ENSLAVED.ORG: A KNOWLEDGE REPRESENTATION IN WIKIBASE OF PEOPLE, EVENTS, AND PLACES IN THE HISTORICAL SLAVE TRADE

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Center for Spatial Studies UCSB
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Challenges for Enslaved.org

- Disambiguating and merging individuals across multiple datasets is nearly impossible given their current, siloed nature.
- Searching, browsing, and quantitative analysis across projects is extremely difficult.
- It is often difficult to find projects and databases.
- There are no best practices for digital data creation.
- Many projects and datasets are in danger of going offline and disappearing.
Objectives

- PEOPLE
- KNOWLEDGE REPRESENTATION
- BEST PRACTICE AND WORKFLOWS
- SCHOLARLY RECOGNITION
- PRESERVATION AND SUSTAINABILITY
Places in Historical Records

Cuba

- **Type**: Province
- **Located In**: Caribbean
- **Modern Country**: Cuba

**Place's Connections**:
- 1
- 1

Cuba

- **Type**: Country
- **Located In**: North America
- **Modern Country**: Cuba

**Place's Connections**:
- 2
- 1

Cuba

- **Type**: Port
- **Located In**: Cuba
- **Modern Country**: Cuba

**Place's Connections**:
- 338
- 1
Places in Historical Records

- Places could be as detailed as GIS coordinates with associations to other known places.
- Places could have more general names like Plantation, Catholic Church...
- Places could be also interpretations of the data made by historians.
Places in Historical Records

**Other Spanish Caribbean**

- **Type**: Province
- **Located In**: Caribbean

**Place's Connections**

1

**Spanish Circum-Caribbean**

- **Type**: Province
- **Located In**: Spanish Mainland America

**Place's Connections**

1
<table>
<thead>
<tr>
<th>Place Type</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>City, Town, or Village</td>
<td>1009</td>
</tr>
<tr>
<td>Country</td>
<td>91</td>
</tr>
<tr>
<td>Court</td>
<td>1</td>
</tr>
<tr>
<td>Maroon Community</td>
<td>1</td>
</tr>
<tr>
<td>Plantation</td>
<td>249</td>
</tr>
<tr>
<td>Province</td>
<td>196</td>
</tr>
<tr>
<td>Worship Site</td>
<td>33</td>
</tr>
<tr>
<td>Continent</td>
<td>6</td>
</tr>
<tr>
<td>County or Parish</td>
<td>466</td>
</tr>
<tr>
<td>Domicile</td>
<td>3</td>
</tr>
<tr>
<td>Other Place Type</td>
<td>11314</td>
</tr>
<tr>
<td>Port</td>
<td>575</td>
</tr>
<tr>
<td>Region</td>
<td>62</td>
</tr>
</tbody>
</table>
The importance of Provenance

<table>
<thead>
<tr>
<th>Document Type</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auction Notice</td>
<td>5</td>
</tr>
<tr>
<td>Bill of Sale or Receipt</td>
<td>619</td>
</tr>
<tr>
<td>Census or Register</td>
<td>188</td>
</tr>
<tr>
<td>Freedom or Emancipation Document</td>
<td>424</td>
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<tr>
<td>Life History</td>
<td>86</td>
</tr>
<tr>
<td>Newspaper</td>
<td>130</td>
</tr>
<tr>
<td>Runaway Ad</td>
<td>20</td>
</tr>
<tr>
<td>Secondary Source</td>
<td>21</td>
</tr>
<tr>
<td>Ship Registry or Manifest</td>
<td>10</td>
</tr>
<tr>
<td>Will</td>
<td>18</td>
</tr>
</tbody>
</table>
Events and Places

Name
San Joaquin Voyage

Description
This voyage embarked with approximately 46 enslaved people and disembarked with approximately 39 enslaved people. The vessel was captured by the British and condemned at the Vice-Admiralty Court, Sierra Leone.

External References
https://slavevoyages.org/voyage/7522/variables

Date
1816-02-16

Type
Voyage

Located In
Bight of Biafra and Gulf of Guinea Islands
Matanzas
Freetown
<table>
<thead>
<tr>
<th><strong>Name</strong></th>
<th>Baptist of Jean Baptiste Barnable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td>Baptism or Naming Ceremony</td>
</tr>
<tr>
<td><strong>Located In</strong></td>
<td>Catholic Church</td>
</tr>
</tbody>
</table>

| **Name**   | Catholic Church                   |
| **Type**   | Worship Site                      |
| **Located In** | New Orleans                      |
People of the Slave Trade

Enslaved.org people records are the core of the project. Set of core fields to define people. One important field: Origins. Origin field has Ethnolinguistic descriptor, i.e. their ethnic identity and Place of Origin. Two type of fields for occupations and ethnonyms.

Name
Marie Louise Alzina

First Name
Marie

Surname
Alzina

Sex
Female

Age
58 - Registration of Marie Louise Alzina
50 - Manumission of Marie Louise Alzina

Occupation
Domestic Service

Race
Negro

Status
Freed Person - Manumission of Marie Louise Alzina

Ethnolinguistic Descriptor - Place Of Origin
Afro-Creole - Clarendon

Roles
Registered Person - Registration of Marie Louise Alzina
Emancipated Person - Manumission of Marie Louise Alzina
Child - Birth of Marie Louise Alzina

Type
Clarendon

City, Town, or Village

Located In
North America
Jamaica
People of the Slave Trade

Unnamed people with different ethnonym but both coming from the same region “Upper Guinea”.

Unnamed people still could have multiples relations.
# Ethnonyms

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<thead>
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<th>Ethnolinguistic Descriptor</th>
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<tbody>
<tr>
<td>Yoruba</td>
<td>9,384</td>
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<tr>
<td>Igbo</td>
<td>8,568</td>
</tr>
<tr>
<td>Congo</td>
<td>2,754</td>
</tr>
<tr>
<td>Crioul</td>
<td>2,707</td>
</tr>
<tr>
<td>Anglo-African</td>
<td>1,592</td>
</tr>
<tr>
<td>Afro-Creole</td>
<td>1,166</td>
</tr>
<tr>
<td>Mandinga</td>
<td>1,078</td>
</tr>
<tr>
<td>Angola</td>
<td>1,016</td>
</tr>
<tr>
<td>Mina</td>
<td>831</td>
</tr>
<tr>
<td>Kongo</td>
<td>823</td>
</tr>
<tr>
<td>Bijago</td>
<td>398</td>
</tr>
<tr>
<td>Guinea</td>
<td>385</td>
</tr>
<tr>
<td>Fula</td>
<td>342</td>
</tr>
<tr>
<td>Bambara</td>
<td>341</td>
</tr>
<tr>
<td>Akan</td>
<td>335</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>31,720</strong></td>
</tr>
</tbody>
</table>

Available: [http://worldmap.harvard.edu/africamap/](http://worldmap.harvard.edu/africamap/)

![Map of Africa with highlighted areas](image-url)
Need for a Place to Disambiguate People

People information in multiple sources.

A location helps to distinguish if a person record is connected or related to another person record.

Set of fields that will allow the scholar to determine if person record A and person record B are the same person.

The combination of Events-Places-Dates is key for determining a match.
Competency Questions

The Public
Who were the relatives of Jack George, an enslaved person who lived in New Orleans between the years 1811 and 1820.
Do you have information about my relative, a mulatto slave named Elizabeth in New Orleans between 1801 and 1820?

K-12
Can you write for me a paper about a slave rebellion for Mr. Smith's class by Friday?
Find an enslaved girl named Maria who lived in Brazil in the 1820s, an enslaved girl named Marie who lived in Martinique at the same time, and an enslaved girl named Mary in Virginia also alive in the 1820s. How were their lives similar? How were they different?

Scholars
What were the ethnic groups of enslaved people in South Carolina in 1820?
What were the ethnic groups of enslaved people transported from the port of Cabinda from 1751-1800?
How many Congo women married Angola men in Brazil in the 1820s?
Controlled Vocabulary

- Controlled vocabularies for *Enslaved.org* Metadata fields.
- Help ensure data consistency across the platform.
- Mapping terms from contributor data to the controlled vocabularies used on *Enslaved.org*.

**EVENT Vocabulary**
- Event Type

**PERSON Vocabularies**
- Sex
- Age Category
- Occupation
- Relationships
- Person Status
- Role within Event (by specific Event Type)

**PLACE Vocabulary**
- Place Type

**SOURCE Vocabulary**
- Document Type
The Enslaved Ontology
The Enslaved Ontology
The Enslaved Ontology
The Enslaved Ontology
Journal of Slavery and Data Preservation

Issues

Volume 1 Issue 1
Special Issue on Slave Biographies

Issue Editors
Walter Hawthorne

In this Issue
Show All

Maranhão Inventories Slave Database, 1767-1831
Walter Hawthorne

Louisiana Slave Database
Gwendolyn Midlo Hall

Free Blacks Database
Brian K. Mitchell
Wikibase

- Extension of MediaWiki.
- Repository for wikidata.org.
- Many multiple data types ex: item, string, coordinates, property, external identifiers, time, geographic shapes.
- Concept of qualifiers and references.

Data Model Available:
https://www.mediawiki.org/wiki/Wikibase/DataModel
Namespaces

@prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#> .
@prefix xsd: <http://www.w3.org/2001/XMLSchema#> .
@prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#> .
@prefix owl: <http://www.w3.org/2002/07/owl#> .
@prefix wikibase: <http://wikiba.se/ontology#> .
@prefix eds: <https://lod.enslaved.org/entity/statement/> .
@prefix edata: <https://lod.enslaved.org/wiki/Special:EntityData/> .
@prefix skos: <http://www.w3.org/2004/02/skos/core#> .
@prefix schema: <http://schema.org/> .
@prefix cc: <http://creativecommons.org/ns#> .
@prefix geo: <http://www.opengis.net/ont/geosparql#> .
@prefix prov: <http://www.w3.org/ns/prov#> .
@prefix edef: <https://lod.enslaved.org/reference/> .
@prefix edv: <https://lod.enslaved.org/value/> .
@prefix ed: <https://lod.enslaved.org/entity/> .
@prefix edt: <https://lod.enslaved.org/prop/direct/> .
@prefix edtn: <https://lod.enslaved.org/prop/direct-normalized/> .
@prefix ep: <https://lod.enslaved.org/prop/> .
@prefix eps: <https://lod.enslaved.org/prop/statement/> .
@prefix epsv: <https://lod.enslaved.org/prop/statement/value/> .
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@prefix eprn: <https://lod.enslaved.org/prop/reference/value-normalized/> .
@prefix edno: <https://lod.enslaved.org/prop/novalue/> .
References and Qualifiers


eds:Q100093-92A444B2-A573-45C8-B74E-A13DE8AB4A34 a wikibase:Statement,
wikibase:rank wikibase:BestRank ;
wikibase:rank wikibase:NormalRank ;
eps:P20 "Cojuquittah" ;
epq:P18 ed:Q11301 ;
prov:wasDerivedFrom edref:0e3f6006da909eaa87b83ad7086e67d648bf8a75 .

edref:0e3f6006da909eaa87b83ad7086e67d648bf8a75 a wikibase:Reference ;
epr:P6 ed:Q9926 ,
ed:Q9896 ,
ed:Q9937 ;
Enslaved Ontology Alignment

Available: The Enslaved Dataset: A Real-world Complex Ontology Alignment Benchmark using Wikibase
Enslaved Ontology Alignment

Available: The Enslaved Dataset: A Real-world Complex Ontology Alignment Benchmark using Wikibase
SELECT DISTINCT ?place ?name ?cc
(group_concat(distinct ?label; separator = "||") as ?locIn)
{
    ?place  edt:P1  ed:Q301.
    ?place  edt:P20  ?name.
    ?place  edt:P7  ?locatedIn.
    ?locatedIn  rdfs:label  ?label.
    FILTER NOT EXISTS {?place  edt:P65  ?geonamesID}.
}
group by ?place ?name ?cc
order by ?name
### OpenRefine

#### OpenRefine LBS_Place NotReferenceThroughLocatedIN_20200824.csv Permalink

#### Using facets and filters

Use facets and filters to select subsets of your data to act on. Choose facet and filter methods from the menus at the top of each data column.

Not sure how to get started? **Watch these screencasts**

#### Show as: rows records  Show: 5 10 25 50 rows

<table>
<thead>
<tr>
<th>All</th>
<th>place</th>
<th>name</th>
<th>references 1</th>
<th>references 2</th>
<th>references 3</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
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<td>Parliamentary Papers</td>
<td>Choose new match</td>
<td>T11</td>
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<tr>
<td>2.</td>
<td>Vere</td>
<td>Vere</td>
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<td>Choose new match</td>
<td>T11</td>
</tr>
<tr>
<td>3.</td>
<td>St Joseph</td>
<td>St Joseph</td>
<td>Parliamentary Papers</td>
<td>Choose new match</td>
<td>T11</td>
</tr>
<tr>
<td>4.</td>
<td>St Mary</td>
<td>St Mary</td>
<td>Parliamentary Papers</td>
<td>Choose new match</td>
<td>T11</td>
</tr>
<tr>
<td>5.</td>
<td>St George</td>
<td>St George</td>
<td>Parliamentary Papers</td>
<td>Choose new match</td>
<td>T11</td>
</tr>
<tr>
<td>6.</td>
<td>Tacarigua and Arouca</td>
<td>Tacarigua and Arouca</td>
<td>Parliamentary Papers</td>
<td>Choose new match</td>
<td>T11</td>
</tr>
<tr>
<td>7.</td>
<td>St John</td>
<td>St John</td>
<td>Parliamentary Papers</td>
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<tr>
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<td>T11</td>
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<tr>
<td>9.</td>
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<tr>
<td>10.</td>
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<tr>
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<td>Berbice</td>
<td>Parliamentary Papers</td>
<td>Choose new match</td>
<td>T11</td>
</tr>
</tbody>
</table>

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*Note: This is an example of data from the Enslaved: Peoples of the Historical Slave Trade project, showing a small subset of places.*
OpenRefine Schema

The Wikidata schema below specifies how your tabular data will be transformed into Wikidata edits. You can drag and drop the column names below in most input boxes: for each row, edits will be generated with the values in these columns.

<table>
<thead>
<tr>
<th>place</th>
<th>name</th>
<th>locatedIn</th>
<th>source 1</th>
<th>source 2</th>
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</table>

Terms

<table>
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<tr>
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<th>name</th>
<th>override if present</th>
<th>remove</th>
<th>add term</th>
</tr>
</thead>
</table>

Statements

<table>
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<th>locatedIn</th>
</tr>
</thead>
</table>

1 references

<table>
<thead>
<tr>
<th>isDirectlyBase</th>
<th>source 1</th>
<th>remove</th>
<th>add</th>
</tr>
</thead>
<tbody>
<tr>
<td>isDirectlyBase</td>
<td>source 2</td>
<td>remove</td>
<td>add</td>
</tr>
</tbody>
</table>

Extensions:

- Edit Wikidata schema
- Manage Wikidata account
- Import schema
- Export schema
- Upload edits to Wikidata
- Export to QuickStatements
<table>
<thead>
<tr>
<th>Page</th>
<th>Statement</th>
<th>Sources</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Statement hasSurname [P72]: &quot;Charles&quot;</td>
<td>Sources hasSurname : &quot;Charles&quot;</td>
<td>isDirectlyBasedOn: Data excerpts from Legacies of British Slave-ownership to Digital Data Repository [Q485664]</td>
</tr>
<tr>
<td></td>
<td>Statement hasSex [P31]: Male</td>
<td>Sources hasSex : Male</td>
<td>isDirectlyBasedOn: Data excerpts from Legacies of British Slave-ownership to Digital Data Repository [Q485664]</td>
</tr>
<tr>
<td></td>
<td>Statement hasDescription [P66]: &quot;Possibly of Liverpool; see claim notes for St Mary claim no. 103 (Upton).&quot;</td>
<td>Sources hasDescription : &quot;Possibly of Liverpool; see claim notes for St Mary claim no. 103 (Upton).&quot;</td>
<td>isDirectlyBasedOn: Data excerpts from Legacies of British Slave-ownership to Digital Data Repository [Q485664]</td>
</tr>
<tr>
<td></td>
<td>Sources hasFirstName [P73]: &quot;Alice&quot;</td>
<td>Sources hasFirstName : &quot;Alice&quot;</td>
<td>isDirectlyBasedOn: Data excerpts from Legacies of British Slave-ownership to Digital Data Repository [Q485664]</td>
</tr>
<tr>
<td></td>
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<td>Sources hasSurname : &quot;Smith&quot;</td>
<td>isDirectlyBasedOn: Data excerpts from Legacies of British Slave-ownership to Digital Data Repository [Q485664]</td>
</tr>
</tbody>
</table>
QuickStatements Improvements

- Parallel execution with 40 bots.
- Database modification, a table per batch.
- Run in background option.
- Change frontend to not rely on external libraries.
- Upload a file.
- Export errors.
- Edit button
- Error handling attempts
- Adding pagination to the batches page.
Shape Expressions

- Structural schema language for RDF graphs.
- https://shex.io/shex-semantics/
- Mechanism for describing and validating RDF data.
- Validate axioms for the Ontology.
- https://www.slideshare.net/jelabra/shex-vs-shacl
Future Work

- Attracting more contributors.
- Improving tools to integrate and ingest data.
- Adding more GIS components into the graph.
- Build Event Records and Place Records for the ontology.
- Modification of controlled vocabulary and ontology to accommodate data about slavery in different contexts (Indigenous, European, North African Slavery).
Thank you

Visit: https://enslaved.org
Documentation: https://docs.enslaved.org
Contribute: https://jsdp.enslaved.org/