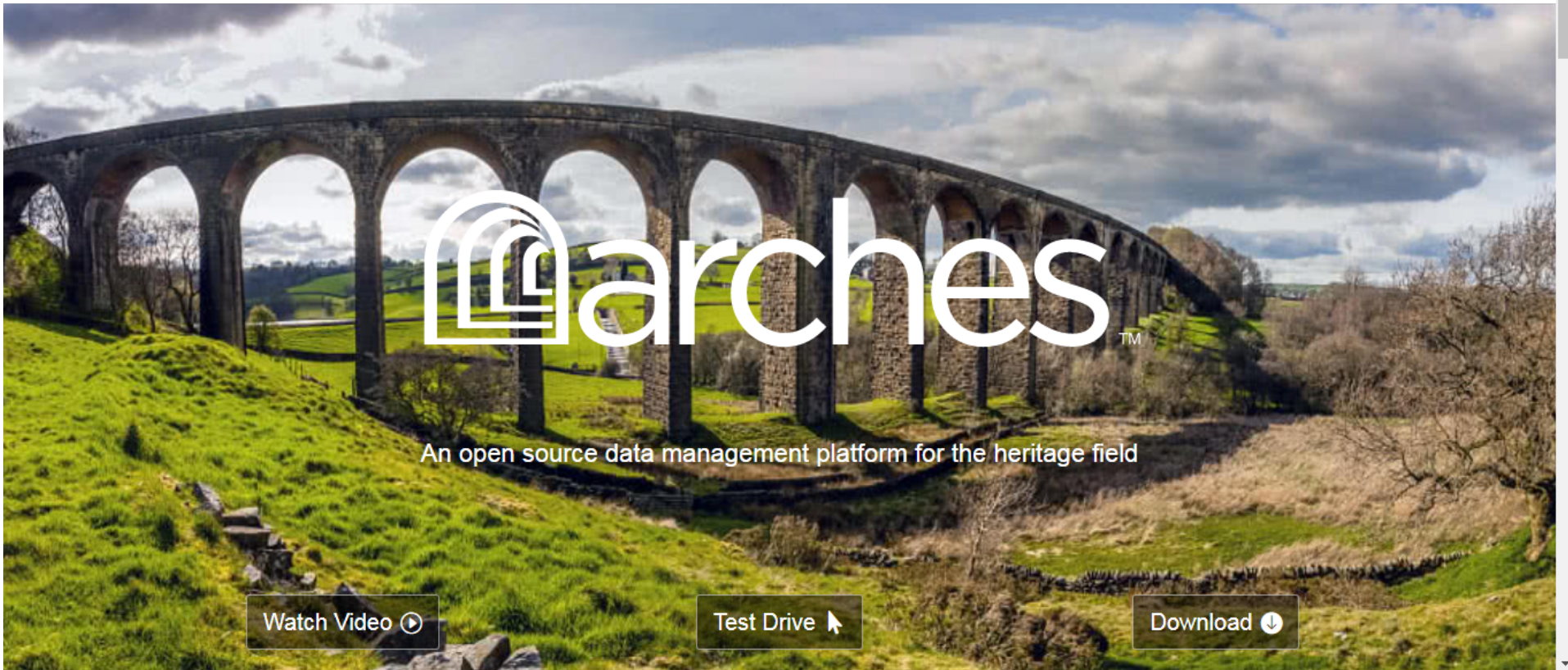


# Developing Cultural Datasets

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An open source data management platform for the heritage field

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# Developing Cultural Datasets

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THE NATIONAL HERITAGE DOCUMENTATION and MANAGEMENT SYSTEM

Guest Access



## 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.

## Tutorials (double-click to open in new window)



Overview:  
System  
overview of  
the MEGA  
application








Tutorial 1:  
Basic Map  
Navigation



© 2010. The Getty Conservation Institute and World Monuments Fund. All Rights Reserved.



# Definitions of Cultural Heritage

1954 Hague Convention	1970 UNESCO Convention	1972 World Heritage Convention	2007 ICOM Definition	“Authoritative Heritage Discourse”
<p>(a) moveable and immoveable cultural property</p> <p>(b) cultural repositories (museums, libraries, archives)</p> <p>(c) centers containing monuments</p>	<p>“[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”</p>	<p>(a) monuments</p> <p>(b) groups of buildings</p> <p>(c) sites</p>	<p>“a museum is a non-profit, permanent institution..., which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity[.]”</p>	<p>“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”</p>
				

# Definitions of Cultural Heritage

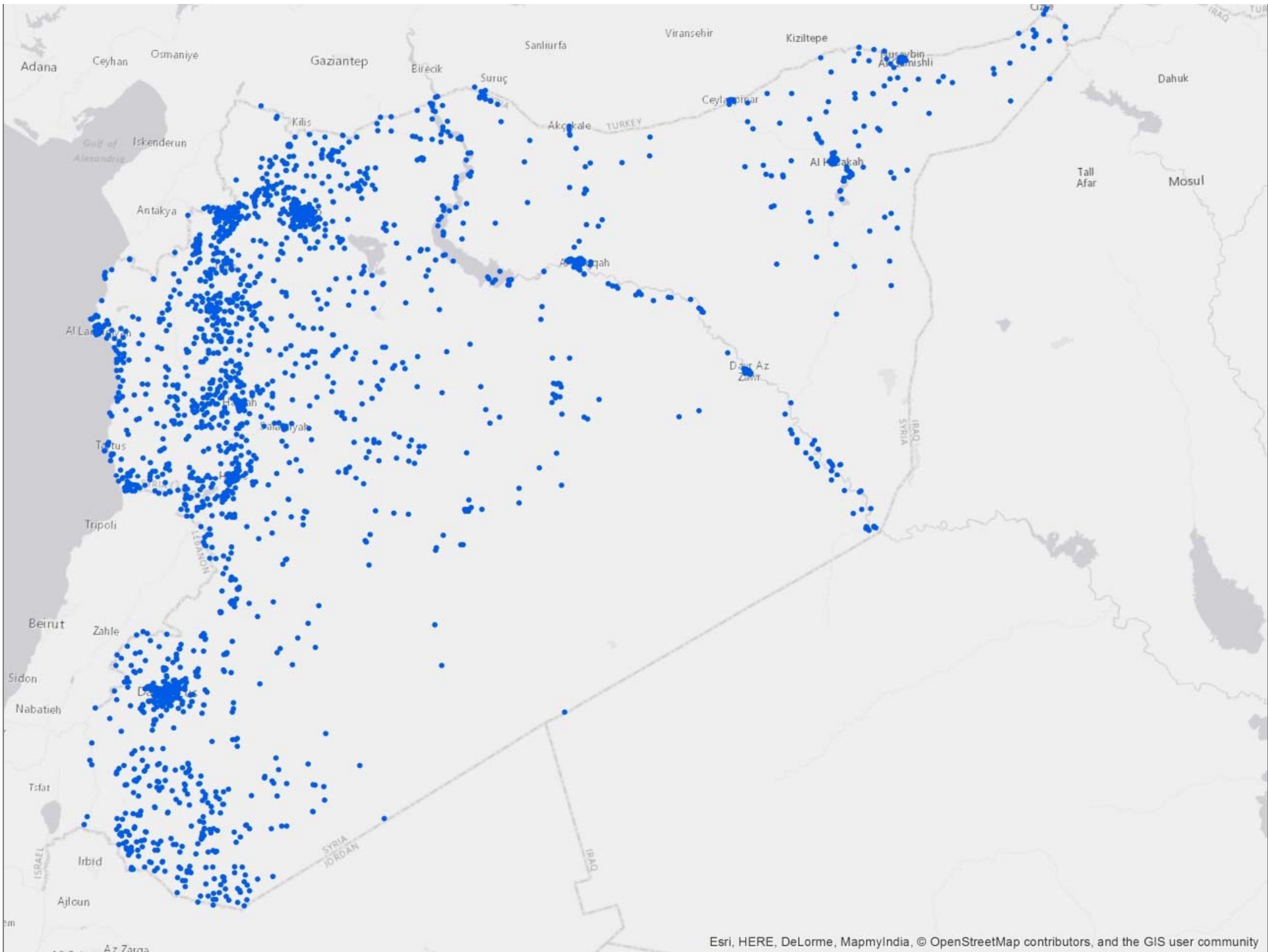


Photo Credit: *Richard M. Leventhal*

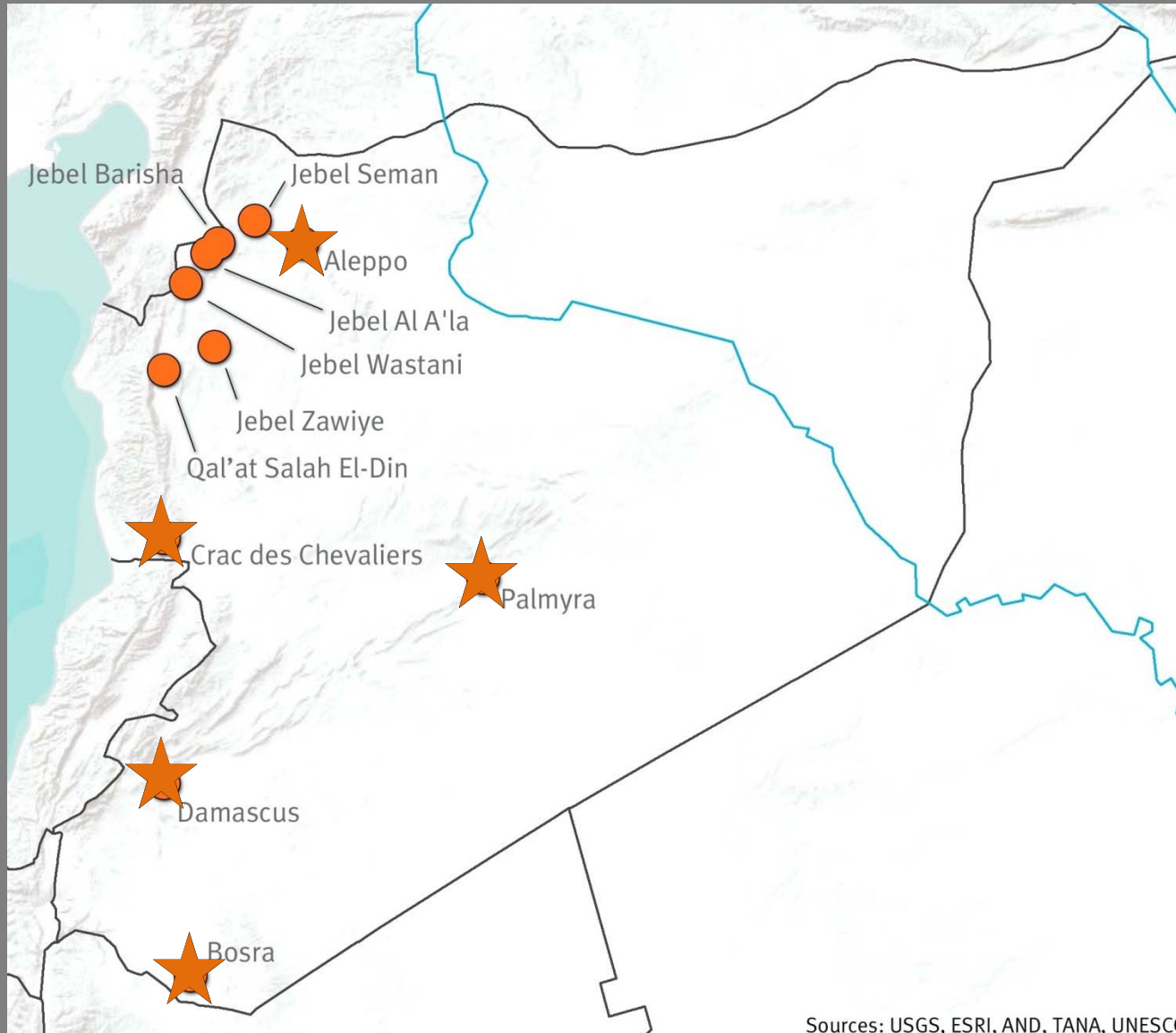
# Definitions of Cultural Heritage



Photo Credit: *Richard M. Leventhal*



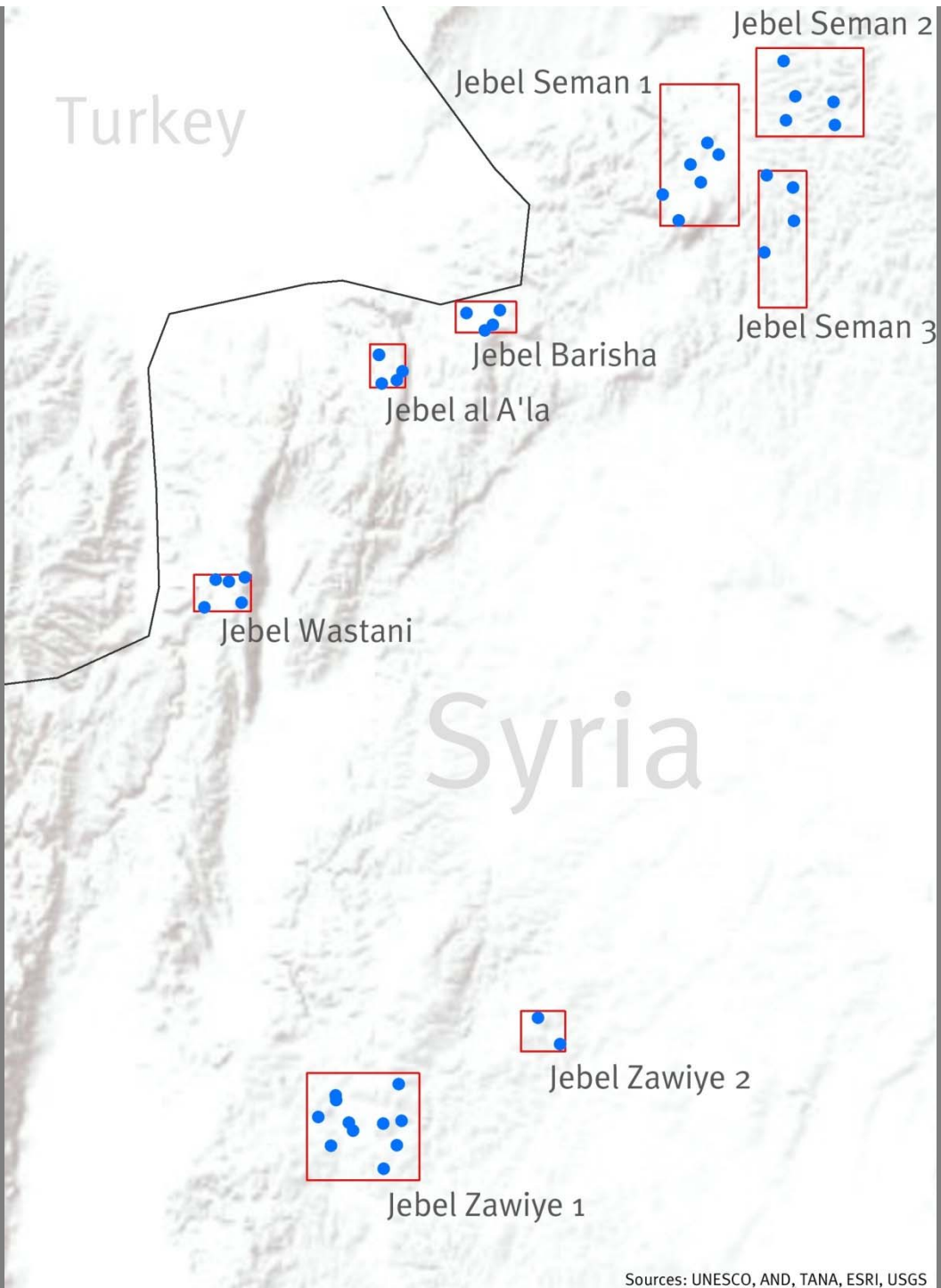
# Definitions of Cultural Sites



Sources: USGS, ESRI, AND, TANA, UNESCO

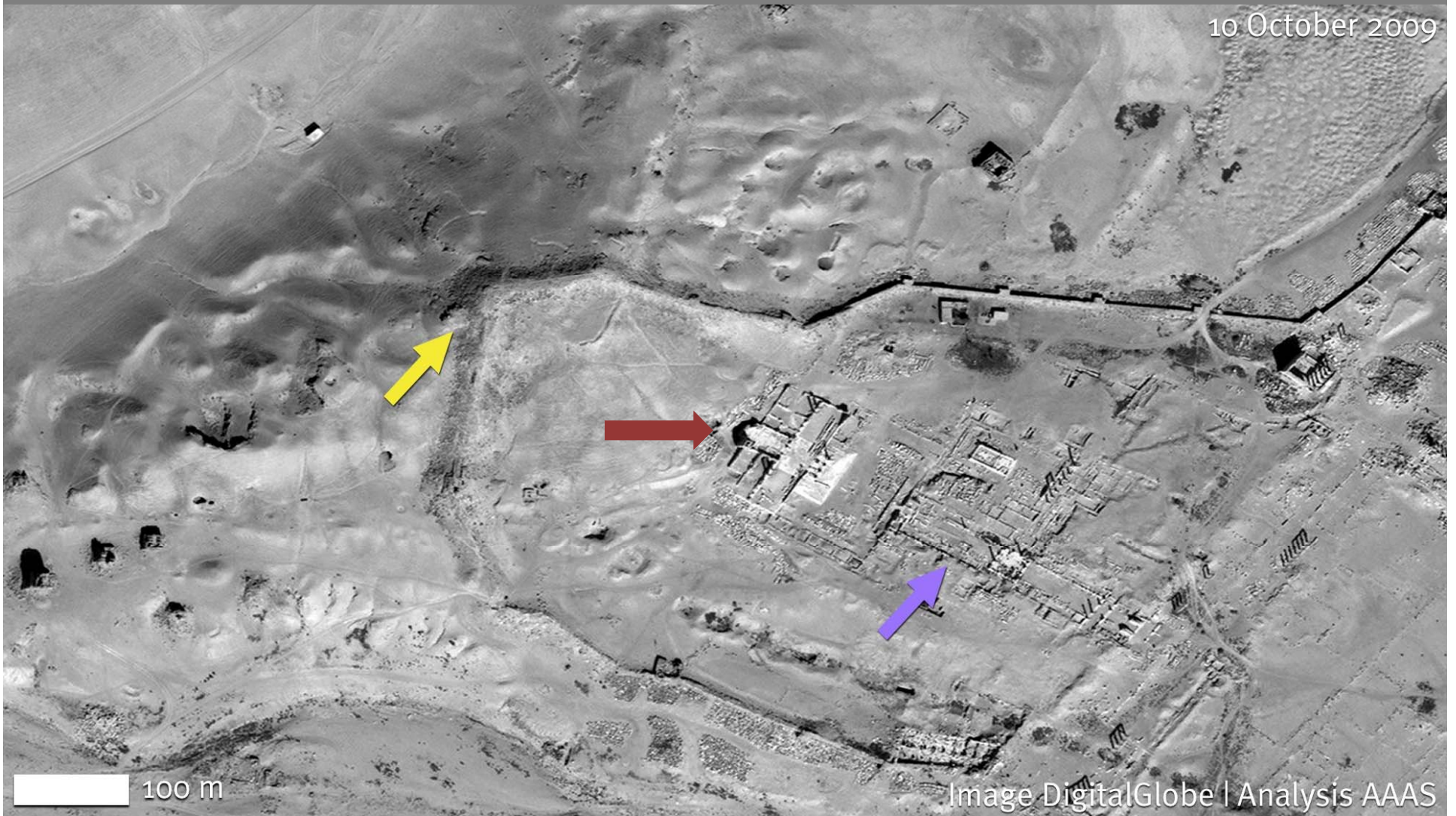
Turkey

Syria



# Definitions of Cultural Sites

10 October 2009



100 m

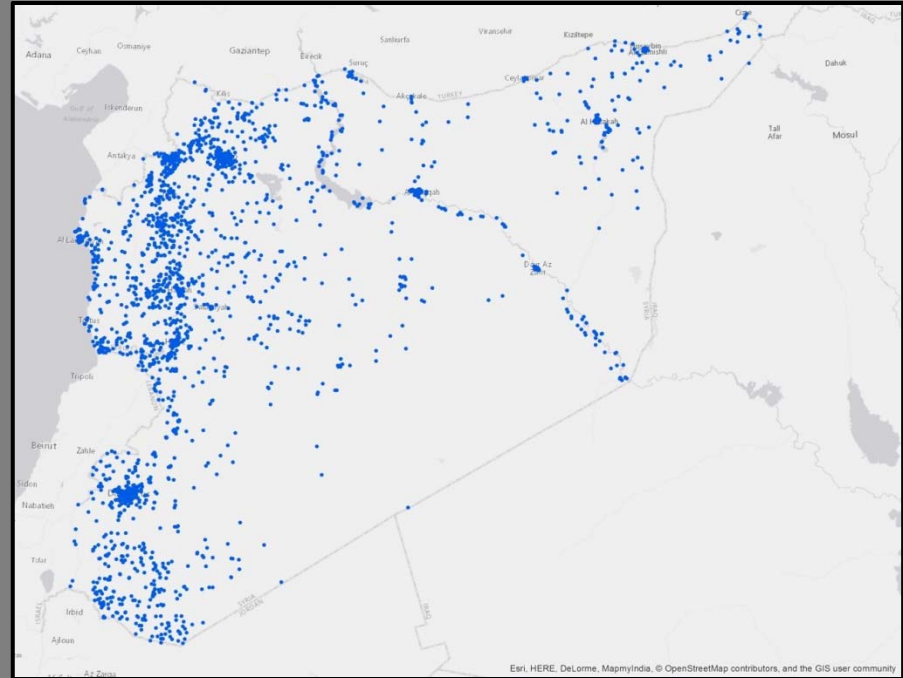
Image DigitalGlobe | Analysis AAAS

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# Developing Cultural Datasets

Sources of existing cultural site datasets:

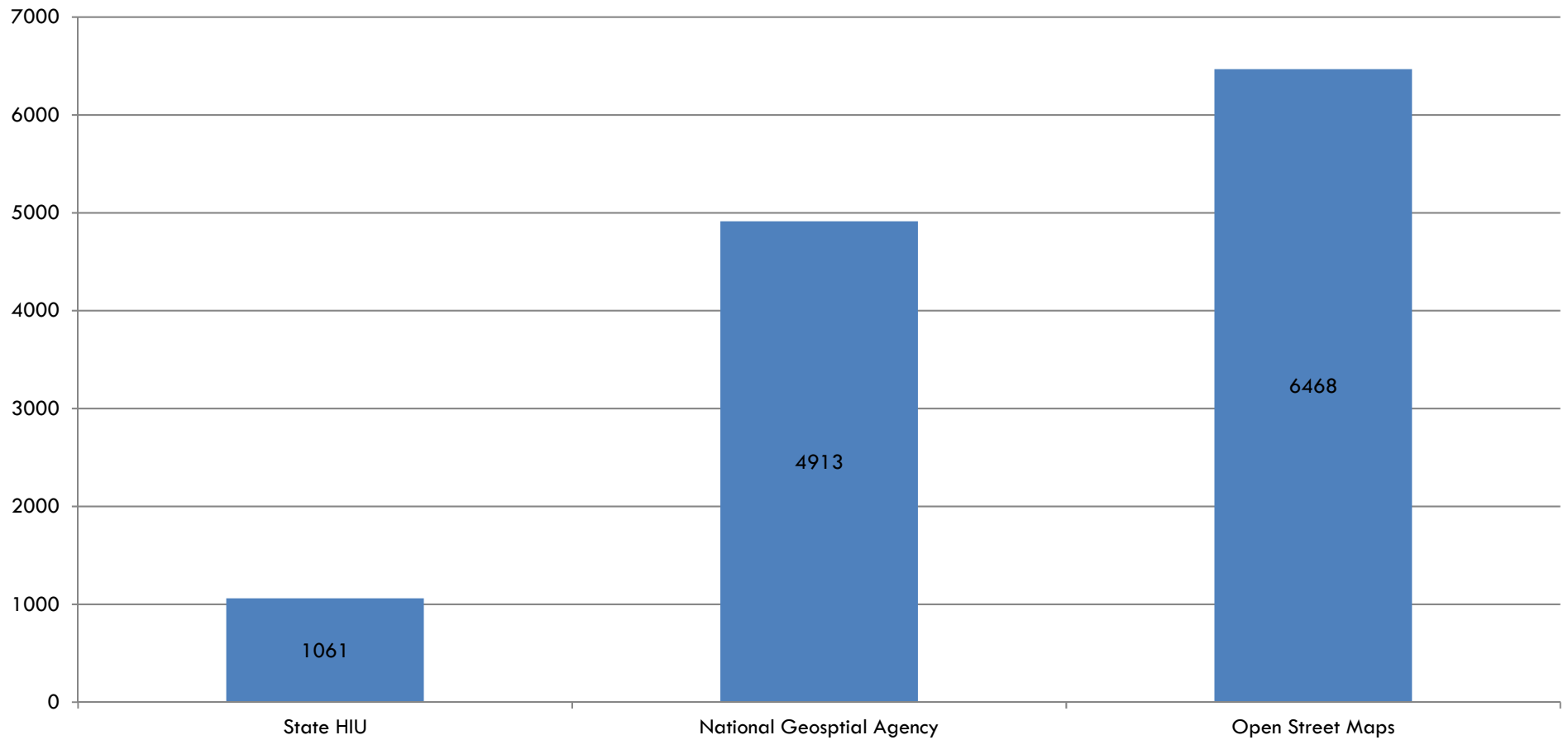
- Proprietary research datasets.
- U.S. Committee of the Blue Shield.
- U.S. Department of State (ECA/HIU).
- National Geospatial Agency.
- Open Street Maps.





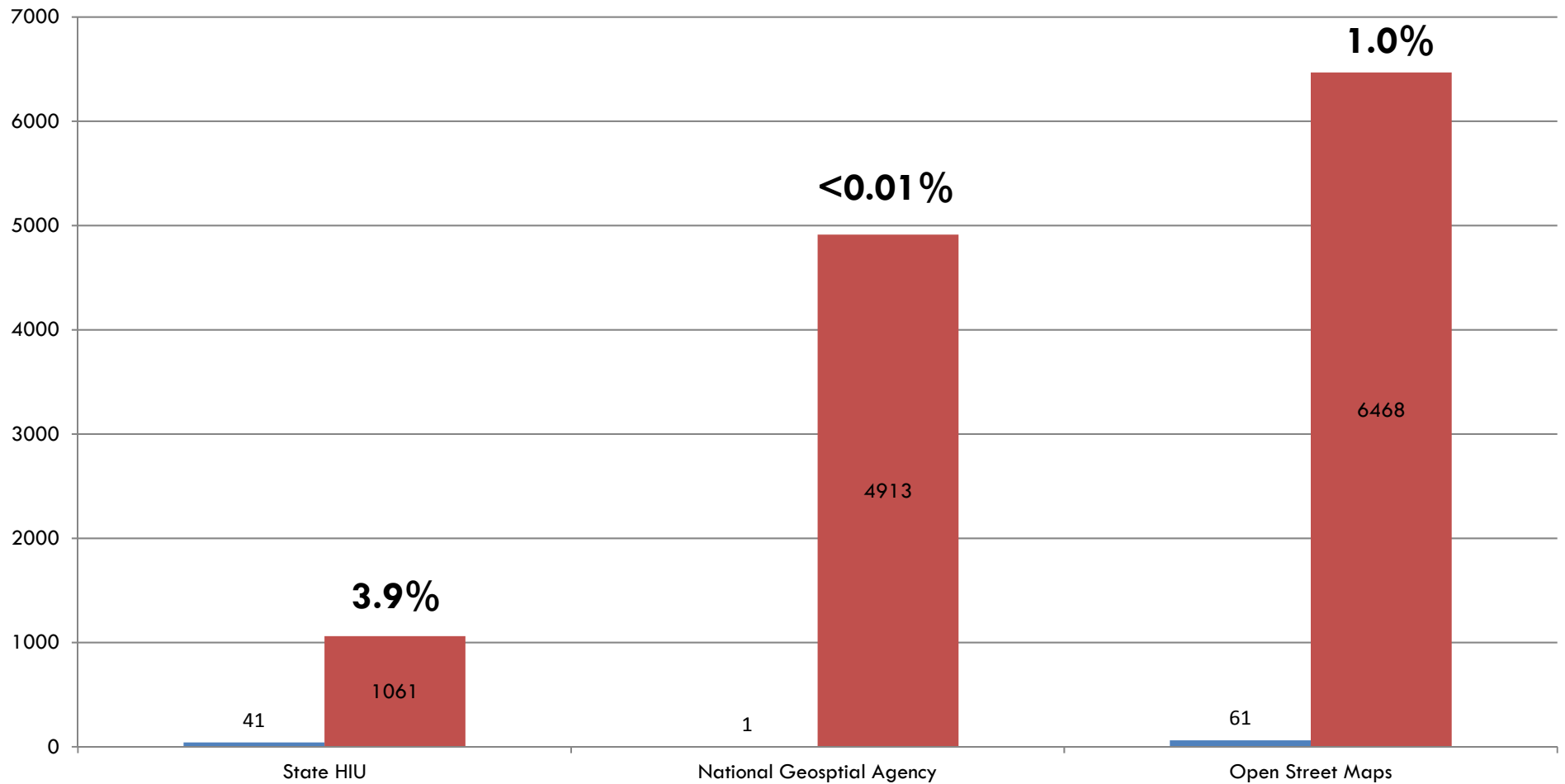
# Definitions of Cultural Sites

Number of Cultural Sites on Existing Lists for Syria



# Definitions of Cultural Sites

Number of Palmyra Sites in Existing Cultural Sites Lists for Syria



# Analyzing Cultural Cleansing: Raqqa

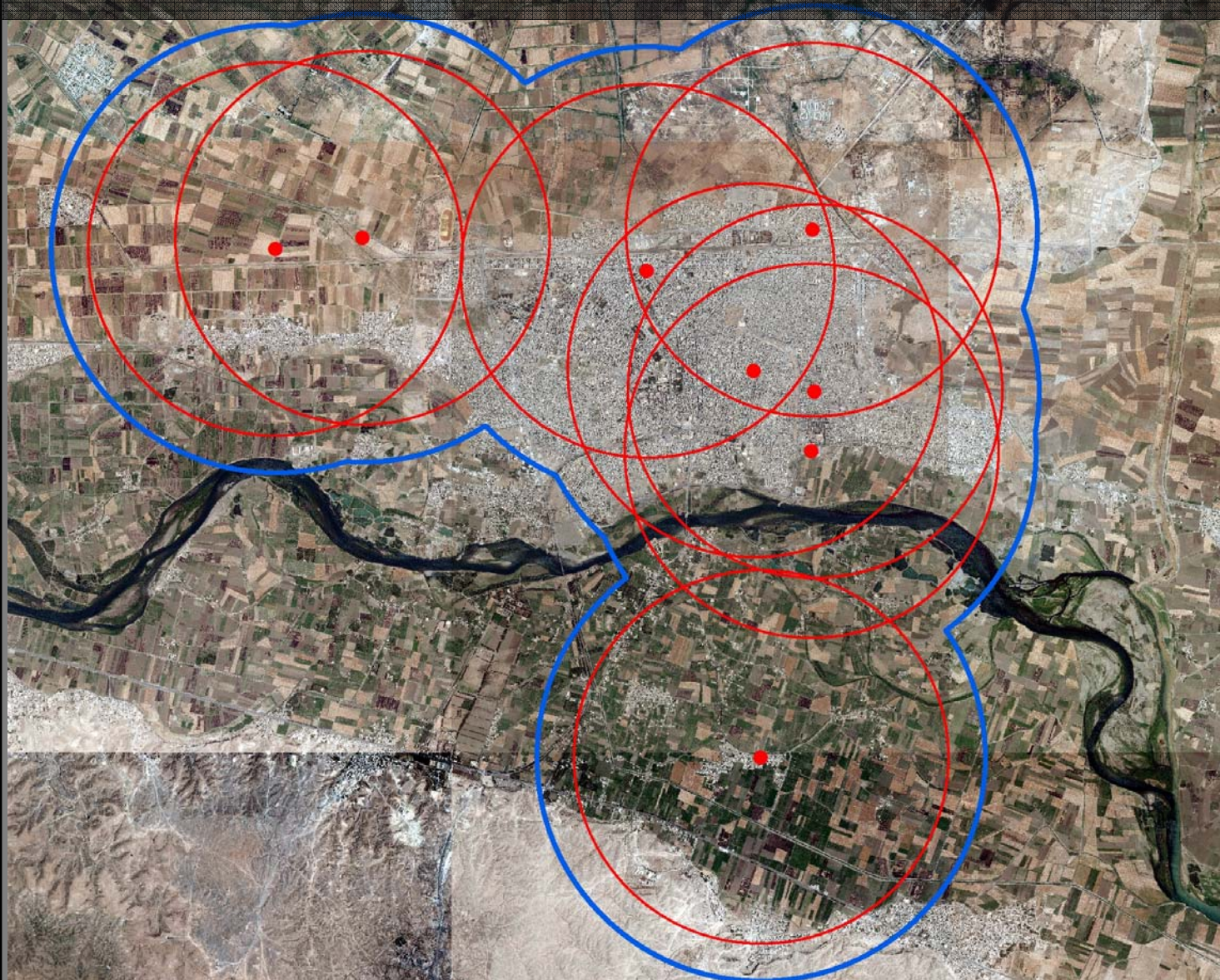
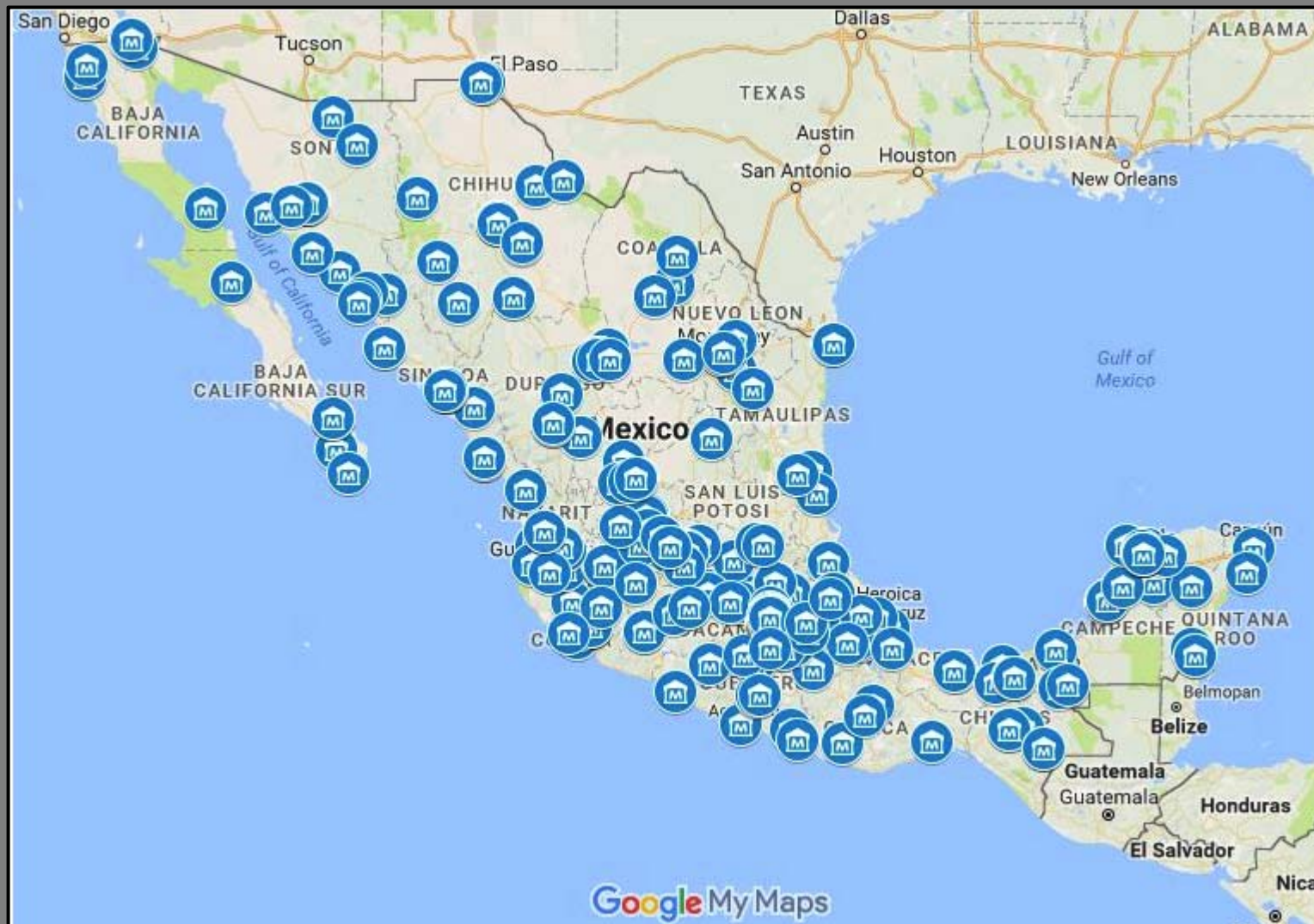


Image Credit: DigitalGlobe / US Department of State NextView License; Analysis by the AAAS

# Developing Cultural Datasets: Global Cultural Repositories



## Event-Level, Intentional Cultural Destruction

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.



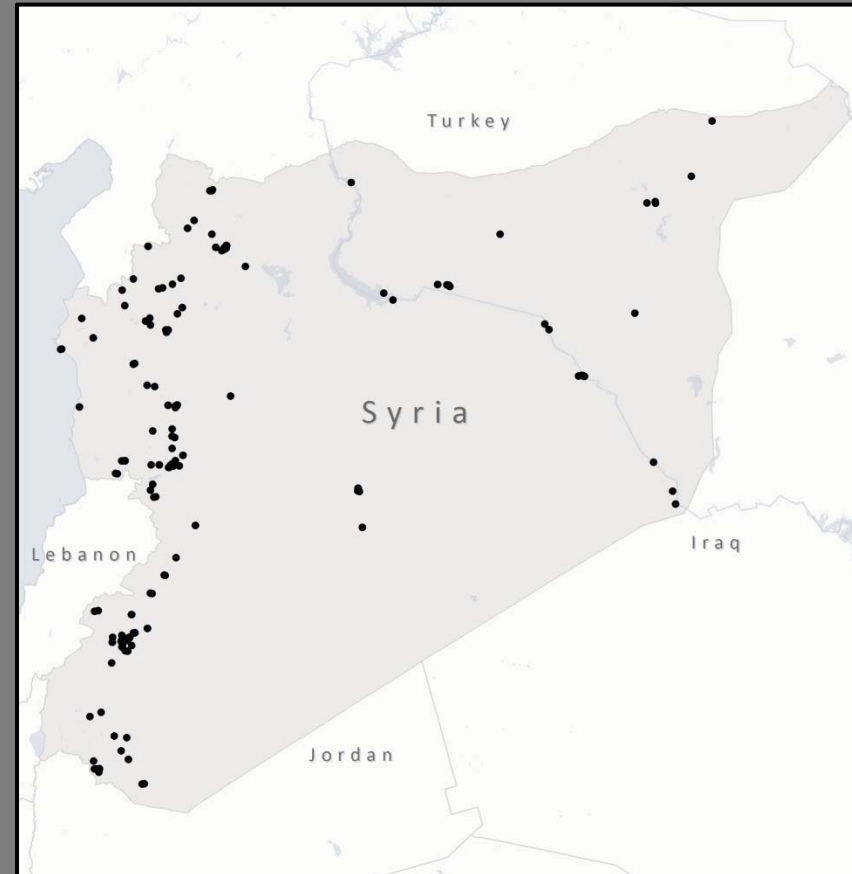
# Event-Level, Intentional Cultural Destruction

## Preliminary Case Study:

- Syria , 2011-2014.
- 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 beta  
March 2016

Brian I. 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 protest. As of Version 1.0 beta, it includes reported instances of heritage destruction in Syria (2011-2014) and Iraq (2003-2014). Precision codes for time, location, event type, and event definitions are adapted from the UCDP GED 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.<sup>1</sup> 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 entered 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 #1439549) and the University of Maryland/Smithsonian Seed Grant Program.

<sup>1</sup> Ralph Sundarberg and Erik Malander, "Introducing the UCDP Georeferenced Event Dataset," *Journal of Peace Research* 50, no. 4 (2013): 523-532; Ralph Sundarberg, Mathilda Lindgren, and Auro Podkocimaito, "UCDP GED Codebook version 1.0-2011," Department of Peace and Conflict Research, Uppsala University, 2010; and Denis Cif and Jacob Aronson, "Syria Conflict Event Dataset, Codebook Draft 1b," Center for International Development and Conflict Management, University of Maryland, 2016.

# Event-Level, Intentional Cultural Destruction

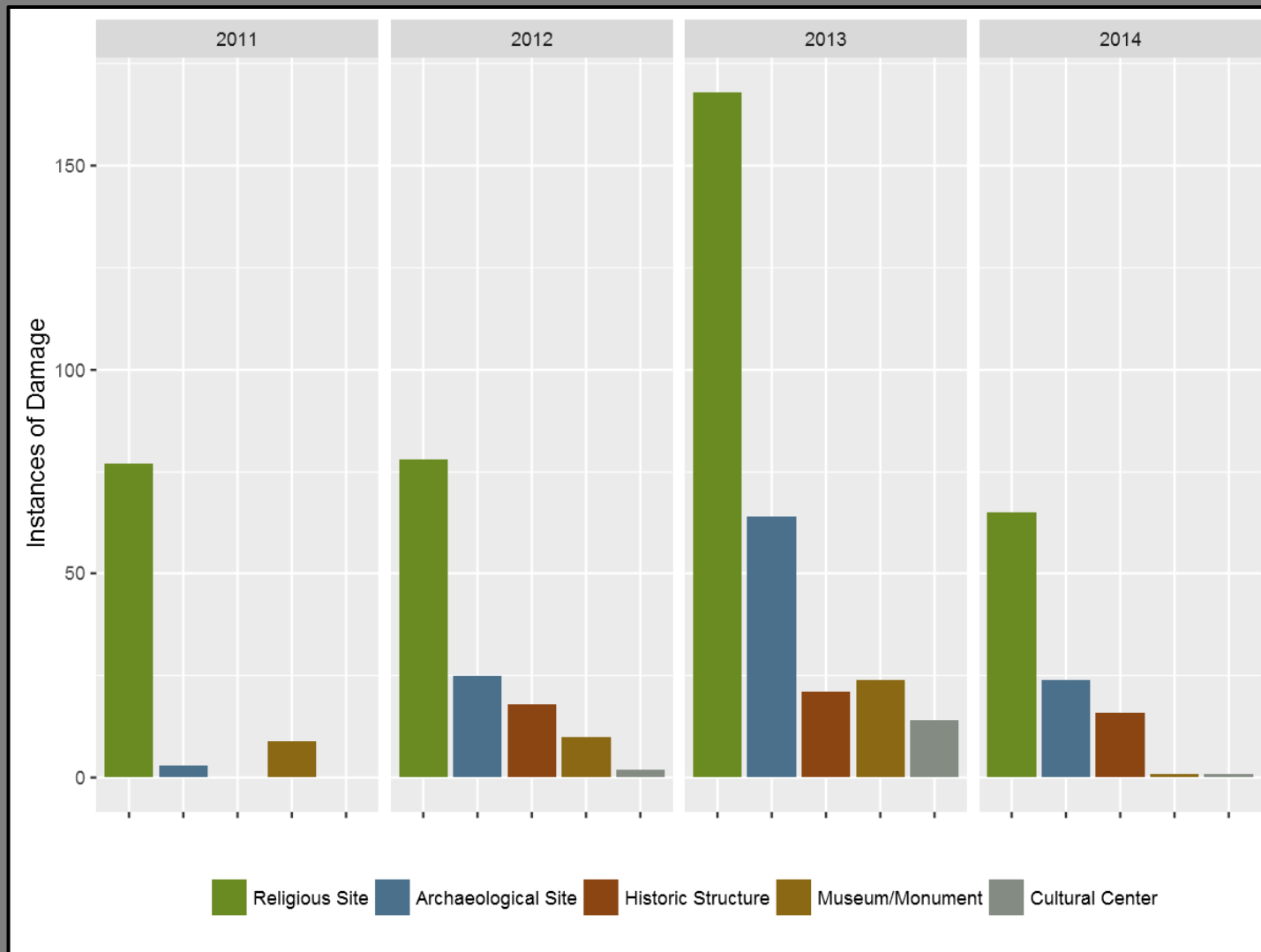
9-1\_Syria\_Consolidated\_GG - Microsoft Excel

	A	B	C	D	E	F	G	H	I
1	year	active_year	date_start	date_end	event_type	temp_prec	source_article	site_name	site_type
2				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 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., 2011-0323, ABCTRS, Syrian forces accused of shooting protesters). In the case of multiple sources, separate each with a semi-colon.	The location as specified by the source material. Streamlined in spelling and structure for easy reference. Follow the format: SITE NAME, CITY.	Assigned site type, 0 = lit archaeological site, 1 = cultural heritage site, 2 = religious site, 3 = cemetery, 4 = cultural house, movie theater, etc., 5 = historical site, 6 = occupied, 7 = secular monument, 8 = museum, 9 = other
3	YYYY	integer (0, 1)	YYYY_MM_DD	YYYY_MM_DD	integer (1-3)	integer (0-5)	string	string	integer
4	2011	1	2011_03_02	2011_03_02	3	4	2011_03_02, HNASNI, At least 55 killed	Statue of Hafez al Assad, Damascus	
5	2011	1	2011_03_20	2011_03_20	1	1	2011_03_20, LBA, Update 6 Wave of unr	Omari mosque, Daraa	
6	2011	1	2011_03_23	2011_03_23	1	1	2011_03_22, AJAZEN, Deaths as Syrian f	Omari mosque, Daraa	
7	2011	1	2011_03_26	2011_03_26	1	1	2011_03_26, X00514, This still image te	Statue of Hafez al Assad, Daraa	
8	2011	1	2011_03_25	2011_03_25	1	1	2011_03_26, X80002, Protesters gather	Statue of Hafez al Assad, Daraa	
9	2011	1	2011_04_01	2011_04_01	1	1	2011_04_01, AFPR, At least 4 killed in S	mosque, Duoma	
10	2011	1	2011_04_01	2011_04_01	1	1	2011_04_01, AFPR, At least 7 killed as tl	Al-Rifai mosque, Damascus	
11	2011	1	2011_04_08	2011_04_08	1	1	2011_04_08, BBCMNF, Syrian forces kill	Omari mosque, Daraa	
12	2011	1	2011_04_08	2011_04_08	1	1	2011_04_08, BBCMNF, Syrian forces kill	Shaykh Abd-al-Aziz Abazid mosque, Dara	
13	2011	1	2011_04_08	2011_04_08	1	1	2011_04_08, LBA, Syria protesters torch	statue of Basil al-Assad, Daraa	
14	2011	1	2011_04_10	2011_04_10	1	1	2011_04_10, BBCMNF, Syrian activists t	Abu-Bakr al-Siddiq mosque, Baniyas	

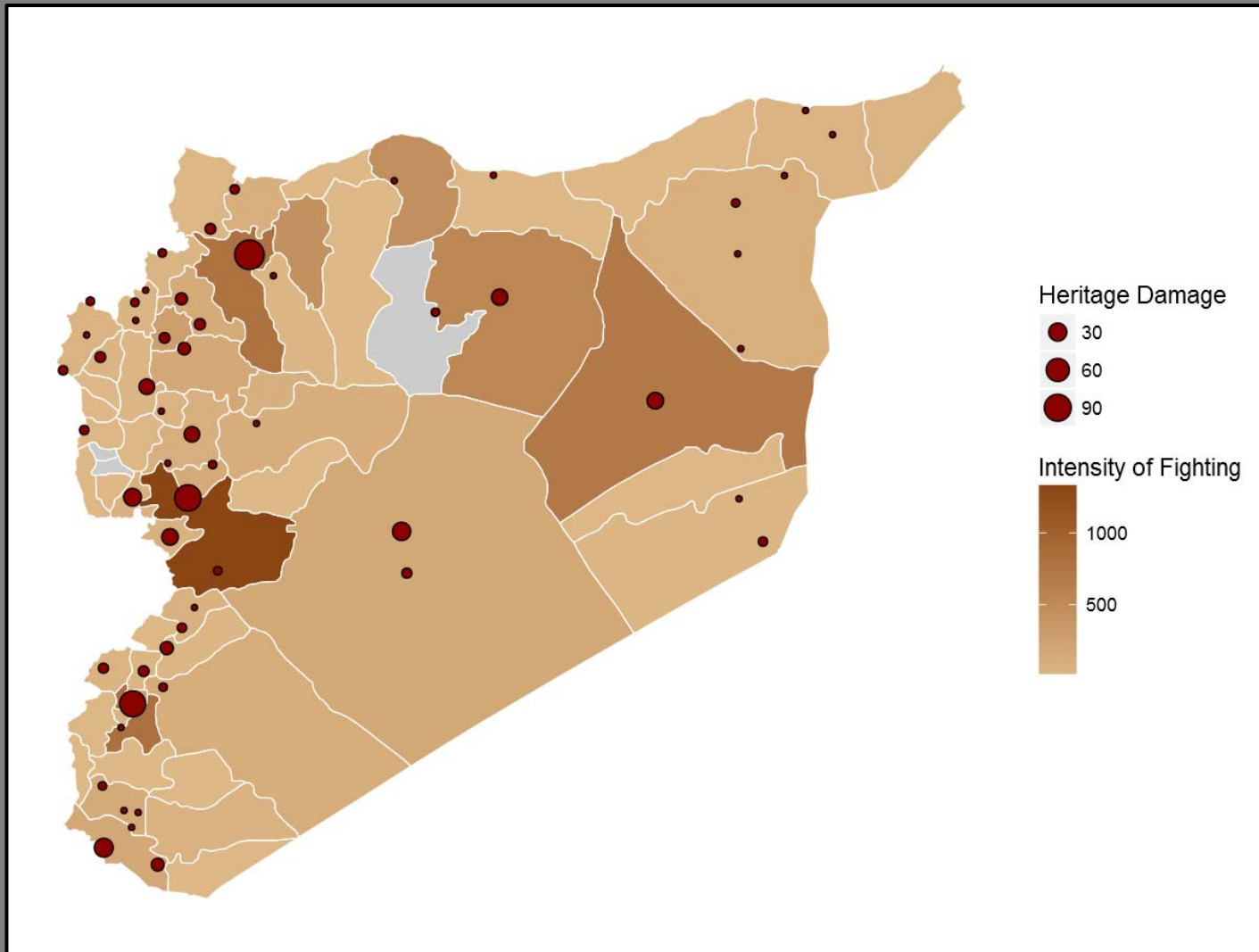
Ready | Consolidated Data | 2011 Removed Entries | 2012 Removed Entries | 2013 Removed Entries | 2014 Removed Entries | 100% | 11:28 PM 10/25/2017



# Event-Level, Intentional Cultural Destruction: Syria



# Event-Level, Intentional Cultural Destruction: Syria



# 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.



# Conflict Culture Research Network



Smithsonian Institution



U.S. Committee  
of the Blue Shield



UNIVERSITY OF GOTHENBURG  
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Vorderasiatisches Museum  
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# Using Data to Understand Cultural Destruction

- 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.

