

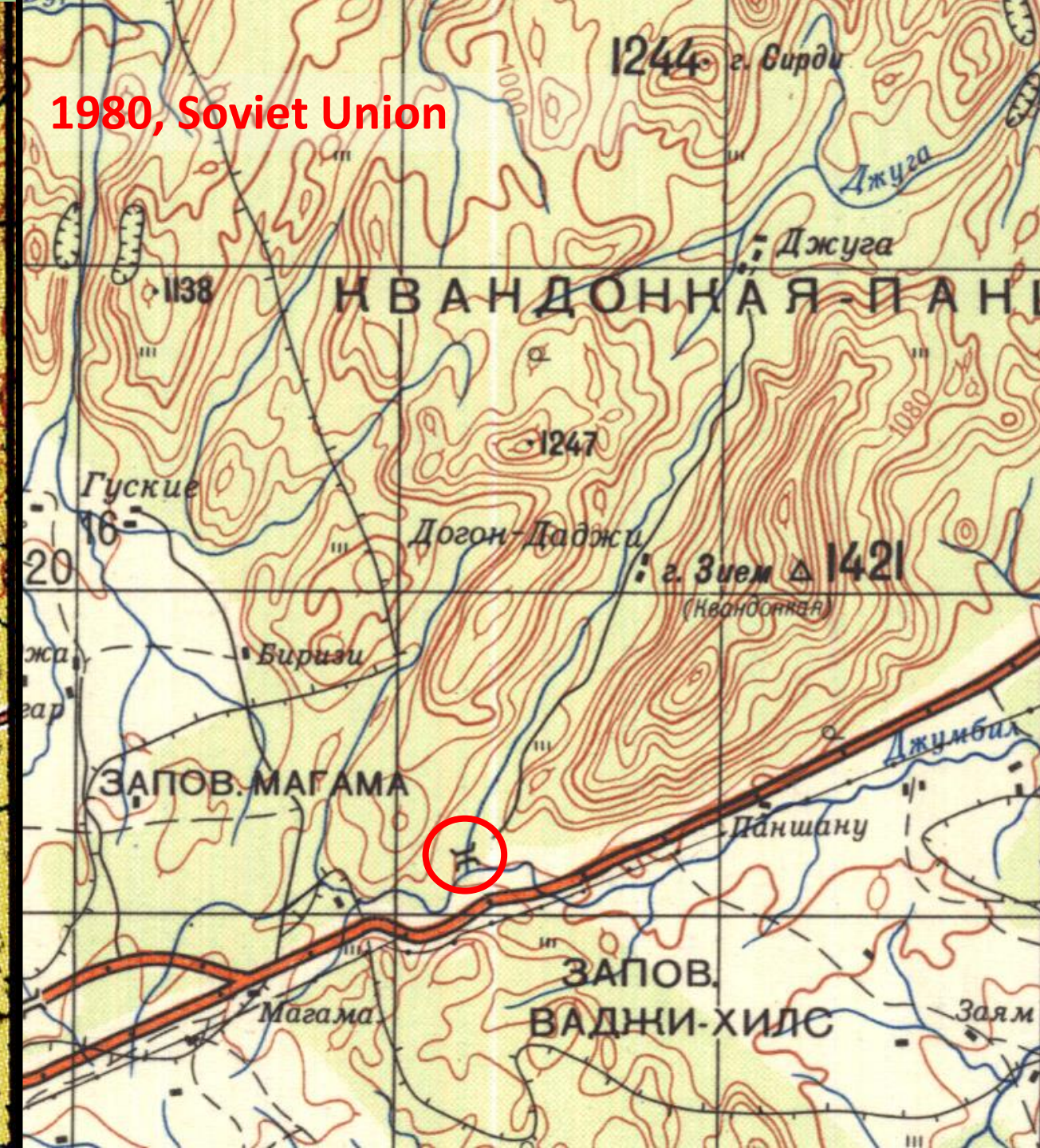
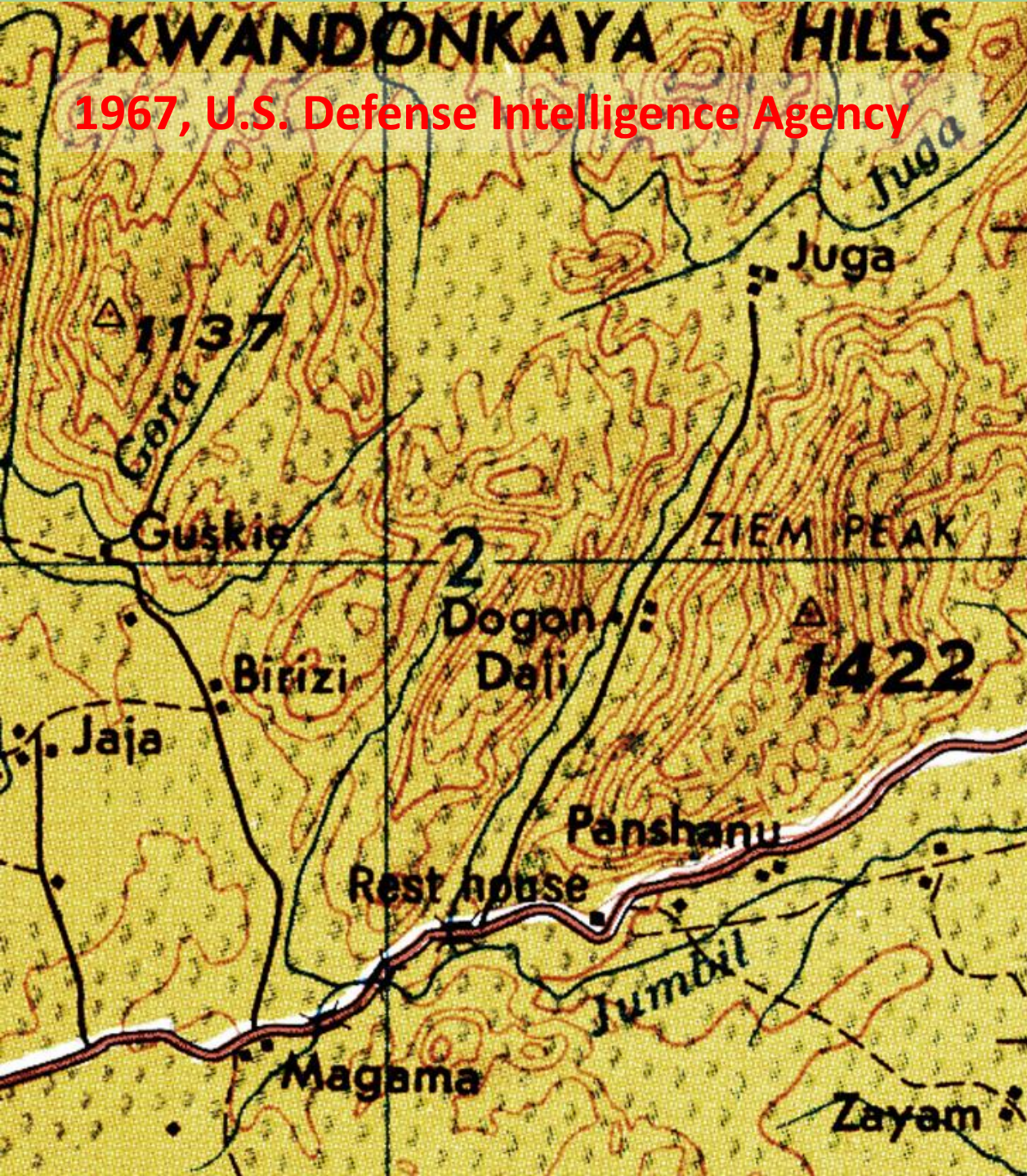
Cast a Fishnet

And You Will Find
What You Seek

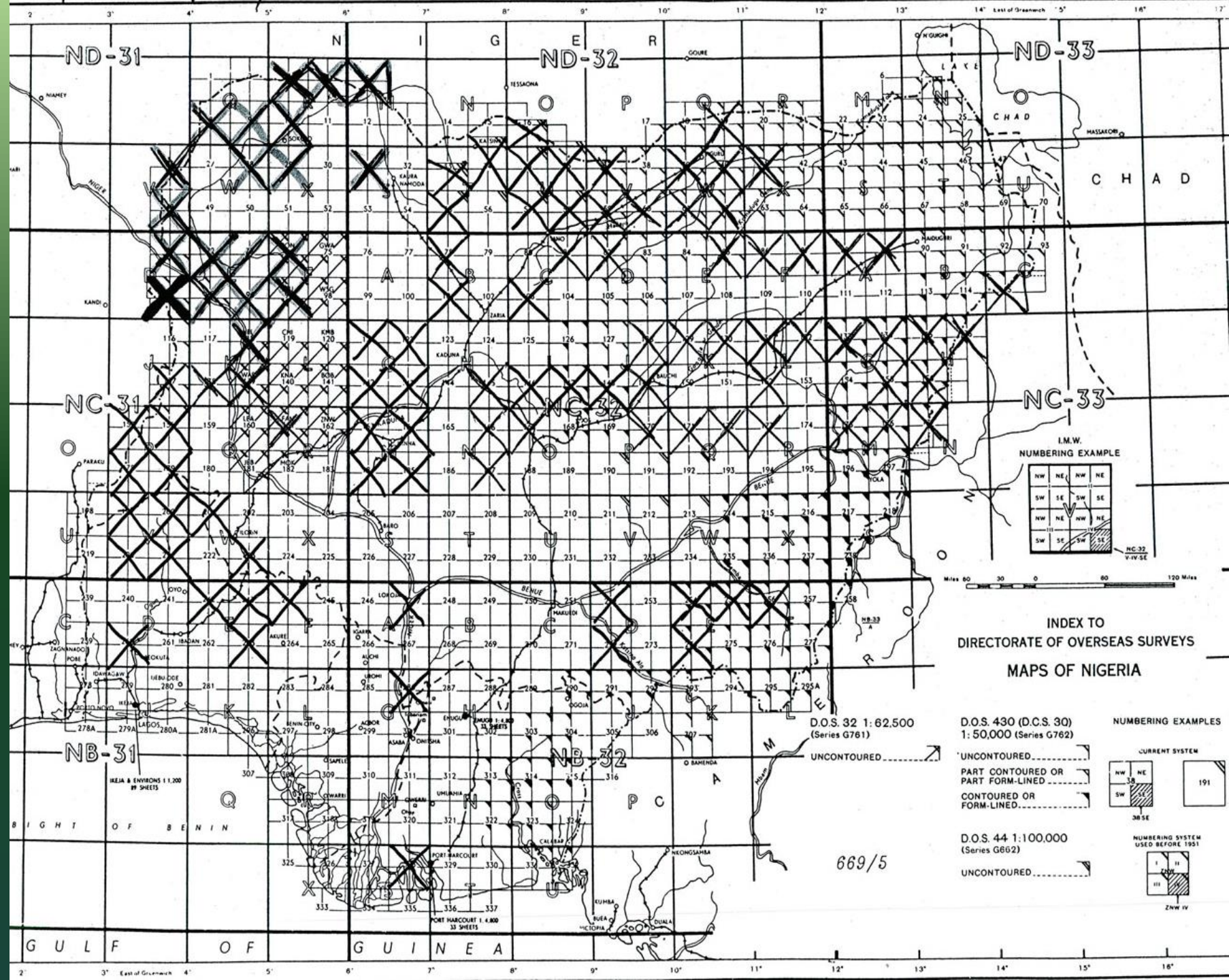
Kathleen W. Weessies and Kasey R. Wilson
Michigan State University, USA



I10	J10	K10	L10	M10	N10	O10	P10	Q10	R10
I9	J9	K9	L9	M9	N9	O9	P9	Q9	R9
I8	J8	K8	L8	M8	N8	O8	P8	Q8	R8
I7	J7	K7	L7	M7	N7	O7	P7	Q7	R7
I6	J6	K6	L6	M6	N6	O6	P6	Q6	R6
I5	J5	K5	L5	M5	N5	O5	P5	Q5	R5
	J4	K4	L4	M4	N4	O4	P4	Q4	R4
	J3	K3	L3	M3	N3	O3	P3	Q3	R3
		K2		M2	N2	O2	P2	Q2	



Libraries mark their
sheet holdings on an
index map (if an
index map exists!)



Solution #1: Including a list of sheets owned in the catalog record



MAP

Africa 1:125,000 Nigeria

Nigeria. Survey Department.
1912

 **Available** at Arthur Lakes Library Map Room Flat Collection (Floor 1)

LOCATION AND ITEM INFORMATION

Arthur Lakes Library

Available, Map Room Flat Collection (Floor 1) G8840 s125 .N5

Summary holdings: Sh.NB-31-C-II... [Expand](#)

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Item in place (0 requests)
Loanable

Sh.NB-31-C-II

Item in place (0 requests)
Loanable

Sh.NB-31-C-IV

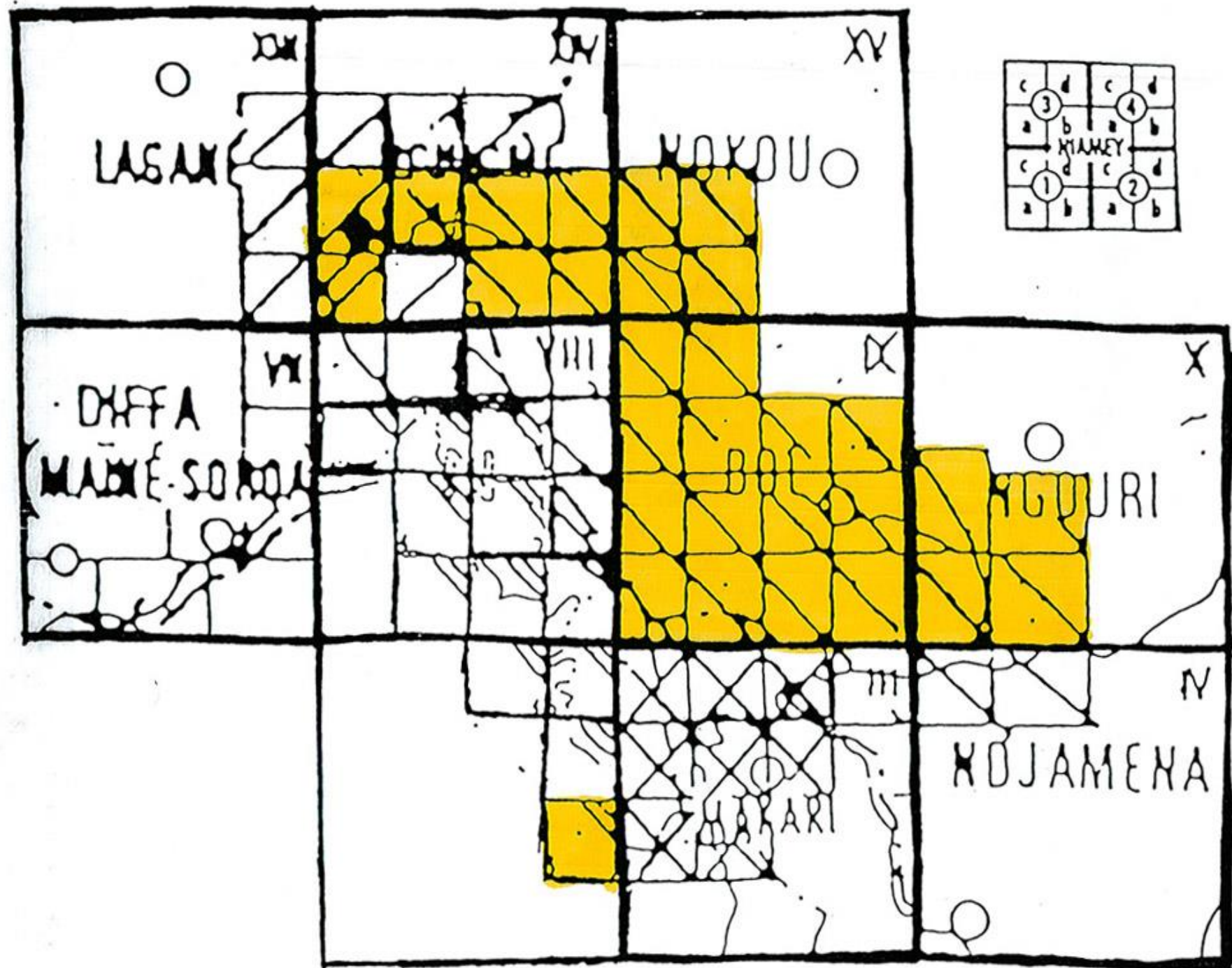
Item in place (0 requests)
Loanable


Sh.NB-31-D-I

Item in place (0 requests)
Loanable

Sh.NB-31-D-II

Solution #2: Catalog
record links to a jpg
of the index diagram
(if one exists!)



 Create Fishnet

◆ Output Feature Class

Template Extent (optional)

Left

Top

Right

Bottom

Clear

◆ Fishnet Origin Coordinate

X Coordinate

Y Coordinate

◆ Y-Axis Coordinate

X Coordinate

Y Coordinate

◆ Cell Size Width

◆ Cell Size Height


◆ Number of Rows


◆ Number of Columns

Opposite corner of Fishnet (optional)

↑

↓





Create Fishnet

Creates a fishnet of rectangular cells. The output can be polyline or polygon features.

↑

↓

OK

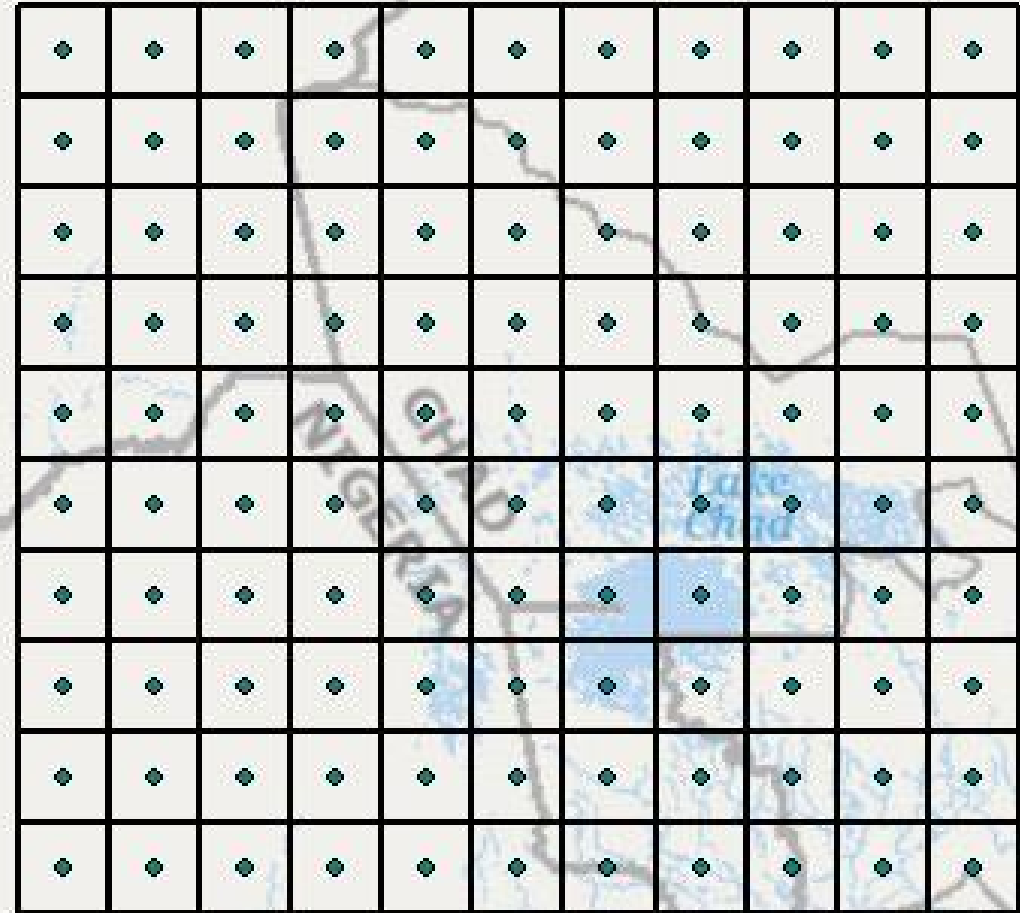
Cancel

Environments...

<< Hide Help

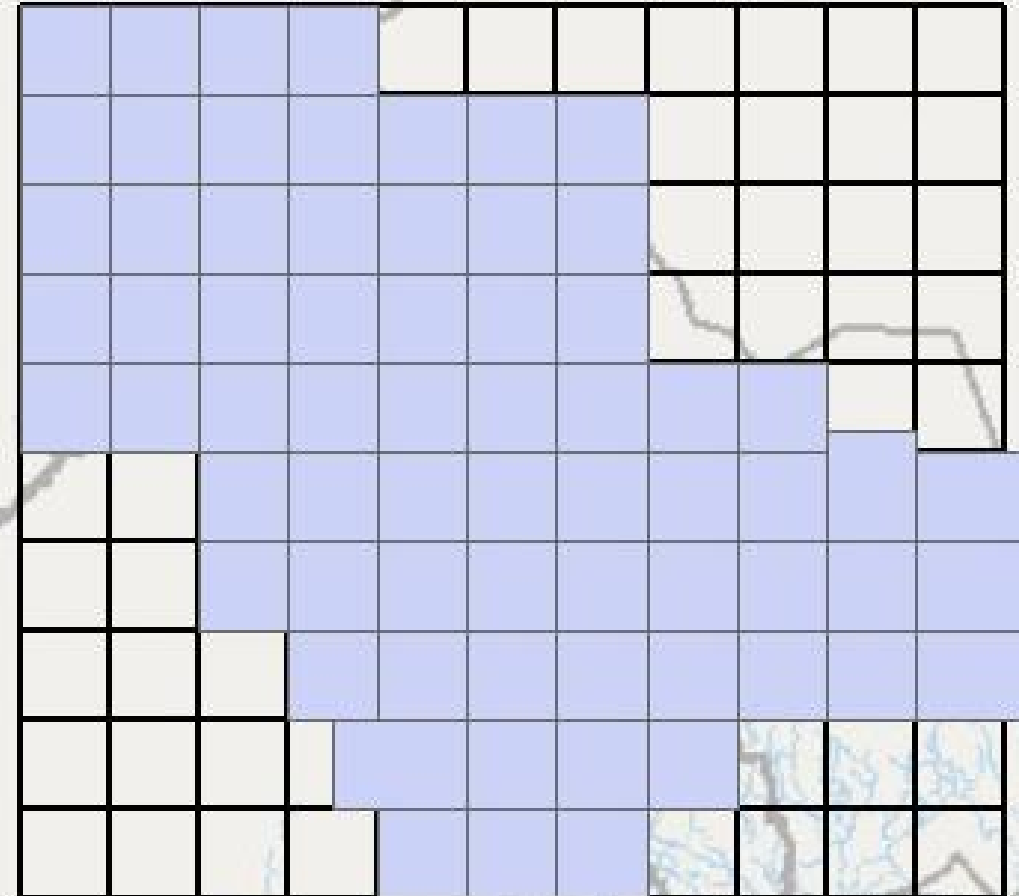
Tool Help

ArcGIS 10.0 + t
use the fishnet
app to create a
model of the map
set



Edit around the edges to make quadrangles match the set. This creates a very simple table with rectangles numbered from bottom to top

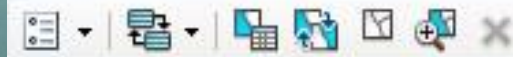
Table			
fishnet3			
	FID	Shape *	Id
▶	0	Polyline	0
	1	Polyline	0
	2	Polyline	0
	3	Polyline	0
	4	Polyline	0
	5	Polyline	0
	6	Polyline	0
	7	Polyline	0
	8	Polyline	0
	9	Polyline	0
	10	Polyline	0
	11	Polyline	0
	12	Polyline	0
	13	Polyline	0
	14	Polyline	0
	15	Polyline	0
	16	Polyline	0
	17	Polyline	0
	18	Polyline	0
	19	Polyline	0
	20	Polyline	0
	21	Polyline	0
	22	Polyline	0





Student employees
build in attribute data
using Excel

Table



Lake_Chad_Region_50k

	FID	Shape *	OBJECTID	Sheet_no	Sheet_name	X1	X2	Y1	Y2
▶	0	Polygon	0	ND-33-II-2d	MARTE NE	13.7	14	12.5	12.2
	1	Polygon	1	ND-33-IX-1a		14	14.2	13.2	13
	2	Polygon	2	ND-33-IX-1b		14.2	14.5	13.2	13
	3	Polygon	3	ND-33-IX-2a		14.5	14.7	13.2	13
	4	Polygon	4	ND-33-IX-2b		14.7	15	13.2	13
	5	Polygon	5	ND-33-X-1a	BOMBOM	15	15.2	13.2	13
	6	Polygon	6	ND-33-X-1b	KOULOUDIA	15.2	15.5	13.2	13
	7	Polygon	7	ND-33-IX-1c		14	14.2	13.5	13.2
	8	Polygon	8	ND-33-IX-1d	KOULTIME	14.2	14.5	13.5	13.2
	9	Polygon	9	ND-33-IX-2c	BOL	14.5	14.7	13.5	13.2
	10	Polygon	10	ND-33-IX-2d	NJAR YAKOU	14.7	15	13.5	13.2
	11	Polygon	11	ND-33-X-1c	ISEIROM	15	15.2	13.5	13.2
	12	Polygon	12	ND-33-X-1d	BOLOSIDI	15.2	15.5	13.5	13.2
	13	Polygon	0	ND-33-IX-3a		0	0	0	0
	14	Polygon	14	ND-33-IX-3b	BAGA SOLA	14	14.2	13.7	13.5
	15	Polygon	15	ND-33-IX-4a	NGOLIO	14.2	14.5	13.7	13.5
	16	Polygon	16	ND-33-IX-4b	NGARANGOU	14.5	14.7	13.7	13.5
	17	Polygon	17	ND-33-IX-3C	KISKRA	14.7	15	13.7	13.5
	18	Polygon	18	ND-33-IX-3d	LIWA	14	14.2	14	13.7
	19	Polygon	19	ND-33-XV-1d	RIG-RIG	14.2	14.5	14	13.7
	20	Polygon	20	ND-33-XIV-1a	DJIBOULOUA	14.2	14.5	14.5	14.2
	21	Polygon	21	ND-33-XIV-2a		12.9	13.2	14.2	14
	22	Polygon	22	ND-33-XIV-2b	KISKAWA	13.5	13.7	14.2	14
	23	Polygon	23	ND-33-XV-1a	GOUM	13.7	14	14.2	14
	24	Polygon	24	ND-33-XV-1b	GIM	14	14.2	14.2	14
	25	Polygon	25	ND-33-XIV-1c	N'GUIGMI	14.2	14.5	14.2	14
	26	Polygon	26	ND-33-XIV-1d	BELABERIN	13	13.2	14.5	14.2
	27	Polygon	27	ND-33-XIV-2c	DJIBOULOUA	13.2	13.5	14.5	14.2

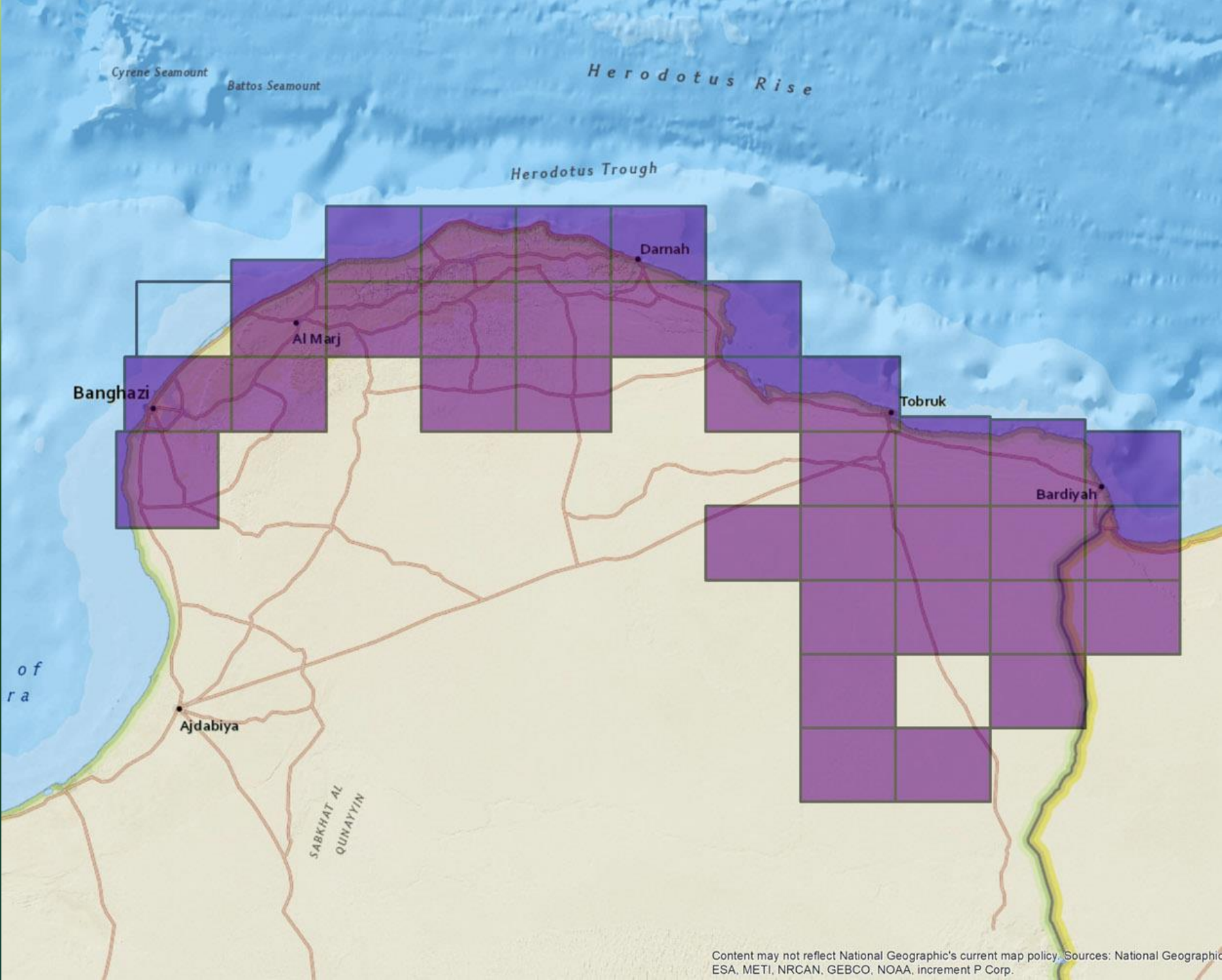
One possible output
is a static jpg that
clearly shows
holdings.



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Not Owned by MSU



Second output is an interactive map

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Contact Information

Map Library
Main Library Building
Michigan State University
366 W. Circle Drive, Room 308W
East Lansing, MI 48824
Phone: (517) 884-6467

Title: Nigeria 1:50,000

Originator: Federal Surveys,
Nigeria

Publication Place: [Lagos]

Publisher: Federal Surveys, Nigeria

Beginning Date: 1959?-

Ending Date:

Extent: 273 sheets

Color: color

Scale: 1:50,000

Projection: Transverse Mercator

Format: Available for download in
TIF and GeoTIF

Bounding Coordinate West: 2.0

Bounding Coordinate East: 16.0

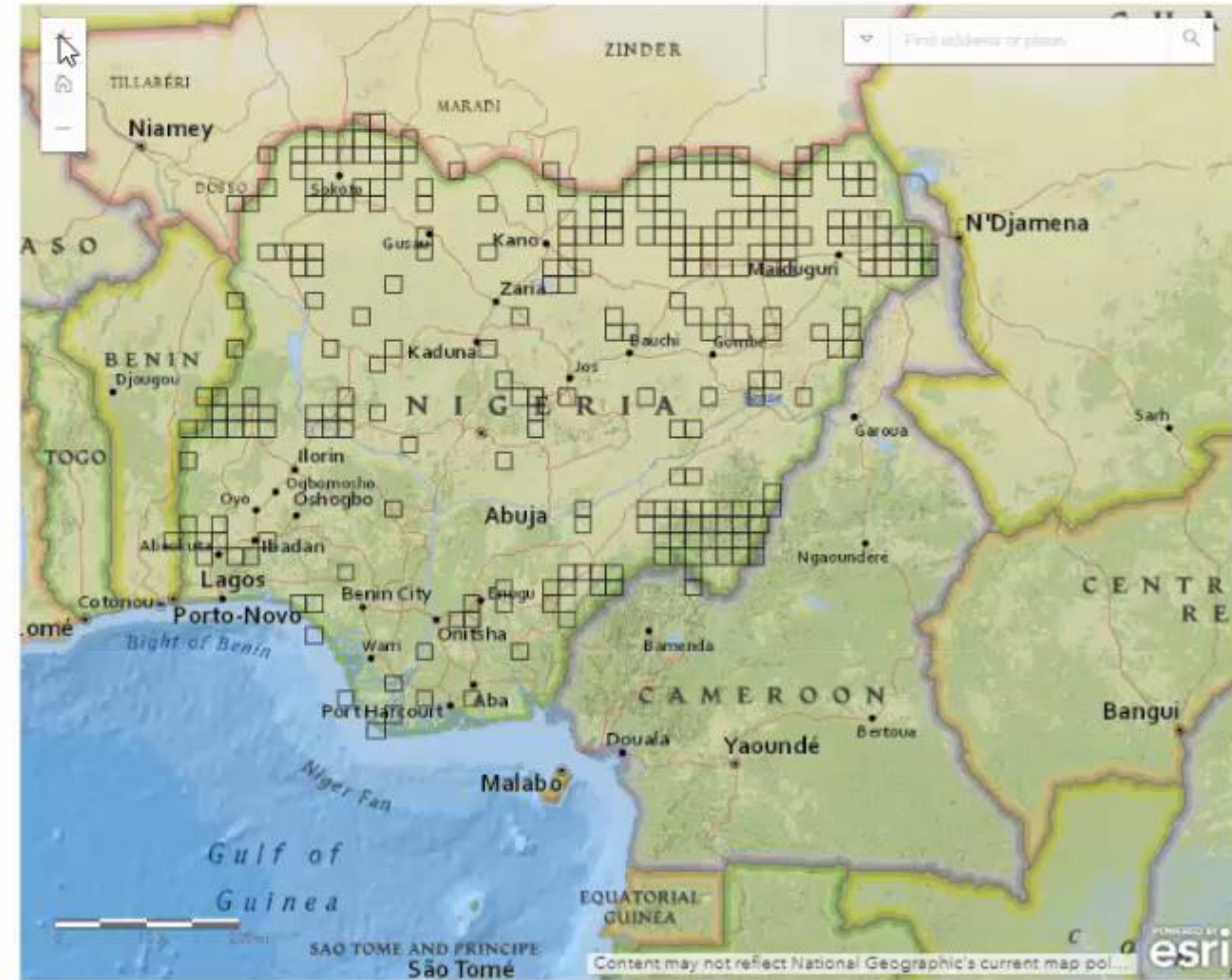
Bounding Coordinate North: 14.0

Bounding Coordinate South: 2

Notes: The paper maps were scanned at 400 ppi, 8-bit (256 color). The scans were then geo-referenced using a 1st order or 2nd order polynomial transformations in Blue Marble Geographics Transformer.

Nigeria 1:50,000

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Interactive maps have table-based access to digital content for the mobility impaired – no mouse needed.

Nigeria 1:50,000

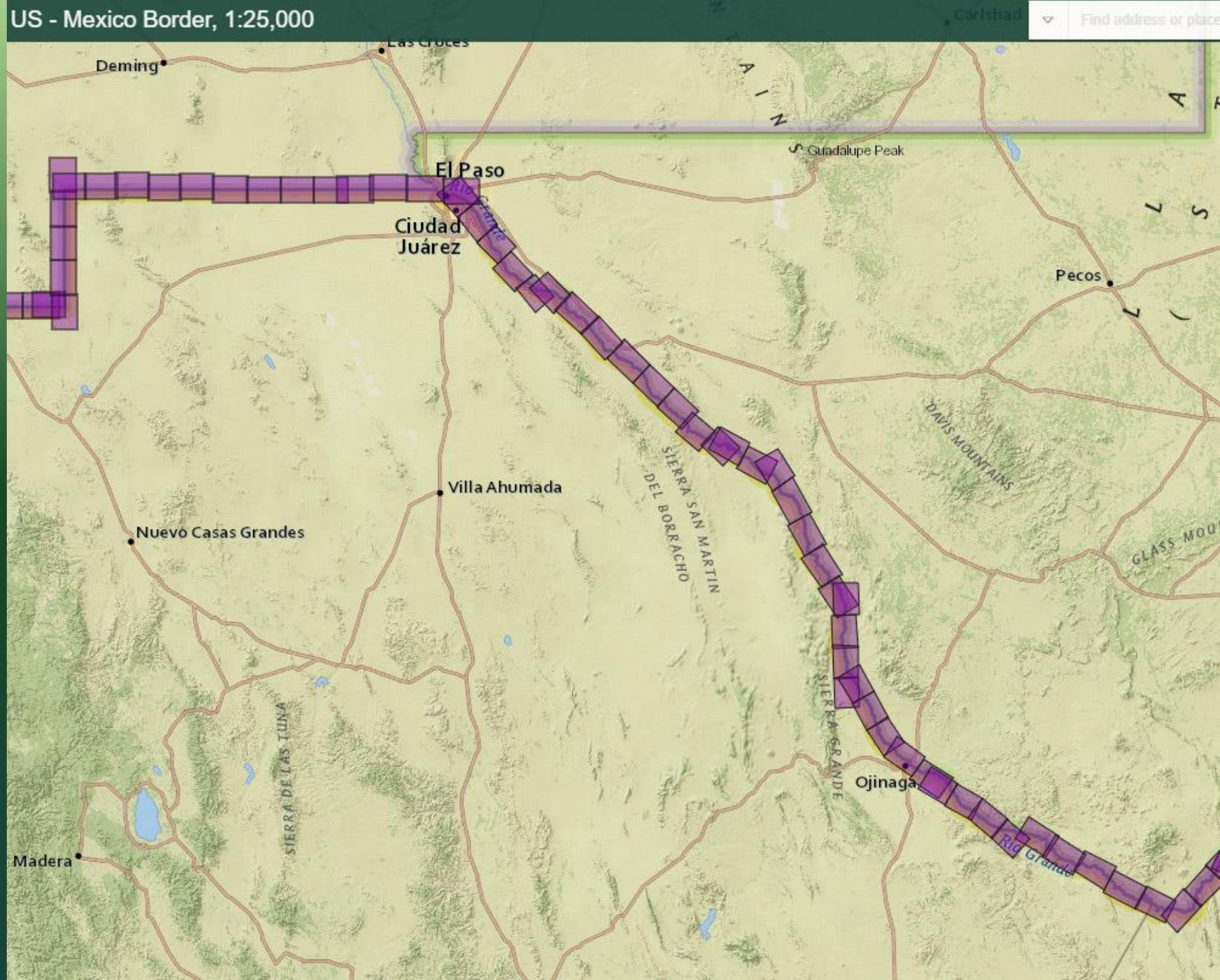
NAME	Min Longitude	Max Longitude	Min Latitude	Max Latitude	Preview	TIFF	ZIP
002_SE_Sokwoi_SE	4.75	5.00	13.50	13.80	JPG	TIFF	ZIP
003_SE_Kalmalo_SE	5.25	5.50	13.50	13.75	JPG	TIFF	ZIP
004_NE_Gada_NE	5.75	6.00	13.75	14.00	JPG	TIFF	ZIP
004_NW_Gada_NW	5.50	5.75	13.75	14.00	JPG	TIFF	ZIP
004_SE_Gada_SE	5.75	6.00	13.50	13.75	JPG	TIFF	ZIP
004_SW_Gada_SW	5.50	5.75	13.50	13.75	JPG	TIFF	ZIP
005_SE_Sabon_Birni_SE	6.25	6.50	13.50	13.75	JPG	TIFF	ZIP
008_NW_Sakwala_NW	4.00	4.25	13.25	13.50	JPG	TIFF	ZIP
009_NE_Binji_NE	4.75	5.00	13.25	13.50	JPG	TIFF	ZIP
009_NW_Binji_NW	4.50	4.75	13.25	13.50	JPG	TIFF	ZIP
009_SW_Binji_SW	4.50	4.75	13.00	13.25	JPG	TIFF	ZIP
010_NE_Sokoto_NE	5.25	5.50	13.25	13.50	JPG	TIFF	ZIP
010_NW_Sokoto_NW	5.00	5.25	13.25	13.50	JPG	TIFF	ZIP
011_NE_Rabah_NE	5.75	6.00	13.25	13.50	JPG	TIFF	ZIP
011_NW_Rabah_NW	5.50	5.75	13.25	13.50	JPG	TIFF	ZIP
012_NE_Isa_NE	6.25	6.50	13.25	13.50	JPG	TIFF	ZIP
012_NW_Isa_NW	6.00	6.25	13.25	13.50	JPG	TIFF	ZIP
012_SW_Isa_SW	6.00	6.25	13.00	13.25	JPG	TIFF	ZIP
014_SW_Jibiya_SW	7.00	7.25	13.00	13.25	JPG	TIFF	ZIP
016A_SW_Daura_SW	8.50	8.75	13.00	13.25	JPG	TIFF	ZIP
018_NW_Machina_NW	10.00	10.25	13.25	13.50	JPG	TIFF	ZIP
018_SW_Machina_SW	10.00	10.25	13.00	13.25	JPG	TIFF	ZIP
019_NW_Kumagunnam_NW	10.50	10.75	13.25	13.50	JPG	TIFF	ZIP

Complication #1 ---
no polar projections!



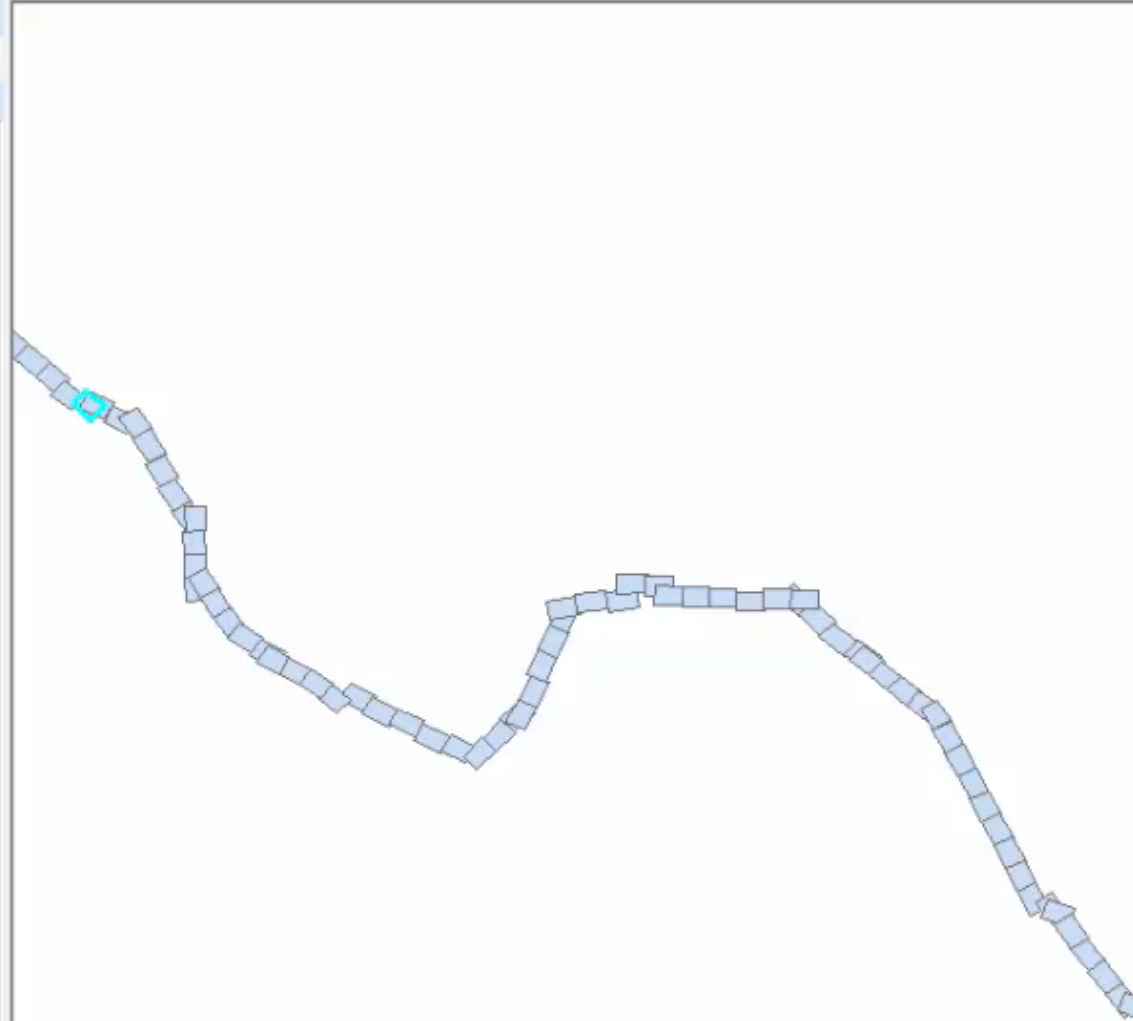
Complication #2:
sets not suited for
fishnets

Thank you Kasey
Wilson and Max
Sanders!

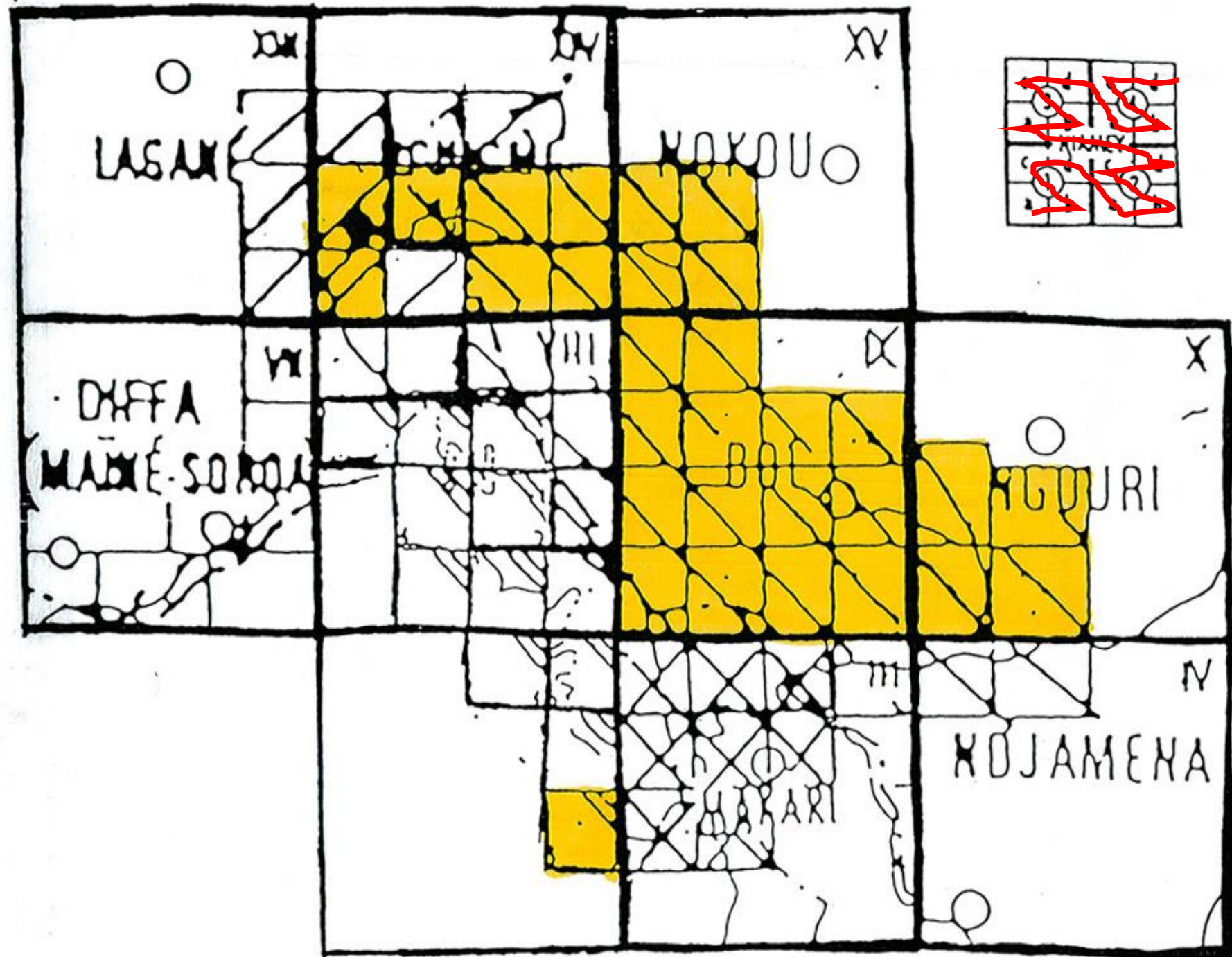


Puzzle #1: Can we automate the numbering of map sheets?

Table		
US_MexicoBorder_25k		
	Sheet_No	Sheet_Name
	95	Esparanza
	96	Quitman Arroyo
	97	The Little Big Bend
	98	Indian Hot Springs
	99	Quitman Mountains
	100	Red Light Draw
	101	Bramlett Ranch
	102	Green River
	103	Bennett Ranch
	104	Pilares
	105	Arroyo San Carlos
	106	San Antonio Del Bravo
	107	Candelaria North
	108	Candelaria
	109	Barrancos De Guadalupe
	110	Vado De Piedra
	111	Las Conchas
	112	Adobes
	113	Ochoa
	114	Presidio Port of Entry
	115	Presidio East
	116	Mulato Dam
	117	Redford
	120	Lajitas
	119	Santana Mesa
	118	Rancherias Canyon
	121	Mesa de Anguila
	122	Castolon
	123	Smoky Creek
	124	Reed Camp
	125	Mariscal Mountain
	126	Solis
	127	Ernst Valley
	128	Boquillas
	129	Sierra Del Caballo Muerto
	130	Sierra Larga
	131	Maravillas Canyon
	132	Big Canyon
	133	Reagan Canyon
	134	Bullis Gap Range
	135	El Tule
	144	Shumla Bend
	145	Seminole Canyon
	146	Zuberbuehler Bend



Complication #2:
Even when the
sheet numbering
scheme is
complicated?




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ArcOnline group

This group is maintained by Christopher J.J. Thiry, Map Librarian, Colorado School of Mines.
cthiry@mines.edu 303-273-3697

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Working in an Open
Source environment



3.0.2
2.18.19 LTR

English ▼

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OpenIndexMaps

GitHub repository interface for **OpenIndexMaps / edu.msu**.

Repository statistics: 2 Unwatch, 0 Star, 0 Fork.

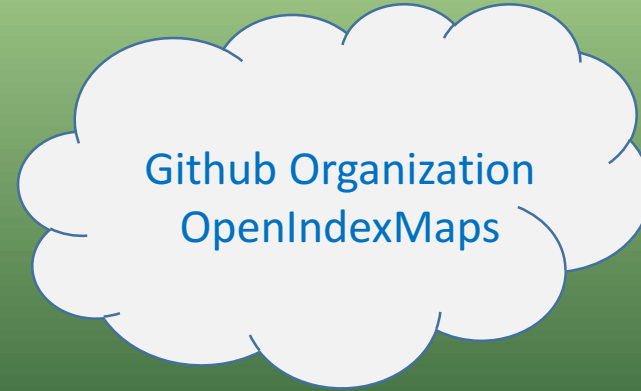
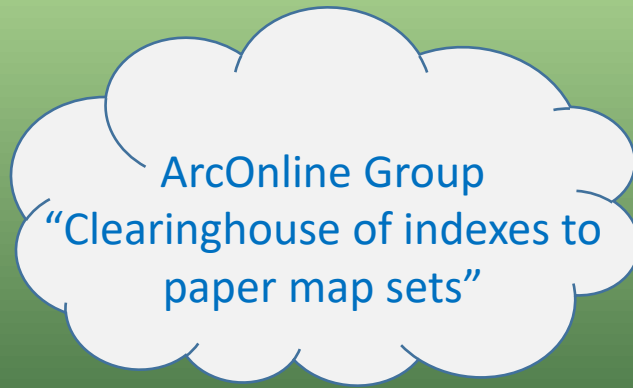
Navigation: Code, Issues (0), Pull requests (0), Projects (0), Wiki, Insights, Settings.

Branch: master | **edu.msu / G3701F2s25G4.geojson** | Find file | Copy path

Commit: **Weessies** United States Mexico Border at 1:25,000 sheet index | c73728a 6 minutes ago | 1 contributor

File details: 212 lines (210 sloc) | 72.4 KB | View | Raw | Blame | History

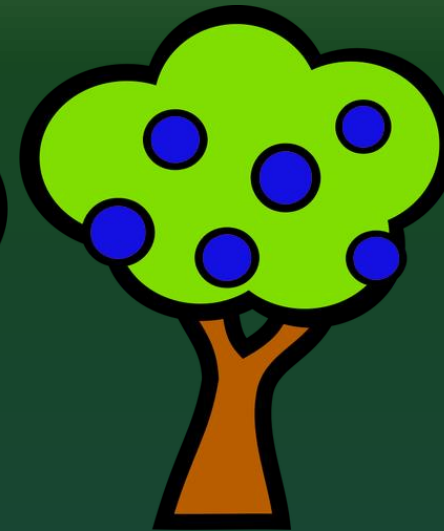
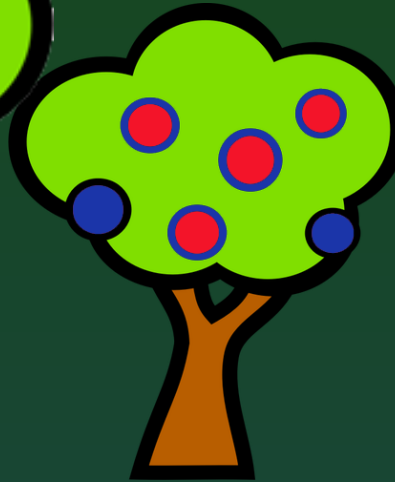
Map visualization showing the United States-Mexico border. The map includes labels for Phoenix, El Paso, Hermosillo, Chihuahua, Chihuahua, Coahuila, Monterrey, and the Gulf of California. The border is highlighted in blue. Mapbox logo is visible in the bottom left corner.



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