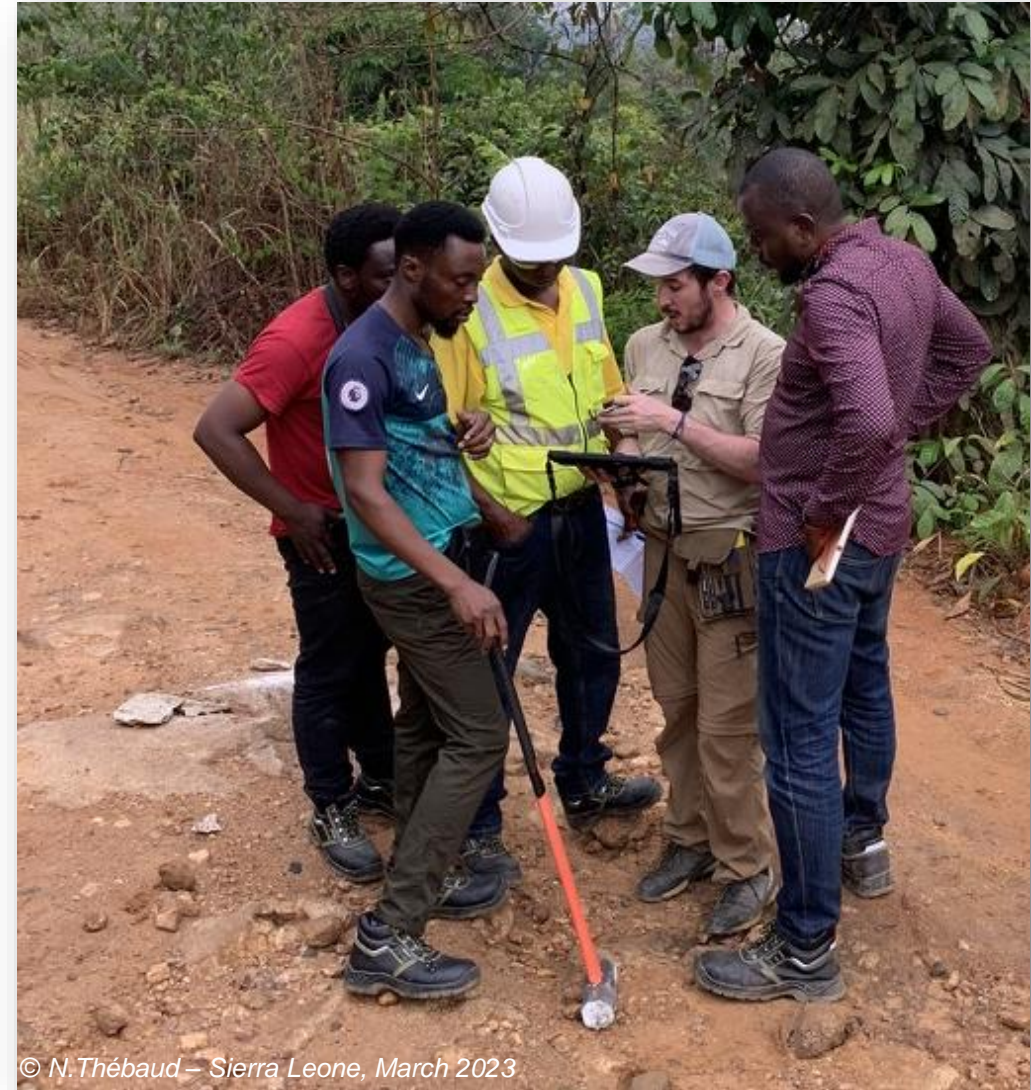


geogeeks

Towards the harmonization of digital field data entry for geological mapping: an in-house QGIS-QField-based template

Julien Perret (CET, UWA) - 05 July 2023

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Introduction

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04/03/23 Transsect GSB plus Nivara Koinu

200m

amphibolite
pegmatite
Mn sediments?
micaceous
Dt granite,
foliated

SL-8
SL-9
SL-10
6-TS
Fault 11

sample SL-8
SL-8 amphibolite
↳ photo
↳ some granite injection
along the foliation

SL-8 Regmatitic δ , contact? along foliation?
injections, photo
after - Amp, slight Amp limitation in the dip

SL-8 Dt- δ , foliated F00

SL-9 " " F00, photo
↳ sample SL-09

SL-9 Dt- δ , foliated, 800m from beginning

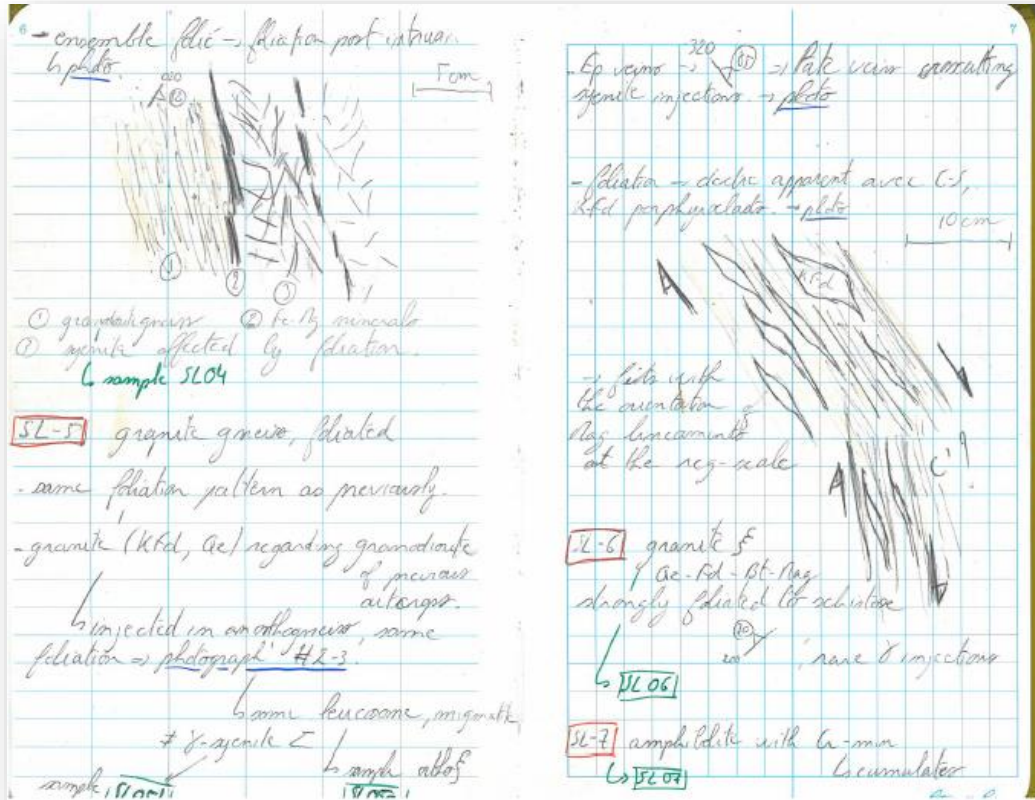
SL-10 big migmatitic gneiss, slightly foliated with + inclusions - amphibolite, basalt, some leucosome.
photo
↳ sample SL-10

Julien Perret's fieldnotes – Sierra Leone, March 2023

Conventional field data reporting uses pencil, paper and clipboard

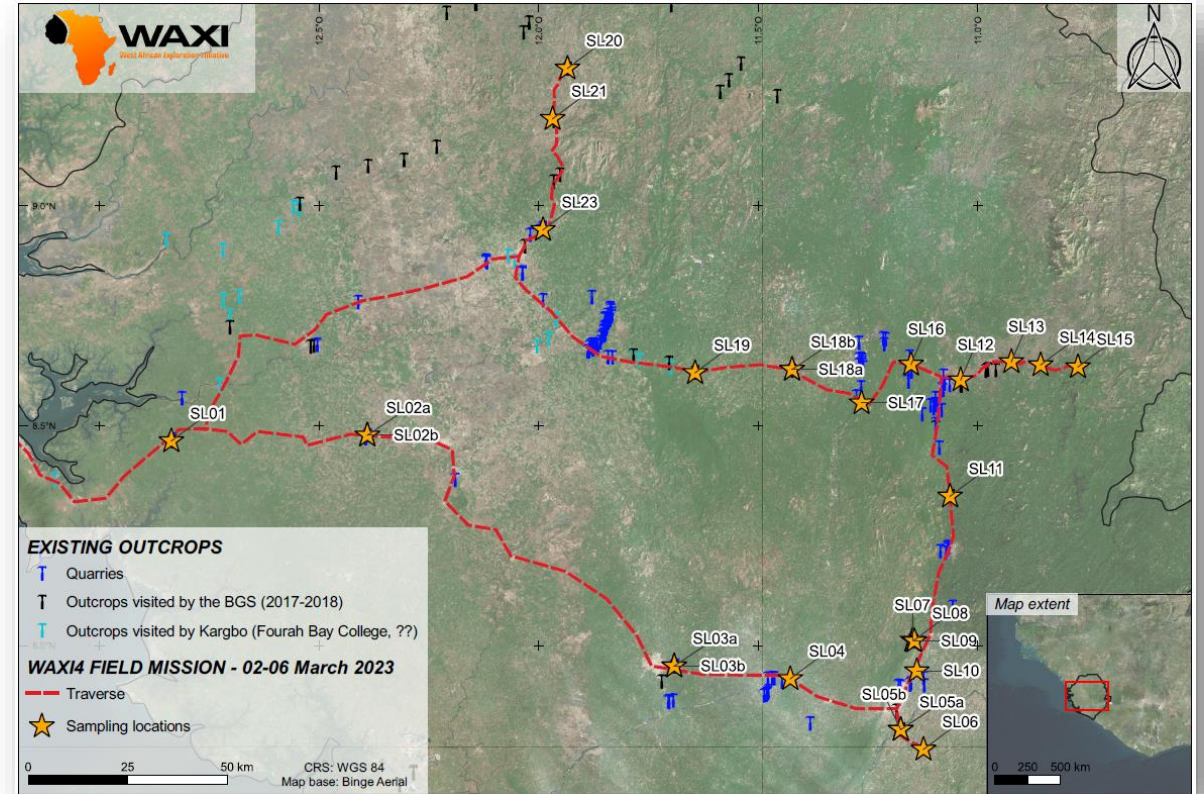
Introduction

Julien Perret's field notes – Sierra Leone, March 2023



From field notes...

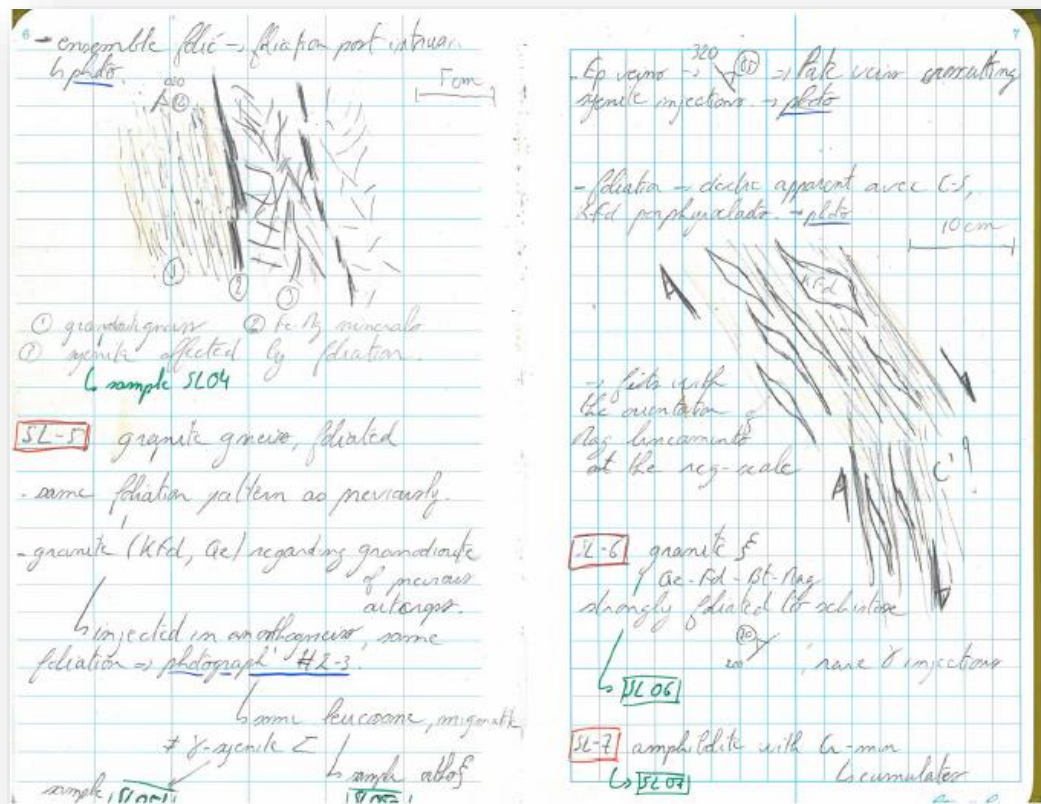
WAXI 4 – Sampling map, Sierra Leone field work, March 2023



... to georeferenced digital data

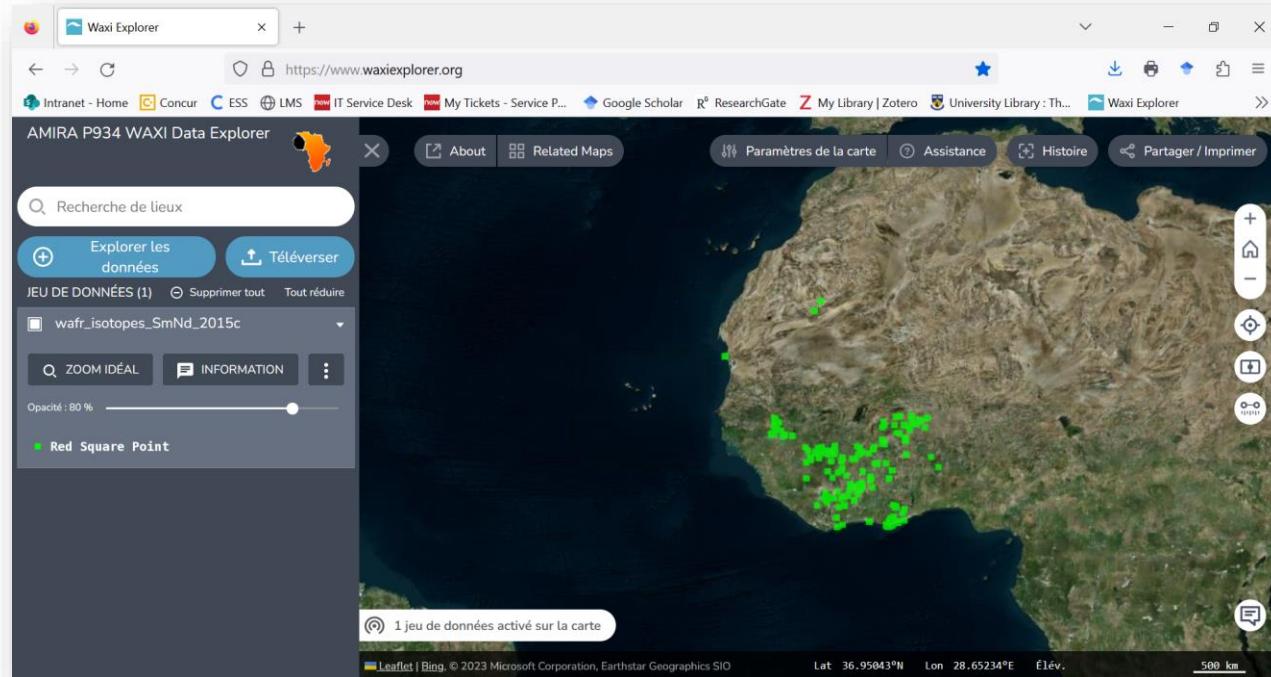
Introduction

Julien Perret's field notes – Sierra Leone, March 2023



From field notes...

A single group of geologists in a given location: easy process

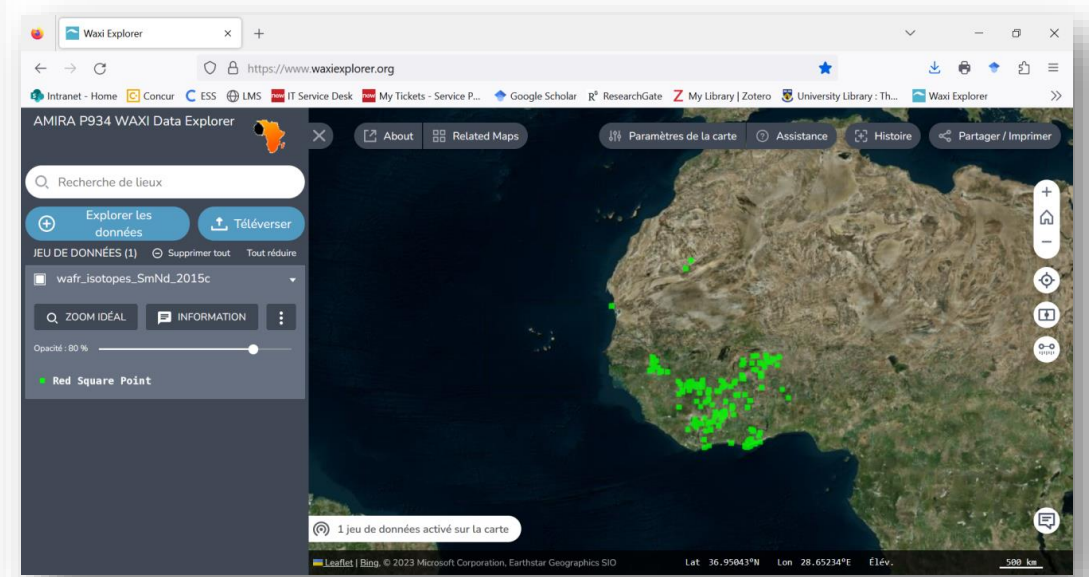


... to geodatabase building and sharing (Mark's talk)

Introduction



Several groups of geologists in different locations: much trickier process



... to geodatabase building and sharing (Mark's talk)

From field data reporting by different groups...

Introduction

Several groups of geologists in different locations: much trickier process

Need for a comprehensive template enabling the digital report of field data and favoring:

- ✓ a free, flexible and total control on the design of the field database,
- ✓ post-field processing significantly faster,
- ✓ much easier data compilation and data sharing with industrial and academic partners.

... to geodatabase building and sharing (Mark's talk)

From field data reporting by different groups...

Introduction

Several groups of geologists in different locations: much trickier process

Development of a GIS-based template for field data collection:

- ✓ facilitating **data compilation** into a GIS-based repository,
- ✓ **direct access on field to georeferenced data** when implemented in the project (geological / geophysical maps, former field work data, geochronological / geochemical datasets, *etc...*),
- ✓ **diminution of post-field processing time spent to edit and homogenise data**,
- ✓ **less georeferencing issues**, *e.g.*, missing GPS datapoints, misreporting of coordinates, missing CRS information, *etc...*

*From field data reporting
by different groups...*

Introduction



Introduction



FieldMOVE

- ✓ Points, lines and polygons,
 - ✓ sketching on photographs,
 - ✓ in-app clinometer,
 - ✓ user-friendly and flexible nomenclature,
 - ✓ expanded library of geosymbols.
- ✓ Export as CSV or KMZ files.



StraboSpot

- ✓ From field to lab data, a large range of observation scales,
 - ✓ collaborative platform,
 - ✓ export to QGIS or ArcGIS possible.
- ✓ Spots and tags, mostly convenient for structures.
- ✓ CSV files required to set up dropdown lists in data entry forms.



Mergin Maps

- ✓ Points, lines and polygons,
 - ✓ georeferenced pictures,
 - ✓ in-app clinometer,
 - ✓ offline editing and online cloud sync desktop/mobile device/geodatabase,
 - ✓ QGIS-compatible.
- ✓ Cost of licences.

Introduction



Arc Field Maps

- ✓ ESRI support to customise a project the most convenient way,
 - ✓ collaborative platform,
 - ✓ direct sync to ArcGIS.
- ✓ **Cost of licences.**



QField

- ✓ Free, easy to share with partners,
 - ✓ flexible to set up / optimise,
 - ✓ collaborative platform (QFieldCloud),
 - ✓ direct sync to QGIS.
- ✓ Need for QGIS know-how and a fair amount of time to properly set up and customise attributes form and edit styling.

Proposed template – Demo

- ✓ Blank QGIS project and related files – last release = v1.1 ([Zenodo repository](#))
- ✓ Extra options *via* the [WAXI_QF QGIS plugin](#) developed by Mark Jessell

July 5, 2023

Workflow Open Access

WAXI4 - A QGIS/QField template for harmonised field data collection

Perret, Julien

Research group(s)

West African eXploration Initiative (WAXI) – Stage 4 Research Group

The provided archive file contains:

- a tutorial .pdf presentation (i) explaining the workflow to customise/edit the core QGIS project template, export it as a QField package ready to use on the field and post-processing syncing to QGIS desktop, and (ii) providing details about attribute forms of field data entry shapefiles available. Two files are available, one with full page slides and hypertexts and the other with notes,
- a folder containing the QGIS project and related files customised for field data collection,
- a .docx file providing updates of the different releases of the QGIS template project.

Preview

Files (40.0 MB)

| Name | Size |
|---|---------|
| WAXI4 - QFIELD-QGIS BLANK TEMPLATE FOR FIELD DATA COLLECTION_v1.1.zip | 40.0 MB |

md5:50d26b12888ffd4fea23cc78a7d85e0d

Citations

161 views 80 downloads

Indexed in

OpenAIRE

Publication date: July 5, 2023

DOI: [10.5281/zenodo.8115360](https://doi.org/10.5281/zenodo.8115360)

Keyword(s): QField, QGIS, Digital field data collection, West African eXploration Initiative

License (for files): Creative Commons Attribution 4.0 International

WAXI_QF Public

Edit Pins Watch 1 Fork 0 Star 0

main 1 branch 0 tags

Go to file Add file Code

About

QGIS plugin to support WAXI usage of QFIELD

Readme MIT license Activity 0 stars 1 watching 0 forks Report repository

Releases

No releases published Create a new release

| File | Commit | Time |
|-------------------------------|----------------|-------------|
| markjessell Update dialog.png | 7880e06 | 4 hours ago |
| __pycache__ | initial commit | last month |
| help | initial commit | last month |
| i18n | initial commit | last month |
| scripts | initial commit | last month |
| test | initial commit | last month |
| .gitattributes | Initial commit | last month |
| .gitignore | add .gitignore | last month |
| LICENSE | Initial commit | last month |
| Makefile | initial commit | last month |
| README | Initial commit | last month |

Now it's your turn!

Feel free to join the team: give it a try and provide us with feedback!

- ✓ Execution at the office: are the tutorials straight-forward enough to facilitate the combined use of QGIS desktop and QField app?
- ✓ Execution on the field: what could be improved to make your QField experience more user-friendly and/or more efficient?
- ✓ Accuracy and comprehensiveness of attribute forms:
 - ✓ any missing information you would like to add as an attribute? Any missing attribute form?,
 - ✓ what items could be added/deleted in drop-down lists? What are your preferred nomenclatures to describe textures, structures, deformation patterns, *etc...*?

FEEDBACKS FROM DIFFERENT USERS ARE NOW NEEDED AND WILL GREATLY ASSIST IN IMPROVING THE TEMPLATE!