

# CLLD – Cross-Linguistic Linked Data

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## Goal

Help collecting the world’s language diversity heritage by providing inter-operable data publication structures

## Linguistic databases on the web

### Observations

- ✓ Almost all quantitative papers at ALT 10 used WALS data.
- ✓ Many typologists at ALT 10 have their own typological database.

### CLLD – The strategy

Since reuse tends to be the determining factor that keeps resources from vanishing, we want to bridge the gap between data collection and data reuse by

- ✓ publishing databases thereby incentivizing researchers through recognition;
- ✓ using technology that maximizes exposure of our data in the emerging web of data.

### CLLD – The implementation

This twofold strategy is implemented by three service components:

- ✓ infrastructural: Glottolog - a comprehensive language catalog and bibliography,
- ✓ structural: Dictionaria – a dictionary journal and CrossGram Journal – a journal publishing typological databases,
- ✓ technological: cllid - a software platform for implementing linguistic database applications, which will be used to serve standalone database publications like IDS, WOLD, ASJP, WALS, APiCS, eWAVE, ValPal as well as the journals.

To maximize resuability

- ✓ we provide the data under Open Data Licenses,
- ✓ and the platform as Open Source software under a free license.

## Linked Data - disseminating data in standard formats

- ✓ Defines a unified data access protocol for the web.
- ✓ Well-suited for distributed data providers
  - identifiers are URLs which are globally unique,
  - RDF and OWL provide the vocabulary to merge resources.
- ✓ Provides an easy to implement lowest level of service in a graceful degradation scenario

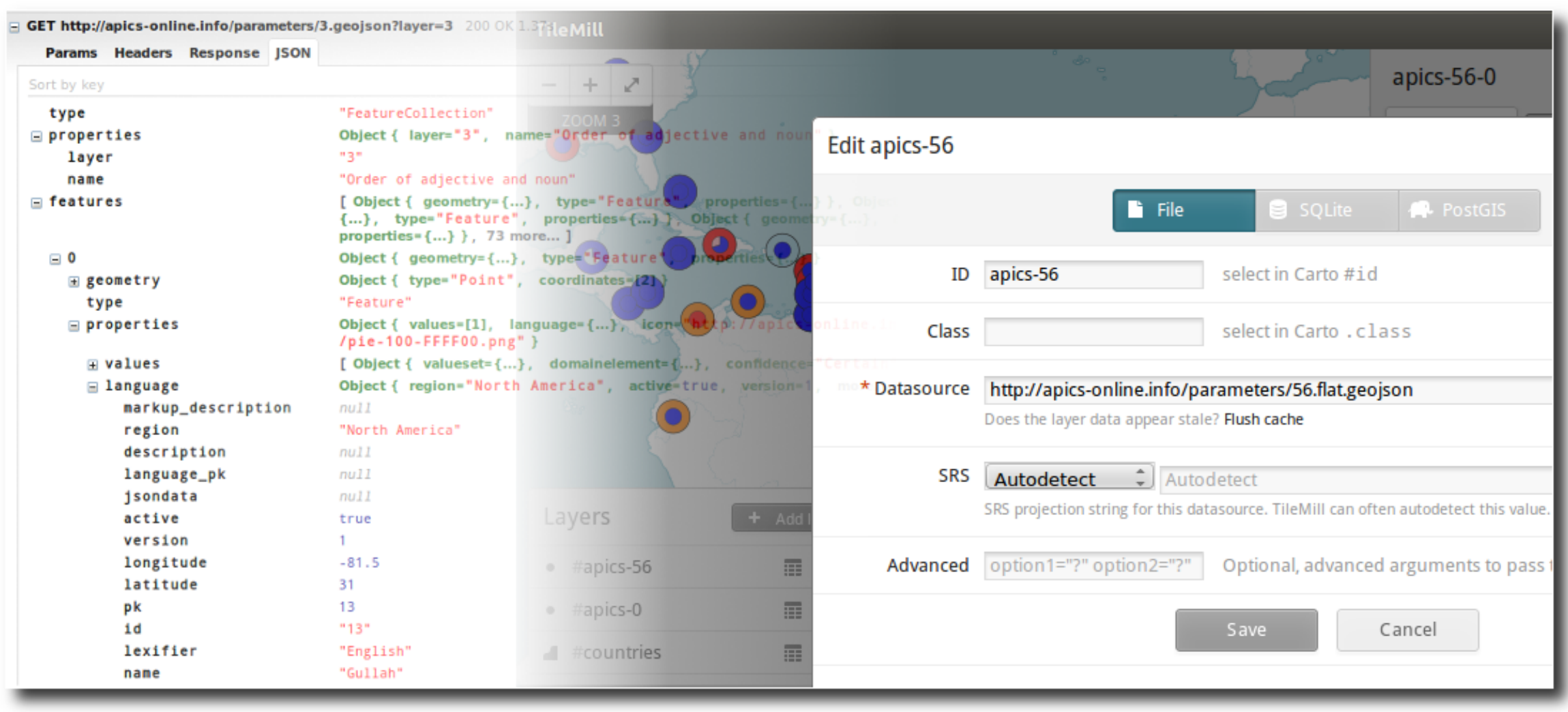
## Use off-the-shelf tools to explore a dataset

Linked Data Explorer accessing Glottolog Linked Data serialized as RDF/XML.



## Use off-the-shelf tools to transform a dataset

The map-making software Tilemill accessing APiCS data in GeoJSON format.



## The data model

This implementation plan is realistic, because the underlying data model for the target databases is both reasonably simple and abstract enough to cover many use cases.

The data model comprises the following entities: Dataset, Contribution, Contributor, Language, Parameter, Value, UnitParameter, Unit, Sentence, Source.

## Value – an APiCS datapoint

### Datapoint Kriol/Pronoun conjunction

Both the juxtaposed inclusory construction and the conjoined construction are attested in Kriol. Both are relatively rare so the judgment of relative importance here is very impressionistic.

#### Values

- Inclusory pronoun juxtaposed with subset NP

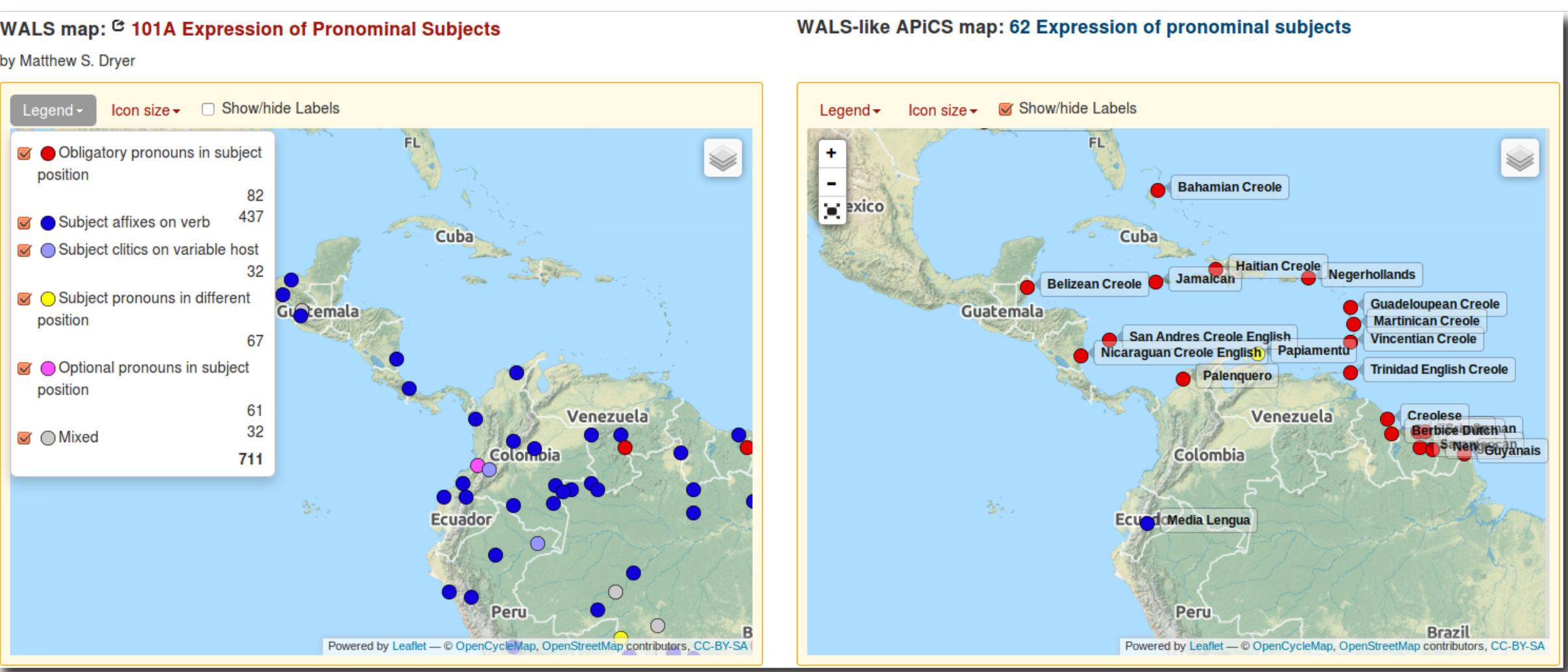
Example 25-96: Sentence

*Mindubala* Namij kolim dardaga.  
Mindubala Namij kol-im dardaga.  
1DU.EXCL. Namij call-TR plant.species  
'Namij and I (in our language, Ngarinyman) call it dardaga (an edible plant).'

Language: Contributor  
Kriol by Eva Schultze-Berndt and Denise Angelo cite

Feature: Pronoun conjunction Parameter  
Source: Fieldwork Schultze-Berndt Angelo et al. 1998a Source

## Comparing WALS and APiCS data pulled in as GeoJSON



## Unit – a Dictionaria word

### Unit caa

deer

the deer (Hoock Dictionary Dictionary)

#### Values

- semantic domain animal\_mammal
- semantic domain physical\_consumption\_food
- part of speech noun

Source Contribution  
Hoock Dictionary by Iren Hartmann cite

Unit Parameters

## Mission accomplished? – A week’s Visitors to Glottolog

