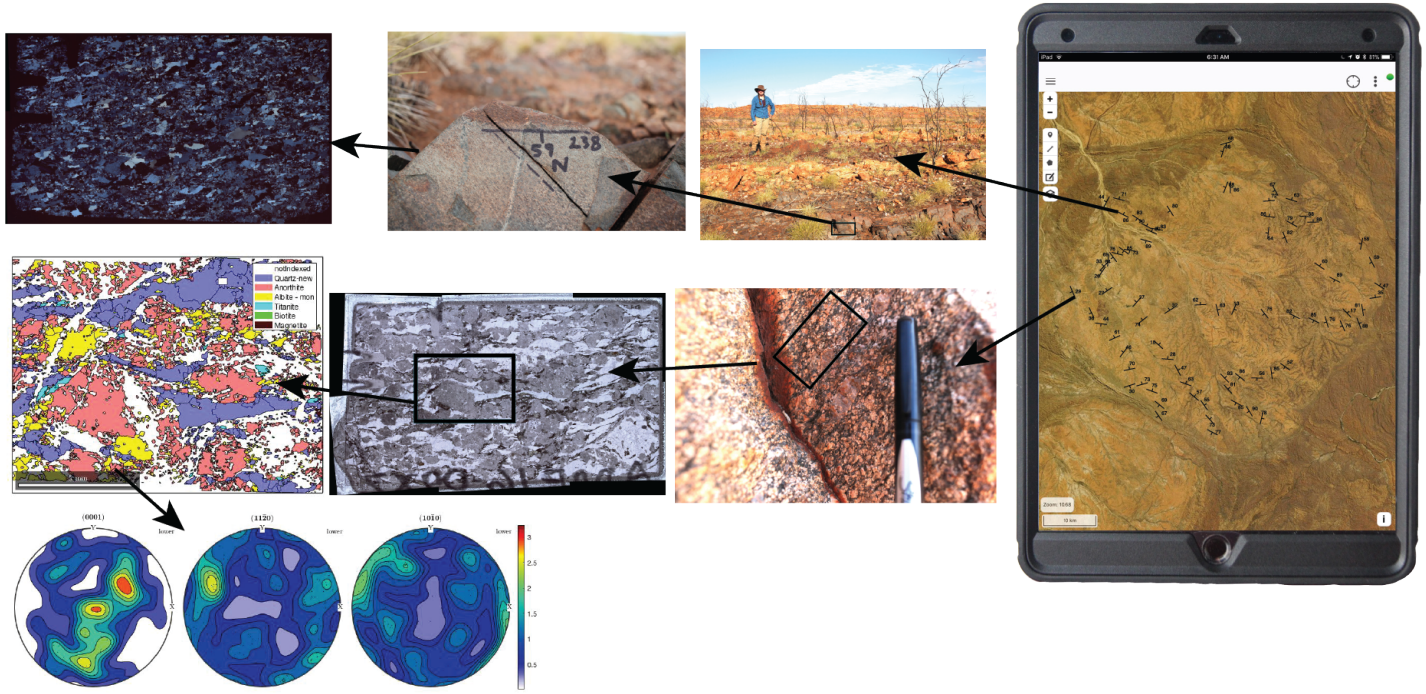
StraboSpot Data System – An Update

- Little bit of review
- Keeping track of Spots: Nests (Spatial) and Tags (Conceptual)
- Capabilities – Disciplines engaged in StraboSpot
  - Quick updates on petrology, sedimentology, experimental rock mechanics, microstructures/thin section
- Moving on to StraboSpot 2.0

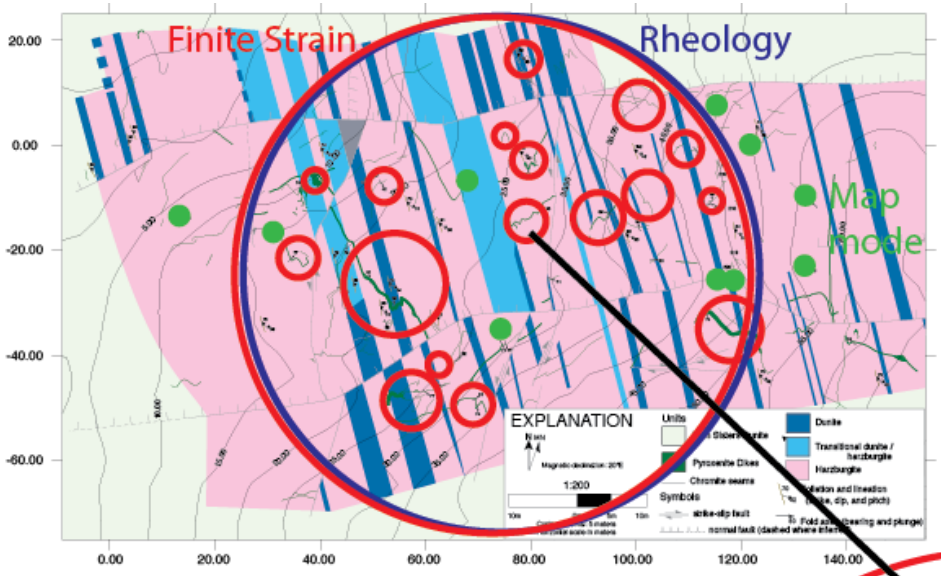
CC BY

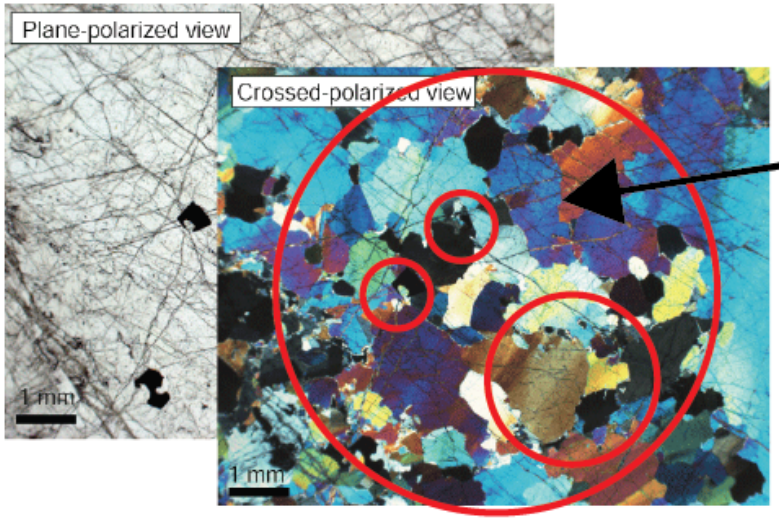
StraboSpot Uses Spots

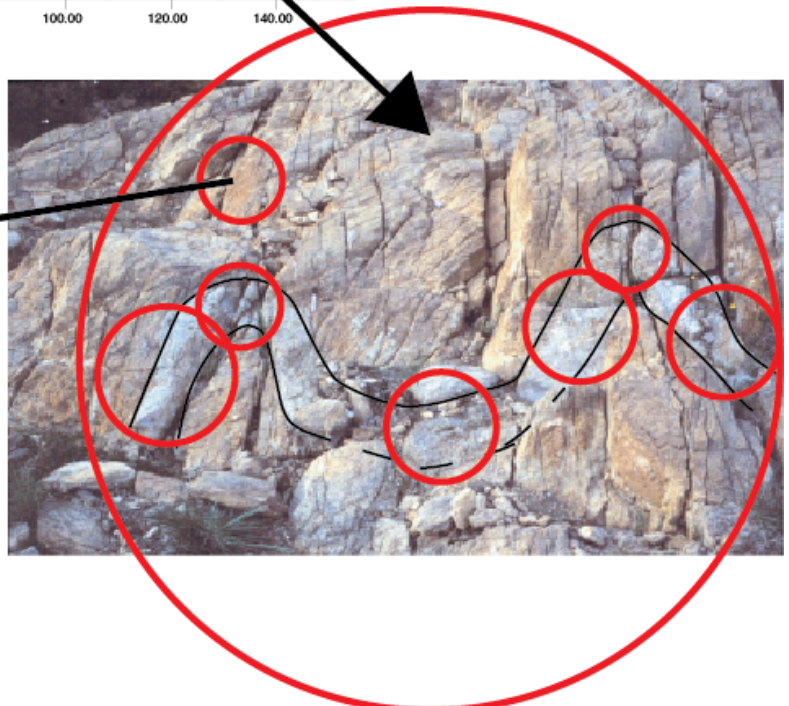
A Spot can contain a single measurement or an aggregation of individual measurements to characterize a geologic feature or interpret a geologic concept



Spots are spatially hierarchical

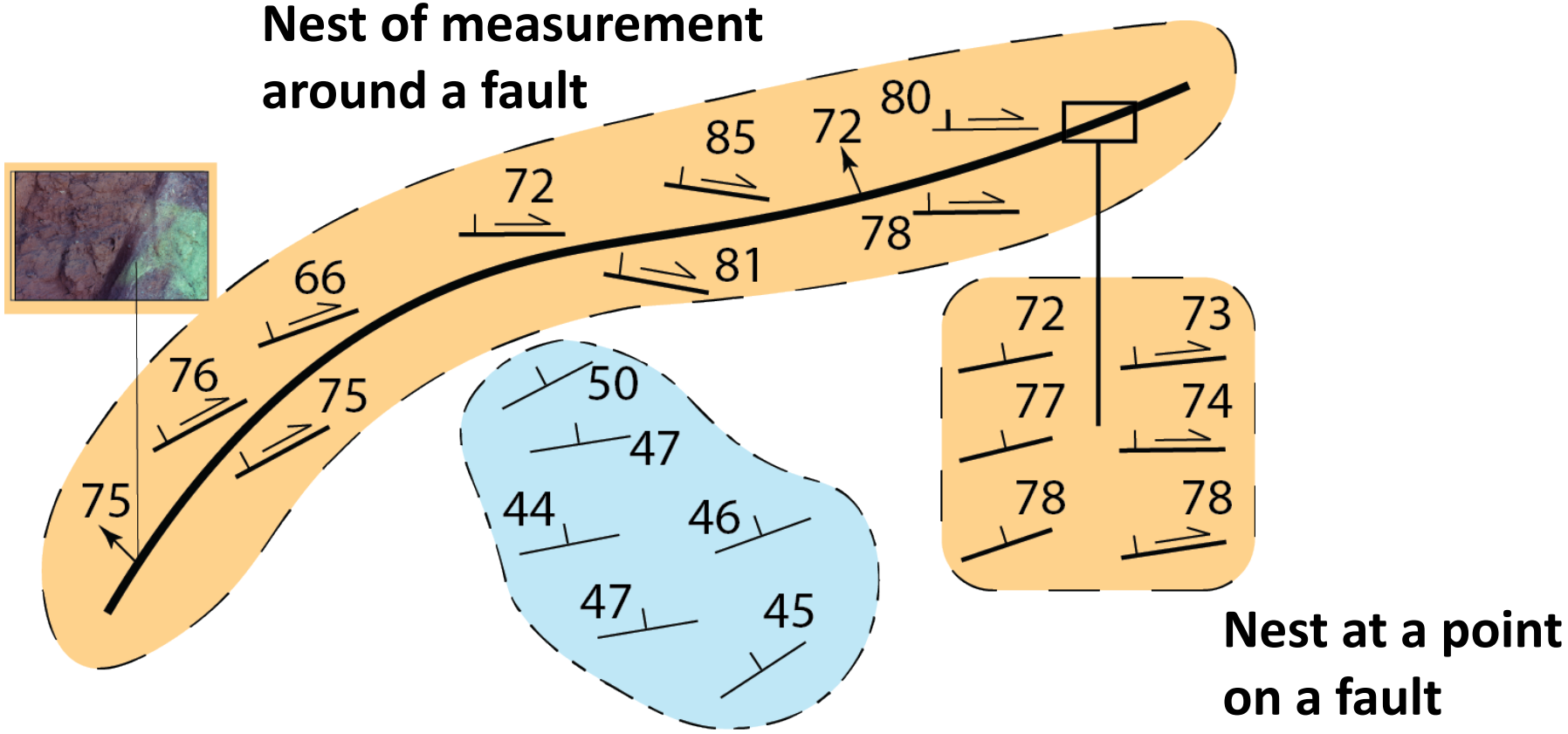






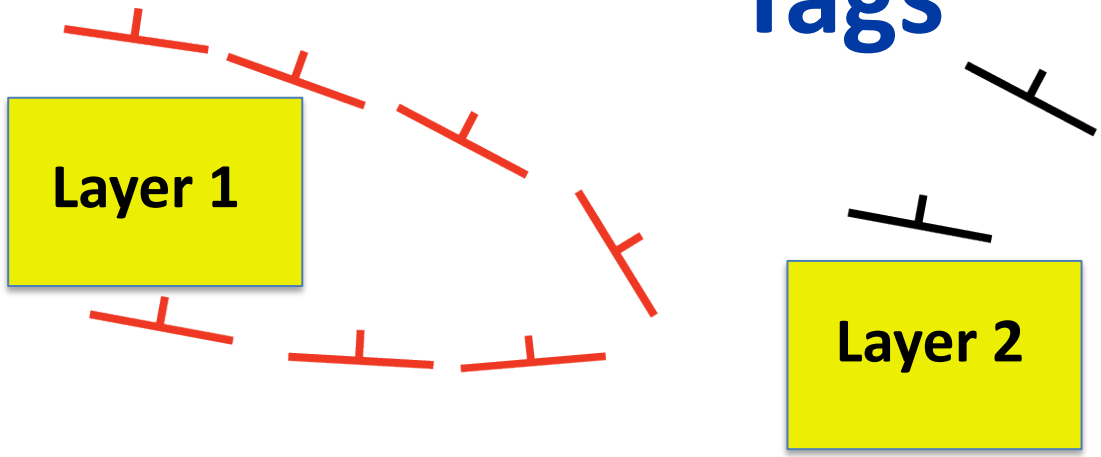
Spots can be Nested

A Nest is a spatial grouping of spots

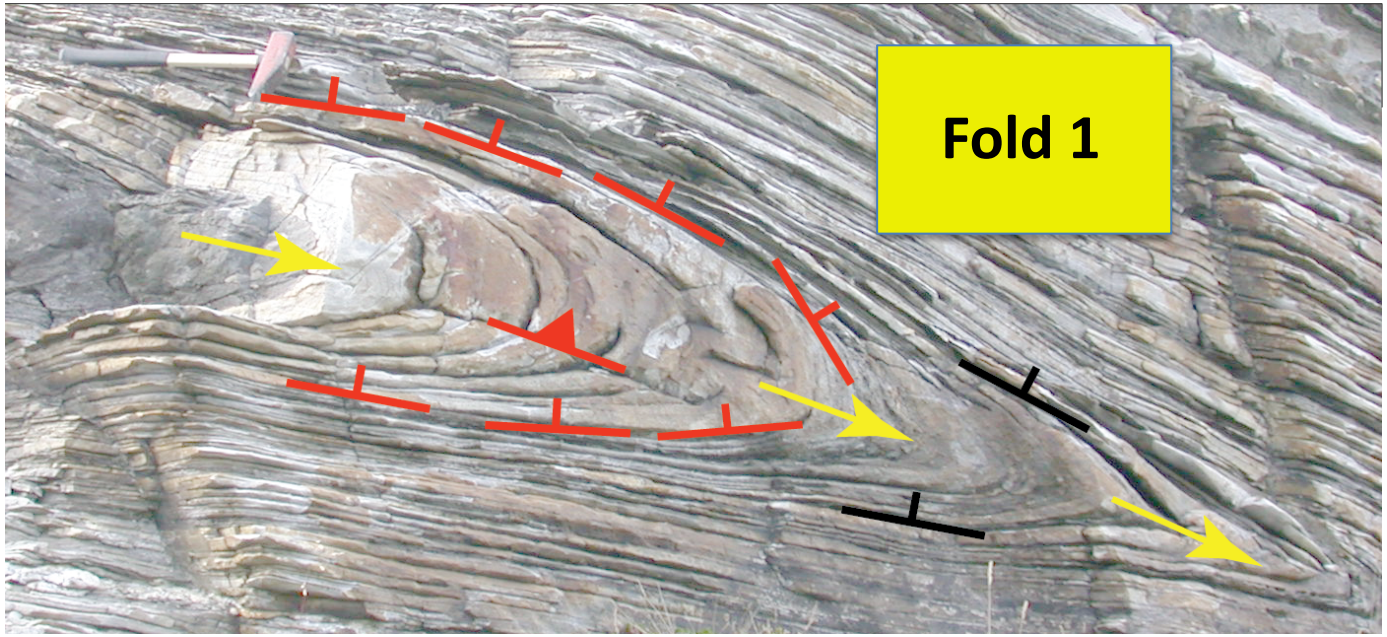


Spots can be grouped logically:

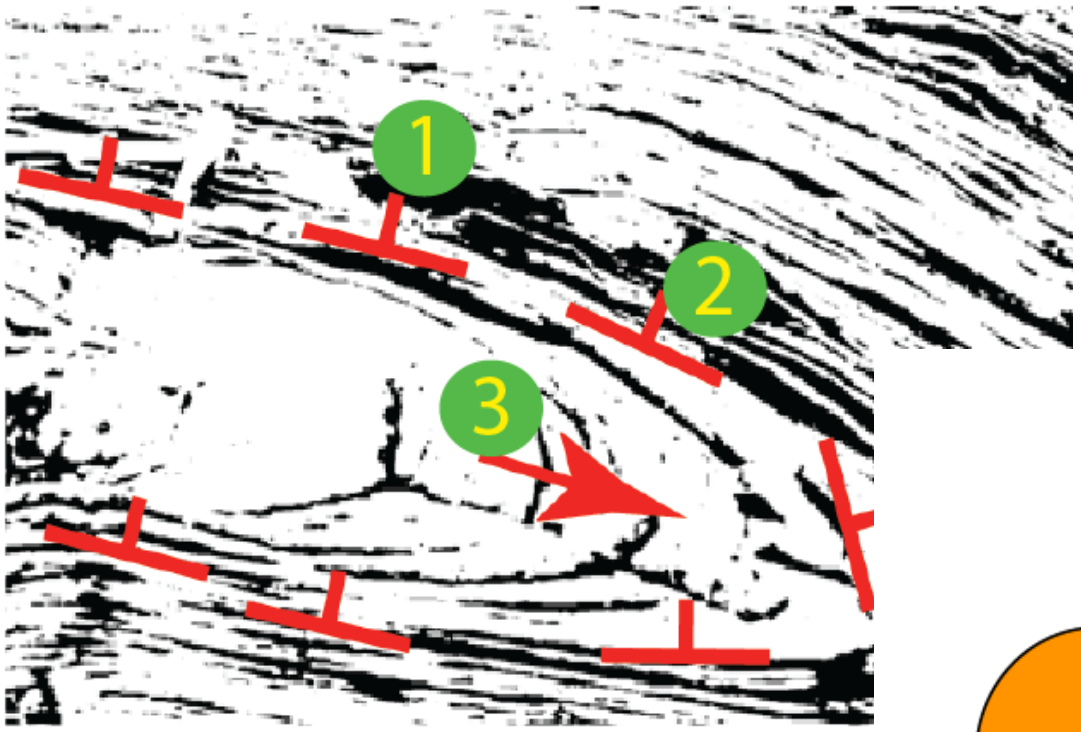
Tags

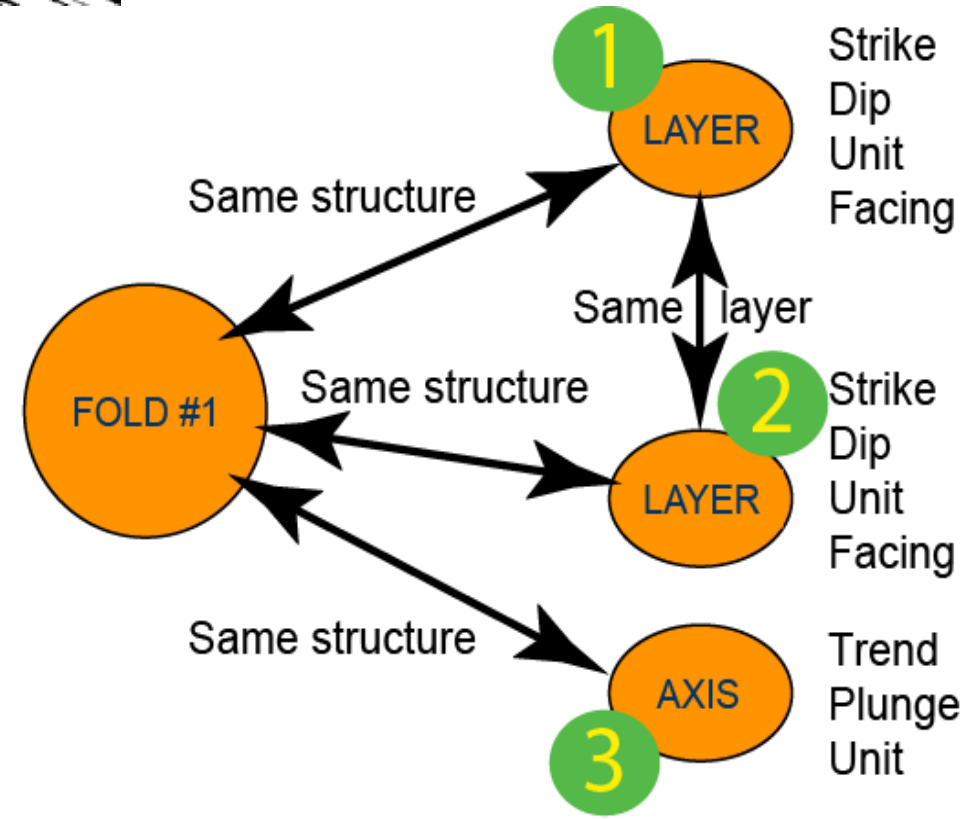


Tags act like sticky notes on Spots or Multiple Spots



Graph approach of StraboSpot





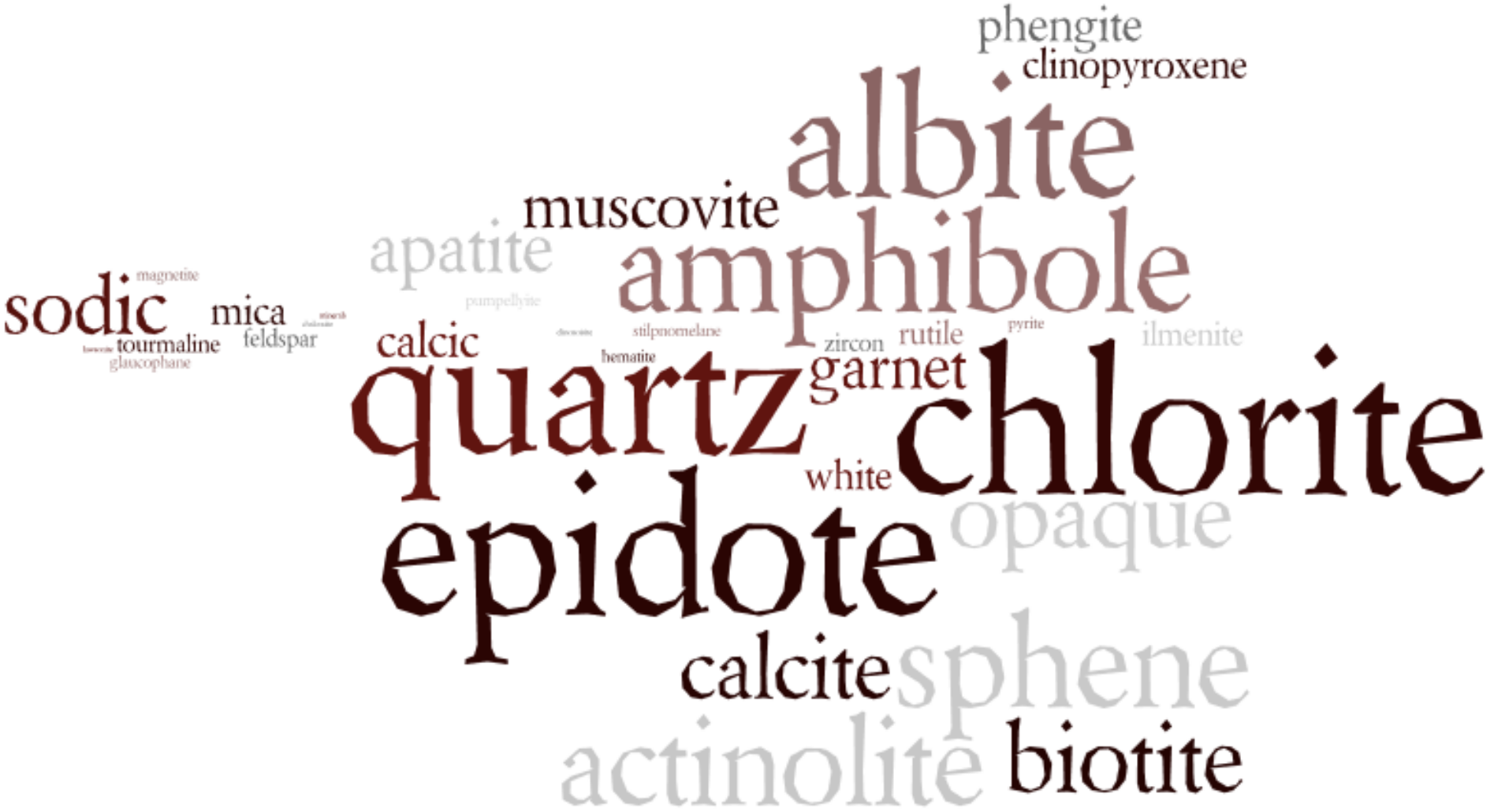
Capabilities

- Geological field mapping
- Structural geology

- Petrology
- Sedimentology
- Experimental rock mechanics

- Thin section (micrograph)
  - Utilized by most geological disciplines

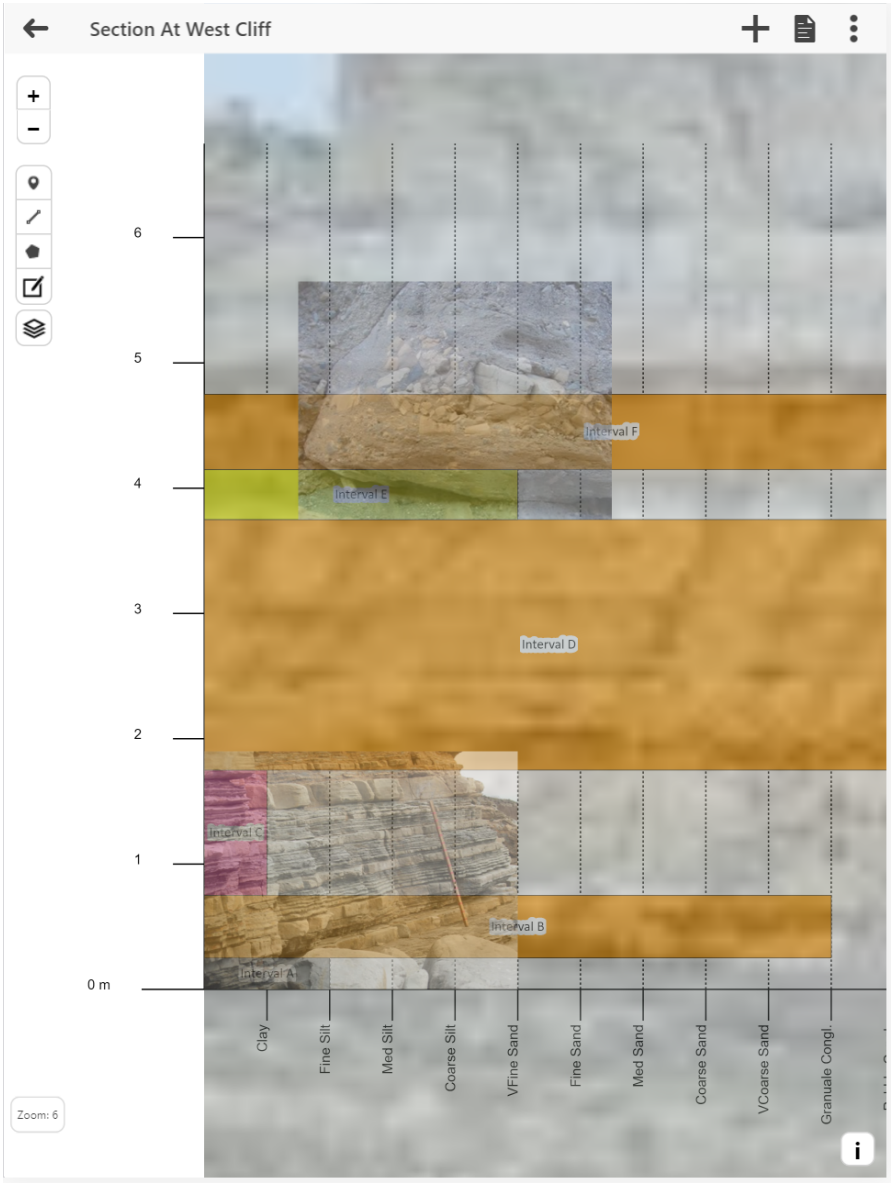
iPad
iPad
Tag
Tag
Strabo Mobile
12:49 PM
90%
mindat.org
Adobe PhoneG
YouTube
Outlook Web App
Lawrence, KS
Dolomite: Dolo
Amphibole S



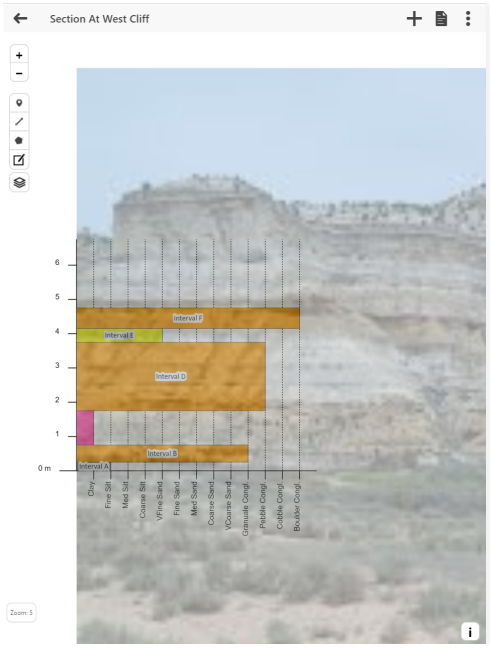
Got it!

...thorne et al., $B_2C_5T_8W_2$. On ...with the same symbol as elements and we use X rather than B. Z

Strat Mode



Integrate measurements of stratigraphic sections with all forms of documentation and images. Produce schematic sections recognizable by practitioners.

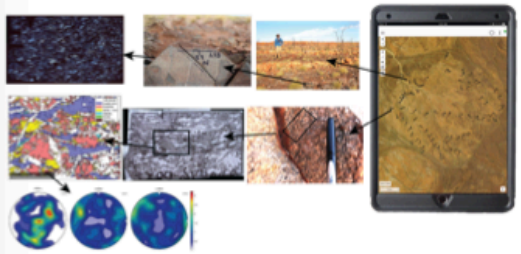


StraboSpot expands to Laboratory Data

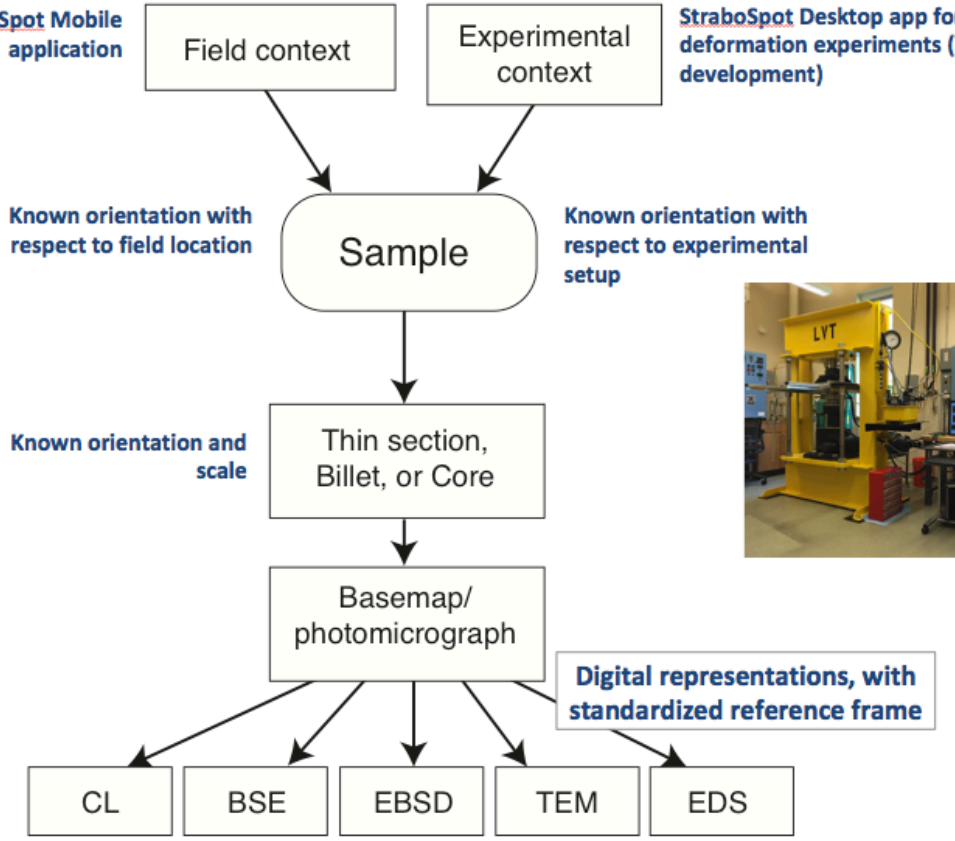
microstructural data

experimental data

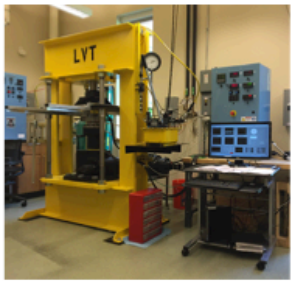
StraboSpot Mobile

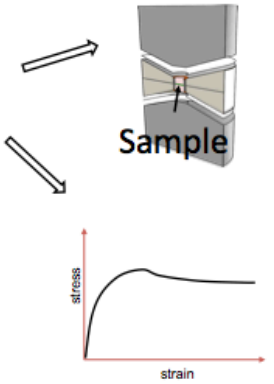


Natural samples are linked to their geologic context (deformed under natural conditions of P,T,σ,ε,ε̇...)



Experiments are linked to their mechanical data and experimental metadata





EPOS (European Plate Observing System)

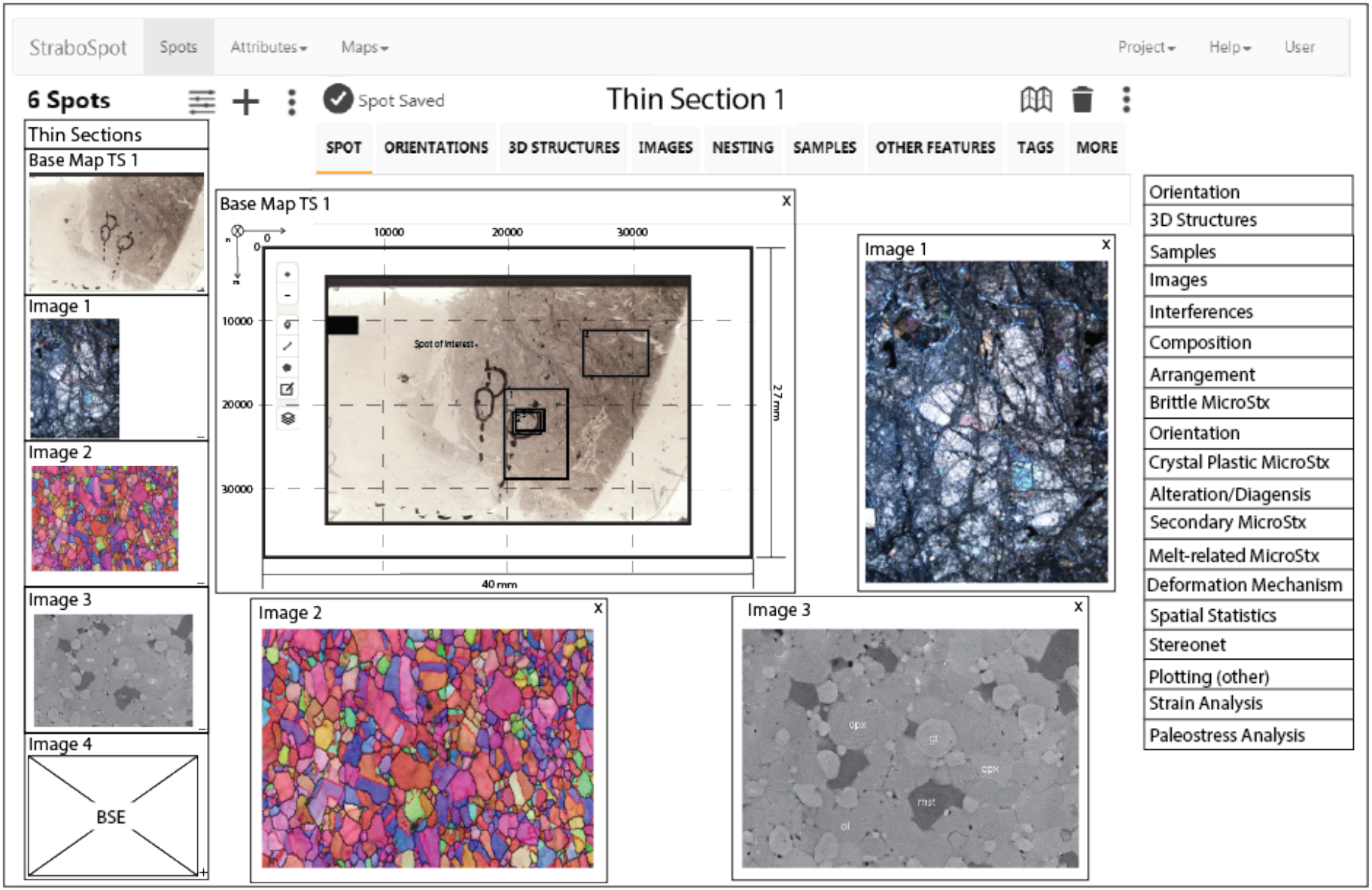
The EPOS initiative will require all European labs to use an EPOS approved header on their data files.

1. EPOS includes an initiative for experimental rock deformation (but not microstructures).
2. Researchers provide to EPOS key terms that can be used to find their data. But, EPOS does not store the values of that data. Therefore, EPOS will not be searchable for results or experimental conditions.
3. EPOS (led by Dr. Audrey Ougier-Simonin) – aided by the StraboSpot team - have developed a vocabulary used for experimental rock deformation.

EPOS
EUROPEANPLATEOBSERVINGSYSTEM

Looking for synergy

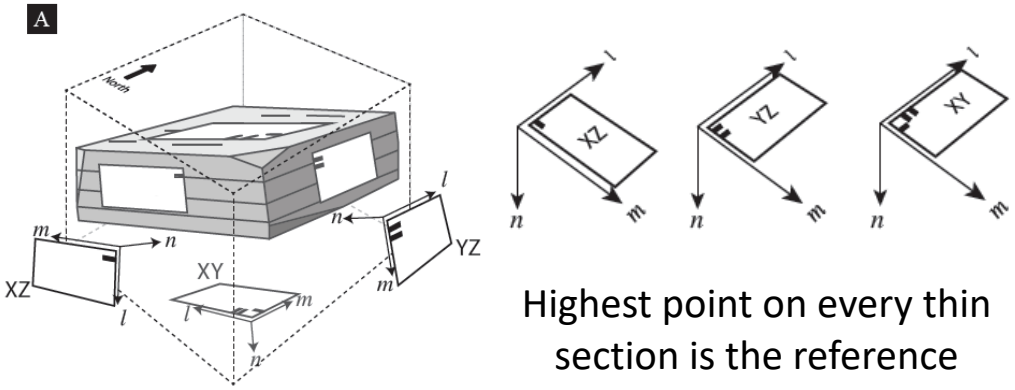
Micrograph (thin section) workspace



Track orientation and scale from field to laboratory

Orientation

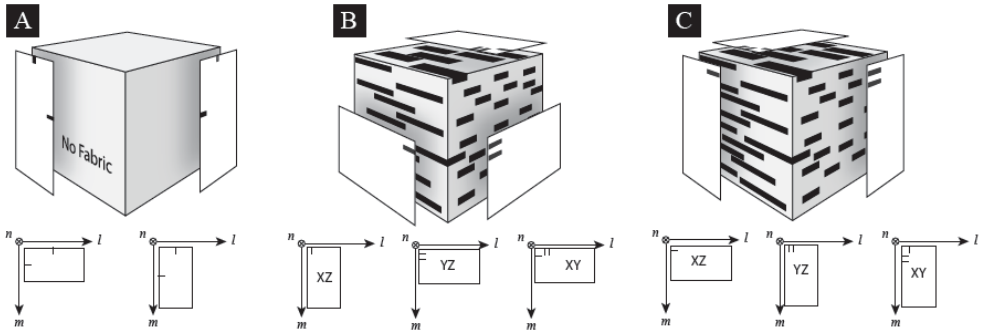
Geographic reference frame



Highest point on every thin section is the reference corner

Fabric reference frame

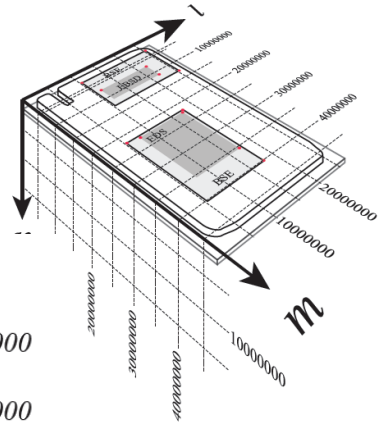
The notch system

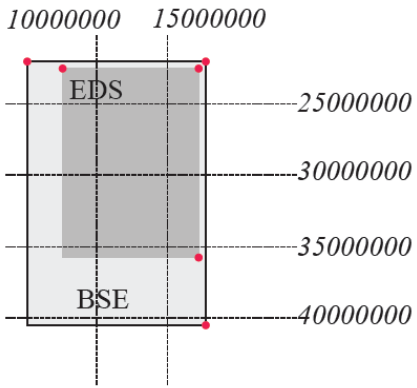


Scale

The grid system

UTM-style gridding system

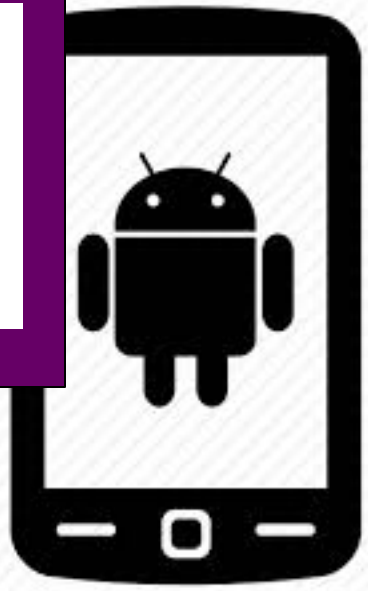




- Digital representation of sample is the basemap

(Tikoff, B., Chatzaras, V., Newman, J., Roberts, N. A universal system for orienting thin sections. Submitted to Journal of Structural Geology.)

Development Efforts



Verizon LTE 2:00 PM 50%

Add A Plane

LABEL

If a label is not specified a default label will be give

STRIKE

58.85

DIP DIRECTION

148.85

DIP

19.25

PLANE FACING

Orientation of plane relative to original position e.g., upright, overturned, vertical

PLANAR MEASUREMENT QUALITY

How well was this plane exposed or measured?

PLANAR FEATURE TYPE

Type of planar geologic feature: e.g., bedding, contact, foliation, fracture, vein, shear zone

MOVEMENT AMOUNT (M)

How much movement?

PLANAR FEATURE THICKNESS (M)

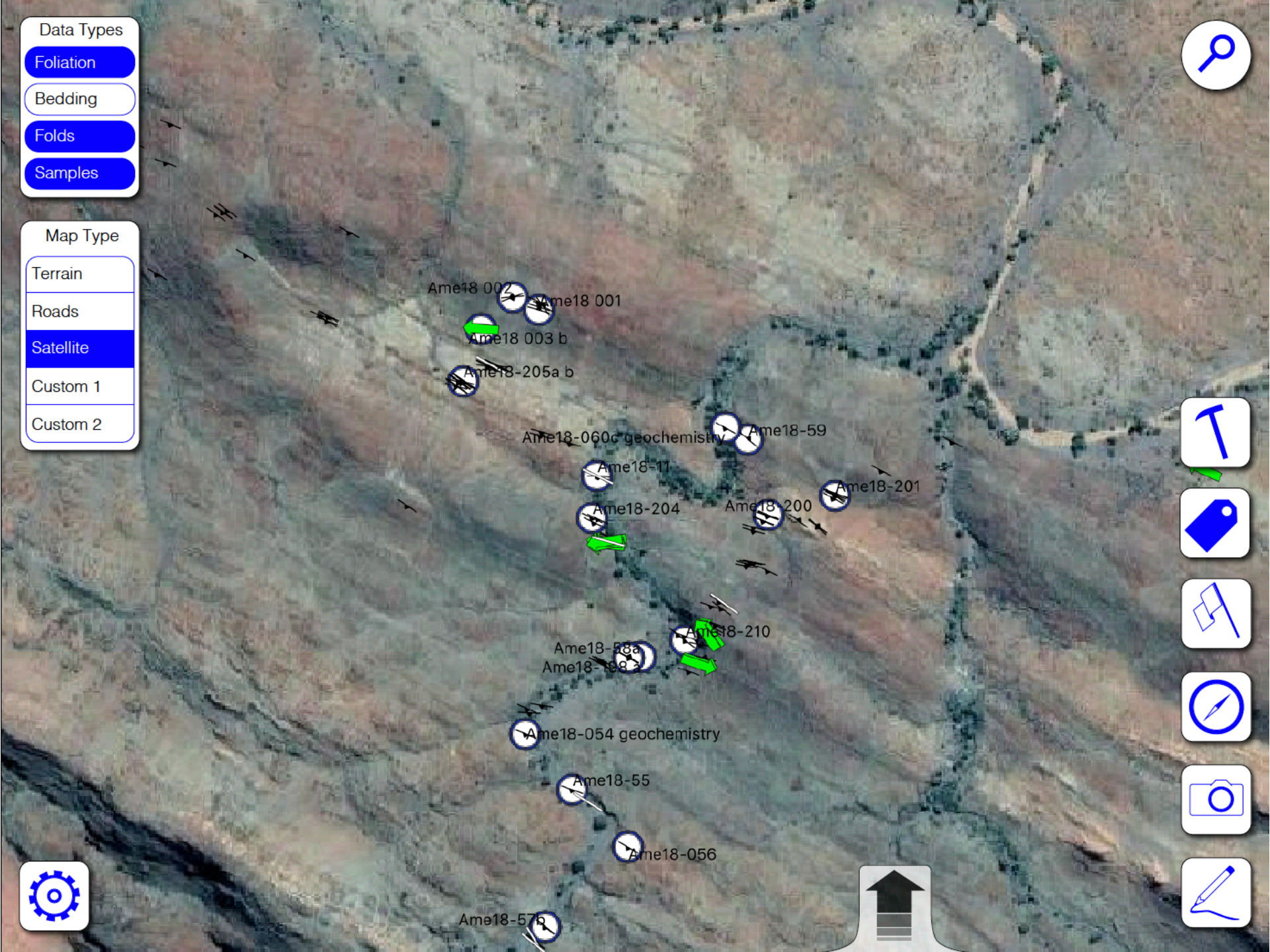
Development Efforts

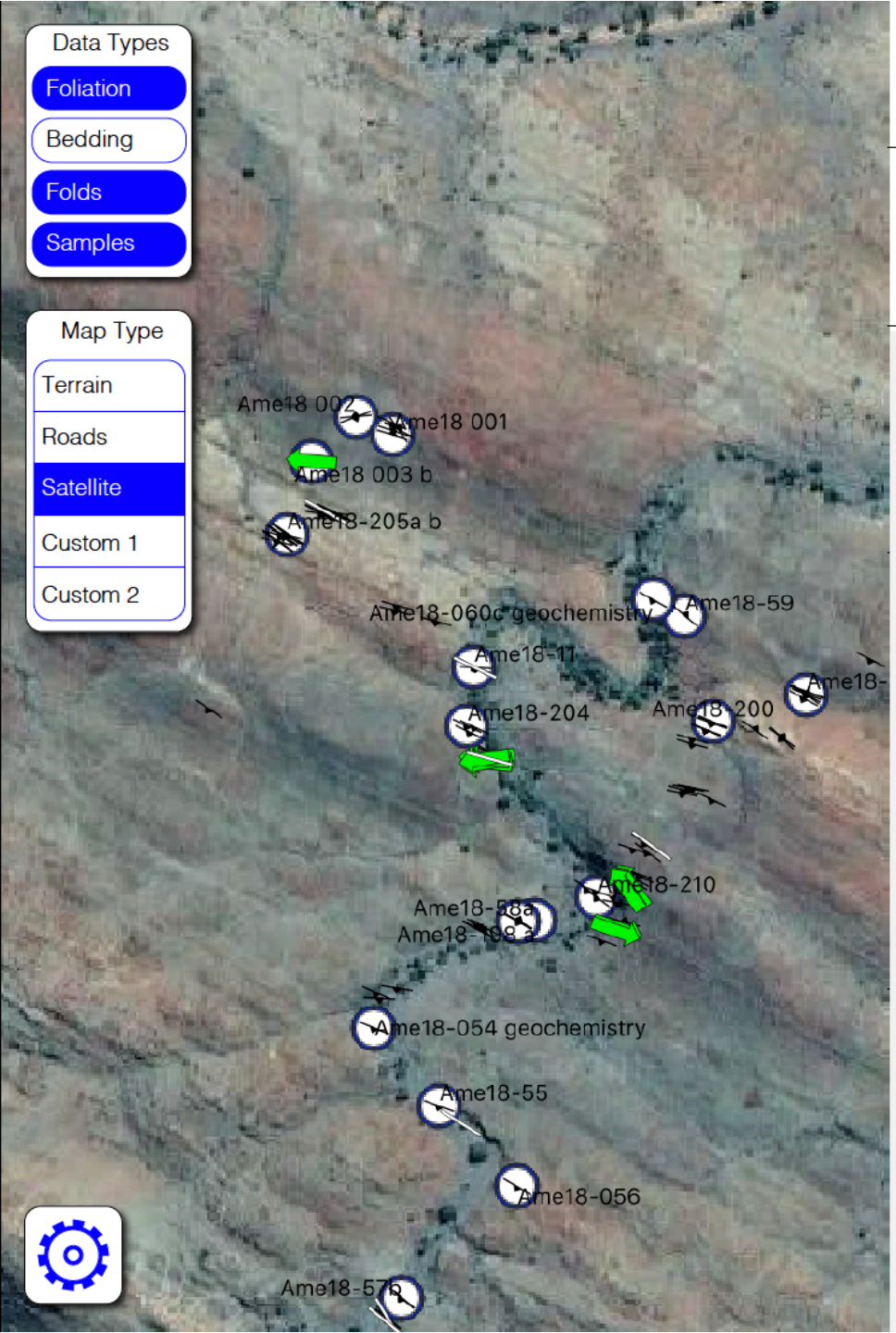
iOS

React Native

Swift

Redux-Persist


Data Types
Foliation
Bedding
Folds
Samples
Map Type
Terrain
Roads
Satellite
Custom 1
Custom 2
Ame18 001
Ame18 003 b
Ame18-205a b
Ame18-060c geochemistry
Ame18-59
Ame18-11
Ame18-201
Ame18-204
Ame18-200
Ame18-210
Ame18-054 geochemistry
Ame18-55
Ame18-056



18BT-126

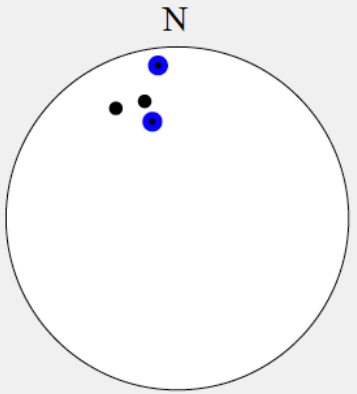
Done

Location

N 35.677432°
E -89.526312°

New Measurements

Line | Line + Plane | Plane



080 / 72 S
087 / 86 S
075 / 79 S gneissic foliation
079 / 76 S gneissic foliation

Schistosity

Schistosity
Planar Schistosity

gneissic foliation

Data Types

- Foliation
- Bedding
- Folds
- Samples

Map Type

- Terrain
- Roads
- Satellite
- Custom 1
- Custom 2

Ame18 002
Ame18 001
Ame18 003 b
Ame18-205a b
Ame18-060c geochemistry
Ame18-59
Ame18-11
Ame18-204
Ame18-200
Ame18-210
Ame18-054 geochemistry
Ame18-55
Ame18-056
Ame18-57b

18BT-126

Done

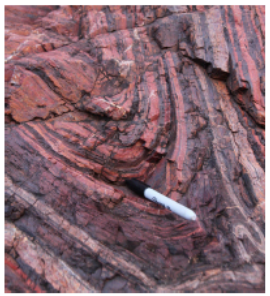
Location

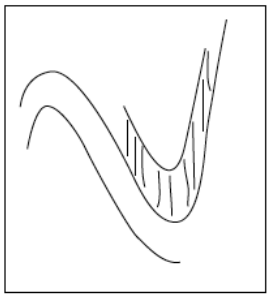
N 35.677432°
E -89.526312°

Notes

2:30 PM 10 m by 10 m pavement of striped gneiss, with several sheared pegmatite veins.

Pictures and Sketches





Measurements

135 / 23 SW	72SE	gneissic foliation/lineation
033 / 85 SW		fracture

mapbox

Map Warper

Home | Browse All Maps | Browse Rectified Maps | Find Maps by Location | Upload Map | Browse All Mosaics | Find Mosaics by Location | Add Mosaic | Abo

Signed in successfully.

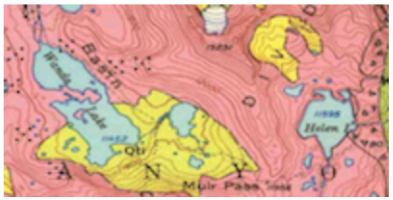
Overview

Search Title for Year 1500 2023 SEARCH All maps Rectified

STRABOSPOT

LOGGED IN AS: JDWALKER@KU.EDU (LOGOUT)

HOME ABOUT ACCOUNT API STRABO-APP SEARCH HELP



The StraboSpot My Maps interface allows you to upload your own custom GeoTIFF map files for inclusion in the StraboSpot mobile and desktop apps. Files are accepted in .tif rectified GeoTIFF format up to 500MB in size. The preferred coordinate system for uploaded files is WGS 84. If another coordinate system is provided, the file will be automatically converted which may result in undesirable map appearance.

My Maps

Add New Map

	Map Name	Map Code	File Size	Upload Date
VIEW | DELETE	32897.tif	5b76fa340da13	41.941386 MB	2018-08-17 11:39:17.161595-05
VIEW | DELETE	32636.tif	5b76f461a7b2f	318.987671 MB	2018-08-17 11:14:34.782325-05

Droning On

STRABON
(M.Ö.63-M.S.21)
DÜNYANIN İLK COĞRAFYACISI. M.Ö. 63'TE AMASYA'DA DOĞDU. VARLIKLI BİR AİLENİN ÇOCUĞUYDU. İYİ BİR EĞİTİM GÖRDÜ. GENÇ YAŞINDA AMASYA'DAN AYRILDI. TARİH, COĞRAFYA VE FELSEFE ALANINDA DÜNYADA SÖZ SAHİBİ OLDU. BU KONUDA HÂLÂ KAYNAK OLARAK KULLANILAN ESERLER YAZDI. ÖMRÜNÜN SON 27 YILLIK KISMINI "BENİM MEMLEKETİM" DEDİĞİ AMASYA'DA GEÇİRDİ. M.S. 21'DE AMASYA'DA ÖLDÜ.
STRABON
B.C 63-A.D 21
He was the first geographer of the world. He was born in Amasya in B.C 63. He came from a rich family so he got a good education. When he was young he left Amasya. He became a prominent person on history, geography and philosophy. He wrote many books which are used as reference books today. He spent his last 27 years in Amasya where he called"my hometown". He died in Amasya in A.D 21.

Thanks