

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
SOIL AND WATER CONSERVATION RESEARCH DIVISION
USDA SEDIMENTATION LABORATORY
P. O. BOX 30
OXFORD, MISSISSIPPI 38655

14 August 1973

Librarian
U. S. Geological Survey
Washington, D.C. 20242

Dear Sir:

Enclosed herewith are four envelopes of data on valley cross section surveys, for addition to the "Yazoo Watershed" section of the Vigil Network repository files. They are:

Hurricane Creek Valley
Toby Tubby Creek Valley

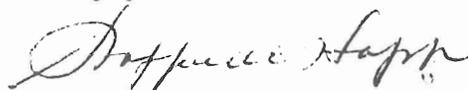
Goose Creek Valley
Yocona River Valley

Previous contributions were sent to Dr. Leopold, for transfer, but he has advised that they now be sent directly to you. Acknowledgment will be appreciated, as assurance of safe arrival.

Duplicate copies for the Uppsala file are being sent to Dr. Rapp, at the Laboratory of Geomorphology, University of Uppsala.

These are partial files, submitted now to assure preservation as it may be a year before remaining materials can be prepared. Also I now have additional materials that should be added to partial files submitted previously. It would seem simplest just to add more envelopes, but that will increase the bulk somewhat. Some previous prints will be duplicated by new copies including additional data. If minimizing the bulk seems of sufficient importance to undertake disposal of duplicated prints, I would want to designate the particular items to be discarded. Any advice concerning such possibilities, or other questions of procedure, will be welcomed.

sincerely yours



Stafford C. Hopp

CC: Anders Rapp ✓
R. F. Hadley
Gordon Rittenhouse
R. D. Holt

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OXFORD, MISSISSIPPI 38655
14 August 1973

Dr. Anders Rapp
Laboratory of Geomorphology
University of Uppsala
Uppsala, Sweden

Dear Dr. Rapp:

Enclosed are four envelopes of data for permanent filing in the Vigil Network Repository, identified as follows:

Hurricane Creek Valley
Toby Tubby Creek Valley

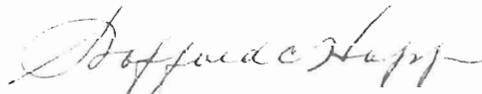
Goose Creek Valley
Yocona River Valley

An acknowledgment will be appreciated, for assurance of safe arrival.

These materials pertain to valley cross sections established as part of sedimentation and erosion studies in the Yazoo watershed, Mississippi. It is anticipated that additional materials concerning these particular valleys will be submitted later, as well as general information pertaining to these and other valleys and to be submitted as a general "Yazoo Watershed" file.

Your consideration is invited to comments concerning possible questions of procedure regarding future filings, in the enclosed copy of letter to the Librarian, U.S. Geological Survey.

sincerely yours



Stafford C. Happ

Cards are enclosed in separate envelopes.

8/1/73

Yocona River Valley, Yazoo Watershed, Mississippi, U. S. A.

(Lafayette, Yalobusha & Panola Counties)

Contents of first Vigil Network envelope

1. Print of map, "Sedimentation Ranges, Coldwater, Little Tallahatchie, Tippah, Yocona, Yalobusha and Skuna River Valleys, Mississippi".
2. Table - Yocona River sediment range data, 1940-1971.
3. Maps - prints of photographs of 7 sections of USGS topographic quadrangle maps, showing sediment range locations.
4. Airphotos - copies of 10 airphotos showing sediment range locations:

MZ-2JJ-51	Range Y-1	MZ-1JJ-164	Range Y-6
-122	Y-2	-119	Y-7
-180	Y-3	NK-1JJ-195	Y-10
-240	Y-4	-254	Y-11
-3JJ-8	Y-5	-2JJ-28	Y-12
5. 6 prints of Yocona River Valley Cross Sections, 1941-1970(71)

ORIGINAL RECORDS

Original surveys were made in 1940-41 by Soil Conservation Service personnel, under direction of R. D. Holt, assigned to the USDA Yazoo Watershed Survey (a so-called "Flood Control Survey"). Notebooks and airphotos showing range locations were left in custody of the Forest Service (which had Chairmanship of the Survey) but efforts to locate them since 1965 have been unsuccessful. Copies of airphotos and range profile notes, but not the control levels, were preserved on microfilm as part of the records of the former Sedimentation Research Division of the Soil Conservation Service, and are now in custody of the SCS Fort Worth Regional Office. Hand-made copies of the 1940-41 profiles, taken from the microfilm, are in Notebook MISS-71 of the files of the USDA Sedimentation Laboratory, Oxford, Mississippi, and books MISS-58 and MISS-64 of that series contain notes of 1970-71 resurveys of Ranges Y-1, 4, 6 and 12.

Table . Yocona River sediment range data, 1940-1971.

Range	Sediment:						Channel change 1940-1971				
	Width		Cross section		Av. depth		Width		Talweg	Sediment:	
	1940	1971	1940	1940- 1971	1940	1940- 1971	1940	1971	Elev. change	Cross section	Av. depth
	<u>feet</u>	<u>feet</u>	<u>sq. ft.</u>	<u>sq. ft.</u>	<u>feet</u>	<u>feet</u>	<u>feet</u>	<u>feet</u>	<u>feet</u>	<u>sq. ft.</u>	<u>feet</u>
Y-1	3200	3220	2885	710	0.90	0.22	47	58	1.2	(-103)	(-1.31)
Y-4	3600	3660	11700	(-630)	3.25	(-0.17)	154	164	(-1.1)	(-145)	(-0.88)
Y-5	5190		12980		2.50		122				
Y-6	4700	4900	9700	1105	2.04	0.23	118	135	(-1.0)	(-460)	(-3.41)
Y-7	5278		6985		1.30		99				
Y-8	4485		5098		1.14		122				
Y-9	6180		6563		1.06		147				
Y-10	3420		4995		1.46		130				
Y-11	3700		9918		2.68		120				
Y-12	5845	5260	14088	(-2843)	2.41	(-0.54)	119	192	(-4.9)	(-1610)	(-8.39)

NOTES: Negative values indicate erosion. Y-1, 8-12 first surveyed 1941; Y-1 resurveyed 1970.

Y-1 channel ditched after 1940; channel erosion estimated by ditch enlargement, less 177 sq. ft. of spoil. Terrace and tributary flood plain excluded from range data.

Ranges Y-2 & 3 omitted; no boring data for 1940, range markers not found for resurvey.

River ditched before 1940, to above Y-4; 1940 sediment partly compensated by ditch erosion, unmeasured but less than size of ditch below projected old soil, respectively: Y-4, 1695 sq. ft.; Y-5, 1245; Y-6, 400; Y-7, 905; Y-8, 1370; Y-9, 1640; Y-10, 1255; Y-11, 1010; Y-12, 910 sq. ft.

Y-5 includes about 1000 ft. of colluvial slope or alluvial fan at left side.

Y-6 sediment included about 3450 sq. ft. in 1940 on 2080 ft. fan at right side, and 1225 sq. ft. additional in 1971; channel erosion exceeded other overbank sediment after 1940.

Y-6, 7 & 8 have been within Enid Reservoir flood storage pool, and Y-9 submerged, since 1953.

Y-9 sediment in 1941 included 1978 sq. ft. on 1500 ft. of colluvial slope at right side.

Y-10 sediment in 1941 included 1280 sq. ft. on 880 ft. of colluvial slope at right side.

Y-12 sediment in 1941 excludes 1280 sq. ft. on right colluvial slope which was unchanged in 1971.