

# Interoperability, Integration, and Distributed Data

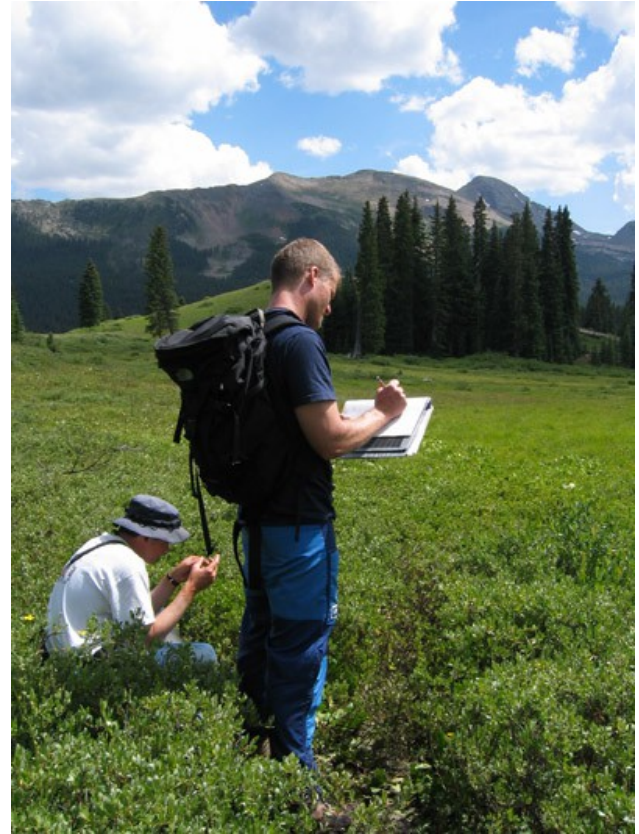
Eric Kansa  
UC Berkeley / OpenContext.org



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# Why this Topic Matters

- Lot's of emphasis on semantics and standardization
- Need greater recognition for how **Web architecture** impacts (re)use potential of data



# Key Concepts for the Web

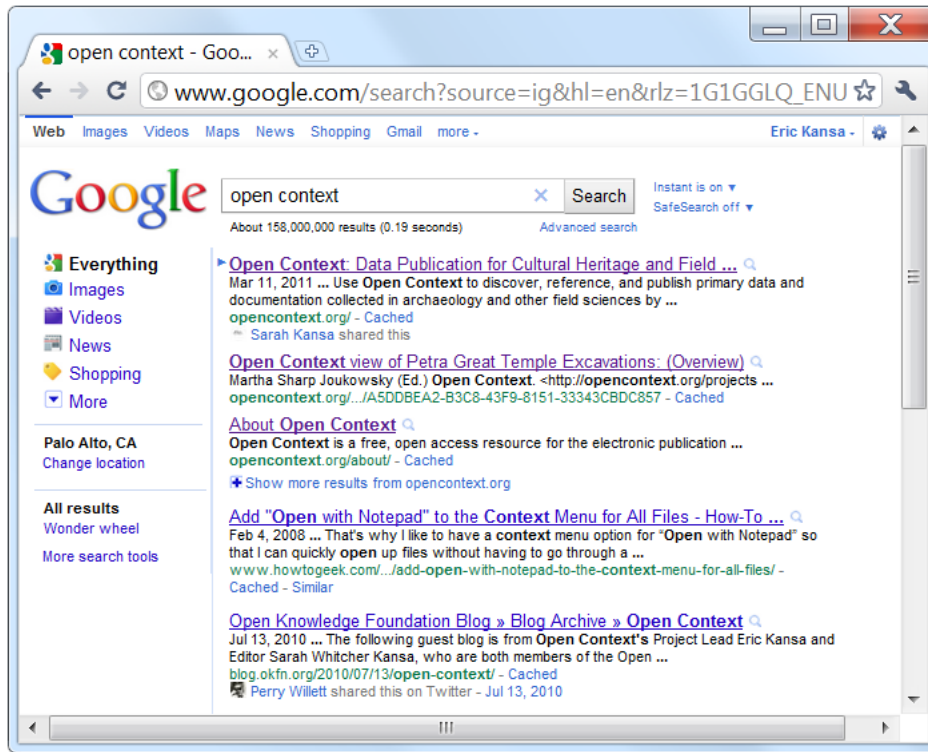
## Key issues for interoperability

- **Resources:** Anything that can be identified and retrieved with a URL/URI.
  - Static documents or files
  - Dynamically generated results of a query
  - Abstract Concepts
- **Representations:** Different views or expressions of a resource in different formats
  - Mobile phone view
  - Machine-readable view

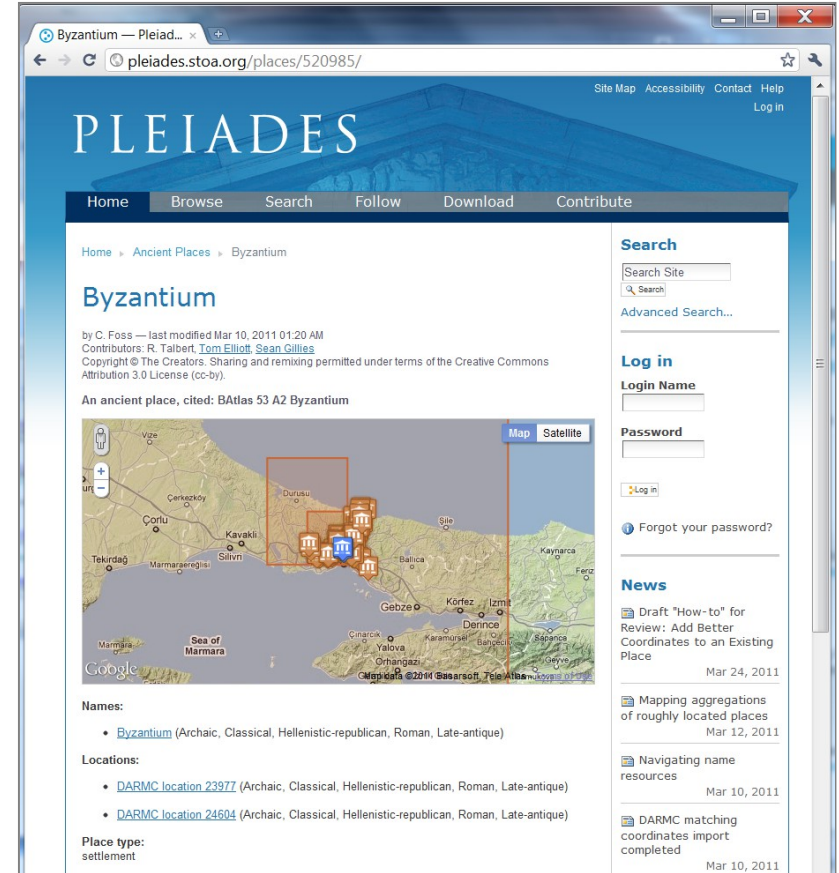


Example in discussion

# Web Resources

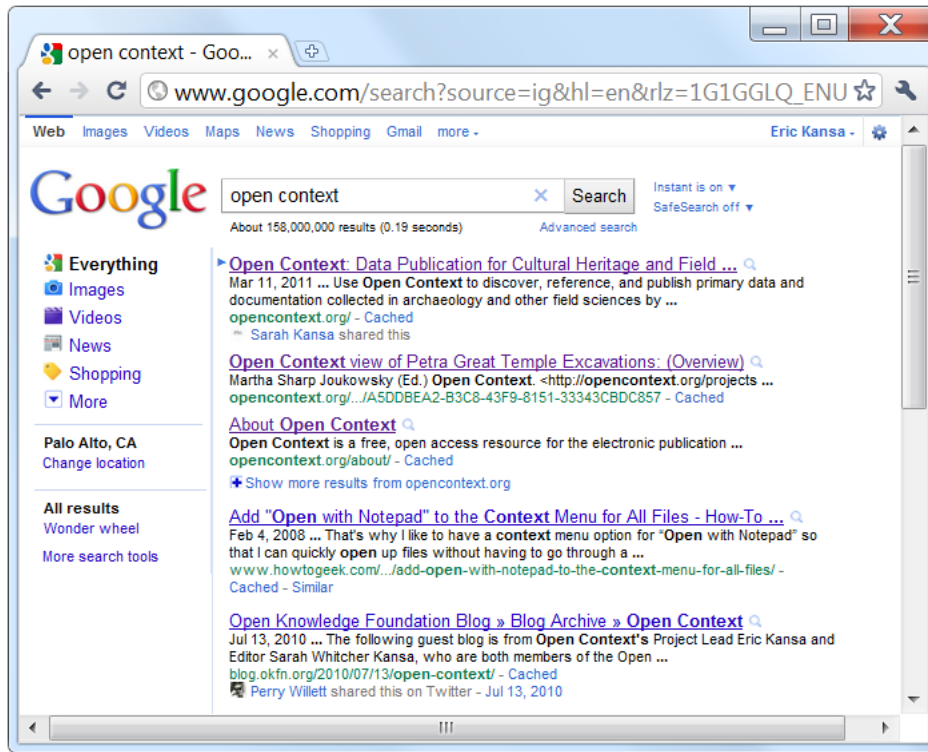


Dynamic service / query  
results (Google)

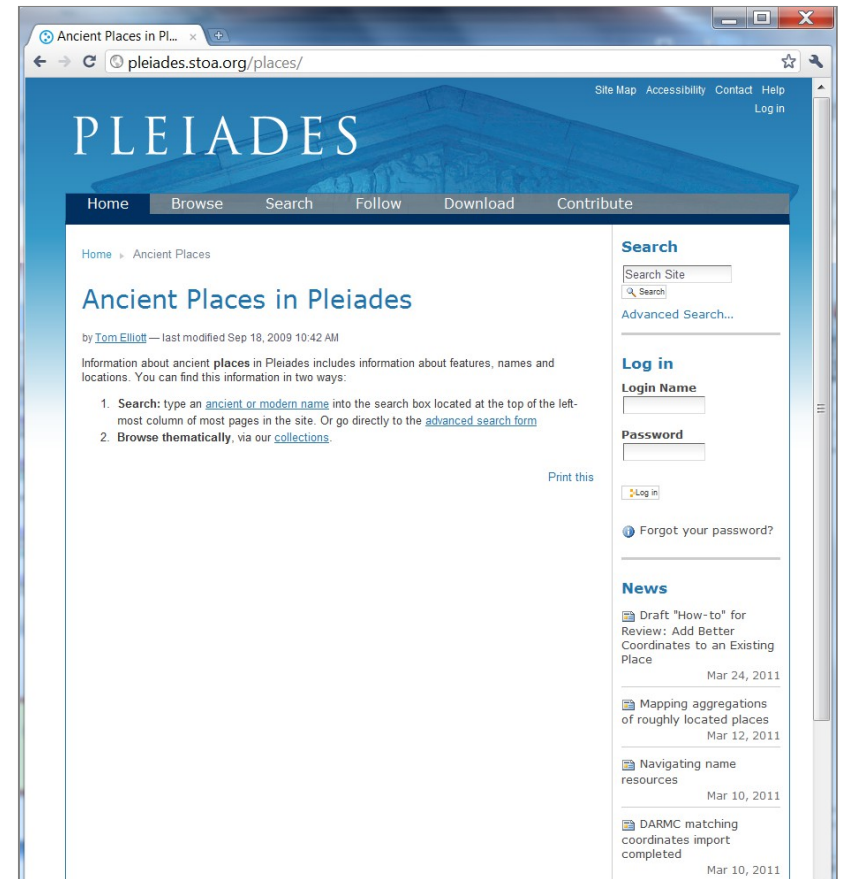


Abstract concept ("place") in  
Pleiades

# Web Resources



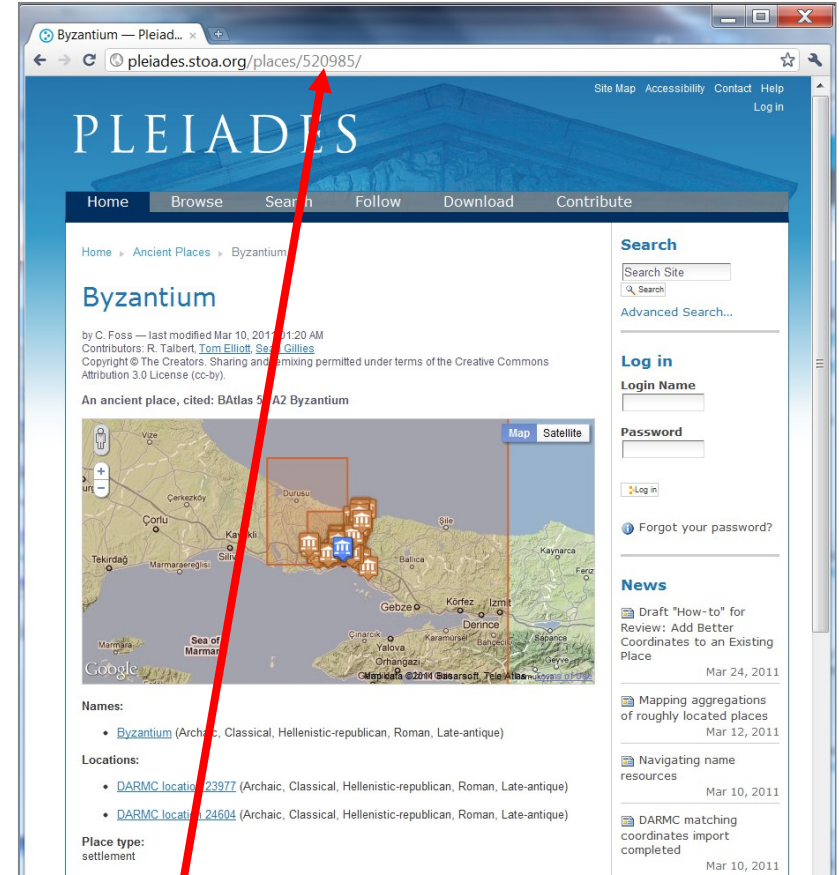
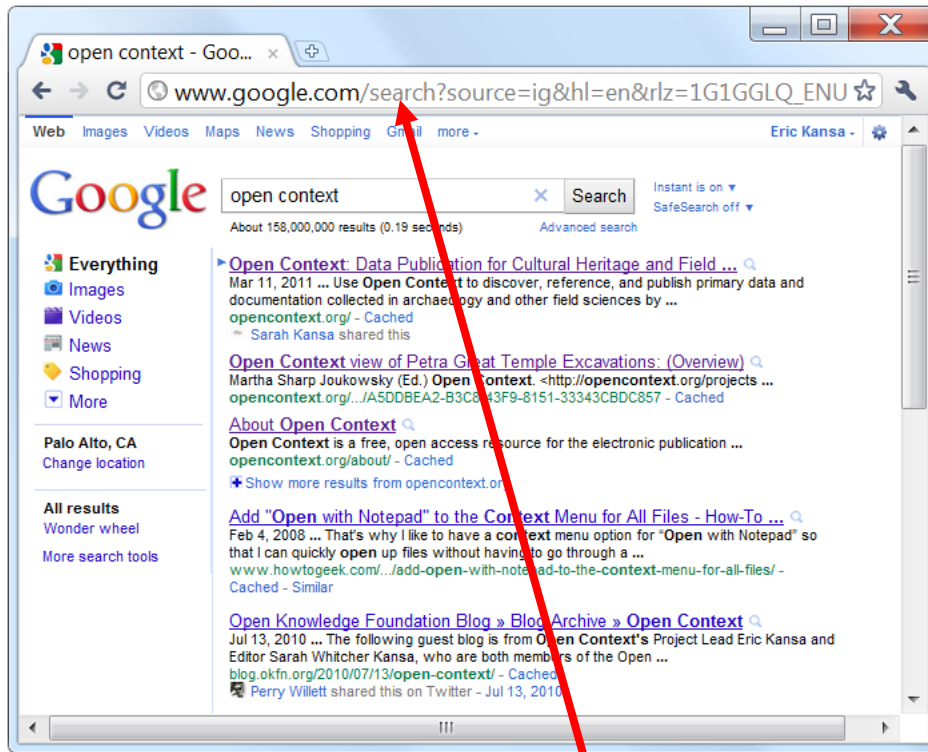
Dynamic service / query  
results (Google)



Abstract concept ("place" in  
general) in Pleiades



# Web Resources



Key Common Requirement:  
**URL/URI**

# Representations

EDITION: U.S. | INTERNATIONAL | MÉXICO

Set edition preference

CNN

Sign up | Log in

SEARCH

POWERED BY Google

Home

Video

NewsPulse

U.S.

World

Politics

Justice

Entertainment

Tech

Health

Living

Travel

Opinion


iReport

Money

Sports

updated 12:16 p.m. EDT, Mon March 28, 2011


Make CNN Your Homepage



**Libyan rebels target Gadhaifi's birthplace**


Libyan opposition fighters, who regained control of key towns over the weekend, continue their march west toward Sirte, Moammar Gadhaifi's birthplace. [FULL STORY](#)

- [LIVE BLOG](#): Mideast developments
- [Libya's motley opposition](#)
- [Libya interactive](#) | [Pics](#) | [Regional unrest](#)



**Mass burials new heartache for Japan**

The sound of heavy machinery fills the air in Kamaishi, Japan -- equipment digging mass graves for tsunami victims. The mass burials represent another heartache for the shattered region. CNN's Kyung Lah reports. [FULL STORY](#)




**Politics and the Libyan mission**


Obama to speak on U.S. action  
President Obama addresses the nation tonight at 7:30 ET after bipartisan calls to clarify the U.S. role in the Libyan conflict. [FULL STORY](#)

- [Frum](#): What Obama should say
- [Zelizer](#): Too easy to go to war
- [LIVE on CNN, CNN.com, iPhone/iPad](#)


**Featured**




**Acapulco killings keep tourists away**  
3:31




**Gotta Watch: 'Flying low' at Formula One**




**A new view of the tsunami's attack**  
:45



**So what exactly is this little QR square?**



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117,120 people recommended **Tsunami waves strike Japan**

50,527 people recommended **Road trip to the end of the world**

50,774 people recommended **Are whites racially oppressed?**

34,211 people recommended **U.S., allies strike Libya**

65,114 people recommended **Viral post pits coverage of Sheen, fallen soldiers**

NEWSPULSE

LOCAL WEATHER & NEWS

SPORTS

MARKETS



# Representations

EDITION: U.S. | INTERNATIONAL | MÉXICO  
Set edition preference

Sign up | Log in

SEARCH

POWERED BY Google

Home | Video | NewsPulse | U.S. | World | Politics | Justice | Entertainment | Tech | Health | Living | Travel | Opinion | iReport | Money | Sports

updated 12:16 p.m. EDT, Mon March 28, 2011

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**Featured**

**Acapulco killings keep tourists away**  
3:31

**Gotta Watch: 'Flying low' at Formula One**

**A new view of the tsunami's attack**  
:45

**Latest news**

- Ga. death row inmate's appeal rejected
- Jimmy Carter returns to Cuba
- 13% of U.S. homes vacant [CNNMoney](#)
- Shrinking Medicaid funds hurt states
- New magazine aimed at gay troops
- Boat capsizes in San Diego, killing two
- First a spat, then boy, 3, goes missing
- 32 years since Three Mile Island crisis
- Deadly cobra missing from Bronx Zoo
- Ticker: Trump lashes out over 'birthdays'
- Two Cinderellas enter Final Four [SI](#)
- Law would allow immigrant workers [ABC](#)
- Using fruit to make car parts
- 'Simpsons' nuclear episodes pulled?
- ATMs spit out wads of extra money [ABC](#)
- This Just In: CNN's news blog

Make CNN Your Homepage

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How to stop stress, ease anxiety, live happier, and improve your mood! [Learn More](#)

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Shocking Discovery by Boston Researchers for Amazing Joint Relief... [Learn More](#)

**How to Relieve Joints?**  
Shocking discovery by Cambridge researchers for amazing joint relief... [Learn More](#)

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Log in with Facebook to see your friends' activity | What's this?

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NEWSPULSE

LOCAL WEATHER & NEWS

SPORTS

MARKETS

3G | Signal strength | Battery | 9:33 AM

http://m.cnn.com/

Weather

LATEST NEWS

AUDIO/VIDEO

Select a section

Latest News

updated 12:16 PM EDT 03.28.11

**Libyan rebels target Gadhaifi's birthplace**

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# Representations of a Resource

Open Context  
Web-based research data publication

Item: Bone 100014.01  
Class: Animal Bone  
Context (click to view): United States / California / Presidio of San Francisco / Building 39 / FA Box 10

Number of Views: 12  
Project: Presidio of San Francisco

Description (12 properties)

Property	Value
Bag Number	100014
NISP	1
Taxon	Bos taurus
Common name	Cattle
Element	praeaxial.1
Part	Complete
% preserved	Complete
Proximal and fused?	Yes
Pathology (describe)	expansion on proximal epiph surface, swelling and extra bone growth esp. around prox end an on medial and volar
Root etching?	Yes
Comments	extreme exostosis: broadening of proximal artio area (especially laterally), bony exostosis on prox shaft with spicules (especially medially), woven bone lipping around body, swelling/expansion affects proximal measurements
Photo taken?	photo taken

Descriptive Tags (1)

(1780 CE - 1860 CE)

Editor's Note: Date ranges are approximate and do not necessarily reflect the opinion of data contributors. These dates are provided only to facilitate searches.

Linked Media (5 files)

Item Notes

For the specimen label and identification number, the first set of 6 numbers before the period refers to the bag number, the numbers following the period identify specimens within the bag

Suggested Citation

Sarah W. Kansas. "Presidio of San Francisco: Bone 100014.01 (Animal Bone)". (Released 2010-01-29). Presidio Archaeology Lab (Presidio Trust) (Ed.) Open Context. <<http://opencontext.org/subjects/66D04080-3ACE-43F9-9D51-330F82FDE0F>>

Associated People (1 items)

Sarah W. Kansas ( Principle Author / Analyst )

ArchaeoML (XML) Version

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
<arch:spatialUnit UUID="D5D2BD55-55A2-445F-9258-37A36AAC343E" ownedBy="CSB4F73B-5EF8-4099-590E-B0275EDBA2A7">
  <arch:name>
    <arch:string>Bone 100013.04</arch:string>
  </arch:name>
  <oc:item_class>
    <oc:name>Animal Bone</oc:name>
    <oc:iconURI>
      http://www.opencontext.org/database/ui_images/med_oc_icons/animal_bone_50x50.jpg
    </oc:iconURI>
  </oc:item_class>
  <arch:observations>
    <arch:observation obsNumber="1">
      <arch:properties>
        <arch:property>
          <arch:variableID>7764853A-0A18-41DB-B663-8E8685CB2F1C</arch:variableID>
          <arch:integer>100013</arch:integer>
          <oc:propid href="http://opencontext.org/properties/79283804-5075-411B-757A-1CE33FE0560A">79283804-5075-411B-757A-1CE33FE0560A</oc:propid>
          <oc:var_label type="integer">Bag Number</oc:var_label>
          <oc:show_val>100013</oc:show_val>
        </arch:property>
        <arch:property>
          <arch:variableID>37D59894-C1D4-41B4-C88B-DFC5A0C3FB6E</arch:variableID>
          <arch:integer>1</arch:integer>
          <oc:propid href="http://opencontext.org/properties/B41B61DA-0CD6-4D87-EE41-E821C4BDC753">B41B61DA-0CD6-4D87-EE41-E821C4BDC753</oc:propid>
          <oc:var_label type="integer">NISP</oc:var_label>
          <oc:show_val>1</oc:show_val>
        </arch:property>
        <arch:property>
          <arch:variableID>A9172FBF-9AEF-4F7E-0BD5-DC23EC72F541</arch:variableID>
          <arch:valueID>9CE2D1A6-AD67-46CF-61A3-341CDA5ACED1</arch:valueID>
          <oc:propid href="http://opencontext.org/properties/BA9534BD-FC23-4037-954D-F415F732B618">BA9534BD-FC23-4037-954D-F415F732B618</oc:propid>
          <oc:var_label type="nominal">Taxon</oc:var_label>
          <oc:show_val>Bos taurus</oc:show_val>
        </arch:property>
        <arch:property>
          <arch:variableID>262078F0-8B76-4B5B-9BEC-F74D191E4EF7</arch:variableID>
          <arch:valueID>D73A48C8-C0F6-427C-1615-159FDD200407</arch:valueID>
          <oc:propid href="http://opencontext.org/properties/5E764397-3125-4552-046F-A084E0219A7A">5E764397-3125-4552-046F-A084E0219A7A</oc:propid>
          <oc:var_label type="nominal">Common name</oc:var_label>
        </arch:property>
      </arch:properties>
    </arch:observation>
  </arch:observations>
</arch:spatialUnit>
```

- Browser (XHTML) and “Machine-readable” (ArchaeoML-XML) representations

# Representations of a Resource

Nomisma.org: [\[home\]](#) [\[all mints\]](#) [\[all hoards\]](#) [\[all authorities\]](#) [\[all ids\]](#) "Common currency for digital numismatics."

Search

Adapted from *Inventory of Greek Coin Hoards*

262 [Diakofto, on the coast c. 20 km. E of Aegium, Achaia, 1965](#)

Burial: c. 146 B.C. (T)  
Contents: 3000+ AR

- Lamia: 1 triob.
- Aetolian League: 63 triob.
- Locri Opuntii: 12 triob.
- Phocis: 4 triob.
- Boeotia: 28 triob.
- Thebes: 7 triob.
- Chalcis: 92 dr.
- Histiasea: 6 tetrob.
- Sicyon: 459 triob. (29 early, 430 late)
  - [CNG Coin Shop 775210](#)
  - [CNG Coin Shop 832025](#)
  - [CNG Coin Shop 831994](#)
- Aegae: 1 triob.
- Achaean League: 1601 triob.
  - [CNG Coin Shop 775269](#)
- Messene: 6 triob.
  - [CNG Coin Shop 790011](#)
  - [CNG Coin Shop 877551](#)
- Corone: 2 triob.
- Argos: 391 triob. (22 early, 369 late)
- Megalopolis: 226 triob.
- Roman Rep.: 1 quinarius (Syd. 609a = 83/2 B.C.; intrusion?)

Disposition: in commerce  
Information from M. Price; details of above on file in BM



- Nomisma.org (coin hordes)

Nomisma.org: [\[home\]](#) [\[all mints\]](#) [\[all hoards\]](#) [\[all authorities\]](#) [\[all ids\]](#) "Common currency for digital numismatics."

262 Diakolion, on the coast c. 20 km  
Burfal: c. 146 B.C. (T)  
Contents: 3000+ AR  
☑ Lamia: 1 triob.  
Aetolian League: 63 triob.  
☑ Locri Opuntii: 12 triob.  
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Disposition: in commerce  
Information from M. Price; det  
file in BM



- RDFa: Machine-readable data mixed in HTML



# Why Care?

## Key issues for interoperability

- **URL/URI as a primary key:**  
Let other people reference your data, anywhere on Web (!!)
  - Opens up silos
  - Let others **add semantic value**
  - Key for **data citation**
- **Machine-Readable Representations:** Share data that can be processed
  - Enable cross-collection analysis
  - New interfaces, visualizations



Working toward these goals

**Open Context** Web-based research data publication BETA

Home About Projects Browse Lightbox Tables Details My Account

New Search

Click on one of the links below to further limit your view of items in Open Context.  
Or, type a search term in the box below (works like Google):

Search this Set:

- Context
  - Building 39 1076
- Project
  - Presidio of San Francisco 1076
- Category
  - Animal Bone 1048
  - Small Find 21
  - Sample 6
  - Area 1
- Descriptive Variable
  - Common name 1048
  - Taxon 1048
  - Element 1047
  - Part 1030
  - Unexcavated 965
  - Root etching? 885
  - Site 552
  - Proximal end fused? 325
  - Distal end fused? 194
  - Fragment length 145
  - Burnt? 57
  - Color of burning 57
  - Material 21
  - Object Name 21
  - Shape 15

Open Context currently has 1076 items, filtered by the following criteria:  
Contained in: [United States](#) / [California](#) / [Presidio of San Francisco](#) [Remove Filter](#)  
Project: [Presidio of San Francisco](#) [Remove Filter](#)  
Last Updated: February 10, 2010, 11:00 pm

Results: Items 1 to 10 out of 1076 items

	<b>Presidio of San Francisco</b> <b>Animal Bone</b> Bone 100013.04 Context: United States / California / Presidio of San Francisco / Building 39 / FA Box 9	
	<b>Presidio of San Francisco</b> <b>Animal Bone</b> Bone 100052.01 Context: United States / California / Presidio of San Francisco / Building 39 / FA Box 11	
	<b>Presidio of San Francisco</b> <b>Animal Bone</b> Bone 100054.01 Context: United States / California / Presidio of San Francisco / Building 39 / FA Box 11	

**BONE COMMONS** An online community building and sharing resources for archaeozoology

Sponsored by the International Council for Archaeozoology (ICAZ)

## Datasets

This page is currently testing Web services for interacting with faunal datasets published in Open Context. These datasets can be used for further research, teaching, or comparison. Open Context will shortly have features to enable download of tables of records that users select from multiple projects.

To publish your own data that can be searched and viewed here, please contact the editors of Open Context at [publications@opencontext.org](mailto:publications@opencontext.org)

### Search Filters:

**Spatial Context:** [United States](#) (1048)  
**Project or Collection:** [Presidio of San Francisco](#) (1048)  
**Category:** [Animal Bone](#) (1048)  
**Descriptive Property:** [Common name](#) (1048), [Taxon](#) (1048), [Element](#) (1047), [Part](#) (1030), [% preserved](#) (965), [Root etching?](#) (885), [Side](#) (152), [Proximal end fused?](#) (325), [Distal end fused?](#) (194), [Fragment length](#) (145), [Burnt?](#) (57), [Color of burning](#) (57), [Photo taken?](#) (11), [Sex](#) (5), [Age](#) 2 (1)  
**Related People:** [Sarah W. Kenae](#) (1048)  
**Approx. Date Range:** [1750 CE to 1850 CE](#) (1048)

Run a full text search of this collection:

### Filters

**Project:** [Presidio of San Francisco](#) ([Remove this filter](#))

**Number of Items Found:** 1048 ([Reset Search](#))

Records: Page 1 of 44 Pages

	Bone 100013.04 (Animal Bone from the Presidio of San Francisco project)		Bone 100052.01 (Animal Bone from the Presidio of San Francisco project)		Bone 100054.01 (Animal Bone from the Presidio of San Francisco project)
	Bone 100014.01 (Animal Bone from the Presidio of San Francisco project)		Bone 100004.13 (Animal Bone from the Presidio of San Francisco project)		Bone 100052.02 (Animal Bone from the Presidio of San Francisco project)
	Bone 100050.18 (Animal Bone from the Presidio of San Francisco project)		Bone 100005.13 (Animal Bone from the Presidio of San Francisco project)		Bone 100005.20 (Animal Bone from the Presidio of San Francisco project)

Data portability with Web standards (Atom, JSON, KML) and more specialized standards (ArchaeoML, RDF, OAI-PMH)



# Web Representations: Visualizations

The image is a screenshot of the Google Earth web interface. The main map shows the Middle East, with labels for countries like Israel, Jordan, Syria, and Lebanon, and cities like Cairo, Jerusalem, Amman, Damascus, and Aleppo. A red rectangle highlights the Petra Great Temple area, and a purple rectangle highlights the Hazor area. A popup window is open over the Hazor area, displaying information about a specific context.

**Hazor**

This context has a ratio of 4.1 : 2.1 (4134 to 2142) for Taxon with value: sheep/goat OR Ovis aries / Capra hircus OR Ovis sp. OR Ovis aries/Capra hircus OR Ovis aries OR Capra hircus OR Ovis/Capra OR goat OR sheep VERSUS Taxon: with the value Bos taurus OR cow OR Bos primigenius, within this time range: 1,100 BCE to 650 BCE

Selection Criteria:

Contained in:	Jordan OR Turkey OR Israel
Category:	Animal Bone
Variable:	Taxon with value: sheep/goat OR Ovis aries / Capra hircus OR Ovis sp. OR Ovis aries/Capra hircus OR Ovis aries OR Capra hircus OR Ovis/Capra OR goat OR sheep

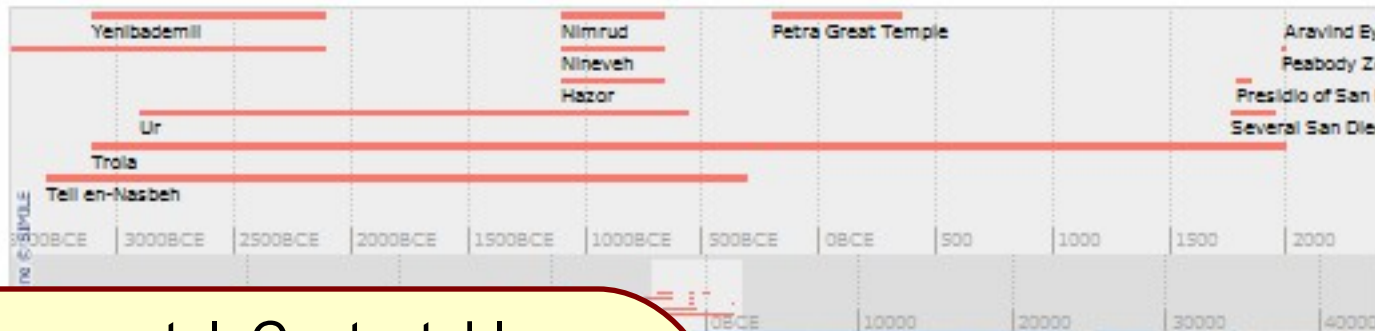
[Explore this context](#)

On the left side of the interface, there is a 'Search' bar and a 'Places' list. The 'Places' list includes 'Temporary Places' and 'OpenContext Summary of: Vis'. Below this, there is a 'Layers' panel with options like 'Primary Database', 'Borders and Labels', 'Places', 'Panoramio Photos', 'Roads', '3D Buildings', 'Ocean', 'Street View', 'Weather', 'Gallery', 'Global Awareness', and 'More'. At the bottom of the screen, there is a copyright notice: '© 2010 Tolo Atlas, US Dept of State Geographer, © 2010 Google, © 2010 Europa Technologies' and coordinates: '33°53'58.01" N 35°01'47.61" E elev. -5199 ft'.



## Welcome to Open Context

Use Open Context to discover, reference, and publish primary data and documentation collected in archaeology and other field sciences by professional researchers. *Scroll* through the timeline and map below to begin exploring data, images, reports and field documentation.



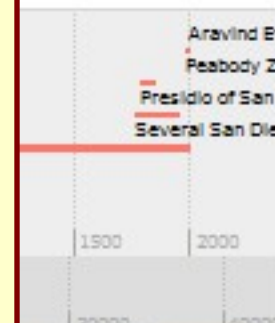
- Incremental, Contestable Approach
  - “Good” semantics depend on priorities / research questions.
- Distributed
  - Open, portable data **lets others** add semantic value
  - Open for data integration with other data sources on Web

Welcome to  
Open Context



South

Station collected in  
the timeline and



Indian Ocean

- ArchaeoML
  - Abstracted standard, retains original typologies / terminologies
  - Baseline integration in Open Context
- Granularity
  - All data records have unique URL/URIs
  - Reference/index according to any ontology, anywhere on Web
- Web services
  - Precision queries to find resources meeting analytically meaningful criteria

# Atom: Standard Container

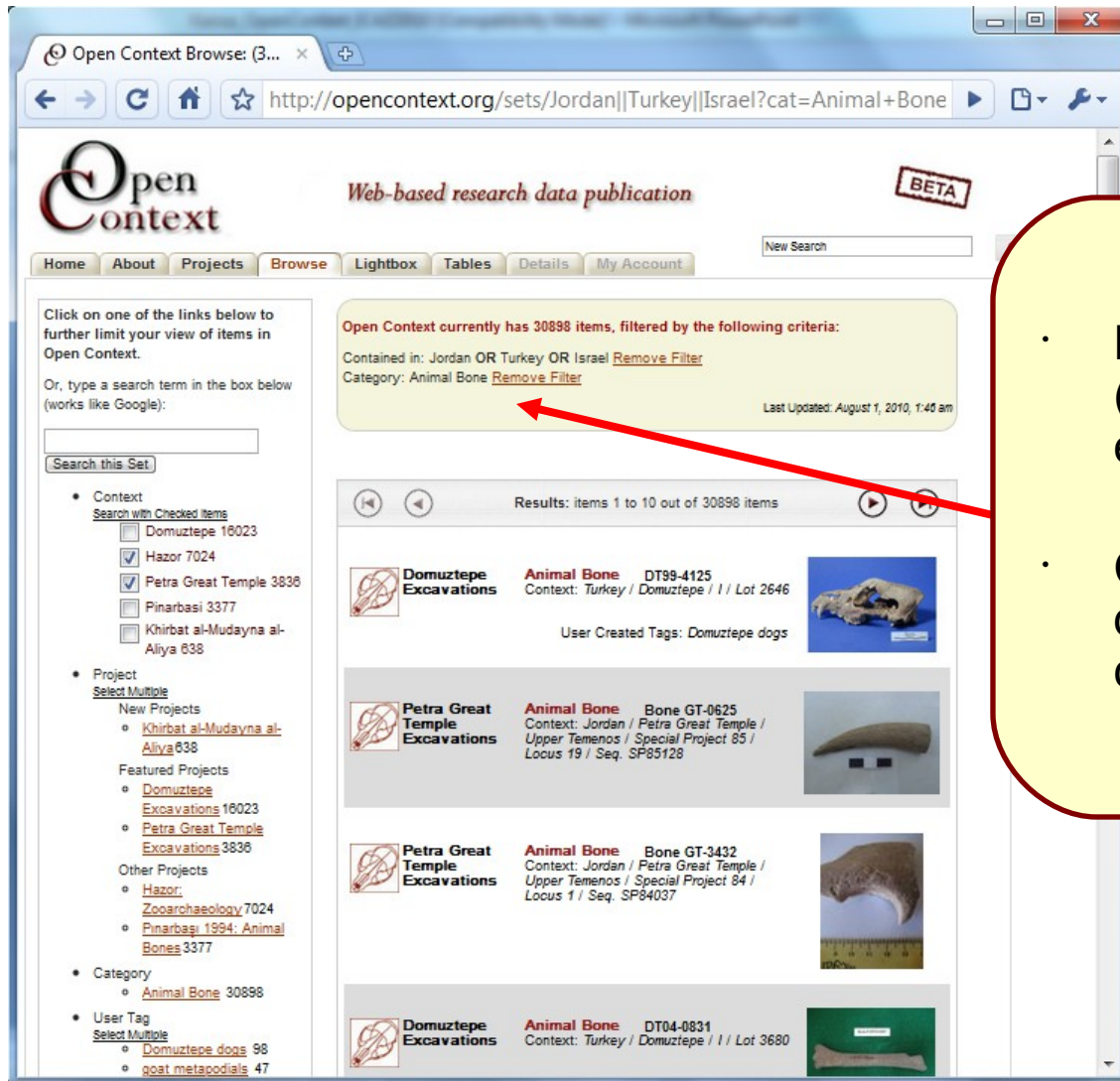




# Atom: Standard Container



# Feeds as Meaningful Lists



The screenshot shows the Open Context website interface. The browser address bar displays the URL: <http://opencontext.org/sets/Jordan||Turkey||Israel?cat=Animal+Bone>. The page header includes the Open Context logo, the tagline "Web-based research data publication", and a "BETA" badge. Navigation tabs include Home, About, Projects, Browse, Lightbox, Tables, Details, and My Account. A search bar is present with the text "New Search".

On the left sidebar, there are sections for "Context" (Search with Checked items) and "Project" (Select Multiple). The "Context" section includes checkboxes for Domuztepe 16023, Hazor 7024, Petra Great Temple 3836, Pinarbasi 3377, and Khirbat al-Mudayna al-Aliya 638. The "Project" section includes "New Projects" (Khirbat al-Mudayna al-Aliya 638) and "Featured Projects" (Domuztepe Excavations 16023, Petra Great Temple Excavations 3836). Other projects listed are Hazor: Zooarchaeology 7024 and Pinarbasi 1994: Animal Bones 3377. The "Category" section shows "Animal Bone" with 30898 items. The "User Tag" section shows "Domuztepe dogs" with 98 items and "goat metapodials" with 47 items.

The main content area displays a message: "Open Context currently has 30898 items, filtered by the following criteria: Contained in: Jordan OR Turkey OR Israel Remove Filter Category: Animal Bone Remove Filter". Below this, it says "Last Updated: August 1, 2010, 1:49 am".

The search results are displayed as a list of items. The first item is "Domuztepe Excavations Animal Bone DT99-4125" with context "Turkey / Domuztepe / / Lot 2646" and a user-created tag "Domuztepe dogs". The second item is "Petra Great Temple Excavations Animal Bone Bone GT-0625" with context "Jordan / Petra Great Temple / Upper Temenos / Special Project 85 / Locus 19 / Seq. SP85128". The third item is "Petra Great Temple Excavations Animal Bone Bone GT-3432" with context "Jordan / Petra Great Temple / Upper Temenos / Special Project 84 / Locus 1 / Seq. SP84037". The fourth item is "Domuztepe Excavations Animal Bone DT04-0831" with context "Turkey / Domuztepe / / Lot 3680". Each item includes a small image of the bone.

- Results of precision queries (with Boolean expression) expressed as a **Web resource**
- Can get sets of resources defined by precise analytic criteria

# Feeds as Meaningful Lists

Open Context Browse: (3... x)

http://opencontext.org/sets/Jordan||Turkey||Israel?cat=Animal+Bone

**Open Context** Web-based research data publication **BETA**

Home About Projects Browse Lightbox Tables Details My Account

New Search **GO**

Click on one of the links below to further limit your view of items in Open Context.

Or, type a search term in the box below (works like Google):

Search this Set

- Context
  - Search with Checked Items
    - ☐ Domuztepe 16023
    - ☒ Hazor 7024
    - ☒ Petra Great Temple 3836
    - ☐ Pinarbasi 3377
    - ☐ Khirbat al-Mudayna al-Aliya 638
- Project
  - Select Multiple
    - New Projects
      - [Khirbat al-Mudayna al-Aliya 638](#)
    - Featured Projects
      - [Domuztepe Excavations 16023](#)
      - [Petra Great Temple Excavations 3836](#)
    - Other Projects
      - [Hazor: Zooarchaeology 7024](#)
      - [Pinarbasi 1994: Animal Bones 3377](#)
- Category
  - [Animal Bone 30898](#)
- User Tag
  - Select Multiple
    - [Domuztepe dogs 98](#)
    - [goat metapodials 47](#)

Open Context currently has 30898 items, filtered by the following criteria:

Contained in: Jordan OR Turkey OR Israel [Remove Filter](#)

Category: Animal Bone [Remove Filter](#)

Last Updated: August 1, 2010, 1:49 am

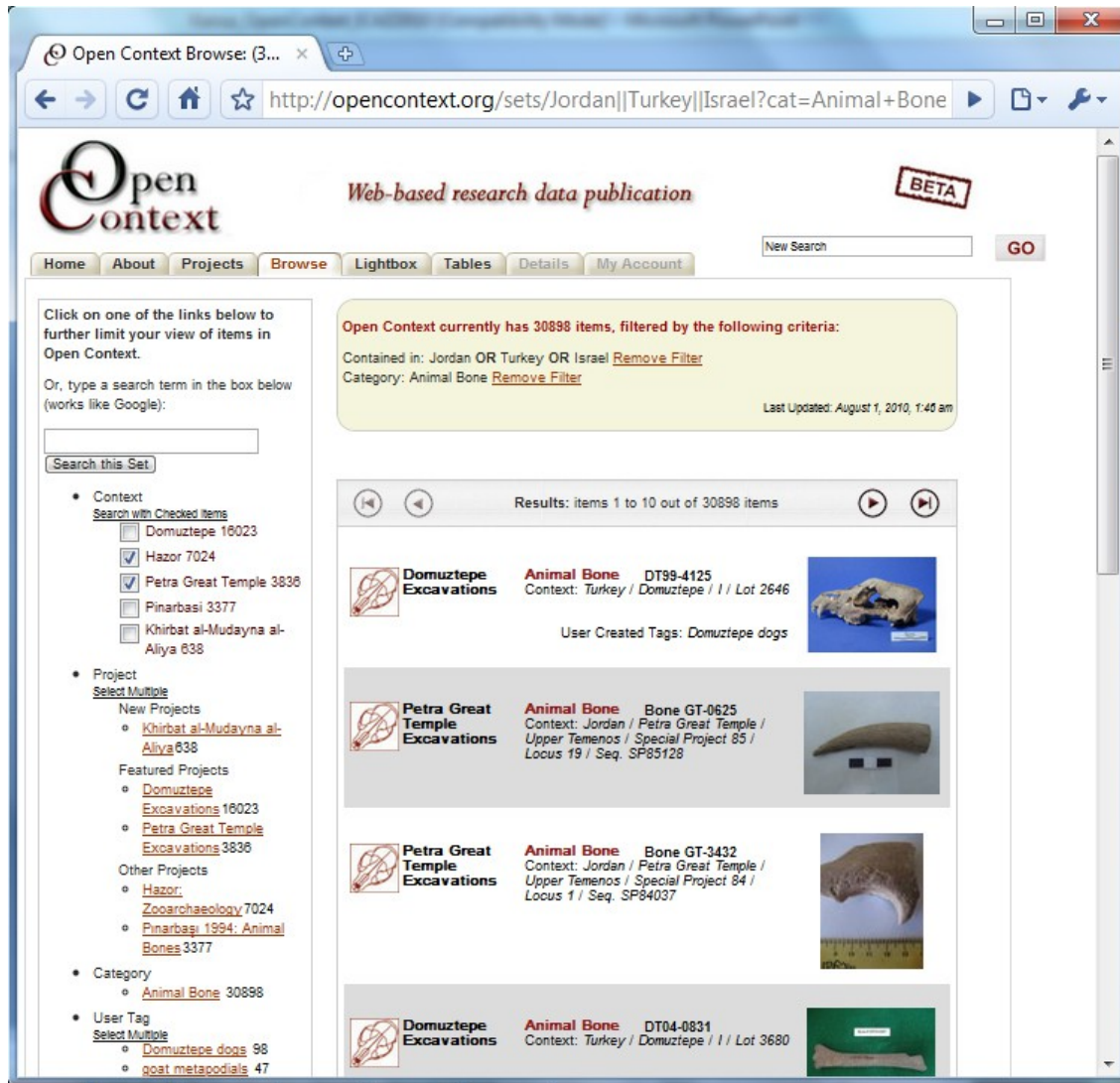
Results: items 1 to 10 out of 30898 items

- Domuztepe Excavations** **Animal Bone** DT99-4125  
Context: Turkey / Domuztepe / / Lot 2646  
User Created Tags: Domuztepe dogs
- Petra Great Temple Excavations** **Animal Bone** Bone GT-0625  
Context: Jordan / Petra Great Temple / Upper Temenos / Special Project 85 / Locus 19 / Seq. SP85128
- Petra Great Temple Excavations** **Animal Bone** Bone GT-3432  
Context: Jordan / Petra Great Temple / Upper Temenos / Special Project 84 / Locus 1 / Seq. SP84037
- Domuztepe Excavations** **Animal Bone** DT04-0831  
Context: Turkey / Domuztepe / / Lot 3680





# Feeds as Meaningful Lists



The screenshot shows the Open Context website interface. The browser address bar displays the URL: <http://opencontext.org/sets/Jordan||Turkey||Israel?cat=Animal+Bone>. The website header includes the Open Context logo, the tagline "Web-based research data publication", and a "BETA" badge. Navigation tabs include Home, About, Projects, Browse, Lightbox, Tables, Details, and My Account. A search bar is present with a "GO" button. A yellow box states: "Open Context currently has 30898 items, filtered by the following criteria: Contained in: Jordan OR Turkey OR Israel [Remove Filter](#) Category: Animal Bone [Remove Filter](#) Last Updated: August 1, 2010, 1:49 am". The left sidebar contains filters for Context, Project, and Category. The main content area shows search results for "Animal Bone" with three items listed: Domuztepe Excavations (Animal Bone DT99-4125), Petra Great Temple Excavations (Animal Bone Bone GT-0625), and Domuztepe Excavations (Animal Bone DT04-0831). Each item includes a thumbnail image of the bone and a brief description.



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# Feeds as Meaningful Lists

Open Context Browse: (3... x)

http://opencontext.org/sets/Jordan||Turkey||Israel?cat=Animal+Bone

**Open Context** Web-based research data publication **BETA**

Home About Projects Browse Lightbox Tables Details My Account

New Search **GO**

Click on one of the links below to further limit your view of items in Open Context.

Or, type a search term in the box below (works like Google):

Search this Set

- Context
  - Search with Checked Items
    - ☐ Domuztepe 16023
    - ☒ Hazor 7024
    - ☒ Petra Great Temple 3836
    - ☐ Pinarbasi 3377
    - ☐ Khirbat al-Mudayna al-Aliya 638
- Project
  - Select Multiple
    - New Projects
      - [Khirbat al-Mudayna al-Aliya 638](#)
    - Featured Projects
      - [Domuztepe Excavations 16023](#)
      - [Petra Great Temple Excavations 3836](#)
    - Other Projects
      - [Hazor: Zooarchaeology 7024](#)
      - [Pinarbasi 1994: Animal Bones 3377](#)
- Category
  - [Animal Bone 30898](#)
- User Tag
  - Select Multiple
    - [Domuztepe dogs 98](#)
    - [goat metapodials 47](#)

Open Context currently has 30898 items, filtered by the following criteria:

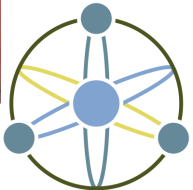
Contained in: Jordan OR Turkey OR Israel [Remove Filter](#)

Category: Animal Bone [Remove Filter](#)

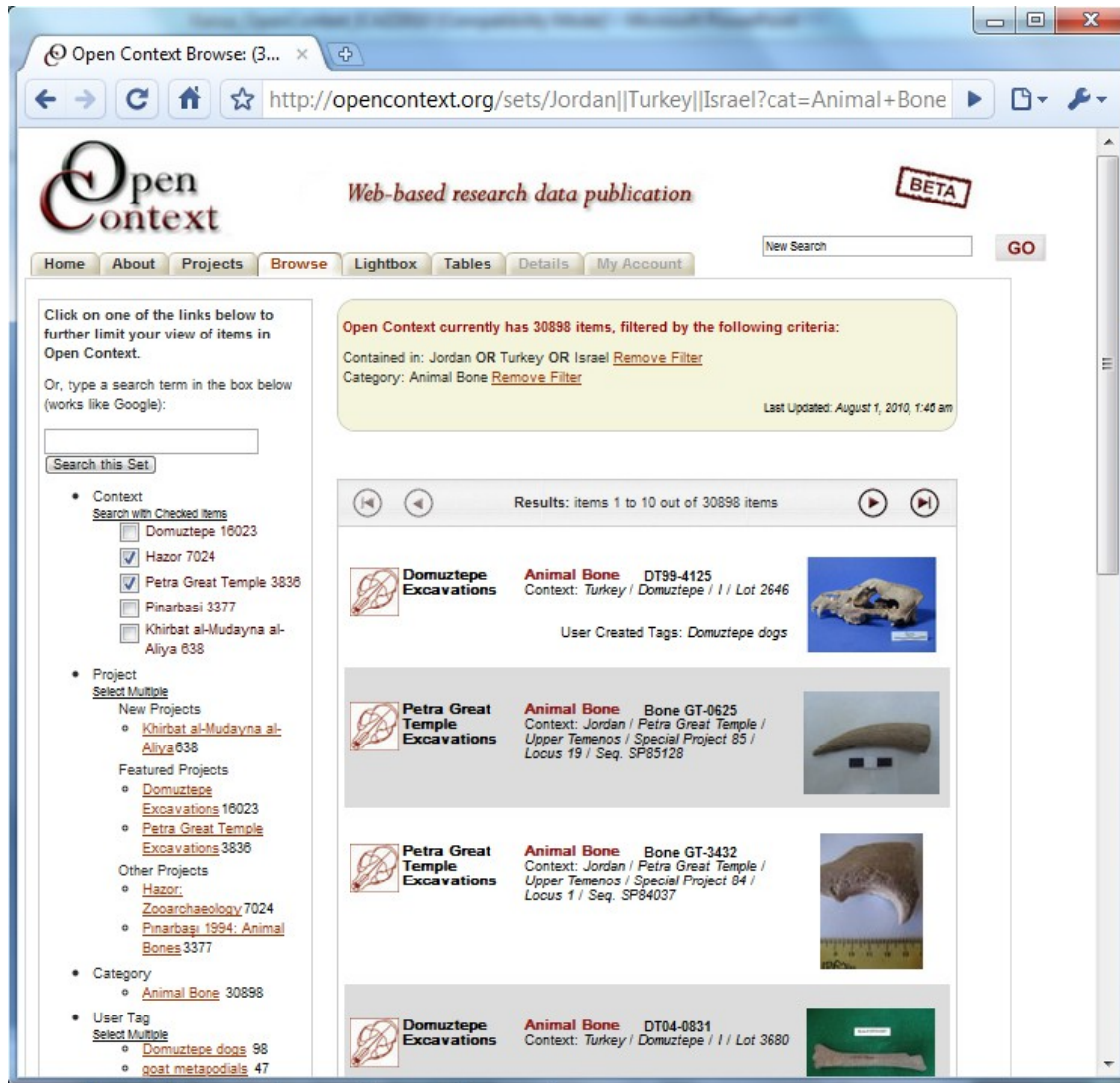
Last Updated: August 1, 2010, 1:49 am

Results: items 1 to 10 out of 30898 items

- Domuztepe Excavations** **Animal Bone** DT99-4125  
Context: Turkey / Domuztepe / / / Lot 2646  
User Created Tags: Domuztepe dogs
- Petra Great Temple Excavations** **Animal Bone** Bone GT-0625  
Context: Jordan / Petra Great Temple / Upper Temenos / Special Project 85 / Locus 19 / Seq. SP85128
- Petra Great Temple Excavations** **Animal Bone** Bone GT-3432  
Context: Jordan / Petra Great Temple / Upper Temenos / Special Project 84 / Locus 1 / Seq. SP84037
- Domuztepe Excavations** **Animal Bone** DT04-0831  
Context: Turkey / Domuztepe / / / Lot 3680



# Feeds as Meaningful Lists



Open Context Browse: (3... x)

http://opencontext.org/sets/Jordan||Turkey||Israel?cat=Animal+Bone

**Open Context** Web-based research data publication **BETA**

Home About Projects Browse Lightbox Tables Details My Account

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Click on one of the links below to further limit your view of items in Open Context.

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- Context
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    - ☐ Domuztepe 16023
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- Project
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  - New Projects
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    - [Domuztepe Excavations 16023](#)
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Open Context currently has 30898 items, filtered by the following criteria:

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Last Updated: August 1, 2010, 1:49 am

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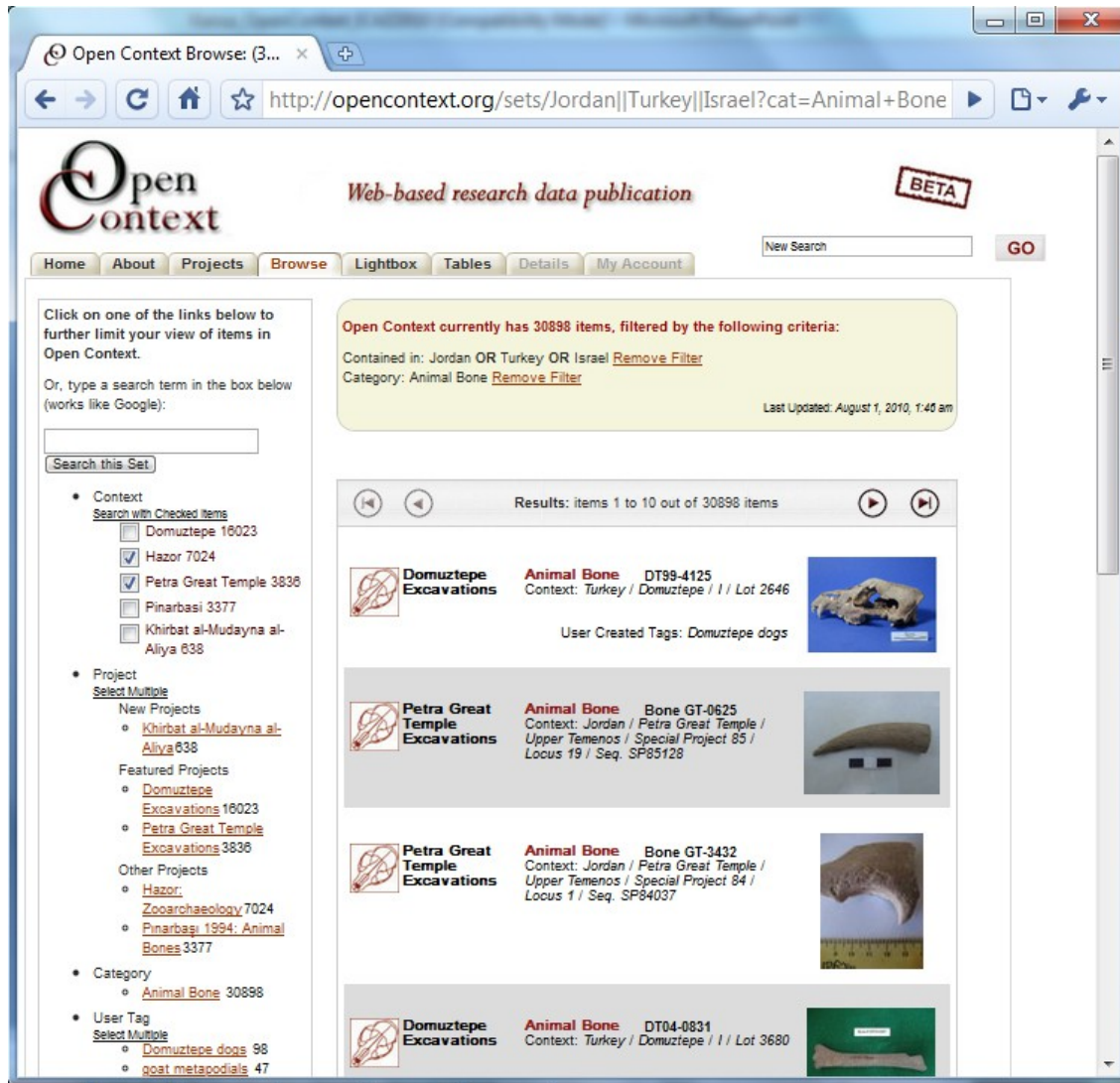
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Context: Jordan / Petra Great Temple / Upper Temenos / Special Project 84 / Locus 1 / Seq. SP84037
- Domuztepe Excavations** **Animal Bone** DT04-0831  
Context: Turkey / Domuztepe / / Lot 3680

You can add your own layers of meaning (semantic models)





# Feeds as Meaningful Lists



The screenshot shows the Open Context website interface. The browser address bar displays the URL: <http://opencontext.org/sets/Jordan||Turkey||Israel?cat=Animal+Bone>. The page header includes the Open Context logo, the tagline "Web-based research data publication", and a "BETA" badge. Navigation tabs include Home, About, Projects, Browse, Lightbox, Tables, Details, and My Account. A search bar with a "GO" button is present. A message states: "Open Context currently has 30898 items, filtered by the following criteria: Contained in: Jordan OR Turkey OR Israel [Remove Filter](#) Category: Animal Bone [Remove Filter](#) Last Updated: August 1, 2010, 1:49 am". The left sidebar contains filters for Context, Project, and Category. The main content area shows "Results: items 1 to 10 out of 30898 items" and lists three items, each with a thumbnail image of an animal bone and its details:

- Domuztepe Excavations** **Animal Bone** DT99-4125  
Context: Turkey / Domuztepe / I / Lot 2646  
User Created Tags: Domuztepe dogs
- Petra Great Temple Excavations** **Animal Bone** Bone GT-0625  
Context: Jordan / Petra Great Temple / Upper Temenos / Special Project 85 / Locus 19 / Seq. SP85128
- Petra Great Temple Excavations** **Animal Bone** Bone GT-3432  
Context: Jordan / Petra Great Temple / Upper Temenos / Special Project 84 / Locus 1 / Seq. SP84037

At the bottom, another item is partially visible:

- Domuztepe Excavations** **Animal Bone** DT04-0831  
Context: Turkey / Domuztepe / I / Lot 3680

You can probably do better things with these data than we can!



# Plain or Semantic Web



Technology and Society  
domain

## Linked Data Platform (LDP) Working Group Charter

The **mission** of the [Linked Data Platform \(LDP\) Working Group](#) is to produce a W3C Recommendation for HTTP-based (RESTful) application integration patterns using read/write Linked Data. This work will benefit both small-scale in-browser applications (WebApps) and large-scale Enterprise Application Integration (EAI) efforts. It will complement SPARQL and will be complementary to existing efforts publishing Linked Data, bringing the data integration features of RDF into mainstream software development.

[Join the Linked Data Platform \(LDP\) Working Group.](#)

<b>End date</b>	1 June, 2014
<b>Confidentiality</b>	Proceedings are <a href="#">public</a>
<b>Chairs</b>	Arnaud Le Hors, IBM Erik Wilde, EMC
<b>Staff Contact</b>	Eric Prud'hommeaux 0.15 FTE Yves Lafon 0.15 FTE
<b>Teleconference Schedule</b>	One 60-90 minute call per week, plus task force meetings
<b>Face-to-Face Meetings</b>	Three expected during the course of the group, plus one or two additional as needed to help the group reach its goals. These meetings will use teleconferencing facilities, but effective participation generally requires attending in person, so participants should budget for travel.

[Background](#)

[Scope](#)

[Deliverables](#)

[Dependencies and Liaisons](#)

[Participation](#)

[Communication](#)

[Decision Policy](#)

[Patent Policy](#)

[About this Charter](#)

[References](#)

### Formats:

- **RDF:** Data model (graph), expressed as RDF/XML (pain), N3, Turtle. Preferred for Linked Data, but not easy to use by mortals
- **JSON:** Easy for mashups, but informal (no namespaces)
- **Mixed:** Pragmatic approach. Make data available in a variety of formats good for different consumers / applications, don't forget **CSV**!

# Pragmatism

## Some Good Starting Points

- **HTTP URIs:** Good way to identify things (can also add persistent ids like DOIs)
- **REST(ish):** REST can become a religious debate. But making resources (esp. structured data) available by following links is a good rule of thumb.
- **Link to other data:** Good practice, and it helps build collaborative ties, trust



**Noah Webster**

**Image Credit: “Nostris-Imago” via Flickr (CC-BY)**

<http://www.flickr.com/photos/nostris-imago/3429417174>



# Conclusions

“How I learned  
to stop worrying  
and love the  
Web”

