

*Language, Cultural Influences and Intelligence
in Historical Gazetteers of the Great War*
@muninn_project

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Digital Humanities Conference 2015

LODLAM

<http://rdf.muninn-project.org/ww1/2b460>

Reference URI

“Any data related to the Great War”

- owl:sameAs's It.
- owl:differentFrom It.
- skos:exactMatch It.
- skos:closeMatch It.
- skos:broadMatch It.
- subClass it, etc...

Problem definition

Previously reported Missing, now for official purposes presumed to have DIED in the attack on Vimy Ridge, April 9th, 1917.
11. LOCATION OF UNIT AT TIME OF CASUALTY
VIMY RIDGE OPERATIONS. 87th Bn. attacking from positions in S.20.B. to objective in S.22.a. Sheet 36c.S.W.

Figure: Circumstances of death of John Aaron

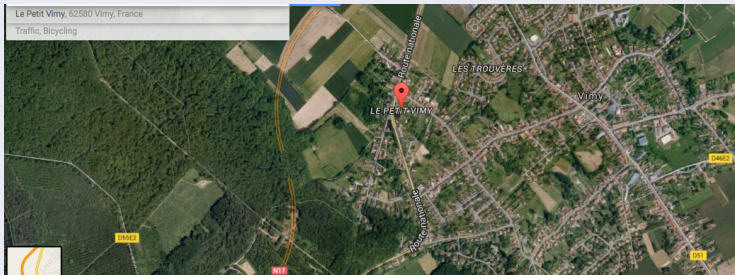
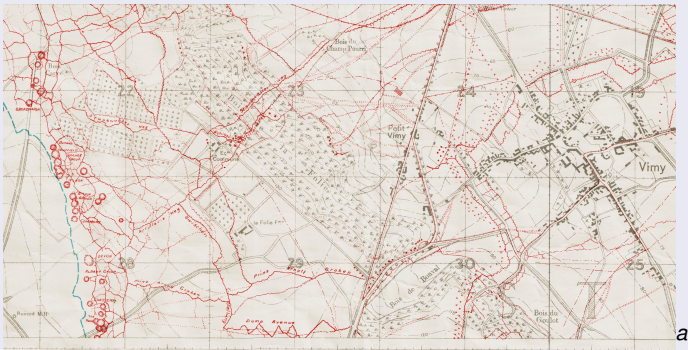


Figure: Vimy (Ridge) on Google

Vimy Ridge



^aFrom M001570, IWM

Missing Soldiers



Figure: Jumping off position at Squares 36C.S.20.b (left) and objective square 36C.S.22.a (right).

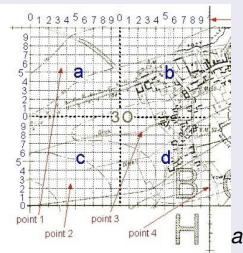
Imperial Grid On Metric Map



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

or

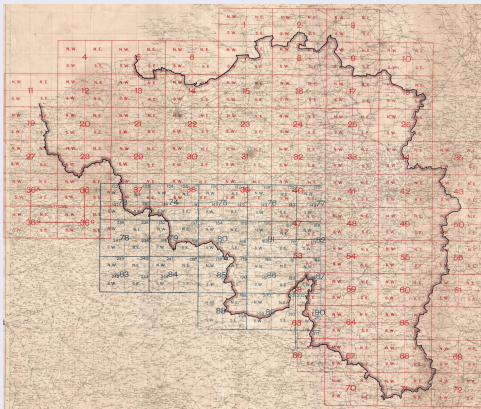
1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36



^a

http://www.westernfrontassociation.com/attachments/590_How%20to%20read%20read%20a%20Trenchmap-rev5.pdf

New Projections



a

^a??????, IWM

Calculating Origin

The screenshot shows the OpenStreetMap web interface. At the top, there's a navigation bar with the OpenStreetMap logo, 'Edit', 'History', and 'Export' buttons, a 'More' dropdown, and a user profile 'muninn_project'. Below this is a search bar with the text 'Where am I?' and a 'Go' button. The main content area is split into two panels. The left panel displays information for 'Node: 670188926', including a description 'Import repères géodésiques IGN France', edit history, and a table of tags. The right panel shows a map of a church labeled 'Eglise Saint Martin' with an orange circle marking a specific point. The map includes a scale bar for 10m and a street labeled 'Rue d'Oppy'.

OpenStreetMap Edit History Export More muninn_project

Search Where am I? Go

Node: 670188926

Import repères géodésiques IGN France

Edited about 5 years ago by [Eric S](#)

Version #1 · Changeset #[4176402](#)

Location: [50.3632522](#), [2.8716374](#)

Tags

description	Clocher : Centre croix - Point vu en place en 2002
ele	91.9
man_made	survey_point
note	Ne pas réinstaller ce

10 m

Rue d'Oppy

Eglise Saint Martin

Where does the Belgian grid start?

- *Supposed* to start at the Uccle Observatory in Brussels, which moved.
- $50^{\circ}25'0.0006''$, $4^{\circ}22'12.6978''$ ([4]), or $51^{\circ}10'06.895''$, $4^{\circ}22'05.89''$ ([3]), $50^{\circ}24$, $4^{\circ}22'5.89''$ (NGI, [2]).
- $50^{\circ}23'57.2418''$, $4^{\circ}22'10.0518''$ after exhaustive search, thank you to Bill Frost and Pierre Voet.

Make it useful

- Create an API; ideal integration point between systems.
- Small app for human beings.

Converter (Human Readable)

Great War British Trench Map Coordinates Converter



(Still Experimental - Not working on IE.)

[La Capelle, France](#), [Vimy Ridge, France](#), [Passendale, Belgium](#)

Enter the coordinate string using dots to separate the elements (eg: 57c.I.11.d.5.6):

The centroid of grid location 36C.S.22.a is at 50.3773, 2.7733.



[http://rdf.muninn-project.org/
TrenchCoordinates.html](http://rdf.muninn-project.org/TrenchCoordinates.html)

Very Old Data is still useful.

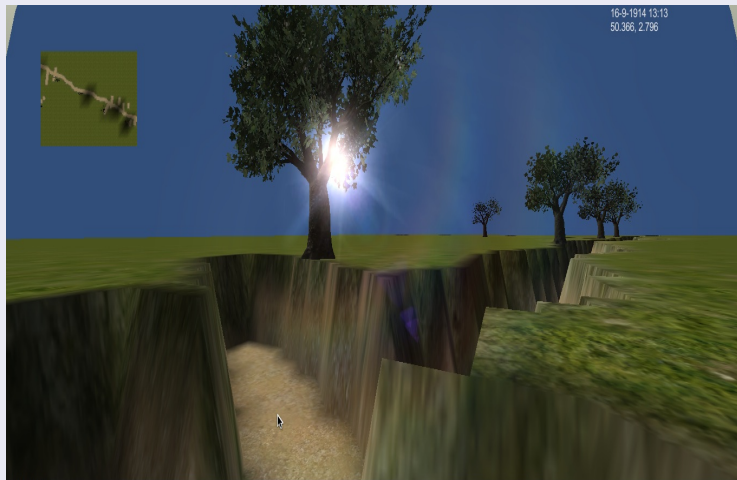
36c.S.18.d.2.5

Submit Query

The centroid of grid location 36c.S.18.d.2.5 is at 50.3821, 2.8037.



Very realistic simulation



Print your own battlefield

Print your own Battlefield

posted by  [m4farrel](#) on  [Fri, 03/27/2015 - 11:11](#)

The Muninn Project aims to programmatically recreate scenes of historical events using [Linked Open Data](#) - and with the ever-increasing availability of high-quality 3D printers, we are motivated to 3D-print these scenes. In this particular post, we will talk about how to 3D-print a battlefield: the trenches of Vimy Ridge. We believe that 3D-printed models of battlefields, such as the trenches of Vimy Ridge, could be quite useful to archeologists & other individuals studying past historical events, namely the [Battle of Vimy Ridge](#). We will discuss how to retrieve 90m-resolution elevation data inside a bounding box from the [Shuttle Radar Topography Mission \(SRTM\)](#), how to scale & project it with the [Geospatial Data Abstraction Library \(GDAL\)](#) and also how to convert it to an [STL file](#) that can be 3D-printed; we will also discuss how to retrieve lists of trench coordinates from the Muninn Project's [SPARQL server](#), and how to extrude trenches on our model of Vimy Ridge before 3D-printing it. Lastly, we will discuss issues regarding the size & resolution of our model of Vimy Ridge and suggest how we might improve the quality of our model in the future. Thanks to Lawrence Willett for letting us use his 3D printer.

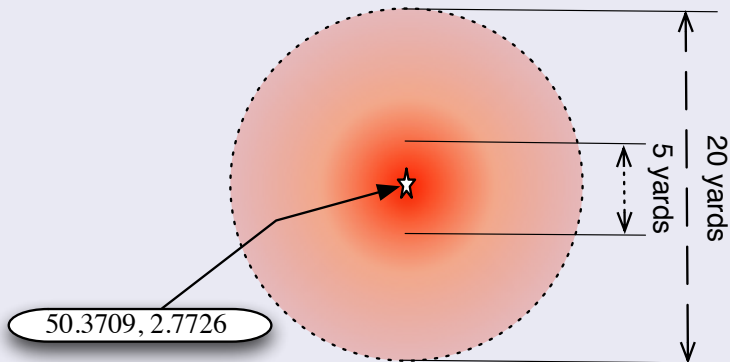


In order to 3D-print a battlefield, we first need to determine its bounding box. Currently, the Muninn Project's SPARQL server provides lists of trench coordinates for Vimy Ridge contained in (2.70251452076269, 50.0620220454661, 2.75071474125368, 50.0722188449797). We chose to 3D-print a model of the trenches of Vimy Ridge that lie inside of this bounding box.

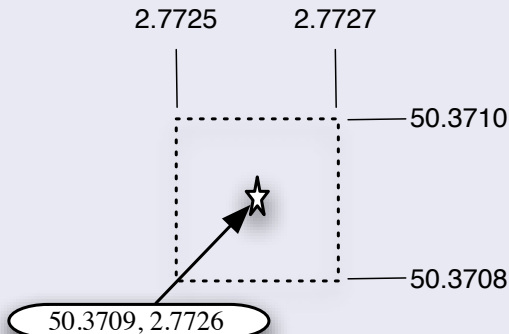
After determining the bounding box for our battlefield, we need to retrieve the elevation data inside of it. We've built [software](#) - written in a modern descendant of Scheme known as [Racket](#) - that allows us to retrieve raster images of elevation data inside of bounding boxes. Our software also allows us to [UTM-project](#) and scale our raster images to 1m resolution, necessary in order for us to extrude trenches on a 3D-printable model of our battlefield; we use GDAL behind the scenes. Here is a projected & scaled raster image of elevation data for our model of the trenches of Vimy Ridge:



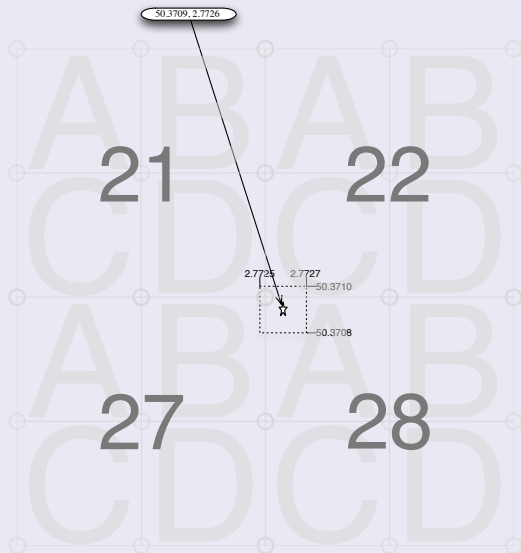
A point in space (and time)



A point in space (and time)



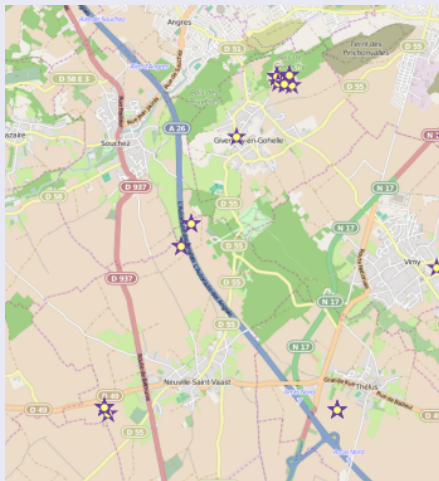
A point in space (and time)



German Systems (#2 out of 20!)



Vimy Ridge



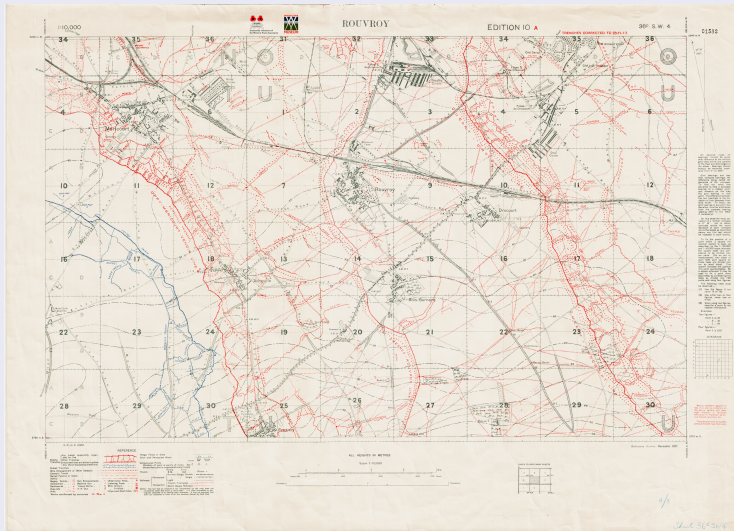


Figure: IWM, M_001582

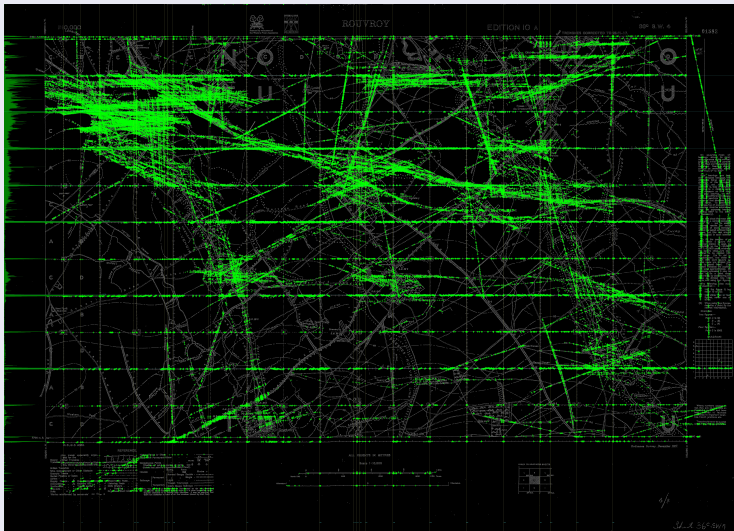
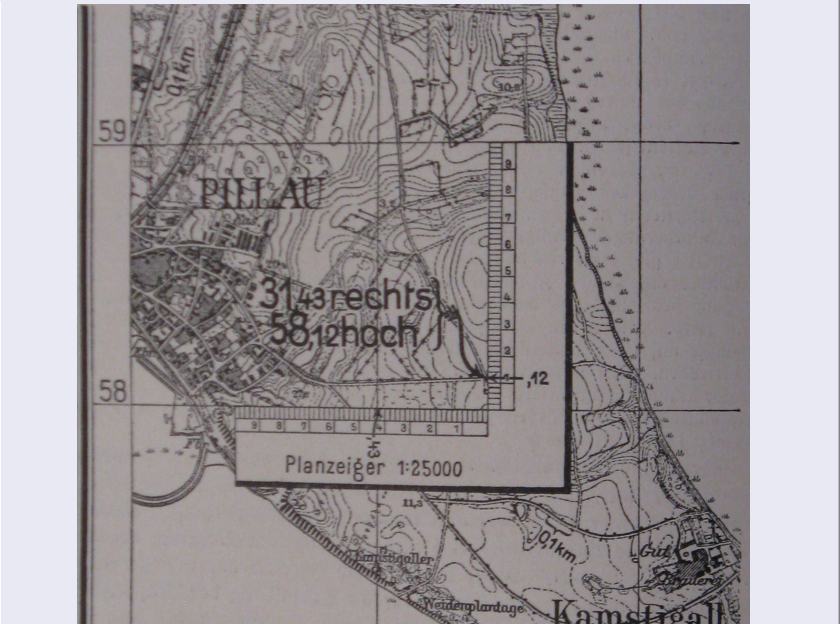
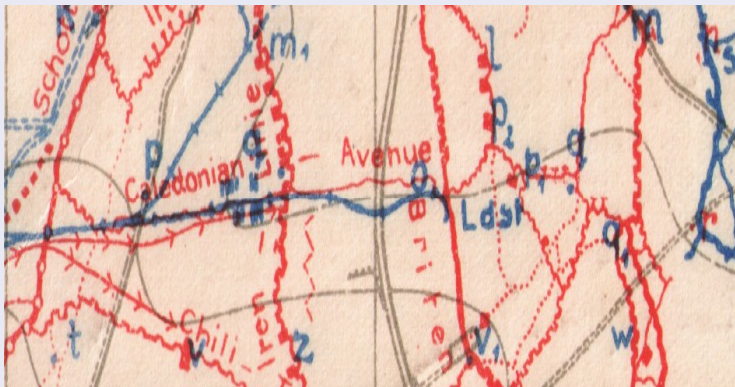


Figure: Probabilistic Hough Transform

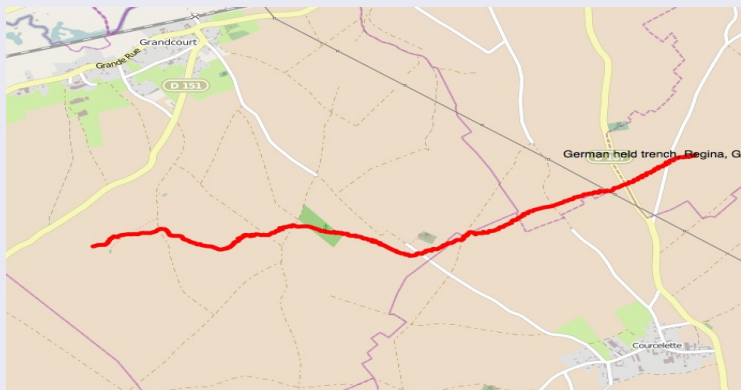
German Systems (#2 out of 20!)



Military Intelligence, a 100 years ago

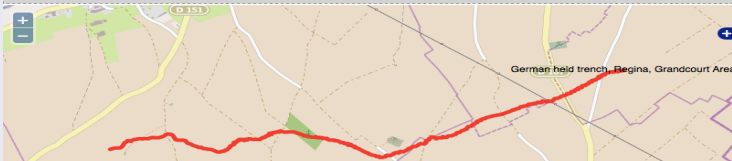


Regina

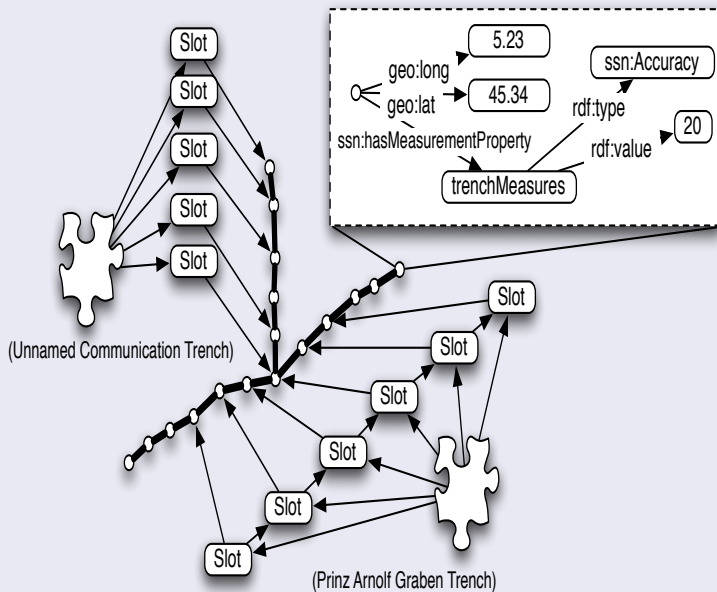


Regina

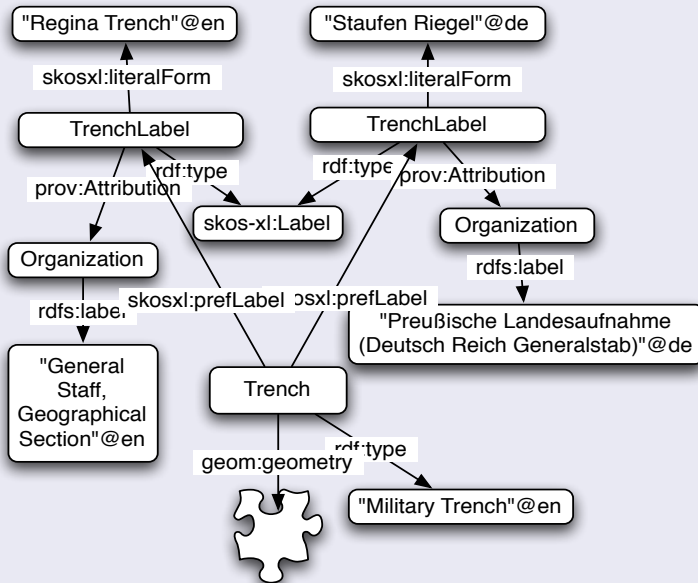
```
muninn-ww1:MilitaryTrench/5712bc467a2a3cf2e154b304adb4cc2f
→ rdf:type → mil:MilitaryTrench, time:TemporalEntity, http://geovocab.org/spatial#Feature
→ rdfs:label → "German held trench, Regina, Grandcourt Area"@en
→ owl:sameAs → dbpedia:Regina_Trench
→ time:hasDateTimeDescription → muninn-ww1:DateTimeDescription/f48c39552b0c7d810f5a59ea7fb9f2de
→ foaf:name → "Regina"@en
→ prov:wasGeneratedBy → muninn-ww1:Process/ReginaTrenchExtraction
→ prov:hadPrimarySource → muninn-ww1:map/f48c39552b0c7d810f5a59ea7fb9f2de
→ void:inDataset → muninn-ww1:Dataset/ReginaTrench
→ geom:geometry → muninn-ww1:Military/Geometry/5712bc467a2a3cf2e154b304adb4cc2f
→ http://www.w3.org/2008/05/skos-xl#prefLabel → muninn-ww1:AltLabel/5712bc467a2a3cf2e154b304adb4cc2f, muninn-ww1:PrefLabel/5712bc467a2a3cf2e154b304adb4cc2f
```



Trenches



Trenches



Kenora

muninn-ww1:MilitaryTrench/b7eb94407fa176b6bf92fa270994f33

→ rdf:type → **mil:MilitaryTrench**, **time:TemporalEntity**, <http://geovocab.org/spatial#Feature>

→ rdfs:label → "German held trench, Kenora, Grandcourt Area"@en

→ time:hasDateTimeDescription → muninn-

ww1:DateTimeDescription/f48c39552b0c7d810f5a59ea7fb9f2de

→ foaf:name → "Kenora"@en

→ prov:wasGeneratedBy → muninn-ww1:Process/ReginaTrenchExtraction

→ prov:hadPrimarySource → muninn-ww1:map/f48c39552b0c7d810f5a59ea7fb9f2de

→ void:inDataset → muninn-ww1:Dataset/ReginaTrench

→ geom:geometry → muninn-ww1:Military/Geometry/b7eb94407fa176b6bf92fa270994f33

→ <http://www.w3.org/2008/05/skos-xl#prefLabel> → muninn-

ww1:AltLabel/b7eb94407fa176b6bf92fa270994f33



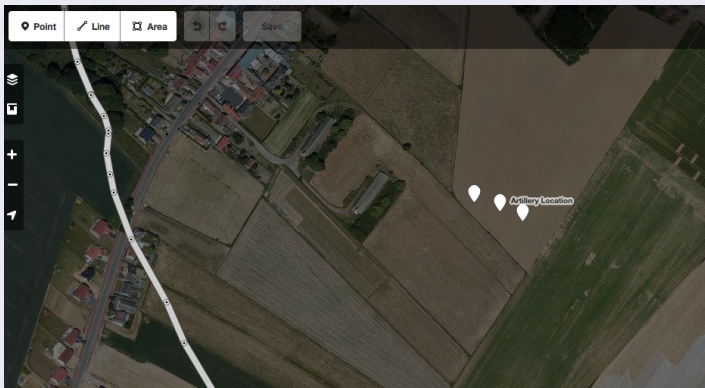
Great War Trenches Overlays



Moeuvres, France

<http://www.openhistoricalmap.org/?lat=50.16668&lon=3.053815&zoom=16&layers=H>

Great War Artillery Locations



Inchy-En-Artois, France

<http://www.openhistoricalmap.org/?lat=50.17405&lon=3.05191&zoom=16&layers=H>



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