

# **Advanced uses of thesauri that are released with multiple services: Websites, APIs, and SPARQL endpoints**

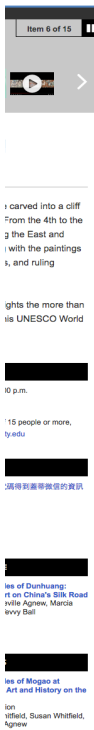
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School of Information, Kent State University

NKOS Workshop, DC2017



From the exhibition of the Mogao Caves and the website of the exhibition, *Cave Temples of Dunhuang*<sup>\*</sup>, let's start the exploration of information related to the Silk Road through the *Getty Thesaurus of Geographic Names (TGN)*.



[http://www.getty.edu/research/exhibitions\\_events/exhibitions/cave\\_temples\\_dunhuang/index.html](http://www.getty.edu/research/exhibitions_events/exhibitions/cave_temples_dunhuang/index.html)

# Getty Thesaurus of Geographic Names (TGN) and other Getty vocabularies

## are available in multiple formats

-- Let's see how to use them through three examples

ID: 300198841

**rhyta** (drinking vessels, <vessels for serving and consuming food>, ... Furni Name))

**Note:** Refers to vessels from Ancient Greece, eastern Europe, or the Middle East with two openings, one at the top for filling and one at the base so that liquid could be poured. Drinking was done by holding the rhyton above the drinker's head and catching the stream of liquid in the mouth.

#### Terms:

**rhyta** (preferred, C,U,L,C,English-P,D,U,N) (Greek (transliterated)-P,D,U,PN) (Spanish,AD,U,SN)

**rhyton** (C,U,English,AD,U,SN) (Greek (transliterated)-AD,U,SN) (Spanish,AD,U,SN)

**rhytons** (C,U,English,UF,U,N) (French-P,D,U,PN) (Spanish-P,D,U,PN)

**rhea** (vessels) (C,U,English,UF,U,N)

**rheons** (C,U,English,UF,U,N)

**rheon** (C,U,English,UF,U,N)

**rhōtōn** (C,U,Ancient Greek,UF,U,U)

**rhōtōn** (C,U,Ancient Greek (transliterated),UF,U,U)

**rytons** (C,U,Dutch-P,D,U,U)

**ryton** (C,U,Dutch,AD,U,U)

**ritons** (C,U,French,UF,U,N)

**ritōns** (C,U,Spanish,UF,U,N)

**ritōn** (C,U,Spanish,UF,U,SN)

**escanciadora** (C,U,Spanish,UF,U,SN)

Facet/Hierarchy Code: V.TQ

#### Hierarchical Position:

Objects Facet  
..... Furnishings and Equipment (Hierarchy Name) (G)  
..... Containers (Hierarchy Name) (G)  
..... containers (receptacles) (G)  
..... <containers by function or context> (G)  
..... <culinary containers> (G)  
..... <containers for serving and consuming food> (G)  
..... <vessels for serving and consuming food> (G)  
..... drinking vessels (G)  
..... rhyta (G)

#### Additional Parents:

Objects Facet  
..... Furnishings and Equipment (Hierarchy Name) (G)  
..... Containers (Hierarchy Name) (G)  
..... containers (receptacles) (G)  
..... <containers by function or context> (G)  
..... ceremonial containers (G)  
..... ceremonial vessels (G)  
..... rhyta (G)

Objects Facet  
..... Furnishings and Equipment (Hierarchy Name) (G)  
..... Containers (Hierarchy Name) (G)  
..... containers (receptacles) (G)  
..... <containers by form> (G)  
..... vessels (containers) (G)  
..... vases (G)  
..... plastic vases (ancient vessels) (G)  
..... rhyta (G)

#### Additional Notes:

**Dutch** .... Vaten uit de Griekse oudheid in de vorm van een dierenkop, werv om wijn in een ander vat te gieten.

**Spanish** .... Refiérase a vasijas de la Antigua Grecia, Europa del Este, o del son cerradas pero con dos aberturas, una en el extremo superior para poder para que el líquido pudiera salir. A menudo tienen la forma de un cuerno o t común usadas como copas para beber o para vaciar vino en otras vasijas

#### Related concepts:

distinguished from .... **drinking horns**  
..... (drinking vessels, <vessels for serving and consuming Equipment (Hierarchy Name) [300043229]  
..... stirrup cups  
distinguished from .... (drinking vessels, <vessels for serving and consuming Equipment (Hierarchy Name) [300197140]  
..... sturbechers  
..... (beakers (drinking vessels), drinking vessels, ... Furni Name)) [300197148]

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skos:note	Refers to vessels from Ancient Greece, eastern Europe, or the Middle East with two openings, one at the top for filling and one at the base so that liquid could stream out. They are often an animal's head, and were typically used as a drinking cup or for pouring liquid into another vessel. Drinking was done by holding the rhyton above the drinker's head and catching the stream of liquid in the mouth.
skos:note	Refiérase a vasijas de la Antigua Grecia, Europa del Este, o del Medio Oriente, que típicamente son cerradas pero con dos aberturas, una en el extremo superior para poder llenarlas, y otra en la base para que el líquido pudiera salir. A menudo tienen la forma de un cuerno o una cabeza de animal y eran por lo común usadas como copas para beber o para vaciar vino en otras vasijas.
skos:note	Vaten uit de Griekse oudheid in de vorm van een dierenkop, werden vaak gebruikt als drinkgerei of om wijn in een ander vat te gieten.
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[\[Q New Search\]](#) [Previous Page](#)**Mogao Caves (ancient site)****Coordinates:**

Lat: 40 02 01 N *degrees minutes*    Lat: 40.0335 *decimal degrees*  
 Long: 094 55 09 E *degrees minutes*    Long: 94.9192 *decimal degrees*

**Note:** System of over 735 caves, with manmade alterations and excavation; 492 caves are decorated; located outside of Dunhuang city. Carved and painted beginning in 4th century CE.

**Names:**

**Qianfodong** (**preferred**, C, V, Chinese (transliterated Pinyin without tones), U)

**Mogao Caves** (C, V, English, U, N)

**Mogao Grottoes** (C, V, English, U, N)

**Mogao** (C, V)

**Mokao Grottoes** (C, V, English, U)

**Mogao Ku** (C, V)

**Mògāo kū** (C, V, Chinese (transliterated Pinyin), U)

**Caves of the Thousand Buddhas** (C, V, English, U)

**Thousand Buddhas, Caves of the** (C, V, English, U)

**Thousand Buddah Grottoes** (C, V, English, U, N)

**Shibendin** (C, V, Chinese (transliterated), U)

**Ch'ien-fu-tung-miao** (C, V, Chinese (transliterated), U)

**Ch'ien-fu-tung** (C, V, Chinese (transliterated), U)

**Ch'ien-fo-tung** (C, V, Chinese (transliterated), U)

**Chenfadun** (C, V, Chinese (transliterated), U)

**莫高窟** (C, V, Chinese-P, U)

**Mogao ku** (C, V, Chinese (transliterated), U)

**Qianfudong** (C, V, Chinese (transliterated), U)

**千佛洞** (C, V, Chinese, U)

**Hierarchical Position:**

**World** (facet)

.... **Asia** (continent) (P)

.... **China** (nation) (P)

.... **Gansu** (province) (P)

.... **Mogao Caves** (ancient site) (P)

# Example 1

## Learn through TGN Website

“Mogao Caves” =>

“Related geographic places”  
located on .... “Silk Road”

**Place Types:**

ancient site (**preferred**, C)

rock-cut architecture (C)

World Heritage Site (C)

historic site (C)

caves (C)

**Related geographic places:**

located on .... **Silk Road** ..... (road)

..... (World) [7031416]

near/adjacent to .... **Dunhuang** ..... (inhabited place)

..... (World, Asia, China, Gansu province) [7001969]





ID: 7031416

**Silk Road (road)**

**Note:** Ancient trade route and caravan route between China, the Middle East, and the Mediterranean Sea, to the northwest, bypassed the Tiber and the Persian Gulf, and went on to the Levant and the Red Sea. Few persons travelled the entire route in antiquity.

**Names:**Silk Road (**preferred**, C,V)

Silk Route (C,V)

Great Silk Road (C,V)

**Hierarchical Position:**

World (facet)

... Silk Road (road) (P)

**Place Types:**road (**preferred**, H) .....

route (H)

**Related geographic places:**

is location of ... **Aleppe** .....  
..... (World, Asia, Syria, Aleppo) [7002264]  
is location of ... **Almaty** .....  
..... (World, Asia, Kazakhstan, Almaty) [7002264]  
is location of ... **Al-Mawşil** .....  
..... (World, Asia, Iraq, Al-Mawşil) [7002264]  
is location of ... **Andijon** .....  
..... (World, Asia, Uzbekistan, Andijon) [7002264]  
is location of ... **Anxi** .....  
..... (World, Asia, China, Xinjiang) [7002264]  
is location of ... **Ar Raqqah** .....  
..... (World, Asia, Syria, Raqqah) [7002264]  
is location of ... **Baghdad** .....  
..... (World, Asia, Iraq, Baghdad) [7002264]  
is location of ... **Balkh** .....  
..... (World, Asia, Afghanistan, Balkh) [7002264]  
is location of ... **Bamiyan** .....  
..... (World, Asia, Afghanistan, Bamiyan) [7002264]  
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is location of ... **Bezeklik Thousand** .....  
..... (World, Asia, China, Bezeklik Thousand) [7002264]  
is location of ... **Bisotūn** .....  
..... (World, Asia, Iran, Bisotūn) [7002264]  
is location of ... **Bukhara** .....  
..... (World, Asia, Uzbekistan, Bukhara) [7002264]  
is location of ... **Bursa** .....  
..... (World, Asia, Turkey, Bursa) [7002264]  
is location of ... **Chardzhou** .....  
..... (World, Asia, Turkmenistan, Chardzhou) [7002264]  
is location of ... **Ctesiphon** .....  
..... (World, Asia, Iraq, Ctesiphon) [7002264]  
is location of ... **Damascus** .....  
..... (World, Asia, Syria, Damascus) [7002264]  
is location of ... **Dānghān** .....  
..... (World, Asia, Iran, Dānghān) [7002264]  
is location of ... **Debal** .....  
..... (World, Asia, Pakistan, Debal) [7002264]  
is location of ... **Dunhuang** .....  
..... (World, Asia, China, Dunhuang) [7002264]  
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..... (World, Asia, China, Endere) [7002264]  
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..... (World, Asia, China, Guma) [7002264]  
is location of ... **Guozhen** .....  
..... (World, Asia, China, Guozhen) [7002264]  
is location of ... **Hamadān** .....  
..... (World, Asia, Iran, Hamadān) [7002264]  
is location of ... **Herāt** .....  
..... (World, Asia, Afghanistan, Herāt) [7002243]  
is location of ... **Himş** .....  
..... (World, Asia, Syria, Himş) [7002264]  
is location of ... **Istanbul** .....  
..... (World, Asia, Turkey, İstanbul) [7002473]

**Related Terms:**

is location of ... **Jaisalmer** .....  
..... (World, Asia, India, Jaisalmer) [7001569]  
is location of ... **Jiaohe** .....  
..... (World, Asia, China, Xinjiang) [8060343]  
is location of ... **Jiayuguan** .....  
..... (World, Asia, China, Xinjiang) [8060343]  
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is location of ... **Kābul** .....  
..... (World, Asia, Afghanistan, Kābul) [7002264]  
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..... (World, Asia, Afghanistan, Kandahar) [7002264]  
is location of ... **Kashi** .....  
..... (World, Asia, China, Xinjiang) [8060343]  
is location of ... **Kermānshāh** .....  
..... (World, Asia, Iran, Kermānshāh) [7002264]  
is location of ... **Khujand** .....  
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..... (World, Asia, Turkey, Konya) [7002264]  
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..... (World, Asia, China, Xinjiang) [8060343]  
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..... (World, Asia, China, Xinjiang) [8060343]  
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..... (World, Asia, India, Leh) [7001874]  
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..... (World, Asia, China, Tibet) [7001874]  
is location of ... **Liqian** .....  
..... (World, Asia, China, Gansu province) [8060328]  
is location of ... **Loulān Yiji** .....  
..... (World, Asia, China, Xinjiang) [6003517]  
is location of ... **Mashhad** .....  
..... (World, Asia, Iran, Khorāsān-e Razavī) [7002243]

is location of ... **Mathura** .....  
..... (World, Asia, India, Uttar Pradesh) [7001569]  
is location of ... **Merv** .....  
..... (World, Asia, Turkmenistan, Mary) [7012244]  
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is location of ... **Mogao Caves** .....  
..... (World, Asia, China, Gansu province) [7029798]  
is location of ... **Mudurnu** .....  
..... (World, Asia, Turkey, Bolu) [1086703]  
is location of ... **Multān** .....  
..... (World, Asia, Pakistan, Punjab) [7002481]  
is location of ... **Nisa** .....  
..... (World, Asia, Turkmenistan, Ahāl) [7032028]  
is location of ... **Nīshābūr** .....  
..... (World, Asia, Iran, Khorāsān-e Razavī) [1079294]  
is location of ... **Ruoqiang** .....  
..... (World, Asia, China, Xinjiang) [1071254]  
is location of ... **Sabzevar** .....  
..... (World, Asia, Iran, Khorāsān-e Razavī) [1079294]  
is location of ... **Samarkand** .....  
..... (World, Asia, Uzbekistan, Samarqand) [7012290]  
is location of ... **Sāmarrā'** .....  
..... (World, Asia, Iraq, Salāh ad Dīn) [7002480]  
is location of ... **Shache** .....  
..... (World, Asia, China, Xinjiang) [7002000]  
is location of ... **Shahrīsabz** .....  
..... (World, Asia, Uzbekistan, Qashqadaryo province) [1051509]  
is location of ... **Sian** .....  
..... (World, Asia, China, Shaanxi) [7001810]  
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is location of ... **Trabzon** .....  
..... (World, Asia, Turkey, Trabzon) [7002631]  
is location of ... **Turfan Depression** .....  
..... (World, Asia, China, Xinjiang) [1103342]  
is location of ... **Türkistan** .....  
..... (World, Asia, Kazakhstan, Ongtüstik Qazaqstan) [1060525]  
is location of ... **Tyre** .....  
..... (World, Asia, Lebanon, Liban-Sud) [7002862]  
is location of ... **Ura-Tyube** .....  
..... (World, Asia, Tajikistan, Leninobod, Viloyati) [1060686]  
is location of ... **Ürümqi** .....  
..... (World, Asia, China, Xinjiang) [7001978]  
is location of ... **Tūs** .....  
..... (World, Asia, Iran, Khorāsān-e Razavī) [6006159]  
is location of ... **Vārānasi** .....  
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is location of ... **Yanqi** .....  
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is location of ... **Yazd** .....  
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is location of ... **Yumenguan** .....  
..... (World, Asia, China, Gansu province) [6006648]  
is location of ... **Zhangye** .....  
..... (World, Asia, China, Gansu province) [7001844]

# Learn from these entities through TGN, one by one

is location of .... **Mathura** ..... (inhabited place)  
 ..... (World, Asia, India, Uttar Pradesh) [7001569]  
 is location of .... **Merv** ..... (deserted settlement)  
 ..... (World, Asia, Turkmenistan, Mary) [7012244]  
 is location of .... **Miran** ..... (inhabited place)  
 ..... (World, Asia, China, Xinjiang) [8060343]  
 is location of .... **Mogao Caves** ..... (ancient site)  
 ..... (World, Asia, China, Gansu province) [7029798]  
 is location of .... **Mudurnu** ..... (inhabited place)  
 ..... (World, Asia, Turkey, Bolu) [1086703]  
 is location of .... **Multān** ..... (inhabited place)  
 ..... (World, Asia, Pakistan, Punjab) [7002481]  
 is location of .... **Nisa** ..... (deserted settlement)  
 ..... (World, Asia, Turkmenistan, Ahāl) [7032028]  
 is location of .... **Nīshābūr** ..... (inhabited place)  
 ..... (World, Asia, Iran, Khorāsān-e Razavī) [7002095]  
 is location of .... **Niya** ..... (inhabited place)  
 ..... (World, Asia, China, Xinjiang) [1070479]  
 is location of .... **Niya** ..... (deserted settlement)  
 ..... (World, Asia, China, Xinjiang) [8060339]  
 is location of .... **Palmyra** ..... (deserted settlement)  
 ..... (World, Asia, Syria, Ḥims) [7018835]  
 is location of .... **Patna** ..... (inhabited place)  
 ..... (World, Asia, India, Bihār state) [7001575]  
 is location of .... **Peshāwar** ..... (inhabited place)  
 ..... (World, Asia, Pakistan, Northwest Frontier) [7002453]  
 is location of .... **Pushkalavati** ..... (ancient site)  
 ..... (World, Asia, Pakistan, Northwest Frontier) [8060349]  
 is location of .... **P'yŏngyang** ..... (inhabited place)  
 ..... (World, Asia, North Korea, P'yŏngyang) [7001329]  
 is location of .... **Qazvīn** ..... (inhabited place)  
 ..... (World, Asia, Iran, Qazvīn) [1079247]  
 is location of .... **Qiemo** ..... (inhabited place)  
 ..... (World, Asia, China, Xinjiang) [7018010]  
 is location of .... **Qincheng** ..... (inhabited place)  
 ..... (World, Asia, China, Gansu province) [7018061]  
 is location of .... **Qingquan** ..... (inhabited place)  
 ..... (World, Asia, China, Gansu province) [1071417]  
 is location of .... **Quetta** ..... (inhabited place)  
 ..... (World, Asia, Pakistan, Balochistān) [7002461]  
 is location of .... **Qumis** ..... (deserted settlement)  
 ..... (World, Asia, Iran, Semnān) [7016671]






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Click the  icon to view the hierarchy.

[Semantic View](#) ([JSON](#), [JSONLD](#), [RDF](#), [N3/Turtle](#), [N-Triples](#))

ID: 7018835

Record Type: **administrative**

 **Palmyra (deserted settlement)**

**Coordinates:**

Lat: 34 33 12 N *degrees minutes* Lat: 34.5530 *decimal degrees*  
Long: 038 16 05 E *degrees minutes* Long: 38.2680 *decimal degrees*

**Note:** Ruins of an ancient city adjacent to the modern town of Tadmur; both the ancient ruins and the modern city are known as both Tadmur and Palmyra. The city is said to have been built by Solomon, but may be confused with Tamar in Palestine. Palmyra is mentioned as early as the 19th century BCE, but developed at the beginning of Christian Era. It was under Roman suzerainty from the 1st century CE, and gained prominence and prosperity as a city from 130-270. After the assassination of Odaenathus and his son, the city was ruled by Zenobia, from 267-272, during which the city's army conquered Anatolia. The city was destroyed in 273 by the emperor Aurelian. Today, Palmyra is viewed as a bridge between the cultures of the east and west, and it was an important stop along the ancient Silk Road. Ruins include a Grand Colonnade with a double portico, temples, the Senate House (agora), a sanctuary, several Christian churches, and a theatre. In May of 2015, the area was overtaken by extremists, and several important temples have been confirmed destroyed.

**Names:**

**Palmyra** (**preferred**, C, V)

**Palmyre** (C, V)

**Palmira** (C, V)

**Tadmur** (C, V)

**Kharā'ib Tadmur** (C, V)

**Tadmor** (H, V) ..... Biblical name

**Tamar** (C, V)

**Tabmur** (H, V)




**Tedmor** (C, V)

**Tudmur** (C, V)

تدمر (C, V)

خرائب تدمر (C, V)

**Hierarchical Position:**

-  **World** (facet)
-  .... **Asia** (continent) (P)
-  ..... **Syria** (nation) (P)
-  ..... **Hims** (governorate) (P)
-  ..... **Palmyra** (deserted settlement) (P)

**Place Types:**

- deserted settlement (**preferred**, C)
- archaeological site (C)
- World Heritage Site (C) ..... from 1980
- inhabited place (H) ..... settled since 3500 BCE, was larger town in ancient Aramaic times
- capital (H) ..... of kingdom, 267-272 CE
- episcopal see (H)
- trade center (H)

**Related geographic places:**

- located on .... **Silk Road** ..... (road)
- ..... (World) [7031416]
- near/adjacent to .... **Tadmur** ..... (inhabited place)
- ..... (World, Asia, Syria, Hims) [7032452]

Learn from these  
entities through  
TGN, one by one,  
&

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dataset →

# Palmyra

Source:<http://vocab.getty.edu/tgn/7018835>

[Subject](#)
[Predicate](#)
[Object](#)

All (83)

[Website](#)
[Hierarchy](#)
Download in:
 [JSON](#)
[JSONLD](#)
[RDF](#)
[N3/Turtle](#)
[N-Triples](#)

Inference
 

Implicit only

Statements in which the resource exists.

Subject	Predicate	Object
tgn:7018835	rdf:type	<a href="#">gvp:Subject</a>
tgn:7018835	rdf:type	<a href="#">skos:Concept</a>
tgn:7018835	rdfs:label	Palmyra
tgn:7018835	rdfs:label	Tadmor
tgn:7018835	rdfs:label	Palmira
tgn:7018835	rdfs:label	Tadmur
tgn:7018835	rdfs:label	Palmyre
tgn:7018835	rdfs:label	Tamar

Download the dataset

18835	<a href="#">rdfs:label</a>	Tamar
18835	<a href="#">rdfs:label</a>	Kharā'ib Tadmur
18835	<a href="#">rdfs:label</a>	Tedmor
18835	<a href="#">rdfs:label</a>	تدمر
18835	<a href="#">rdfs:label</a>	Tabmur
18835	<a href="#">rdfs:label</a>	Tudmur
18835	<a href="#">rdfs:label</a>	خرائب تدمر
18835	<a href="#">gvp:broader</a>	<a href="#">tgn:1002054</a>
18835	<a href="#">gvp:broaderPartitiveExtende...</a>	<a href="#">tgn:6000039</a>
18835	<a href="#">gvp:broaderPartitiveExtende...</a>	<a href="#">tgn:1000004</a>
18835	<a href="#">gvp:broaderPartitiveExtende...</a>	<a href="#">tgn:1002054</a>
<a href="#">tgn:7018835</a>	<a href="#">gvp:broaderPartitiveExtende...</a>	<a href="#">tgn:7001526</a>
<a href="#">tgn:7018835</a>	<a href="#">gvp:broaderPartitiveExtende...</a>	<a href="#">tgn:1000140</a>
<a href="#">tgn:7018835</a>	<a href="#">gvp:broaderPartitiveExtende...</a>	<a href="#">tgn:7029392</a>
<a href="#">tgn:7018835</a>	<a href="#">gvp:broaderExtended</a>	<a href="#">tgn:6000039</a>
<a href="#">tgn:7018835</a>	<a href="#">gvp:broaderExtended</a>	<a href="#">tgn:1000004</a>



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vocab.getty.edu/tgn/7029798?inference=implicit

Getty Vocabularies: LOD SPARQL Queries

# Mogao Caves

Source: <http://vocab.getty.edu/tgn/7029798>

Subject (121)

Predicate

Object

All

Statements in which

Predicate	Object
<a href="#">rdf:type</a>	<a href="#">gvp:Subject</a> , <a href="#">skos:Concept</a>
<a href="#">rdfs:label</a>	Caves of the Thousand Buddhas@en, Ch'ien-fo-tung@zh-latn, Mogao Caves@en, Mogao Grottoes@en, Mogao Ku@zh-latn, Qianfudong@zh-latn, Shibendin@zh-latn
<a href="#">gvp:broader</a>	<a href="#">tgn:1001261</a>
<a href="#">gvp:broaderPartitiveExtended</a>	<a href="#">tgn:1000004</a> , <a href="#">tgn:1000111</a> , <a href="#">tgn:1001261</a> , <a href="#">tgn:7029798</a>
<a href="#">gvp:broaderExtended</a>	<a href="#">tgn:1000004</a> , <a href="#">tgn:1000111</a> , <a href="#">tgn:1001261</a> , <a href="#">tgn:7029798</a>
<a href="#">gvp:broaderPreferredExtended</a>	<a href="#">tgn:1000004</a> , <a href="#">tgn:1000111</a> , <a href="#">tgn:1001261</a> , <a href="#">tgn:7029798</a>
<a href="#">skos:note</a>	<a href="#">tgn_rev:5004590598</a> , <a href="#">tgn_rev:5004590599</a> , <a href="#">tgn_rev:5004590609</a> , <a href="#">tgn_rev:5004602784</a> , <a href="#">tgn_rev:5004602785</a>

Website | Hierarchy | Download in: [JSON](#) | [JSONLD](#) | [RDF](#) | [N3/Turtle](#) | [N-Triples](#)

Inference

Implicit only

Explicit and implicit

Explicit only

✓ Implicit only

ts as a subject.

[gvp:placeType](#)

[aat:300000833](#), [aat:300008031](#),  
[aat:300008746](#), [aat:300263063](#),  
[aat:300387007](#)

[dcterms:replaces](#)

[tgn:7030168](#)

[skos:prefLabel](#)

Mogao Caves@en, 莫高窟@zh

[skos:altLabel](#)

Caves of the Thousand Buddhas@en,  
Ch'ien-fo-tung@zh-latn, Ch'ien-fo-tung@zh-latn, Ch'ien-fu-tung-miao@zh-latn, Chenfudun@zh-latn,  
Mogao, Mogao Grottoes@en, Mogao Ku,  
Mogao ku@zh-latn, Mokao Grottoes@en,  
Mògāo kū@zh-latn-pinyin,  
Qianfodong@zh-latn-pinyin-x-notone,  
Qianfudong@zh-latn, Shibendin@zh-latn,  
Thousand Buddah Grottoes@en,  
Thousand Buddhas, Caves of the@en, 千佛洞@zh

[skos:broader](#)

[tgn:1001261](#)

[iso-thes:broaderPartitive](#)

[tgn:1001261](#)

[skos:related](#)

[tgn:7031416](#)

[skos:broaderTransitive](#)

[tgn:1000004](#), [tgn:7031110](#), [tgn:1001261](#),  
[tgn:1000111](#)

<http://vocab.getty.edu/tgn/7029798>

## Example 2.

Following these geographic places located on the Silk Road, using the **geo-coordinators** TGN provided, we get them on the map (through **TGN's API**).

### **Mogao Caves (ancient site)**

#### *Coordinates:*

Lat: 40 02 01 N *degrees minutes*    Lat: 40.0335 *decimal degrees*  
Long: 094 55 09 E *degrees minutes*    Long: 94.9192 *decimal degrees*

**Note:** System of over 735 caves, with manmade alterations and excavation; 492 c decorated; located outside of Dunhuang city. Carved and painted beginning in 4th

#### **Names:**

**Qianfodong** (**preferred**,C,V,Chinese (transliterated Pinyin without tones),U)

**Mogao Caves** (C,V,display,English-P,U,N)

**Mogao Grottoes** (C,V,English,U,N)

**Mogao** (C,V)

**Mokao Grottoes** (C,V,English,U)

**Mogao Ku** (C,V)

**Mògāo kū** (C,V,Chinese (transliterated Pinyin),U)

**Caves of the Thousand Buddhas** (C,V,English,U)

**Thousand Buddhas, Caves of the** (C,V,English,U)

**Thousand Buddah Grottoes** (C,V,English,U,N)

**Shibendin** (C,V,Chinese (transliterated),U)

**Ch'ien-fu-tung-miao** (C,V,Chinese (transliterated),U)

**Ch'ien-fu-tung** (C,V,Chinese (transliterated),U)

**Ch'ien-fo-tung** (C,V,Chinese (transliterated),U)

**Chenfudun** (C,V,Chinese (transliterated),U)

**莫高窟** (C,V,Chinese-P,U)


**Mogao ku** (C,V,Chinese (transliterated),U)

**Qianfudong** (C,V,Chinese (transliterated),U)


**千佛洞** (C,V,Chinese,U)


#### **Hierarchical Position:**

 **World** (facet)

 .... **Asia** (continent) (P)

 ..... **China** (nation) (P)

 ..... **Gansu** (province) (P)

 ..... **Mogao Caves** (ancient site) (P)

**ID: 7031416**

**Silk Road (road)**

**Note:** Ancient trade route and caravanserai between China, the Middle East, and the Mediterranean Sea, to the northwest, bypassed the Tianshan Mountains, Afghanistan, and went on to the Persian Gulf. Few persons travelled the entire route in the middlemen.

#### Names:

**Silk Road** (**preferred**, C, V)  
**Silk Route** (C, V)  
**Great Silk Road** (C, V)

#### Hierarchical Position:

**World** (facet)  
... **Silk Road** (road) (P)

#### Place Types:

road (**preferred**, H)  
route (H)

#### Related geographic places:

is location of ... **Aleppe** ..... (World, Asia, Syria) [7002264]  
is location of ... **Almaty** ..... (World, Asia, Kazakhstan) [7002264]  
is location of ... **Al-Mawşil** ..... (World, Asia, Iraq) [7002264]  
is location of ... **Andijon** ..... (World, Asia, Uzbekistan) [7002264]  
is location of ... **Anxi** ..... (World, Asia, China, Xinjiang) [7002264]  
is location of ... **Ar Raqqah** ..... (World, Asia, Syria) [7002264]  
is location of ... **Baghdad** ..... (World, Asia, Iraq) [7002264]  
is location of ... **Balkh** ..... (World, Asia, Afghanistan) [7002264]  
is location of ... **Bamiyan** ..... (World, Asia, Afghanistan) [7002264]  
is location of ... **Bamiyan Valley** ..... (World, Asia, Afghanistan) [7002264]  
is location of ... **Bezeklik Thousand** ..... (World, Asia, China, Shaanxi) [7002264]  
is location of ... **Bisotūn** ..... (World, Asia, Iran, Kermānshāh) [7002264]  
is location of ... **Bukhara** ..... (World, Asia, Uzbekistan) [7002264]  
is location of ... **Bursa** ..... (World, Asia, Turkey) [7002264]  
is location of ... **Chardzhou** ..... (World, Asia, Turkmenistan) [7002264]  
is location of ... **Ctesiphon** ..... (World, Asia, Iraq, Babylon) [7002264]  
is location of ... **Damascus** ..... (World, Asia, Syria) [7002264]  
is location of ... **Dānghān** ..... (World, Asia, Iran, Sistan) [7002264]  
is location of ... **Debal** ..... (World, Asia, Pakistan) [7002264]  
is location of ... **Dunhuang** ..... (World, Asia, China, Gansu) [7002264]  
is location of ... **Endere** ..... (World, Asia, China, Xinjiang) [7002264]  
is location of ... **Fergana Valley** ..... (World, Asia, Uzbekistan) [7002264]  
is location of ... **Gaochang** ..... (World, Asia, China, Xinjiang) [7002264]  
is location of ... **Guma** ..... (World, Asia, China, Xinjiang) [7002264]  
is location of ... **Guozhen** ..... (World, Asia, China, Gansu) [7002264]  
is location of ... **Hamadān** ..... (World, Asia, Iran, Khorāsān-e Razavī) [7002264]  
is location of ... **Herāt** ..... (World, Asia, Afghanistan, Herāt) [7002264]  
is location of ... **Himş** ..... (World, Asia, Syria, Himş) [7002264]  
is location of ... **Istanbul** ..... (World, Asia, Turkey, İstanbul) [7002264]  
is location of ... **Kashgar** ..... (World, Asia, China, Xinjiang) [7002264]  
is location of ... **Kermānshāh** ..... (World, Asia, Iran, Kermānshāh) [7002264]  
is location of ... **Khujiand** ..... (World, Asia, China, Xinjiang) [7002264]  
is location of ... **Kokand** ..... (World, Asia, Uzbekistan) [7002264]  
is location of ... **Konya** ..... (World, Asia, Turkey) [7002264]  
is location of ... **Kucha** ..... (World, Asia, China, Xinjiang) [7002264]  
is location of ... **Kumul** ..... (World, Asia, China, Xinjiang) [7002264]  
is location of ... **Kyōngju** ..... (World, Asia, North Korea) [7002264]  
is location of ... **Lanzhou** ..... (World, Asia, China, Gansu) [7002264]  
is location of ... **Laochengli** ..... (World, Asia, China, Xinjiang) [7002264]  
is location of ... **Leh** ..... (World, Asia, India, Ladakh) [7002264]  
is location of ... **Lhasa** ..... (World, Asia, China, Tibet) [7002264]  
is location of ... **Liqian** ..... (World, Asia, China, Gansu) [7002264]  
is location of ... **Loulān Yiji** ..... (World, Asia, China, Xinjiang) [7002264]  
is location of ... **Mashhad** ..... (World, Asia, Iran, Khorāsān-e Razavī) [7002264]  
is location of ... **Peshāwar** ..... (World, Asia, Pakistan) [7002264]  
is location of ... **Pushkalavati** ..... (World, Asia, Pakistan) [7002264]  
is location of ... **P'yōngyang** ..... (World, Asia, North Korea) [7002264]  
is location of ... **Qazvin** ..... (World, Asia, Iran, Qazvin) [7002264]  
is location of ... **Qiemo** ..... (World, Asia, China, Xinjiang) [7002264]  
is location of ... **Qincheng** ..... (World, Asia, China, Xinjiang) [7002264]  
is location of ... **Qingquan** ..... (World, Asia, China, Xinjiang) [7002264]  
is location of ... **Quetta** ..... (World, Asia, Pakistan) [7002264]  
is location of ... **Qumis** ..... (World, Asia, Iran, Khorāsān-e Razavī) [7002264]  
is location of ... **Sian** ..... (World, Asia, China, Shaanxi) [7002264]  
is location of ... **Taraz** ..... (World, Asia, Kazakhstan, Zhambyl) [7002264]  
is location of ... **Tashkent** ..... (World, Asia, Uzbekistan, Toshkent) [7002264]  
is location of ... **Taxila** ..... (World, Asia, Pakistan, Punjab) [7002264]  
is location of ... **Trabzon** ..... (World, Asia, Turkey, Trabzon) [7002264]  
is location of ... **Turfan Depression** ..... (World, Asia, China, Xinjiang) [7002264]  
is location of ... **Türkistan** ..... (World, Asia, Kazakhstan, Ongtüstik Qazaqstan) [7002264]  
is location of ... **Tyre** ..... (World, Asia, Lebanon, Liban-Sud) [7002264]  
is location of ... **Ura-Tyube** ..... (World, Asia, Tajikistan, Leninobod, Viloyati) [7002264]  
is location of ... **Ürümqi** ..... (World, Asia, China, Xinjiang) [7002264]  
is location of ... **Tūs** ..... (World, Asia, Iran, Khorāsān-e Razavī) [7002264]  
is location of ... **Vārānasi** ..... (World, Asia, India, Uttar Pradesh) [7002264]  
is location of ... **Wensu** ..... (World, Asia, China, Xinjiang) [7002264]  
is location of ... **Wuwei** ..... (World, Asia, China, Gansu) [7002264]  
is location of ... **Xibeijie** ..... (World, Asia, China, Gansu) [7002264]  
is location of ... **Yangguan** ..... (World, Asia, China, Xinjiang) [7002264]  
is location of ... **Yanqi** ..... (World, Asia, China, Xinjiang) [7002264]  
is location of ... **Yazd** ..... (World, Asia, Iran, Yazd) [7002264]  
is location of ... **Yumenguan** ..... (World, Asia, China, Gansu) [7002264]  
is location of ... **Zhangye** ..... (World, Asia, China, Gansu) [7002264]

## Example 2.

Following these geographic places located on the Silk Road, using the **geo-coordinators** TGN provided, we get them on the map (through TGN's API).

# APIs

Go back one page  
Pull down to show history

## TGNWebServices

TGN Web Services

The following operations are supported. For a formal definition, please review the following links:

- [TGNGetChildren](#)  
Return all immediate children of a given subject record
- [TGNGetMergedSubjectID](#)  
Return a list of records with old and new IDs that have been merged
- [TGNGetParents](#)  
Return parent hierarchy for a given subject record
- [TGNGetRevisionHistory](#)  
Return info on edits made within certain data based on input parameters
- [TGNGetSubject](#)  
Return all data element associated with a VCS subject
- [TGNGetSubjectBriefReports](#)  
Returns subset of data elements associated with a VCS subject
- [TGNGetSubjectTerms](#)  
Return termID and all terms based on subjectID
- [TGNGetSyncSubjectID](#)  
Return current subject ID for a given subject ID
- [TGNGetTermMatch](#)  
Return result count, preferred term and matching terms

← vocabsservices.getty.edu/TGNService.asmx?op=TGNGetSubject

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## TGNWebServices

Click [here](#) for a complete list of operations.

### TGNGetSubject

Return all data element associated with a VCS subject

**Test**

To test the operation using the HTTP POST protocol, click the 'Invoke' button.

Parameter	Value
subjectID:	7031416

Invoke

#### SOAP 1.1

The following is a sample SOAP 1.1 request and response. The [placeholders](#) shown need to be replaced with the appropriate values.

```
POST /TGNService.asmx HTTP/1.1
Host: vocabsservices.getty.edu
Content-Type: text/xml; charset=utf-8
Content-Length: length
SOAPAction: "http://vocabsservices.getty.edu/TGNGetSubject"

<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema" >
  <soap:Body>
    <TGNGetSubject xmlns="http://vocabsservices.getty.edu/" >
      <subjectID>string</subjectID>
    </TGNGetSubject>
  </soap:Body>
</soap:Envelope>
```

```
HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: length

<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema" >
  <soap:Body>
    <TGNGetSubjectResponse xmlns="http://vocabsservices.getty.edu/" >
      <TGNGetSubjectResult>xml</TGNGetSubjectResult>
    </TGNGetSubjectResponse>
  </soap:Body>
</soap:Envelope>
```

#### SOAP 1.2

The following is a sample SOAP 1.2 request and response. The [placeholders](#) shown need to be replaced with the appropriate values.

```
POST /TGNService.asmx HTTP/1.1
Host: vocabsservices.getty.edu
Content-Type: application/soap+xml; charset=utf-8
Content-Length: length
SOAPAction: "http://vocabsservices.getty.edu/TGNGetSubject"

<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema" >
  <soap:Body>
    <TGNGetSubject xmlns="http://vocabsservices.getty.edu/" >
      <subjectID>string</subjectID>
    </TGNGetSubject>
  </soap:Body>
</soap:Envelope>
```



This XML file does not appear to have a valid XML declaration.

- <Vocabulary xsi:noNamespaceSchemaLocation="vocabsservices.getty.edu/TGNService.aspx/TGNGetSubject" >

- <Subject Subject\_ID="7031416">

- <Parent\_Relationships>

- <Preferred\_Parent>

<Parent\_Subject\_ID>70001/und

<Relationship\_Type>Par

<Historic\_Flag>Current</Historic\_Flag>

<Parent\_String>World (f

<Hier\_Rel\_Type>Whole</Hier\_Rel\_Type>

</Preferred\_Parent>

</Parent\_Relationships>

- <Descriptive\_Notes>

- <Descriptive\_Note>

- <Note\_Text>

Ancient trade route and

the northwest, bypassed

persons travelled the en

</Note\_Text>

<Note\_Language>Englis

- <Note\_Contributors>

- <Note\_Contributor>

<Contributor\_id>10000000/VP</Contributor\_id>

</Note\_Contributor>

</Note\_Contributors>

- <Note\_Sources>

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2009008639/Du

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- <Display\_Date>

from ancient times, with some interruptions, until ca. 1400

</Display\_Date>

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</Subject>

</Vocabulary>



## Example 2.

Following these geographic places located on the Silk Road, using the **geo-coordinators** TGN provided, we get them on the map (through TGN's API).





... find places in a boundary  
(through the “near/adjacent to” relationship  
provided by TGN)

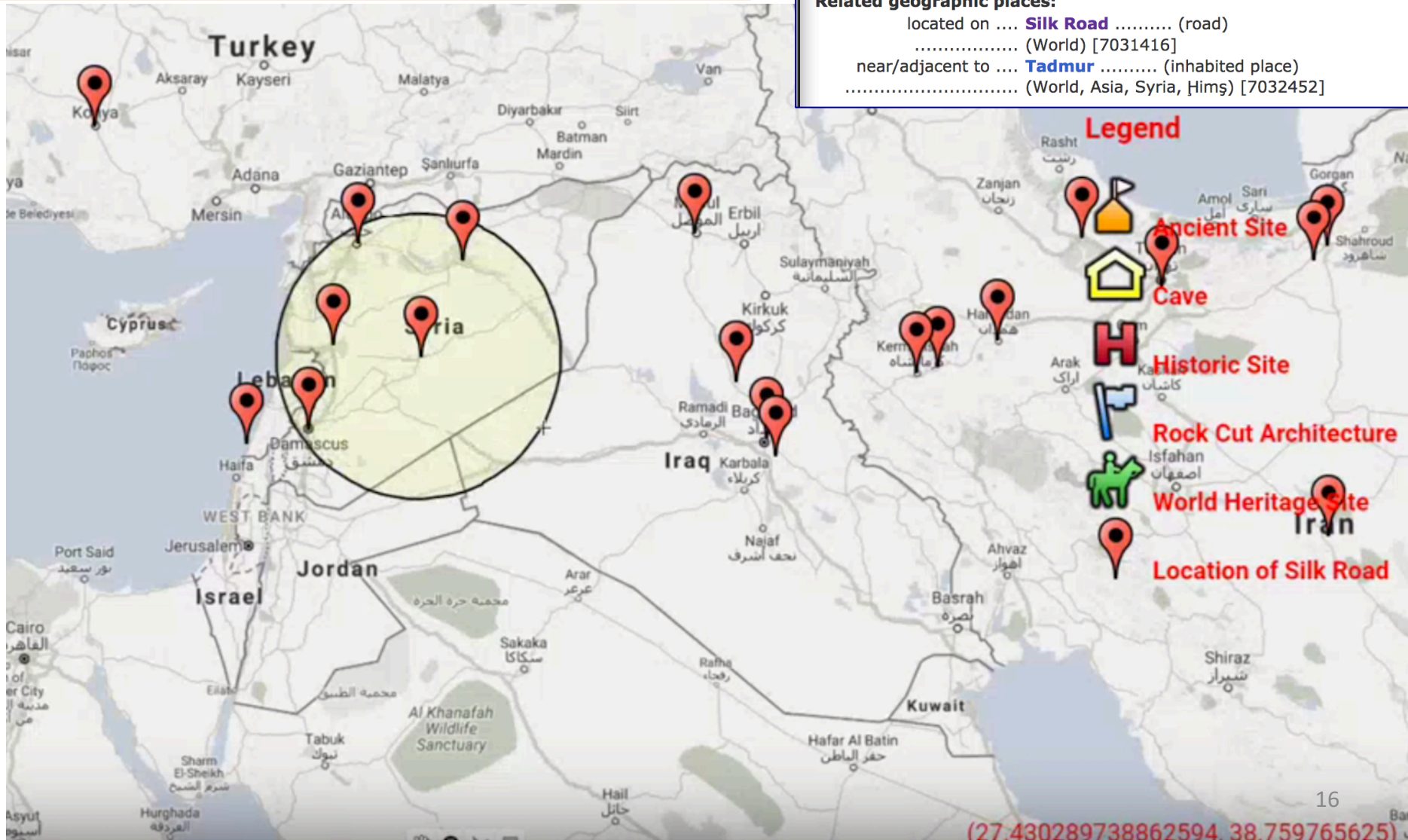
#### Place Types:

deserted settlement (**preferred**, C)  
archaeological site (C)  
World Heritage Site (C)  
inhabited place (H)  
capital (H)  
episcopal see (H)  
trade center (H)

..... from 1980  
..... settled since 3500 BCE,  
Aramaic times  
..... of kingdom, 267-272 CE

#### Related geographic places:

located on .... **Silk Road** ..... (road)  
..... (World) [7031416]  
near/adjacent to .... **Tadmur** ..... (inhabited place)  
..... (World, Asia, Syria, Hims) [7032452]







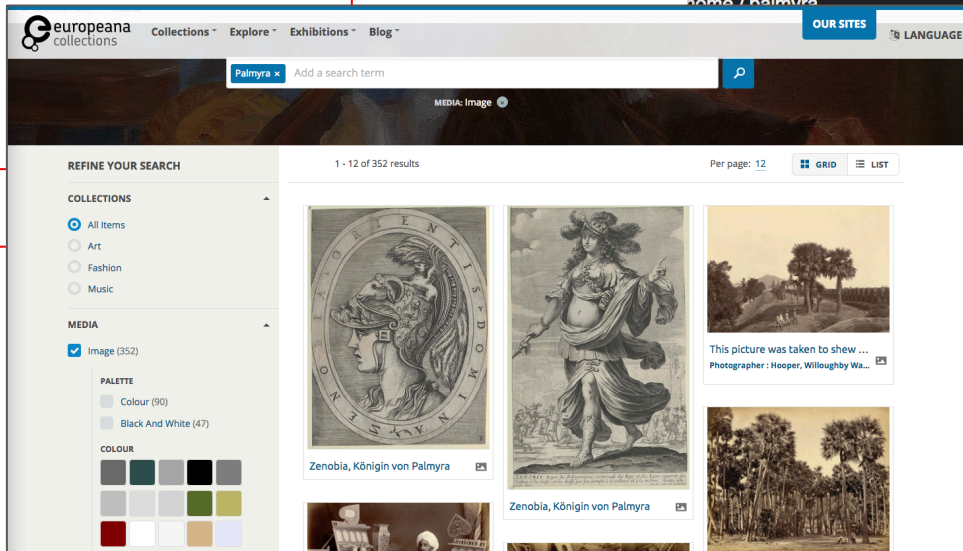
# "Palmyra"

## The Cleveland Museum of Art:

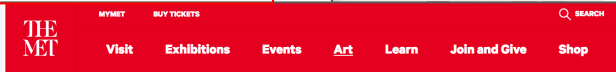
The Cleveland Museum of Art



## Europeana:



## MET:



Collection / 39 results for "palmyra" out of 442,297 records

palmyra

Filter Results By:

- Artist / Culture +
- Object Type / Material +
- Geographic Location +
- Date / Era +
- Department +

Show Only:

- Highlights
- Artworks On Display
- Artworks With Image
- Public Domain Artworks

Sort By:

Relevance



Funerary relief

Date: ca. 2nd-3rd century A.D.  
Medium: Limestone  
Accession Number: 02.291  
On view at The Met Fifth Avenue in [Gallery 406](#)



Funerary relief

Date: ca. 50-150  
Medium: Limestone  
Accession Number: 01.251  
On view at The Met Fifth Avenue in [Gallery 406](#)



Papier machand#233; ornamen...  
Photographer: Unknown



Periadynia [Peradeniya] govt. g...  
Photographer: Unknown



Zenobia, Königin von Palmyra



Papier machand#233; ornamen...  
Photographer: Unknown



A group of Phoongyees. Of the...  
Photographer: Hooper, Willoughby Wa...



Periadynia [Peradeniya] govt. g...  
Photographer: Unknown



This picture was taken to shew ...  
Photographer: Hooper, Willoughby Wa...



Tullipot palms near Kandy [sic]...  
Photographer: Penn, Albert Thomas W...



Phoongyees travelling on boar...  
Photographer: Hooper, Willoughby Wa...



Periadynia [Peradeniya] govt. g...  
Photographer: Unknown

## Website



Search the Collection

### ART OBJECT

#### Procession of Nobles

limestone, Overall: 57.7 x 120.7 x 34.5 cm (22 11/16 x 47 1/2 x 13 9/16 in). Purchase from the J. H. Wade Fund 1970.15

Syria, [Palmyra](#) 1970.15 Syria, [Palmyra](#) limestone, Overall: 57.7 x 12 ... de Fund 1970.15 Location: not on view Description [Palmyra](#) was a key ce ... en associated with [Palmyra](#) only through stylistic comparisons; it is not known wh ...

### ART OBJECT

#### Tomb Relief

limestone, Overall: 55.3 x 73.7 x 18.5 cm (21 3/4 x 29 x 7 1/4 in). Leonard C. Hanna, Jr. Fund 1964.359

Syria, [Palmyra](#), 3rd century 1964.359 Syria, [Palmyra](#), 3rd century li ... of a mausoleum at [Palmyra](#). It illustrates a blending of Roman and Pa ... ar Eastern Art Artist: Syria, [Palmyra](#), 3rd century Type of art wo ...



# "Dunhuang"

Europeana:

MET:

THE MET

MYMET BUY TICKETS

Visit Exhibitions Events Art Learn Join and Give Shop

Collection / 39 results for "palmyra" out of 442,297 records

palmyra

Filter Results By:

- Artist / Culture +
- Object Type / Material +
- Geographic Location +
- Date / Era +
- Department +

Show Only:

- Highlights
- Artworks On Display
- Artworks With Image
- Public Domain Artworks

Sort By:

Relevance

**Funerary relief**

Date: ca. 2nd-3rd century A.D.  
Medium: Limestone  
Accession Number: 02.291  
On view at The Met Fifth Avenue in [Gallery 406](#)

**Funerary relief**

Date: ca. 50-150  
Medium: Limestone  
Accession Number: 01.251  
On view at The Met Fifth Avenue in [Gallery 406](#)

**Banner with Bodhisattva, possibly Mahamayuri**

Date: 9th-10th century  
Medium: Ink and pigment on silk  
Accession Number: 2007.294a,b  
Not on view

116 images

## REFINE YOUR SEARCH

### COLLECTIONS

- ☒ All Items
- ☐ Art
- ☐ Fashion
- ☐ Music

### MEDIA

- ☒ Image (116)

### PALETTE

☐ Black And White (34)

☐ Colour (2)

### COLOUR



### ORIENTATION

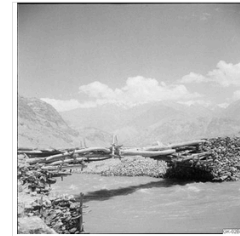
1 - 12 of 116 results

Per page: 12

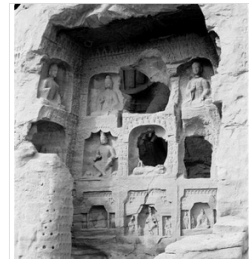
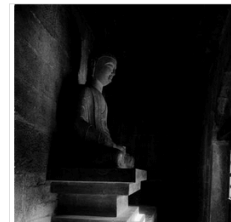
☒ GRID ☐ LIST



The Sutra of Filial Piety (1550)  
Author: Anonymous



Buddhor, Gansu, Majjishan (1976)  
Kessle, Gun



## Collection / 22 results for "Dunhuang" out of 441,819 records

Dunhuang

### Filter Results By:

- Artist / Culture +
- Object Type / Material +
- Geographic Location -
- ☒ Asia 22
  - ☐ China 20
  - ☐ Gansu 1
  - ☐ Japan 2
- Date / Era +
- Department +

Asia X

Show Only:

Highlights



Banner with Bodhisattva, possibly Mahamayuri

Date: 9th-10th century  
Medium: Ink and pigment on silk  
Accession Number: 2007.294a,b  
Not on view



Rubbing of a Relief at Dunhuang

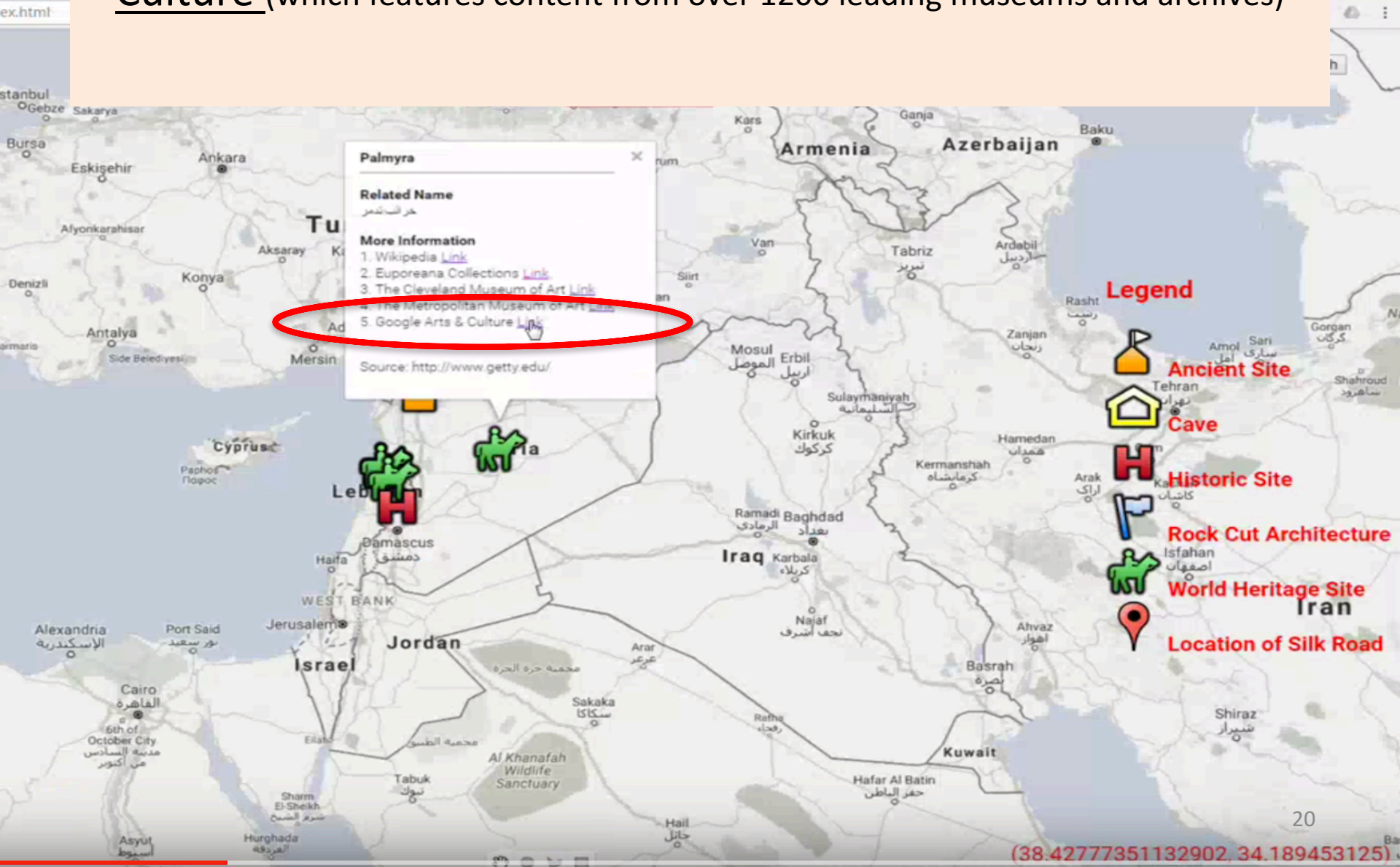
Date: 20th century  
Medium: Ink on paper  
Accession Number: 56.34  
Not on view



Bodhisattva Manjushri (Wenshu)

Date: 10th century  
Medium: Woodblock print; ink and color on paper  
Accession Number: CP4  
Not on view

... or connect with Wikipedia, Europeana, or Google Arts & Culture (which features content from over 1200 leading museums and archives)







# Procedures

- (1) Obtain the "Silk Road" **ID** from TGN;
- (2) Using the **ID** to request through Getty Vocabularies Web Services **APIs** to get data of locations related to the "Silk Road"; obtain the datasets in XML format;
- (3) Extract *preferred name*, *non-prefer name*, *type of place*, and *Coordinates* from **XML file**; store data in the **PostgreSQL** spatial database;
- (4) Present data on and interact with the defined geographical area on the map using **Google Map API**.

## Example 3

Find certain place types around the Silk Road  
through a **LOD Sparql Query platform**

<http://vocab.getty.edu/>

Qianfudong (C,V,Chinese (transliterated),U)  
千佛洞 (C,V,Chinese,U)

### Hierarchical Position:

World (facet)  
.... Asia (continent) (P)  
..... China (nation) (P)  
..... Gansu (province) (P)  
..... Mogao Caves (ancient site) (P)

### Place Types:

ancient site (**preferred**, C)  
rock-cut architecture (C)  
World Heritage Site (C) |  
historic site (C)  
caves (C)

*I would like to get something like  
"caves on or around the Silkroad",  
or,  
"UNESCO Heritage sites on or  
around the Silkroad".*

All these place types are  
defined in the Getty Art  
and Architecture  
Thesaurus (AAT)

ancient sites [aat:300387007](#)  
rock-cut architecture [aat:300008031](#)  
World Heritage Sites [aat:300263063](#)  
historic sites [aat:300000833](#)  
caves [aat:300008746](#)

1

Go to:

<http://vocab.getty.edu/>

Getty Vocabularies: LOD SPARQL Queries Any

## The Getty Vocabularies

Welcome to the SPARQL endpoint [vocab.getty.edu](http://vocab.getty.edu)

2

Choose "Queries"

Getty Vocabularies: LOD SPARQL Queries Any Search Search Brief

3.13 [OpenRefine Reconciliation Service](#)

3.14 [Smart Resource Title](#)

4 [TGN-Specific Queries](#)

4.1 [Places by Type](#)

4.2 [Places, with English or GVP Label](#)

4.3 [Places by Direct and Hierarchical Type](#)

4.4 [Breakdown of Sovereign States by Type](#)

4.5 [Inhabited Places That Were Sovereign States](#)

4.6 [Places by Type and Parent Place](#)

4.7 [Places by Type, with placeTypePreferred](#)

4.8 [Places by Triple FTS](#)

4.9 [Places by FTS Parents](#)

4.10 [Capitals by Association](#)

4.11 [Members of the European Union](#)

4.12 [Members of the United Nations](#)

4.13 [Geo Chart with sgvizler](#)

4.14 [Column Chart with sgvizler](#)

4.15 [Countries and Capitals By Type and Containment](#)

4.16 [Places by Coordinate Bounding Box](#)

4.17 [Places Within Bounding Box](#)

4.18 [Places by Type Within Bounding Box](#)

4.19 [Places Outside Bounding Box \(Overseas Possessions\)](#)

4.20 [Places Nearby Each Other](#)

5 [ULAN-Specific Queries](#)

5.1 [Agents by Type](#)

5.2 [Associative Relations of Agent](#)

5.3 [Female Artists](#)

Query:

```
1 prefix ontogeo: <http://www.ontotext.com/owlim/geo#>
2 select distinct * {
3   ?place skos:inScheme tgn: ;
4   gvp:placeType|(gvp:placeType/gvp:broaderGenericExtended) [rdfs:label "caves"@en];
5   foaf:focus [ontogeo:within(24.75083 28.95778 43.80722 108.92861)];
6   gvp:prefLabelGVP [xl:literalForm ?name];
7   gvp:parentString ?parents}
```

☐ Include inferred | ☐ Expand results over equivalent URIs

Submit

3

4.18 **Places by Type Within Bounding Box**

Let's specialize the previous query and look for castles around The Netherlands, we get 170:

```
prefix ontogeo: <http://www.ontotext.com/owlim/geo#>
select distinct * {
  ?place skos:inScheme tgn: ;
  gvp:placeType|(gvp:placeType/gvp:broaderGenericExtended) [rdfs:label "castles (fortifications)"@en];
  foaf:focus [ontogeo:within(50.787185 3.389722 53.542265 7.169019)];
  gvp:prefLabelGVP [xl:literalForm ?name];
  gvp:parentString ?parents}
```

SPARQL

4

24



Query a specific place type (e.g.,  
**caves**) in a **geographic boundary**

5 Replace the **place type** you choose,  
put **your geo coordinators**

```
select distinct * {  
  ?place skos:inScheme tgn.;  
  gvp:placeType|(gvp:placeType/gvp:broaderGenericExtended)  
  [rdfs:label "caves"@en];  
  foaf:focus [ontogeo:within(24.75083 28.95778 43.80722  
108.92861)];  
  gvp:prefLabelGVP [xl:literalForm ?name];  
  gvp:parentString ?parents}
```

#### Place Types:

- ancient site (**preferred**, C)
- rock-cut architecture (C)
- World Heritage Site (C)
- historic site (C)
- caves (C)

#### Related geographic places:

- located on .... **Silk Road** ..... (road)  
..... (World) [7031416]
- near/adjacent to .... **Dunhuang** ..... (inhabited place)  
..... (World, Asia, China, Gansu province) [7001969]

Query a specific place type (e.g., caves) in a geographic boundary

Got the results & downloadable datasets:

6

Caves  
within(24.75  
083 28.95778  
43.80722  
108.92861)

Results: (200 of 219)

Download SPARQL Results in: [JSON](#) | [XML](#) | [CSV](#) | [TSV](#)

place	name	parents
<a href="#">tgn:8060332</a>	Bezeklik Thousand Buddha Caves	Xinjiang Uygur Zizhiqu, Zhongguo, Asia, World
<a href="#">tgn:8289876</a>	Pazikelike Qianfo Dong@zh-latn-pinyin-x-notone	Xinjiang Uygur Zizhiqu, Zhongguo, Asia, World
<a href="#">tgn:6001819</a>	Dzhurchula	lost & found/Georgia, Sakartvelo, Asia, World
<a href="#">tgn:7679819</a>	Büyük Laçın Mağarası@tr	Çorum, Türkiye, Asia, World
<a href="#">tgn:7689482</a>	Sorgun Köyü Kaya@tr	Çorum, Türkiye, Asia, World
<a href="#">tgn:7690392</a>	Fok Mağarası@en	Düzce, Türkiye, Asia, World
<a href="#">tgn:7690393</a>	Fakılı Mağarası@en	Düzce, Türkiye, Asia, World
<a href="#">tgn:7683319</a>	Palu Mağarası@tr	Ağrı, Türkiye, Asia, World
<a href="#">tgn:7691901</a>	Divanlı Mağaraları@en	Yozgat, Türkiye, Asia, World
<a href="#">tgn:7688708</a>	Tulumtaş Mağarası@en	Ankara, Türkiye, Asia, World
<a href="#">tgn:7690594</a>	Solaklar Mağarası@en	Bolu, Türkiye, Asia, World
<a href="#">tgn:7680017</a>	Damlataş Mağarası@tr	Çorum, Türkiye, Asia, World
<a href="#">tgn:7687910</a>	Pazarlı Mağarası@en	Çorum, Türkiye, Asia, World

Query a specific place type (e.g., **World Heritage Sites**) in a **geographic boundary** .  
**Got the results & downloadable datasets:**

World Heritage Sites  
 within (24.75083  
 28.95778 43.80722  
 108.92861)

SPARQL Queries

Any

Search...

Search

Brief

Results: (32)

Download SPARQL Results in: [JSON](#) | [XML](#) | [CSV](#) | [TSV](#)

place	name	parents
<a href="#">tgn:7059176</a>	Mausoleum of Khoja Ahmed Yasawi	Ongtüstik Qazaqstan, Qazaqstan, Asia, World
<a href="#">tgn:1056987</a>	Mtskheta	Mtskheta Mtianeti, Sakartvelo, Asia, World
<a href="#">tgn:7032530</a>	Aramus	Kotayk', Hayastan, Asia, World
<a href="#">tgn:7032531</a>	Zart'onk'	Armavir, Hayastan, Asia, World
<a href="#">tgn:4004270</a>	Geghard	Kotayk', Hayastan, Asia, World
<a href="#">tgn:1054029</a>	Qobustan	Bakı, Azərbaycan, Asia, World
<a href="#">tgn:7029798</a>	Qianfodong@zh-latn-pinyin-x-notone	Gansu, Zhongguo, Asia, World
<a href="#">tgn:7059150</a>	Sulaiman-Too	Osh, Kyrgyzstan, Asia, World
<a href="#">tgn:1100582</a>	Humayun's Tomb	Delhi, Bhārat, Asia, World
<a href="#">tgn:6003937</a>	Mohenjo-Daro	Sindh, Pākistān, Asia, World
<a href="#">tgn:7032815</a>	Rummin-dei	Lumbinī, Nepāl, Asia, World
<a href="#">tgn:7032812</a>	Kathmandu Valley	Nepāl, Asia, World
<a href="#">tgn:4011486</a>	Um er-Rasas	Al 'Āṣimah, Al Urdun, Asia, World
<a href="#">tgn:7001309</a>	Abū Mīnā@en	Al Gharbīyah, Miṣr, Africa, World
<a href="#">tgn:7002856</a>	Baalbek	Baalbek-Hermel, Lubnān, Asia, World

<a href="#">tgn:7032896</a>	Tchogha Zanbil	Khūzestān, Īrān, Asia, World
<a href="#">tgn:7002862</a>	Tyre@en	Liban-Sud, Lubnān, Asia, World
<a href="#">tgn:7059151</a>	Aanjar	Béqaa, Lubnān, Asia, World
<a href="#">tgn:7016516</a>	Jubayl	Mont-Liban, Lubnān, Asia, World
<a href="#">tgn:6005850</a>	Taxila@en	Punjab, Pākistān, Asia, World
<a href="#">tgn:7059152</a>	Wādī Qādīshā	Lubnān, Asia, World
<a href="#">tgn:1103449</a>	Arz Lebnâne	Liban-Nord, Lubnān, Asia, World
<a href="#">tgn:7032332</a>	Minaret of Jam	Ghōr, Afghānestān, Asia, World
<a href="#">tgn:7018835</a>	Palmyra	Ḥimṣ, Sūriyah, Asia, World
<a href="#">tgn:7002383</a>	Petra	Ma'ān, Al Urdun, Asia, World
<a href="#">tgn:7002205</a>	Takht-e Jamshīd	Fārs, Īrān, Asia, World
<a href="#">tgn:7001297</a>	Thebes@en	Qinā, Miṣr, Africa, World
<a href="#">tgn:7032359</a>	Qal'at al 'Ajāj	Al Baḥrayn, Asia, World
<a href="#">tgn:6003070</a>	Choirokoitia	Lemesós, Kypriakí Dimokratía, Asia, World
<a href="#">tgn:7012244</a>	Merv	Mary, Türkmenistan, Asia, World
<a href="#">tgn:6000442</a>	Kharā'ib al Ashūrīyīn@ar-latn	Ṣalāḥ ad Dīn, Al-'Irāq, Asia, World
<a href="#">tgn:6000612</a>	Bāmyān	Bāmyān, Afghānestān, Asia, World

# Summary

## 1. Learn through TGN Website

<http://www.getty.edu/research/tools/vocabularies/tgn/>  
(Anyone can do!)

## 2. Following these geographic places located on the Silk Road, using the geo- coordinators TGN provided, get them on the map (through TGN's API).

(Need someone who can play with API and write a little bit Java.)

- The APIs are available to any institution having a login, which may be obtained by writing to [vocab@getty.edu](mailto:vocab@getty.edu). See details in the [Web Services User's Instructions](#) (PDF).

## 3. Find certain place types around the Silk Road through a LOD Sparql Query platform

<http://vocab.getty.edu/>

(Anyone can use the template to query; follow our simple demos; knowledge of SPARQL queries will be ideal.)



# Questions?

**Advanced uses of thesauri that are  
released with multiple services:**  
Websites, APIs, and SPARQL endpoints

**Marcia Lei Zeng, Tao Hu**

School of Information

Kent State University, Kent, OH, USA