

Empirical Software / Scripting  
 Python — Tool Building  
 Monica Building

LIANG Feb 25, 2000

Geographic Analysis & Statistics

SPATIAL Analysis  
 SCATI  
 Where to  
 Put  
 Current Curriculum?

QUESTION  
 with what  
 PREPARED  
 Do you  
 expect  
 your  
 IN G.S.

Geographic Analysis  
 CLASS?

LIANG Research  
 Analyzing SOCIAL MEDIA  
 Geospatial DATA TO  
 Look AT  
 SPATIAL PATTERNS OF COMMUNICATION  
 During NATURAL HAZARDS  
 Storms, Floods, FIRE, EARTHQUAKE  
 RESEARCH  
 Looking AT Human Location PATTERNS  
 using SOCIAL MEDIA PATTERNS  
 People moving Along Roads  
 NETWORK

KART LANDSCAPE  
 USING R.S. RESEARCH

CEPT KART AREAS

- ① Puerto Rico <sup>Forest</sup>
- ② CHINA South China  
 NATIONAL Reserve Areas

LS &  
 DIVERSITY  
 ONE TERRAIN LANDSCAPE

KINET of world - P. in. B. in

Ky - MAMMOTH CAVE  
SOUTH CAROLINA

FLA - SINK HOLE TERRAIN

MAFAGASCAN "SINK HOLE"

U.K. SOUTH BRITAIN

ASIA - SOVIET CHINA: TONKIN KINETS

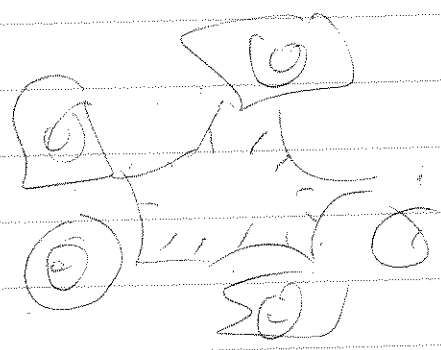
↓  
HOME TERRAIN

Puerto Rico - COAGULATED / SOUTH TERRAIN  
Depression & hills  
'SOUTH' 'RESIDUAL'

THICK CARBONATE DEPOSITS

TERRAIN ANALYSIS OF COAGULATED TOPS WITH R.F.

STAIR-STEP TERRAIN



- AMMO-TERRAIN

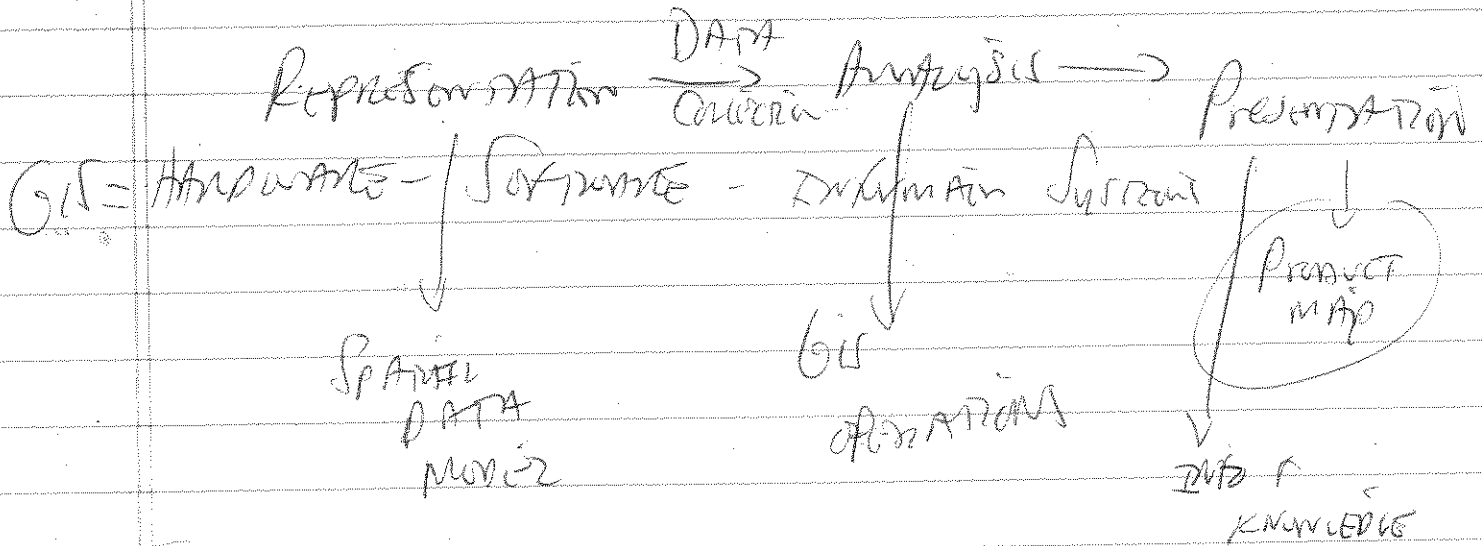
- DENSE VEG  
Cover

- SOUTH  
VALLEYS

ANALYSIS OF TOPOGRAPHY  
A. Vegetation Assessment  
USE OF REMOTE SENSING

VEG. INDICES

# Topo In Kuerst in VB.



Praxis  $\rightarrow$  IDEAS

QUESTION???

HOW DOES THE RAINFALL HARVEST HELPING COME BETWEEN

China as  
POWER  
RICO

CHINA  
↓  
precip???

P.R.  
~~PRECIP~~  
rain  
1900 mm/y  
?

Topography

CHINA 30-m DEM

LAND SURFACE

PR - USGS 10-m DEM

QUESTION???

LIDAR DATA  
EXPERIENCED?

VEGETATION

China 4m - 30m

PR 2 - 15m

China Hill PR

China Hill PR

SATELLITE IMAGES NDVI index veg. index

Different Spatial Retention  
Between Areas →  
Capacities Comparison

Topographic Correlation from DEM  
Capacity Model

(  
SAMPLE DATA Along LINE OF  
Profile  
Point Correlation Analysis  
ANALYSIS AT INDIVIDUAL LANDSCAPE  
SCALE  
Hill by Hill

USE TERRAIN ANALYSIS TO DO  
SLOPE & Hill

- from profile
- HillSlope Boundary

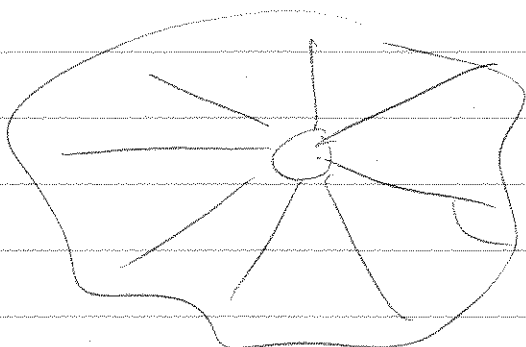
Basic Topo Profiles from Hill to Hill  
PROFILE  
VS. AZIMUTH } INVESTIGATE  
ASPECT  
CONTOUR

---

Static AOCs → SPSS → AXES  
Correlation  
Analysis

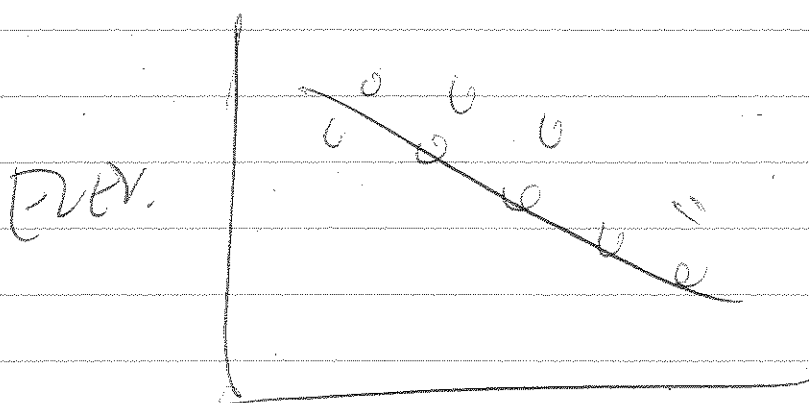
Carbonation  
China v. PR. No.

ELEV. Slope on map, REACT,  
Slope profiles



China  
Cans  
Batteries

LINE OF PROBLEMS  
21.5° pizza wheel



NEEDS  
EXPLAIN  
NDVI ??  
SIMON'S DEVICE  
KNOW WHAT  
THIS  
IS?

NDVI  
profiles vs. NDVI

PROBLEMS SIMON'S SUMMARY

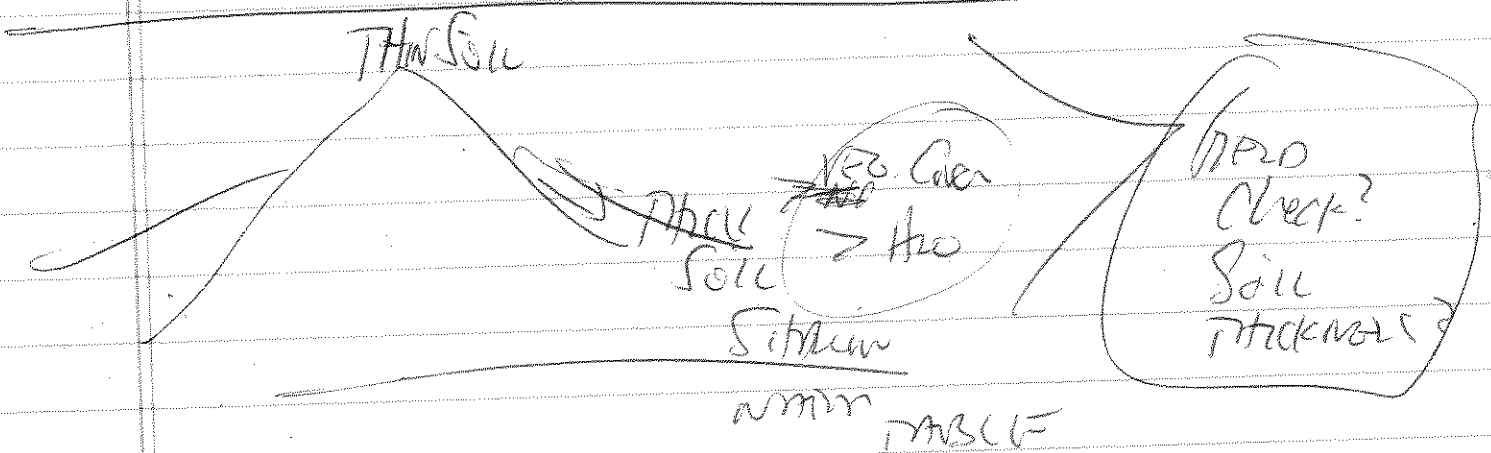
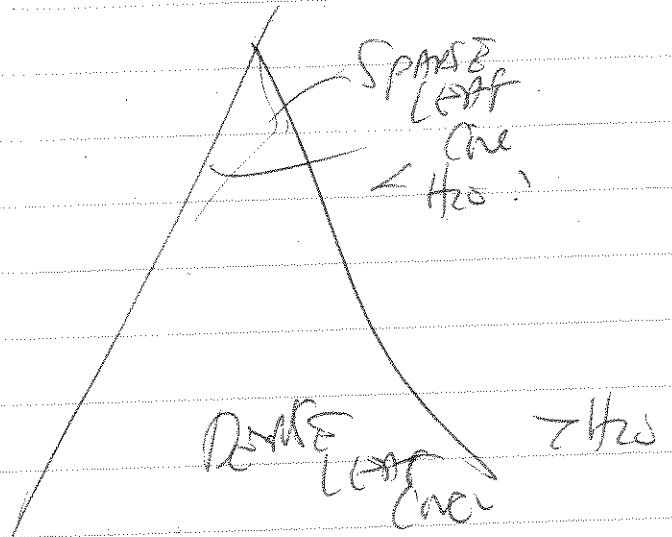
MARS - TABLET - CHARTS = GW

ELEV. IS NDVI  
NEGATIVE Correlation

DOUBLE LEAF CURE AT Lower TOWER  
LESS DOUBLE LEAF CURE AT upper STORE

Leaf Caen Densities in Lower [200]

Question:  
 Field  
 CAIRMAN  
 of Veg  
 Index?  
 Any field measurements?



Azimuth / Aspect Comparison  
 North vs. South

LATITUDE of China vs. PR.?

← test comparison

PR = NSD between N-S  
 China = S.D. between N-S.

P.R. further south — Lower LAT. LESS SW VARIATION  
China further north — AS REG' CARBON

Future work: DON'T Rely on DATA?

CRETIN

ROCKS WITH LAYING?

IN BEST PLACE

LITTLE TO NO KARST IN OREGON

free

FAT LYING

China

1800 mm/hr

P.R.

1900 mm/hr

NO REG. DATA

Cloud free DRAINAGE IN MOUNTAINS IS A PROBLEM