



KENTUCKY GEOLOGICAL SURVEY

UNIVERSITY OF KENTUCKY, LEXINGTON

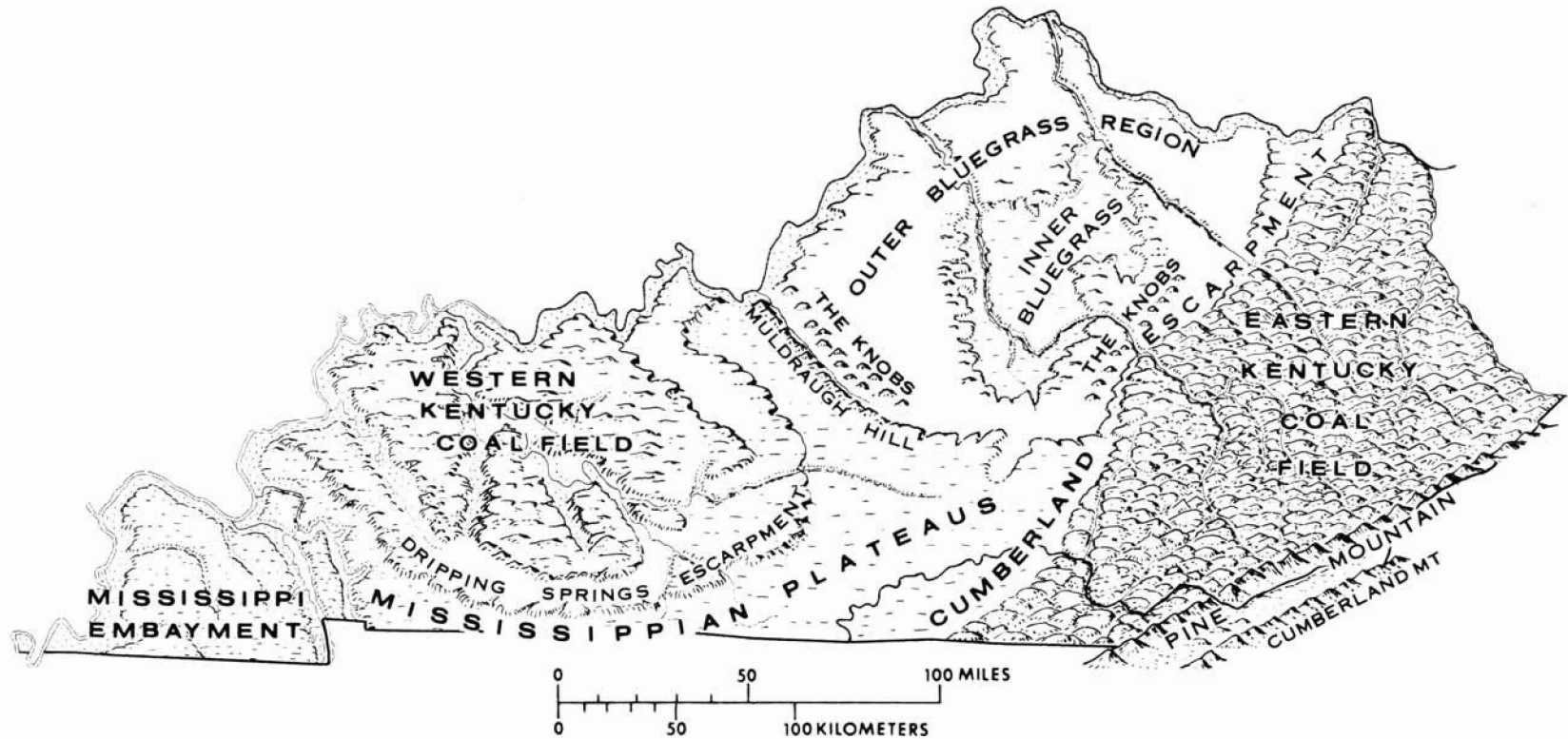
SERIES X, 1978

Wallace W. Hagan, Director and State Geologist

TOPOGRAPHY OF KENTUCKY

Preston McGrain and James C. Currens

SPECIAL PUBLICATION 25



Physiographic regions of Kentucky



KENTUCKY GEOLOGICAL SURVEY

UNIVERSITY OF KENTUCKY, LEXINGTON

SERIES X, 1978

Wallace W. Hagan, Director and State Geologist

TOPOGRAPHY OF KENTUCKY

Preston McGrain and James C. Currens

UNIVERSITY OF KENTUCKY

Otis A. Singletary, President
Lewis W. Cochran, Vice President for Academic Affairs
Wimberly C. Royster, Dean of Graduate School and Coordinator of Research
James Y. McDonald, Executive Director, University of Kentucky Research Foundation

KENTUCKY GEOLOGICAL SURVEY ADVISORY BOARD

Ralph N. Thomas, Chairman, Owensboro

David E. Bayer, Lexington

Nicholas C. Kieffer, Jr., Louisville

J. Edward Parker, Lexington

Henry A. Spalding, Hazard

KENTUCKY GEOLOGICAL SURVEY

Wallace W. Hagan, Director and State Geologist

Preston McGrain, Assistant State Geologist

Administrative Division

Finance Section:

Jo M. McGurk, Administrative Accounts Clerk

Clerical Section:

Norma J. Reynolds, Administrative Secretary

Glenna E. Wiley, Secretary

Juanita G. Smith, Secretary, Henderson field office

Publications Section:

Donald W. Hutcheson, Senior Geologist and Head, Editor

Roger B Potts, Chief Cartographic Illustrator

Gary A. Creighton, Draftsman

John B. Gragg, Principal Clerk

Economic Geology Division

Coal Section:

Gilbert E. Smith,* Senior Geologist and Head

Russell A. Brant, Senior Geologist and Acting Head

J. Hiram Smith, Senior Geologist

Elisabeth R. Portig, Assistant Geologist

Brenda L. Hayden, Administrative Secretary

William L. Cherry, Drafting Technician

Allen D. Williamson, Senior Geologist, Henderson field office

John G. Beard, Senior Geologist, Henderson field office

Surya N. Lingamallu, Geologist, Morehead field office

Gary W. Casper, Geologist, Morehead field office

Roger L. Dolzani, Assistant Geologist, Morehead field office

Kim H. Forster, Assistant Geologist, Morehead field office

David A. Williams, Geologist, Corbin field office

Gary W. Harned, Assistant Geologist, Corbin field office

Lee Philip Dick, Assistant Geologist, Corbin field office

Industrial and Metallic Minerals Section:

Preston McGrain, Assistant State Geologist and Head

Garland R. Dever, Jr., Geologist

Warren H. Anderson, Geologist

Robert D. Trace, Senior Geologist, Princeton field office

Mary E. Barron, Senior Laboratory Assistant

Oil and Gas Section:

Louis R. Ponsetto, Senior Geologist and Head

Howard R. Schwalb, Senior Geologist, Henderson field office

Frank H. Walker, Senior Geologist

JoAnn DeHart, Assistant Geologist

Patrick J. Gooding, Assistant Geologist

Lorene Teater, Records Librarian

Charles E. Wright, Senior Laboratory Assistant

John G. Beard, Jr., Laboratory Assistant

Environmental Geology Division

Areal Geology Section:

Martin C. Noger, Senior Geologist and Head

George J. Grabowski, Geologist

R. E. Sergeant, Geologist

Russell G. Ping, Geologist, Somerset field office

Jonathan Konkler, Geologic Assistant

Glenna E. Wiley, Secretary

Michael James Barrows, Laboratory Assistant

Water Section:

David C. Bayha, Senior Geologist and Head

Dennis W. Risser, Geologist

Janet K. Appleby, Drafting Technician

ERDA Black Shale Study

Eastern Kentucky

Edward N. Wilson, Senior Geologist and Principal Investigator

Jaffrey Zafar, Geologist

Anna L. Hopkins, Administrative Secretary

L. Sharon Martin, Clerical Assistant

Western Kentucky

Howard R. Schwalb, Senior Geologist and Principal Investigator, Henderson field office

*On leave until July 1, 1978

LETTER OF TRANSMITTAL

June 6, 1978

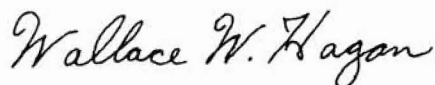
Dr. Wimberly C. Royster
Dean of Graduate School and
Coordinator of Research
University of Kentucky

Dear Dean Royster:

Kentucky's 40,411 square mile area is covered by modern topographic maps which constitute one of the most basic and valuable of Kentucky's technological resources. These maps reflect favorably on the business and governmental leadership in the State which initiated the topographic mapping program and saw it through to completion.

Availability of these maps has made possible this fact book, "Topography of Kentucky," which summarizes the topography of each of Kentucky's 120 counties, recording data on the highest and lowest elevations, local relief, elevations of certain significant natural and manmade features, and salient characteristics of the terrain.

Respectfully,

A handwritten signature in cursive script that reads "Wallace W. Hagan".

Wallace W. Hagan
Director and State Geologist
Kentucky Geological Survey

CONTENTS

	Page
Abstract	1
Introduction.	1
Adair County	4
Allen County	4
Anderson County	4
Ballard County	6
Barren County	6
Bath County	9
Bell County	11
Boone County	11
Bourbon County	12
Boyd County	12
Boyle County	13
Bracken County	13
Breathitt County.	14
Breckinridge County.	14
Bullitt County.	15
Bulter County.	15
Caldwell County	16
Calloway County.	17
Campbell County	17
Carlisle County	18
Carroll County	18
Carter County.	18
Casey County	19
Christian County	21
Clark County	21
Clay County	22
Clinton County	22
Crittenden County	23
Cumberland County	23
Daviess County	25
Edmonson County	25
Elliott County.	26
Estill County.	26
Fayette County	27
Fleming County	27
Floyd County	28
Franklin County	28
Fulton County	29
Gallatin County	29
Garrard County	29

CONTENTS—(Continued)

	Page
Grant County	31
Graves County	31
Grayson County	33
Green County	33
Greenup County	34
Hancock County	34
Hardin County	35
Harlan County	35
Harrison County	37
Hart County	37
Henderson County	39
Henry County	39
Hickman County	40
Hopkins County	40
Jackson County	40
Jefferson County	41
Jessamine County	42
Johnson County	42
Kenton County	42
Knott County	43
Knox County	43
Larue County	44
Laurel County	44
Lawrence County	46
Lee County	46
Leslie County	47
Letcher County	47
Lewis County	48
Lincoln County	48
Livingston County	49
Logan County	49
Lyon County	50
McCracken County	50
McCreary County	51
McLean County	51
Madison County	52
Magoffin County	52
Marion County	53
Marshall County	53
Martin County	53
Mason County	54
Meade County	54
Menifee County	55

CONTENTS—(Continued)

	Page
Mercer County	55
Metcalfe County	56
Monroe County	56
Montgomery County	57
Morgan County	57
Muhlenberg County	58
Nelson County	58
Nicholas County	59
Ohio County	59
Oldham County	59
Owen County	61
Owsley County	61
Pendleton County	61
Perry County	62
Pike County	62
Powell County	63
Pulaski County	63
Robertson County	65
Rockcastle County	65
Rowan County	66
Russell County	68
Scott County	68
Shelby County	68
Simpson County	69
Spencer County	69
Taylor County	69
Todd County	70
Trigg County	70
Trimble County	72
Union County	72
Warren County	73
Washington County	73
Wayne County	74
Webster County	74
Whitley County	75
Wolfe County	75
Woodford County	76

ILLUSTRATIONS

Figure		Page
1.	Outer Blue Grass topography in Anderson and Washington Counties	5
2.	Kentucky River gorge in central Kentucky	7
3.	Barlow Bottoms area of the Ohio River valley in Ballard County	8
4.	Sinkhole plain in Barren and Hart Counties.	10
5.	Green River Knob area of Casey and Pulaski Counties	20
6.	Hill topography of Western Kentucky fluorspar district	24
7.	Flood plains along the Mississippi River in Fulton County, the lowest elevation in Kentucky.	30
8.	Topography along Mayfield Creek in the Mississippi Embayment region, Graves and McCracken Counties	32
9.	Pine Mountain in Harlan and Letcher Counties.	36
10.	Black Mountain, the highest natural feature in Kentucky.	38
11.	Muldraugh Hill and knobs area in Larue and Nelson Counties.	45
12.	Topography typical of the Western Kentucky coal field in Ohio County	60
13.	Flatwoods area of southwestern Pike County	64
14.	Cumberland escarpment in Rowan County	67
15.	Dripping Springs escarpment in Todd County	71

TABLE

1.	Summary of elevations	2
----	---------------------------------	---

TOPOGRAPHY OF KENTUCKY

Preston McGrain and James C. Currens

ABSTRACT

Topographic maps which cover the more than 40,000-square-mile area of Kentucky constitute one of the Commonwealth's most basic and important technological resources. They provide the agriculturist, engineer, forester, geologist, planner, sportsman, and tourist with a wealth of information about the configuration and location of the physical features of the State's diverse picturesque and scenic landscape. This report presents for the first time a summary of the topography of each of Kentucky's 120 counties, recording data on the highest and lowest elevations, local relief, elevations of certain significant natural and man-made features, and salient characteristics of the terrain.

INTRODUCTION

From the Breaks of the Sandy to the bluffs of the Mississippi, Kentucky has a varied topography with such diverse landscapes as the mountains of Appalachia, the classical karst country of the Mammoth Cave region, and the broad flood plains of the mighty Mississippi.

The topography of the Commonwealth of Kentucky, that is, the configuration and location of the hills, mountains, valleys, and various other physical features of the landscape, constitutes one of the important natural resources of the State. Agricultural activity has been concentrated on land having gentle slopes, adequate drainage, and sources of water. Urban and industrial expansion has been greatest in areas of flat or gently rolling terrain. Mountains and hills have affected the location and construction of travel routes. And it is the beauty of the mosaic of rolling hills, cascading waterfalls, rugged gorges, and majestic mountains that attracts the visitor and has made the tourist industry an important factor in Kentucky's economy.

Topography is the configuration or shape of land surface, including its relief and the location or position of its natural and more prominent man-made features. Topography is controlled to a great extent by geologic factors. Resistant rock formations may be expressed as cliffs, hills, ridges, knobs, mountains, upland plateaus, or waterfalls. Cliffs or rectilinear drainage patterns may be the result of faults or joint fractures in the rock. Valleys cut into sand or soft shale formations may seem unusually wide for the size of the stream flowing through them. For the most part, the topography of Kentucky seems to

be controlled by stream erosion, with many of the modifications reflecting the character of the underlying rock formations.

How high is Pine Mountain? How deep is Red River gorge? What is the highest point in my area for a transmitter tower? Where is some level land for an industrial site? How steep is the slope where a road is proposed? What is the drainage area of a certain stream? These and many other questions relate to the topography of a region and the answers are frequently found on topographic maps.

Topographic maps serve as a basis for the study and solution of many problems relating to activities that are affected by the character and relief of the earth's surface. The problems may involve mineral or water resources, prospecting and mining, engineering construction of all types, location of industrial sites, urban planning, and recreation. As the result of progressive action by business, education, government, and professional leaders, there is complete coverage of topographic maps for Kentucky's 40,411-square-mile area. These topographic maps constitute one of the Commonwealth's most basic and important technological resources.

In the preparation of these maps, the most modern engineering methods have been employed. Aerial photography, precise photogrammetric processes, and field surveys are required. The finished topographic maps are published in rectangular sheets called quadrangles, established on the basis of 7.5 minutes of latitude and longitude. They show roads, houses, political boundaries, and other man-made features, as well as lakes, ponds, the courses of streams, and other water features. In addition,

these maps depict the shape and slope of the land surface, its hills and valleys, and give altitude above sea level.

Each quadrangle covers an area of approximately 59 square miles, and is named for a community, populated area, or prominent natural or man-made feature. Several maps are necessary to cover any county, and 779 quadrangles are necessary to cover the whole State. Quadrangle maps can be joined together to show a desired area. The scale of the maps is 1:24,000, or 1 inch of map distance represents 24,000 inches (2,000 feet) on the ground. Contour lines, a graphic device for depicting a three-dimensional feature on a flat piece of paper, show points of equal elevation. Contour intervals on Kentucky maps are 10, 20, or 40 feet, depending upon the flatness or ruggedness of the terrain. Periodically, some of the maps are revised to record industrial development, urban and suburban expansion, and new construction of roads and reservoirs.

This report presents for the first time a summary of the topography of each of Kentucky's 120 counties, recording data on the highest and lowest elevations, local relief, elevations of certain significant natural and man-made features, and salient characteristics of the terrain. Elevations cited herein are surveyed elevations recorded on the topographic maps or interpolated from map data. The datum for the Kentucky topographic map series is mean sea level. All elevations given in this report are in feet above sea level. Outline maps for each county show the quadrangles required to cover the individual county areas. Portions of selected topographic maps are included to illustrate representative terrain conditions in different parts of the Commonwealth. For further details, the reader is referred to specific maps in the areas of his or her interest.

Elevations in Kentucky range from a low of 260 feet on the Mississippi River where it leaves Fulton County in the western extremity of the State to 4145 feet, a peak on Black Mountain in Harlan County near the Kentucky-Virginia border.

The highest elevations are found in the southern part of the Eastern Kentucky coal field. Bell, Harlan, Letcher, and Pike Counties register elevations in excess of 3000 feet. Only Harlan County contains elevations greater than 4000 feet. Eight additional counties—Clay, Floyd, Knott, Knox, Leslie, McCreary, Perry, and Whitley—have elevations of more than 2000 feet.

Green River Knob, at 1789 feet in southern Casey County, is the highest point in Kentucky west of the

Eastern Kentucky coal field.

No county west of Allen, Barren, Hart, Hardin, and Meade Counties has elevations as great as 1000 feet. And in the Jackson Purchase region, only Calloway County has elevations greater than 600 feet.

The greatest total relief for a county is found in Harlan County where the difference in elevation between the highest and lowest points is approximately 3069 feet. The lowest total relief is in Ballard and McCracken Counties where the differences between the highest and lowest points are but 210 feet.

Table 1 lists the highest and lowest elevations and the elevation of the county seat for each of Kentucky's 120 counties.

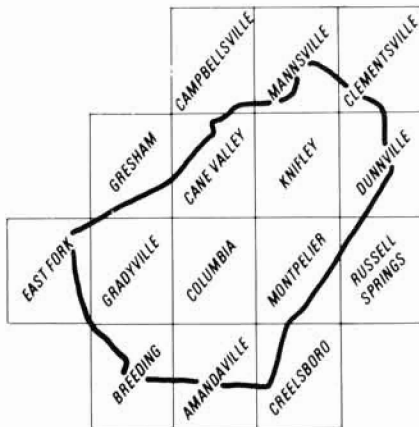
Complete files of topographic maps for Kentucky, at a scale of 1:24,000, are maintained in the offices of the Kentucky Geological Survey, Lexington; Kentucky Department of Commerce, Frankfort; and U.S. Geological Survey, Reston, Virginia. Copies may be inspected at or purchased from these agencies. Index maps showing Statewide coverage of Kentucky topographic maps are also available from these offices. Partial or complete sets of these maps are on file in some of the colleges and universities in the Commonwealth.

**TABLE 1.—SUMMARY OF ELEVATIONS
(IN FEET ABOVE MEAN SEA LEVEL)**

County	Highest	Lowest	County Seat and Elevation	
Adair	1120	585	Columbia	750
Allen	966	445	Scottsville	760
Anderson	940	469	Lawrenceburg	791
Ballard	495	285	Wickliffe	385
Barren	1068	465	Glasgow	770
Bath	1388	590	Owingsville	1000
Bell	3500	975	Pineville	1015
Boone	964	455	Burlington	846
Bourbon	1050	715	Paris	843
Boyd	1140	515	Catlettsburg	555
Boyle	1364	740	Danville	989
Bracken	980	455	Brooksville	954
Breathitt	1600	650	Jackson	787
Breckinridge	920	383	Hardinsburg	714
Bullitt	998	385	Shepherdsville	449
Butler	810	385	Morgantown	573
Caldwell	767	339	Princeton	495
Calloway	640	359	Murray	515
Campbell	920	455	Alexandria	823
Carlisle	550	283	Bardwell	378

Carroll	940	420	Carrollton	485	Logan	868	395	Russellville	595
Carter	1300	542	Grayson	608	Lyon	670	305	Eddyville	470
Casey	1789	710	Liberty	816	McCracken	500	290	Paducah	341
Christian	966	390	Hopkinsville	548	McCreary	2165	723	Whitley City	1360
Clark	1120	549	Winchester	960	McLean	660	345	Calhoun	395
Clay	2235	690	Manchester	870	Madison	1660	530	Richmond	950
Clinton	1780	530	Albany	960	Magoffin	1640	785	Salyersville	854
Crittenden	842	310	Marion	594	Marion	1260	475	Lebanon	797
Cumberland	1110	510	Burkesville	582	Marshall	550	302	Benton	430
Daviess	680	347	Owensboro	400	Martin	1606	550	Inez	640
Edmonson	900	412	Brownsville	537	Mason	1000	485	Maysville	520
Elliott	1340	645	Sandy Hook	775	Meade	1000	383	Brandenburg	420
Estill	1511	566	Irvine	585	Menifee	1428	670	Frenchburg	870
Fayette	1070	549	Lexington	959	Mercer	1000	483	Harrodsburg	850
Fleming	1420	590	Flemingsburg	823	Metcalfe	1120	560	Edmonton	843
Floyd	2320	580	Prestonsburg	630	Monroe	1141	495	Tompkinsville	923
Franklin	930	455	Frankfort	510	Montgomery	1447	707	Mt. Sterling	970
Fulton	500	260	Hickman	475	Morgan	1400	690	West Liberty	830
Gallatin	920	420	Warsaw	495	Muhlenberg	760	355	Greenville	538
Garrard	1400	514	Lancaster	1032	Nelson	1090	390	Bardstown	647
Grant	1000	530	Williamstown	974	Nicholas	1060	565	Carlisle	879
Graves	580	321	Mayfield	480	Ohio	800	365	Hartford	428
Grayson	963	395	Leitchfield	750	Oldham	920	420	LaGrange	867
Green	1045	490	Greensburg	632	Owen	1000	425	Owenton	1000
Greenup	1200	485	Greenup	536	Owsley	1720	650	Booneville	708
Hancock	840	358	Hawesville	419	Pendleton	960	455	Falmouth	558
Hardin	1017	383	Elizabethtown	731	Perry	2520	700	Hazard	880
Harlan	4145	1070	Harlan	1197	Pike	3149	610	Pikeville	685
Harrison	1060	540	Cynthiana	725	Powell	1440	580	Stanton	659
Hart	1156	421	Munfordville	612	Pulaski	1680	723	Somerset	975
Henderson	588	331	Henderson	400	Robertson	1009	550	Mt. Olivet	958
Henry	950	425	New Castle	844	Rockcastle	1638	810	Mt. Vernon	1170
Hickman	510	276	Clinton	385	Rowan	1435	625	Morehead	748
Hopkins	729	345	Madisonville	470	Russell	1140	530	Jamestown	970
Jackson	1633	650	McKee	1030	Scott	1060	690	Georgetown	840
Jefferson	902	383	Louisville	462	Shelby	1188	550	Shelbyville	760
Jessamine	1072	497	Nicholasville	930	Simpson	928	490	Franklin	720
Johnson	1508	550	Paintsville	620	Spencer	880	420	Taylorsville	490
Kenton	960	455	Independence	903	Taylor	1200	570	Campbellsville	810
Knott	2360	675	Hindman	1031	Todd	966	405	Elkton	631
Knox	2322	890	Barbourville	986	Trigg	813	359	Cadiz	423
Larue	1080	421	Hodgenville	730	Trimble	970	420	Bedford	910
Laurel	1760	723	London	1255	Union	673	320	Morganfield	437
Lawrence	1320	515	Louisa	580	Warren	955	395	Bowling Green	510
Lee	1367	610	Beattyville	666	Washington	1020	475	Springfield	733
Leslie	2600	757	Hyden	870	Wayne	1788	723	Monticello	923
Letcher	3720	940	Whitesburg	1164	Webster	640	325	Dixon	538
Lewis	1400	485	Vanceburg	525	Whitley	2220	723	Williamsburg	961
Lincoln	1440	760	Stanford	946	Wolfe	1460	650	Campton	960
Livingston	754	302	Smithland	344	Woodford	1000	469	Versailles	895

ADAIR COUNTY



Adair County is located in the Mississippian Plateaus area of south-central Kentucky. The upland area is moderately to deeply dissected in most portions of the county, but some large, flat ridgetops occur in the central and southeastern parts. Ridgetop elevations generally range from about 900 feet in the northwest to 950 to 1000 feet in the southeast. Elevations of valley flats are generally 700 to 800 feet

Some sinkholes and springs are present, but karst features do not constitute a prominent part of the landscape.

The drainage divide between the Cumberland and Green Rivers crosses southern Adair County. The highest elevations in the county are found there. In the vicinity of Sparksville a ridge on this divide which parallels Kentucky Highway 61 attains an elevation in excess of 1120 feet. The lowest elevation is 585 feet where Russell Creek leaves the county.

Maximum local reliefs occur at bluffs along the entrenched streams, where differences in elevation range from 100 to 260 feet. The highest bluffs border Green River Lake in northwestern Adair County.

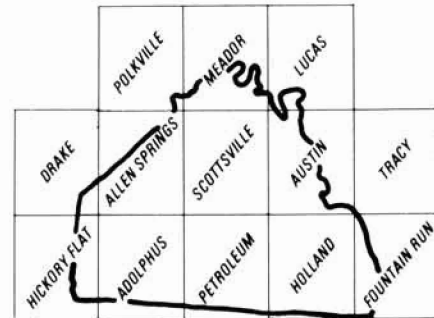
Other elevations of special interest are Columbia, at the courthouse, 750 feet; Breeding, 974 feet; Cane Valley, 785 feet; Gradyville, 712 feet; Knifley, 721 feet; and Green River Lake (normal pool level), 713 feet.

ALLEN COUNTY

Allen County is situated in the Mississippian Plateaus area of south-central Kentucky. It is at the southern boundary of the State about midway between the eastern and western extremities. The

topography is undulating to rough, reflecting a moderately to deeply dissected plateau. Karst features characterize the topography in the northwestern part of the county.

One of the highest elevations in the county is a point about 4 1/2 miles southeast of Scottsville where a hill reaches an elevation of approximately 966 feet. A television relay tower has been constructed there. A hill with a comparable elevation is 0.6 mile south-southwest of Mt. Union Church near the Kentucky-Tennessee state line. The lowest elevation is about 445 feet, at the point where Barren River leaves the county.



The uplands appear generally uniform in height, but greater elevations are present in the southern part of the county. Ridges, many of which are flat topped, generally range in elevation from 640 to 880 feet, and the valley flats range from 470 to 600 feet. The maximum local relief is 180 feet along the bluffs of entrenched Barren River. Local reliefs of 100 to 140 feet along principal drainage lines are more common.

The elevation of Scottsville, at the courthouse, is 760 feet. Adolphus is 650 feet; Allen Springs, 638 feet; Holland, 803 feet; Petroleum, 614 feet; and normal pool level of Barren River Lake, 552 feet.

ANDERSON COUNTY



Anderson County is located in the Blue Grass area of central Kentucky and includes topographic expressions of the rolling terrain of the Inner Blue

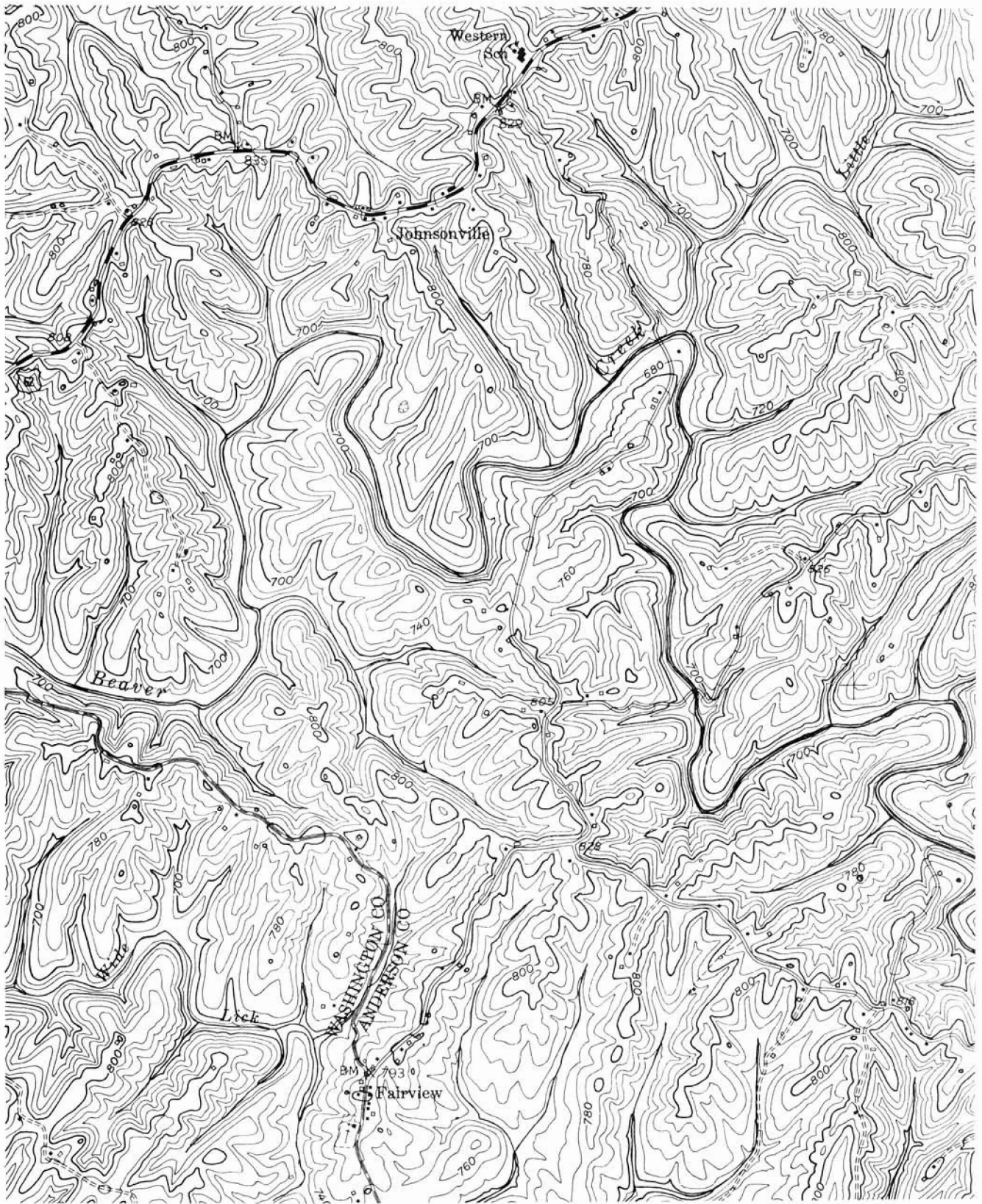


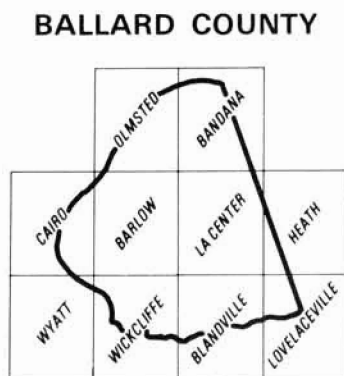
Figure 1. Portion of the Ashbrook quadrangle showing typical Outer Blue Grass topography in parts of Anderson and Washington Counties.

Grass and the hills of the Outer Blue Grass or Eden Shale belt (Fig. 1). The contrasts of these two topographic areas may be seen on the Lawrenceburg topographic sheet. The gorge of the Kentucky River, which forms the eastern boundary of the county, presents another striking topographic feature (Fig. 2).

Salt and Chaplin Rivers and their tributaries drain most of Anderson County. The drainage divide between the Kentucky River and Salt River is a north-south ridge in the eastern part of the county, parallel to and 1 to 3 miles west of the Kentucky River. Elevations along this divide range from 850 to 900 feet. Except in the valleys of the major streams, there is little flat land in the Outer Blue Grass portions of the county.

The highest elevations in Anderson County, about 940 feet, are found along the sinuous ridge adjacent to Kentucky Highway 749, about 2 1/2 miles south of the community of Fox Creek. The lowest elevation is 469 feet on the Kentucky River where it leaves the county. Maximum local relief is some 300 feet along the palisades of the Kentucky River and the surrounding bluffs and steep slopes. The deeply entrenched Kentucky River gorge with its nearly vertical limestone walls is the most spectacular topographic feature of the central Blue Grass region.

Elevation of Lawrenceburg, the county seat, is 791 feet. Alton is 839 feet; Alton Station, 797 feet; Ashbrook, 827 feet; Fox Creek, 778 feet; Glensboro, 621 feet; McBrayer, 833 feet; and Tyrone, 520 feet. Blackburn Memorial Bridge over the Kentucky River at Tyrone is at an elevation of approximately 650 feet, almost 170 feet above the river.



Ballard County is one of the westernmost counties in Kentucky. It is part of the Mississippi Embayment area of western Kentucky. The Ohio River, which forms the northern and part of the western boundary of the county, joins the Mississippi River

at Wickliffe. Mayfield Creek marks the southern boundary.

The topography of Ballard County ranges from nearly flat to moderately rolling. Flood plains along the Mississippi and Ohio Rivers are at elevations of 310 to 315 feet. There are no bluffs between the flood plain and the upland area in the northern part of the county, but bluffs are present along both the Ohio and Mississippi Rivers from the vicinity of Barlow southward. The bluffs near Barlow are about 60 feet above the flood plain, and at Wickliffe, as much as 150 feet above. The greatest local relief is along the steep valley sides of Mayfield Creek in the south-central part of the county where differences in elevation are as great as 180 feet.

Portions of the Ohio River flood plain have been designated as Barlow Bottoms and Oscar Bottoms. These areas, as much as 5 miles wide, are characterized by a number of north-south oriented lakes, ponds, sloughs, and swamps which mark the flood-water routes and channel changes of the Ohio River (Fig. 3).

The highest part of Ballard County appears to be along the drainage divide between Massac Creek and Humphrey Branch in the eastern part of the county where elevations in excess of 390 feet have been noted. A bench mark situated on Kentucky Highway 286, 3/4 mile west of the Ballard-McCracken County line, records an elevation of 495 feet. The lowest elevation is the Mississippi River at about 285 feet.

Elevations in various communities are Bandana, 354 feet; Barlow, 375 feet; Blandville, 467 feet; Kevil, 412 feet; La Center, 374 feet; Lovelaceville, 365 feet; Monkeys Eyebrow, 362 feet; Oscar, 355; and Wickliffe, the county seat, 385 feet. Elevations in Ballard State Waterfowl Management Area in Oscar Bottoms are between 310 and 320 feet.

BARREN COUNTY

Barren County, in south-central Kentucky, occupies part of the Mississippian Plateaus region. The topography varies from a plateau area moderately to deeply dissected by normal stream erosion in the southeast, to a sinkhole (karst) plain in the central and northeast, and to a higher dissected plateau in the northwest. Isolated knobs, erosion remnants of the upland plateau, punctuate the landscape in the northern part of the county.

The Dripping Springs escarpment separates the higher plateau from the karst plain. It is the most conspicuous topographic feature in the county. It is a southeastward-facing cuesta which rises approx-

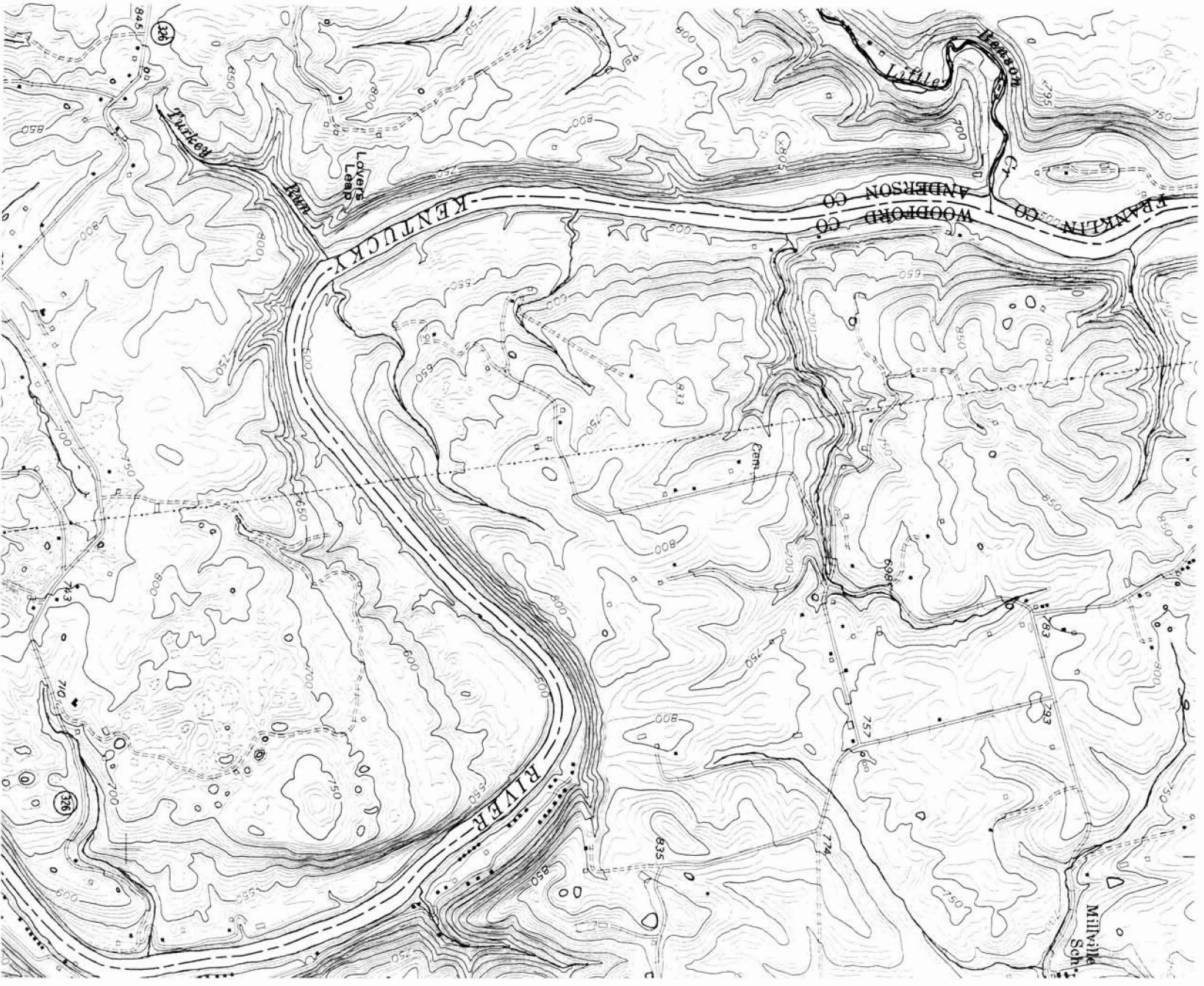


Figure 2. Portion of the Tyrone quadrangle showing the Kentucky River gorge in the Inner Blue Grass region of central Kentucky. In this area the river is more than 400 feet below the adjacent uplands.

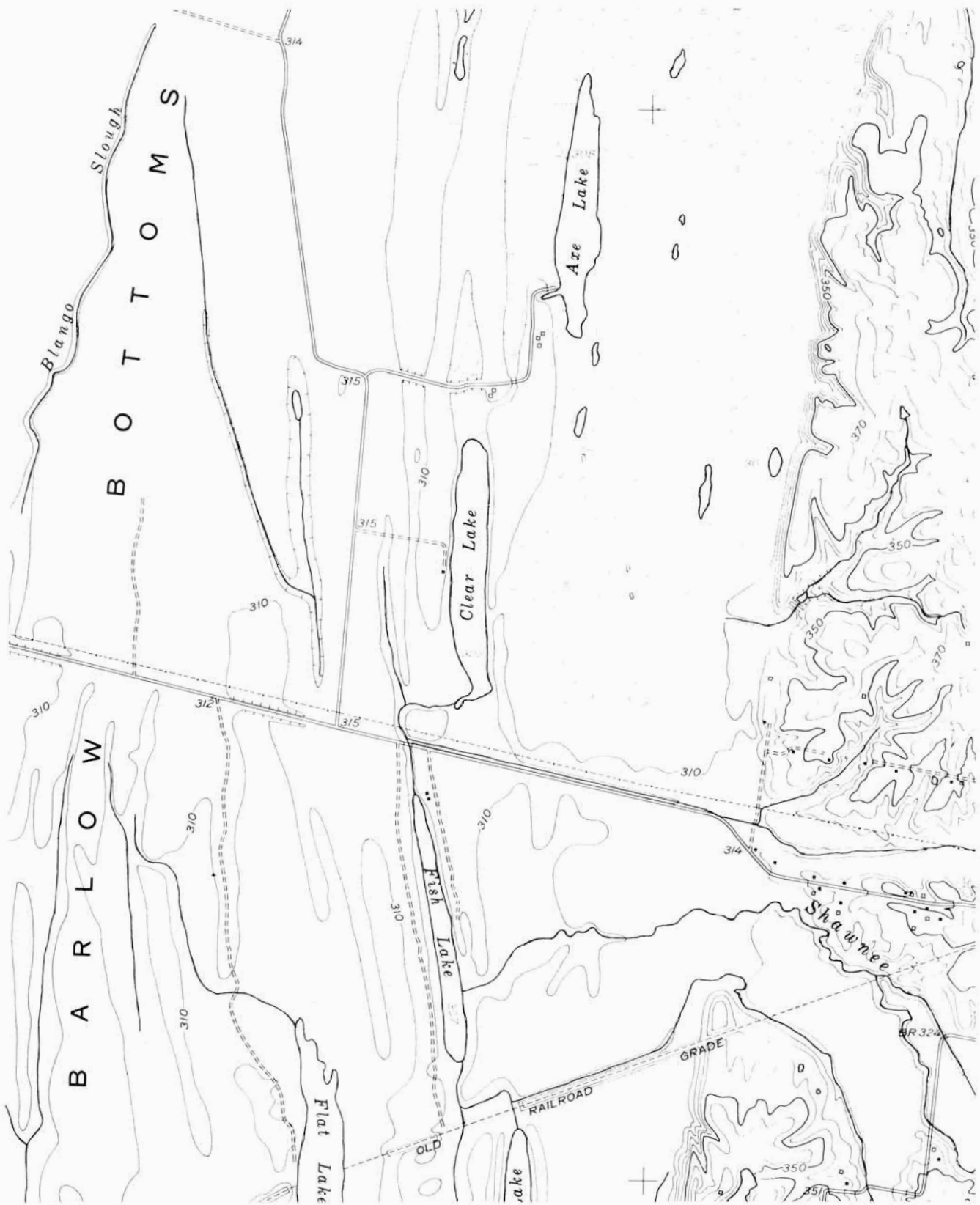
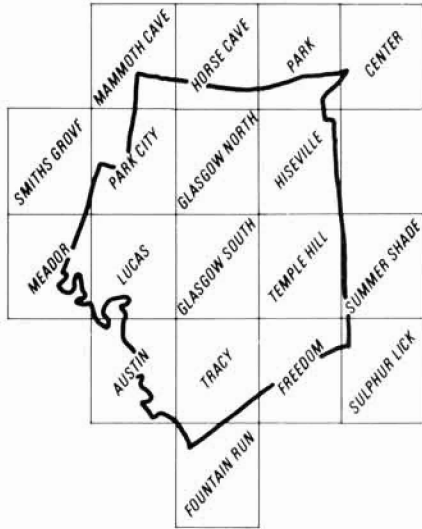


Figure 3. Portion of the Barlow quadrangle in Ballard County showing the Barlow Bottoms area of the lower Ohio River valley. Lakes, marshes, sloughs, and flood-scour marks are common features in the lower part of the valley.

imately 200 feet above the karst plain. Elevations on the outer edge of the escarpment range from 850 to 960 feet. Toohey Ridge near the edge of the escarpment has elevations in excess of 980 feet. A small portion of Mammoth Cave National Park is situated in the upland plateau area in northwestern Barren County.



The karst plain is characterized by sinkholes, sinking creeks, springs, and caverns (Fig. 4). Surface drainage is rare in the area. Beaver Creek marks the approximate outer (southern) boundary of the karst plain. To the south and southeast, normal drainage patterns are developed. Interstream ridges range from 800 to 960 feet. Valleys are typically 100 or more feet deep.

The highest elevation in Barren County is Loves Knob, 1068 feet, just north of U.S. Highway 68 near the eastern boundary of Barren County. Prewitts Knob is another conspicuous landmark; situated on the southeast side of U.S. Highway 31 between Cave City and Park City, it attains an elevation of 1058 feet, rising some 350 feet above the sinkhole plain. The lowest elevation is 465 feet, at the point where Barren River leaves the western side of the county.

The elevation at the courthouse in Glasgow is about 770 feet. Other elevations are Austin, 774 feet; Cave City, 635 feet; Eighty Eight, 805 feet; Hiseville, 720 feet; Lucas, 762 feet; Park City, 650 feet; and Temple Hill, 803 feet. Normal pool level of Barren River Lake is 552 feet.

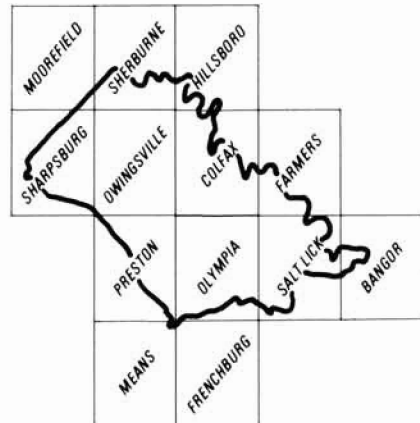
BATH COUNTY

Bath County is located in northeastern Kentucky where the Outer Blue Grass region meets the

foothills of the Cumberland escarpment. For the most part the topography is hilly to mountainous. However, there are some flat areas, about 900 feet above sea level, in the vicinity of Slate Creek at the western boundary of the county. Other flat areas may be found along portions of Licking River valley at the eastern edge of the county.

The northern and northwestern parts of the county are a moderately to deeply dissected upland area typical of the Outer Blue Grass (Eden Shale) region. Maximum elevations are approximately 1000 feet. Valleys are commonly 150 to 300 feet below the ridgetops.

Slate Creek and some of its tributaries in the central part of the county appear to occupy valleys too wide for the size of the streams. These seemingly unusual widths reflect the relatively soft rocks through which they have carved their valleys. Deeply entrenched Licking River forms the eastern boundary of the county and, with its tributaries, drains most of the county. Some small oxbow lakes are present along the valley in the southeastern part of the county. The lowest elevation is 590 feet, a point on Licking River in the northern tip of the county.



The southern portion of the county is hilly to mountainous. The highest elevations are found here. Tater Knob, 6 miles southeast of Salt Lick in Daniel Boone National Forest, is the highest point at 1388 feet. Other mountain peaks in the Bath County portion of Daniel Boone National Forest include South Knob of Big Mountain at 1384 feet, Carrington Rock at 1340 feet, and Mount Olympus at 1201 feet, all about 4 1/2 to 5 miles south and southeast of Olympia. The maximum local relief in the mountainous part of the county is greater than 600 feet. Some of the hills in this area are flat topped because of resistant caps of harder rocks.

The elevation of Owingsville, the county seat, is 1000 feet. Elevations of other communities are Midland, 688 feet; Olympia, 762 feet; Preston, 755

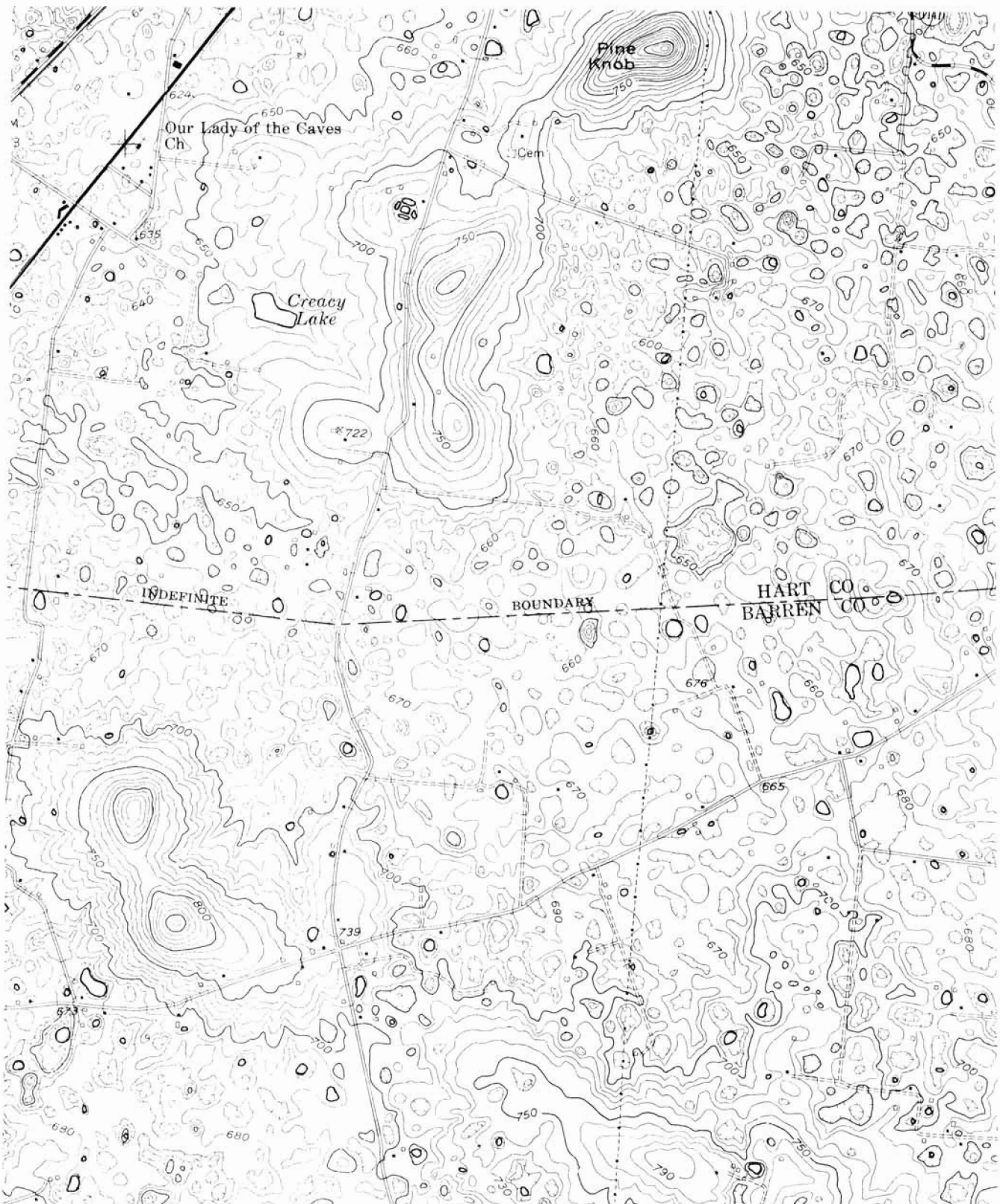
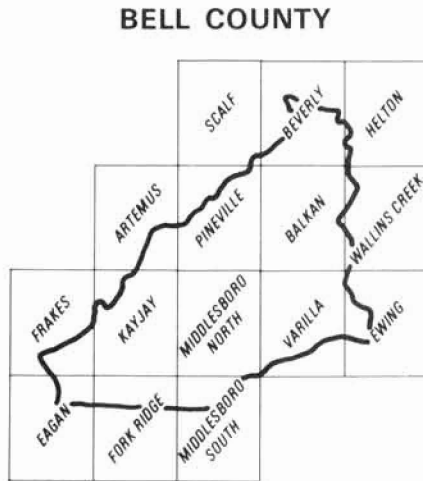


Figure 4. Portion of the Horse Cave quadrangle in Barren and Hart Counties showing part of the well-known sinkhole plain of south-central Kentucky. Normal surface streams are absent in large parts of this karst area, and drainage is through underground routes. Isolated hills, erosion remnants of the Dripping Springs escarpment, dot the surface and commonly rise more than 200 feet above it.

feet; Salt Lick, 669 feet; and Sharpsburg, 1014 feet.

Cave Run Lake, a flood-control facility, impounds waters of Licking River. Normal pool level is 730 feet, and the maximum flood pool (spillway elevation) is 765 feet.



Bell County is located in the rugged mountainous section of southeastern Kentucky. Except for the broad alluviated valley of Yellow Creek at Middlesboro and the narrow valley bottoms of Cumberland River and a few of its tributaries, flat areas are almost nonexistent. The lowest elevation in the county is about 975 feet, the point where Cumberland River leaves northwestern Bell County.

Mountain topography is predominant. Pine Mountain, though not the highest, is one of the most conspicuous and unique topographic features in the State. In Kentucky, it extends in a northeasterly direction from Whitley County to Pike County, passing through northern Bell County. Pine Mountain is a long, nearly straight, asymmetrical, sandstone-capped ridge with an abrupt northwest-facing escarpment and a less steep southeastern back slope. Its remarkably uniform character sets it apart from the maze of irregular hills and sinuous streams to the north and the higher, irregular mountain masses to the south. The crest of Pine Mountain in Bell County rises gradually from southwest to northeast with peaks ranging from 2100 to 2500 feet. The Cumberland River has cut through Pine Mountain at Pineville.

Cumberland Mountain, the crest of which marks the boundary between Bell County and the Commonwealth of Virginia, mirrors Pine Mountain. It also extends in a northeast-southwest direction and is essentially parallel. The linear nature of both Cumberland and Pine Mountains is associated with the geologic history of the Cumberland overthrust

fault block. Cumberland Mountain is also the divide between the Cumberland and Tennessee drainage basins. Elevations on the peaks of Cumberland Mountain along the Kentucky-Virginia boundary range from 2200 feet to more than 3500 feet. The highest elevation in the county, 3500 feet, is in the vicinity of White Rock lookout tower, northeast of Cumberland Gap.

Brush Mountain, Little Black Mountain, and Log Mountains are sinuous ranges containing conspicuously high peaks and ridges. Higher elevations on Brush Mountain range from 2800 to 3300 feet; Little Black Mountain, 2600 to 3000 feet; and Log Mountains, 2700 to 3100 feet. Rocky Face, a conspicuous single north-south ridge adjacent to U.S. Highway 25-E about 4 miles north of Middlesboro, has an elevation of 2130 feet.

The sides of many of the mountain peaks and ridges are quite steep. Local relief may be as great as 1500 feet over a horizontal distance of 1/2 mile in the area south of Pine Mountain. North of Pine Mountain, maximum local relief generally ranges from 800 to 900 feet.

The communities are all located in the valleys. Arjay has an elevation of 1027 feet; Beverly, 1280 feet; Fonde, 1310 feet; Fourmile, 1014 feet; Frakes, 1445 feet; Hulen, 1090 feet; Kettle Island, 1080 feet; Middlesboro, at the post office, 1138 feet; Pineville, at the courthouse, 1015 feet; Pruden, 1280 feet; and Varilla, 1040 feet.

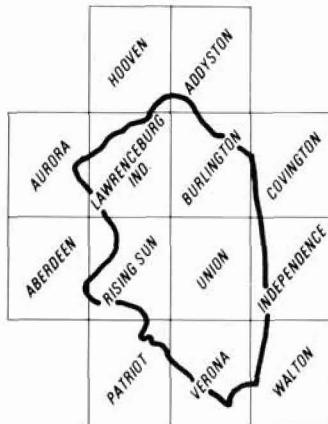
Two areas of special scenic interest in Bell County are Pine Mountain State Park on Pine Mountain overlooking Pineville, and Cumberland Gap National Historical Park south of Middlesboro which covers part of Cumberland Mountain. Cumberland Gap, a remnant of an ancient stream channel, is at an elevation of 1648 feet. The gap was the gateway through the Cumberland Mountain barrier for early settlers more than 200 years ago, and today it is an important route for north-south motor vehicle traffic.

BOONE COUNTY

Boone County is the northernmost county in Kentucky. The Ohio River, which forms the northern and western boundaries, has a marked influence on the topography of the county. The lowest elevation is 455 feet, the normal pool level of the Ohio River. Maximum local relief, 435 feet, is at the bluffs and steep slopes of the Ohio River at Constance. Local reliefs of 300 to 400 feet are found elsewhere along the Ohio. The highest elevation (greater than 964

feet) appears to be on a ridge midway between Walton and Kensington.

Most of the county is a moderately to deeply dissected upland of the Outer Blue Grass region. Local relief away from the river is commonly 100 to 200 feet. Some of the ridges between tributary valleys are flat topped, particularly in the north-central part of the county, where elevations range from 800 to 900 feet. Many of these areas are the sites of local development, such as the Greater Cincinnati Airport.



Flat-topped ridges are less common in the western part of the county. The upland is more completely dissected by stream erosion, and the resulting topography is a maze of irregularly shaped hills and ridges separated by small valleys entrenched 100 to 250 feet below the upland.

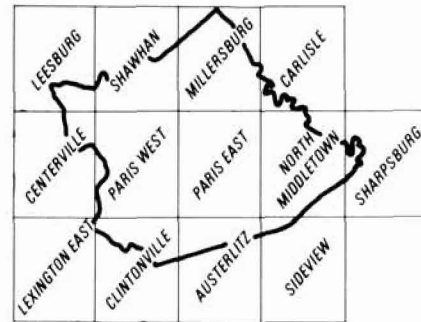
The flood plain along the Ohio River is narrow or absent, the widest being downstream from Petersburg. One or more low terraces associated with unconsolidated silt, sand, and gravel deposits may be found at scattered points along the valley.

The elevation of Big Bone Lick State Park is about 490 feet. Other elevations are Belleview (Grant P.O.), 509 feet; Burlington, the county seat, 846 feet; Florence, 935 feet; Taylorsport, 500 feet; Verona, 890 feet; and Walton, 930 feet.

BOURBON COUNTY

Bourbon County is located in the Inner Blue Brass region of Kentucky. Topographically, it is a rolling limestone upland, slightly to moderately dissected. Even though this is a limestone terrain, karst features are not abundant.

Elevations between 900 and 1000 feet are common; the maximum elevation of 1050 feet is on a ridge about 1 1/2 miles northeast of North Middletown. Cane Ridge, east of Paris, has ridgetop

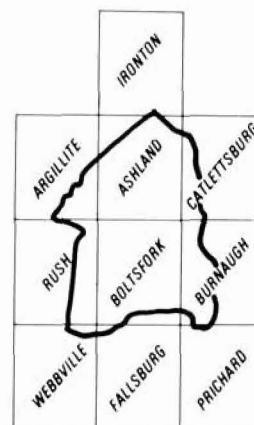


elevations between 950 and 1000 feet. Similar high elevations are found on the ridge along the Bourbon-Scott and Bourbon-Fayette County boundaries; this ridge is also the dividing line between the drainage basins of the Kentucky and Licking Rivers. Another high area is the drainage divide between some of the tributaries of Hinkston and Stoner Creeks in southeastern Bourbon County, where a number of hilltops have elevations between 1000 and 1030 feet.

The greatest local reliefs are found adjacent to the major streams: Licking River and Hinkston, Houston, Silas, Stoner, Strodes, and Townsend Creeks. Here differences in elevation between the valley flats and the adjacent uplands range from 60 to 120 feet in most areas. The lowest elevation in the county is about 715 feet, at the point where Licking River leaves the county.

Elevations of communities in the county are Austerlitz, 920 feet; Centerville, 931 feet; Clintonville, 992 feet; Millersburg, 803 feet; North Middletown, 916 feet; Paris, the county seat, 843 feet; and Shawhan, 835 feet.

BOYD COUNTY



Boyd County, located in northeastern Kentucky, is bounded on the east by the Ohio and Big Sandy Rivers and on the north by the Ohio River.

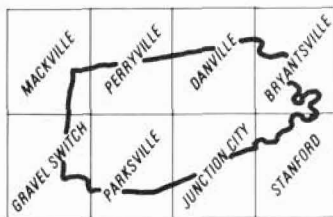
Although it is part of the Eastern Kentucky coal field, the topography is not as rugged as that of the counties to the south and southwest in the same region.

The highest elevations in the county are on the drainage divide between the Big Sandy and Little Sandy Rivers in the southern part of the county. Many of the elevations here are greater than 1000 feet, the highest being approximately 1140 feet. The lowest elevation is 515 feet, the normal pool level of the Ohio River where it leaves the county.

The area is well dissected. Flat areas are few, except along stream valleys. Local reliefs of 200 to 300 feet are common. The greatest local relief is in the southeastern corner of the county where differences in elevation between the valley of the Big Sandy River and the adjacent ridgetops may exceed 450 feet.

The elevation in downtown Ashland at the post office is 558 feet; other places within the city may be as great as 300 feet higher. Other points of interest are Boltsfork, 652 feet; Cannonsburg, 605 feet; Catlettsburg, the county seat, 555 feet; High Knob, a hill on the Boyd-Greenup County line, 1050 feet; Princess, 603 feet; and Rush, 650 feet.

BOYLE COUNTY



Boyle County, in central Kentucky, contains a diverse and varied topography. Straddling the Blue Grass and the Mississippian Plateaus regions, the county contains some striking topographic contrasts.

Northern Boyle County lies in portions of both the Outer and Inner Blue Grass regions. In the northeast, the topography is gently rolling with local reliefs of 60 to 100 feet, except along the limestone-walled valley of Dix River where the local relief may be as great as 230 feet. The divide between the drainage basins of the Kentucky River on the east and Salt and Rolling Fork Rivers on the west has elevations as great as 1040 feet.

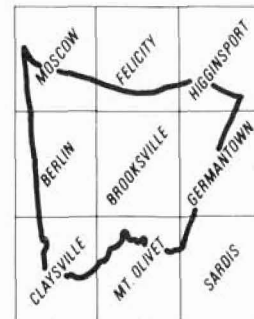
The most striking topographic feature in Boyle County is the Muldraugh (Highland Rim) escarpment. In Boyle County it is a north-facing cuesta rising more than 300 feet. It starts at Junction City

and extends westward across the county parallel to and south of Kentucky Highway 34. The dissected outer edge of the escarpment contains a number of isolated hills or knobs, part of the picturesque "knobs" country of central and northern Kentucky. The highest elevations in the county are found here, including Parksville Knob, at 1364 feet, the highest point in the county.

The upland behind the escarpment is well dissected by North Rolling Fork and its tributaries. The lowest elevation in Boyle County is 740 feet, where North Rolling Fork leaves the southwest corner of the county. Long, irregular ridges, many with elevations of 1200 feet or more, characterize the upland. The lower slopes of many of these ridges have a peculiar hummocky topography, reflecting the unstable condition of the soils derived from soft clay shales in the area.

The elevation at Danville, at the courthouse, is 989 feet. The elevation of Herrington Lake at full pool is 750 feet; Junction City, 986 feet; Mitchellsburg, 990 feet; Needmore, 935 feet; Parksville, 1080 feet; Perryville, 851 feet; and Shelby City, 995 feet.

BRACKEN COUNTY



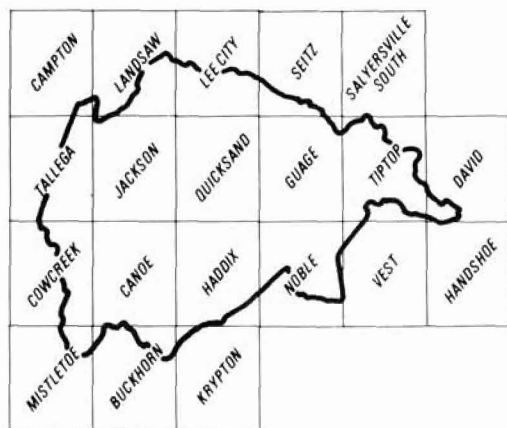
Bracken County is located in the northern portion of the Outer Blue Grass region. The Ohio River forms its northern border. The lowest point in the county is 455 feet, the normal pool level of the Ohio River below the navigation lock and dam at Willow Grove. The elevation of the normal pool level above the dam is 485 feet. Flood plains along the river are generally narrow to nonexistent; elevations range from 490 to 510 feet.

The area is moderately to well dissected, but some of the ridges are flat topped, particularly northwest of Germantown in the eastern part of the county. Local reliefs of 150 to 200 feet are common near the small streams. Greatest local reliefs are along the Ohio Valley in the northern part of the county where uplands are 300 to 400 feet above the river.

The highest elevations in Bracken County are found along the drainage divide between Licking River and the small creeks which flow directly into the Ohio. Elevations of 940 to 980 feet are common there, with 980 feet being the highest recorded in the county.

The elevation at Brooksville, the county seat, is 954 feet. Other elevations are Augusta, 510 feet; Berlin, 971 feet; Germantown, 978 feet; Lenoxburg, 900 feet; Milford, 613 feet; and Stony Point, a prominent ridge overlooking the Ohio River, 880 feet.

BREATHITT COUNTY



Breathitt County is located in the highly dissected Eastern Kentucky coal field. The topography is typical of this part of Appalachia. Practically the only flat areas are narrow strips along the valleys of some of the major streams. The sinuous, irregular ridges appear to occupy the same amount of territory as the deep, V-shaped valleys.

The Middle and North Forks of the Kentucky River are the principal drainage systems in the county. The lowest elevations are found along these streams. Points of departure from the county of both streams are at elevations of approximately 650 feet.

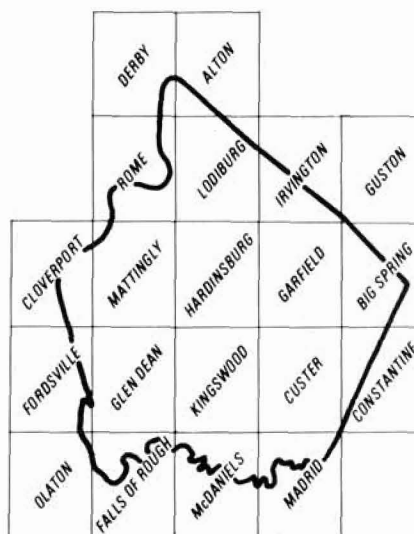
The Middle and North Forks of the Kentucky River occupy deeply entrenched meandering valleys with broad bends or loops, occasionally almost closing. A man-made oxbow lake has been created at Jackson, the county seat, where the narrow neck of a meander bend on the North Fork has been cut through to relieve a periodic flooding situation.

Ridgetops and mountaintops range in elevation from 1000 to 1300 feet in the northwest and 1400 to 1600 feet in the southeast. For the most part, the highest elevations in Breathitt County are along or near the divides between the drainage basins of the

Middle and North Forks of the Kentucky River and between the North Fork of the Kentucky River and Licking River where elevations of 1600 feet, the highest recorded in the county, occur in several places. Local reliefs in excess of 500 feet are common.

The elevation of the North Fork of the Kentucky River at Jackson is about 700 feet. The elevation in Jackson, opposite the courthouse, is 787 feet; Picnic Hill is 920 feet; High Knob, immediately west of Jackson, is 1400 feet. Elevation of other communities in the county, also located in valley bottoms, are Evanston, 929 feet; Haddix, 760 feet; and Quicksand, 780 feet.

BRECKINRIDGE COUNTY



Breckinridge County is located in the Mississippian Plateaus area of northwestern Kentucky. The Ohio River forms the northwestern boundary of the county; Rough River and part of Rough River Lake mark the southern boundary. The lowest elevation in the county is the Ohio River at 383 feet. The elevation of Rough River where it leaves the southwest corner of the county is approximately 415 feet.

The topography of Breckinridge County is varied. The eastern edge of the county is on the karst limestone plain that extends from the Ohio River generally southward to the Tennessee line. Sinkholes, streamless valleys, and underground drainage systems characterize the area. Here the sinkhole plain is at an elevation ranging from 580 feet on the western edge to 630 feet at the eastern county line.

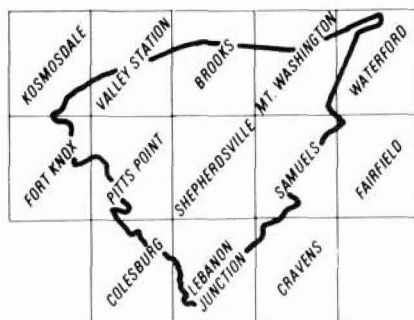
A plateau area west of the sinkhole plain is marked by a conspicuous escarpment which rises

200 to 250 feet above the plain. The plateau, which is generally higher in the east than in the west, is moderately to deeply dissected. Large flat-topped ridges are present in several parts of the county. These flat areas, developed on resistant rock formations, give these regions a tableland appearance. Locally isolated hills or ridges rise 80 to 100 feet above the plateau surface. Rough River, Clover and Sinking Creeks, and other smaller streams are entrenched 100 to 150 feet below the upland. Entrenchment is greater near the Ohio River.

The highest elevation is approximately 920 feet, and is in the High Plains area of the extreme eastern part of the county on the drainage divide between tributaries of the Ohio River and Rough River. The greatest local relief is in the vicinity of the Ohio River. In the northeastern corner of the county, the difference in elevation from one hilltop to the Ohio River flood plain is 500 feet in a distance of about 3/4 mile. Locally, precipitous cliffs are present along some of the streams.

The elevation of Hardinsburg, the county seat, is 714 feet. Elevations of other communities are Cloverport, 411 feet; Custer, 824 feet; Glen Dean, 466 feet; Harned, 755 feet; Irvington, 620 feet; Lodiburg, 520 feet; Madrid, 773 feet; McDaniels, 670 feet; and Stephensport, 423 feet. The elevation of Rough River Lake at normal pool level is 495 feet.

BULLITT COUNTY



Bullitt County, located in northern Kentucky immediately south of the Louisville area, has a diverse topography. The extreme eastern tip of the county is in the rolling hills of the Outer Blue Grass region. The western part of the county is in the area of rugged topography of the Knobs and dissected upland behind Muldraugh Hill (Highland Rim escarpment). Between these eastern and western portions of the county is a region containing some broad flat areas—an upland plain developed on resistant rocks and wide alluviated valleys carved from soft rocks.

Elevations generally decrease from about 700 feet in the eastern part of the county to 500 feet at the edge of the Knobs region and upland escarpment. The lowest elevations in the county are in the valleys of Rolling Fork and Salt River, which form the western boundary of Bullitt County. The elevation of Salt River where it leaves the northwestern corner of the county is about 385 feet. Broad, alluviated flats adjacent to the lower reaches of Salt River are approximately 450 feet in elevation.

Muldraugh Hill, an eastward-facing cuesta, and the isolated round hills or knobs carved from this upland are the most conspicuous topographic features of Bullitt County and contain both the highest elevations and the sites of greatest local relief. Slopes are steep but cliffs are rare. Individual knobs may rise 400 feet or more above the valleys of Rolling Fork and Salt River. The highest elevation in the county is 998 feet, the top of a knob some 3 1/2 miles northeast of Lebanon Junction. Elevations of some other knobs are Buttonmold Knob, 804 feet; Dawson Knob, 980 feet; Phelps Knob, 789 feet; and the knob on which the lookout tower in Bernheim Forest is located, 921 feet. Precise elevations have been determined for many more peaks, and this information can be obtained from individual topographic maps.

The hills and ridges at the eastern edge of Muldraugh Hill may attain elevations in excess of 900 feet. Two points adjacent to Brooks Hill have elevations of 912 and 917 feet, some 400 feet above the lowland immediately to the east. This upland area decreases in elevation toward the western border of the county where ridgetops are generally 700 to 750 feet in elevation, approximately 300 feet above the flood plain of the Ohio River.

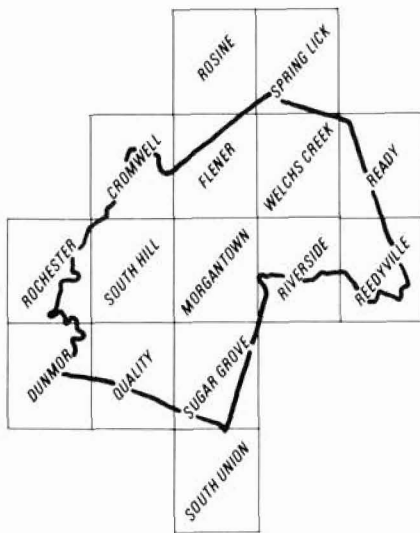
The elevation of Shepherdsville, at the courthouse, is 449 feet. Other elevations of interest include Belmont, 456 feet; Brooks, 515 feet; Clermont, 478 feet; Lebanon Junction, 454 feet; Mount Washington, 688 feet; and the entrance to Bernheim Forest, approximately 500 feet.

BUTLER COUNTY

Butler County is located near the southeastern edge of the Western Kentucky coal field. The meandering valley of Green River is the most conspicuous topographic feature in the county. Green River marks portions of the southern and northwestern boundaries and bisects the county in a northwesterly direction. Great Bend, a large meander loop almost 9 miles long and 2 to 3 miles

wide situated northwest of Morgantown, is a striking portion of the valley. Taylor Lake at the northwestern end of Great Bend marks a former channel of Green River. Highest elevation along the meander spur is 590 feet.

The lowest elevation is approximately 385 feet at the junction of Green and Mud Rivers at the western edge of the county. Elevations along the flood plain of Green River are approximately 400 to 410 feet. Valley flats are commonly 1/2 to 1 1/2 miles wide. Marshy areas, usually associated with abandoned meanders, may be found along either Green River or Mud River.

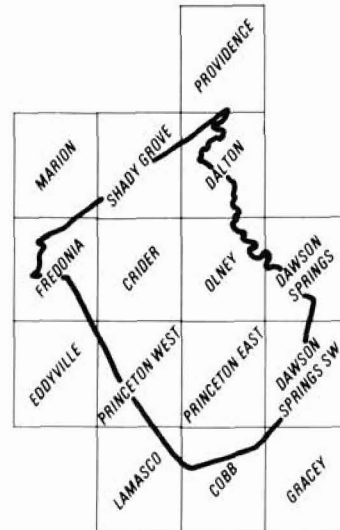


The area is well dissected by normal stream erosion. Flat-topped ridges and alluviated valleys are common. The highest elevations are in the southern part of the county where individual hills may attain elevations in excess of 700 feet. The highest point is 810 feet on Peach Orchard Knob. Other high elevations include Ragland Hill at 760 feet, Hanging Rock at 740 feet, and an unnamed ridge 2 1/2 miles north of Quality at 732 feet. Greatest local relief is along the bluffs of Green River about 2 miles east of Morgantown where the difference in elevation between the highest hills and the river is 340 to 350 feet.

The elevation of Dunbar is 466 feet; Huntsville, 548 feet; Morgantown, at the courthouse, 573 feet; Rochester, 450 feet; and Woodbury, 450 feet.

CALDWELL COUNTY

Caldwell County, located in western Kentucky, has a diverse topography. Portions of southern and western Caldwell County lie on a well-developed sinkhole plain that extends eastward to the Bowling



Green area of south-central Kentucky. Sinkholes, sinking creeks, springs, and other features associated with underground drainage in a limestone terrane are found here.

Northeast of the sinkhole plain is a line of sandstone-capped hills and broken ridges which mark the Dripping Springs escarpment, an upland area which rises 150 to 200 feet above the karst plain. It is particularly conspicuous in the vicinity of Fredonia but can be traced southeast across the county. The drainage divide between the Cumberland and Tradewater watersheds follows along or close to this escarpment.

Portions of eastern and northern Caldwell County touch the fringes of the Western Kentucky coal field. The most rugged topography, highest elevations, and greatest local relief in the county are found here. Locally, there are precipitous bluffs, such as Barnes Bluff and Hunters Bluff adjacent to U. S. Highway 62 in the eastern portion of the county; waterfalls; and high knobs and ridges.

The highest elevation in the county appears to be 767 feet, on a ridge just east of Kentucky Highway 139 about 6 miles north of Farmersville. A comparable elevation of 766 feet is found on top of Bald Knob about 5 miles east of Princeton.

The lowest elevations are found along Tradewater River (which marks the northeastern boundary of the county) and its tributaries, and Livingston Creek, a tributary of Cumberland River. (Livingston Creek joins Cumberland River about 10 miles below Barkley Dam.) The lowest elevation of 339 feet is found both where Tradewater River and where Livingston Creek leave the county. The gradient of Tradewater River is low; drainage is slow and marshes are common.

Part of the county is in the mineral region known

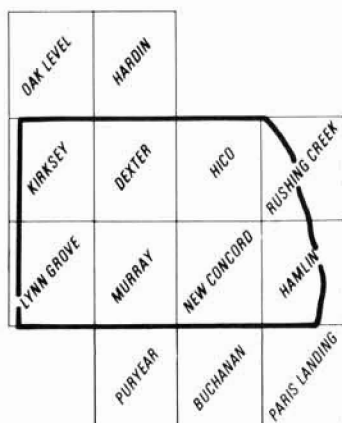
as the Illinois-Kentucky fluorspar district, which is characterized by a large number of fractures in the rocks. Effects of the faulting are reflected in the topography of the area as straight ridges and linear arrangement of sinkholes.

The elevation of Cobb is 460 feet; Crider, 459 feet; Farmersville, 472 feet; Fredonia, 420 feet; and Princeton, at the courthouse, 495 feet. Cedar Bluff, a conspicuous landmark on the Dripping Springs escarpment 2 miles southeast of Princeton, is 680 feet. Normal pool elevation of Lake Beshear is 410 feet. During periods of storage of flood waters in Lake Barkley, the reservoir may back up Eddy Creek into Caldwell County to an elevation of 375 feet. (The normal pool level of Lake Barkley is 359 feet.)

the southern part of the county have a maximum local relief as great as 160 feet. Stream gradients are low and some valley flats are subject to flooding. Some swamps are present along Clarks River.

Elevations of communities are Alamo, 428 feet; Coldwater, 545 feet; Dexter, 412 feet; Hazel, 561 feet; Kirksey, 555 feet; Lynn Grove, 575 feet; Murray, at the courthouse, 515 feet; and New Concord, 420 feet.

CALLOWAY COUNTY

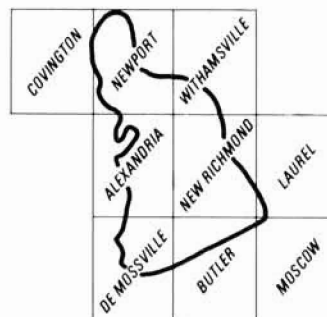


Calloway County is located in the Mississippi Embayment area of western Kentucky. Kentucky Lake marks the eastern boundary of the county, and the southern boundary is the Kentucky-Tennessee state line.

The area is a gently rolling plain. Highest elevations are found on the flat-topped, gravel-capped ridges between the principal drainage systems and range from more than 600 feet in the southwestern part of the county to 520 feet in the northern part. The highest elevation is apparently on the Tennessee Valley divide at the Kentucky-Tennessee state line where an elevation of more than 640 feet is recorded.

The surface of Kentucky Lake, the lowest point in the county, is 359 feet. Local differences in elevation rarely exceed 50 feet, except adjacent to drainage lines where differences in elevation between valley bottoms, including Kentucky Lake, and the upland surface may be 100 to more than 150 feet. Some high points along Kentucky Lake in

CAMPBELL COUNTY



Campbell County, located in the Outer Blue Grass region in northern Kentucky, is bounded by streams on three sides—the Ohio River on the east and north and Licking River on the west. The lowest elevation in the county is 455 feet at the confluence of the Ohio and Licking Rivers.

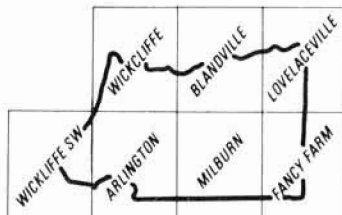
The area is well dissected by numerous small streams which flow into the Ohio and Licking Rivers. Flat areas are relatively scarce and generally small. Valley flats along the Ohio River are narrow or nonexistent. Flat areas along Licking River, where present, may be wider than those along the Ohio. Locally, ridgetops may be flat, but the areas involved are not large. The alluviated flat areas at elevations around 700 feet in the vicinity of and south of Claryville are associated with the ancient abandoned channel of Licking River. Terraces along Licking River have elevations of 490 and 520 feet.

The upland areas range from approximately 900 feet in the south to 750 feet in the north. The highest elevation is 920 feet, a ridge on the divide between the Ohio and Licking Rivers near the southern boundary of the county. The greatest local reliefs appear to be along the valley of Licking River in the central and southern portions of the county where differences in elevation between the stream and the adjacent hills may be as great as 400 feet. The hills above Newport are approximately 300 feet above the Ohio River.

Elevations of communities are Alexandria, the

county seat, 823 feet; Bellevue, 545 feet; Dayton, 515 feet; Fort Thomas, 810 feet; and Newport, 514 feet.

CARLISLE COUNTY



Carlisle County is located in the extreme western part of Kentucky. The Mississippi River, or its former route, marks the western boundary of the county and the northern boundary follows the meandering route of slow-flowing Mayfield Creek, a tributary of the Mississippi. The lowest elevation in the county is approximately 283 feet, the elevation of the Mississippi River.

Two contrasting topographic landscapes characterize Carlisle County, the upland area and the bottom lands. The upland area, well dissected by normal stream erosion, is composed of rolling hills, locally flat-topped ridges, and broad valleys. Local relief, except along the Mississippi River bluffs, is generally less than 100 feet and slopes are rarely steep. Ridgetop elevations of 450 to 500 feet are common. The highest elevation in the county is on the ridge between Bardwell and Berkley where 550-foot contours have been recorded. Closer to the Mississippi River, slopes are steeper and local relief is greater, being as much as 210 feet between the upland and the flood plain below.

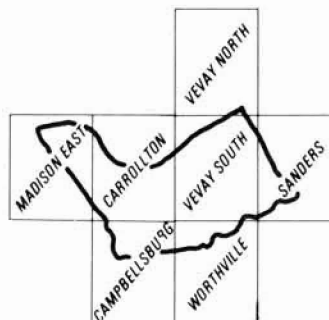
Bottom lands adjacent to the Mississippi range from 290 to 330 feet. They are marked by north-south oriented lakes, ponds, sloughs, chutes, and swamps, all former routes of the Mississippi in normal or flood-flow conditions. One flood plain area, known as Islands 2, 3, and 4, lies on the west side of the present-day channel of the Mississippi River. It has been cut off from the main part of the county as the river changed its route.

The elevation of Arlington is 347 feet; Bardwell, the county seat, 378 feet; Berkley, 395 feet; Cunningham, 398 feet; and Milburn, 480 feet.

CARROLL COUNTY

Carroll County is located in north-central Kentucky in the Outer Blue Grass region. The Ohio River, with normal pool elevation of 420 feet, is the

northern boundary of the county. The Kentucky River enters the county at Worthville and joins the Ohio between Carrollton and Prestonville. The normal pool level of the Kentucky River below Lock No. 1, 4 miles upstream from the Ohio, is 420 feet; normal pool level above Lock No. 1 is 428 feet.



The area is well dissected and is characterized by narrow valleys (except along major streams), steep slopes, and narrow ridges. Ridgetops with elevations between 800 and 900 feet are common. The highest elevation is 940 feet, a ridge about 1 1/2 miles north of Worthville. The valley of Buffalo Creek just 1/4 mile west of this ridge is 400 feet lower. Bluffs along the Ohio, Kentucky, and Little Kentucky Rivers and Eagle Creek commonly rise 300 feet or more above the valleys.

The elevation of the alluviated valley of the Ohio River ranges between 450 and 490 feet. Similar elevations exist in the valleys of the Kentucky and Little Kentucky Rivers and Eagle and Mill Creeks.

General Butler State Park, at the southeast edge of Carrollton, is developed on a cutoff meander core. The hills and ridges in the park are between 200 and 300 feet above the surrounding alluviated valleys. The highest elevation in the park is 780 feet, a knob near the northwest corner.

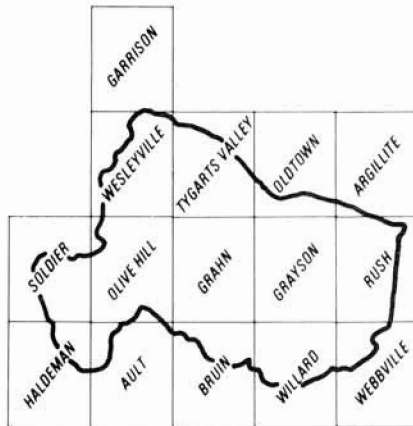
The elevation of Carrollton, the county seat, is 485 feet. Elevations of other communities are English, 474 feet; Ghent, 495 feet; Prestonville, 475 feet; Sanders, 486 feet; and Worthville, 486 feet.

CARTER COUNTY

Carter County is located on the edge of the Eastern Kentucky coal field in northeastern Kentucky. The area is well dissected, and flat areas are not common except along the valleys of Little Sandy River, Little Fork of Little Sandy River, and portions of Tygarts Creek. A few upland flat areas are found in the vicinity of Olive Hill where resistant sandstones are present. Steep slopes are common in most parts of the county, and vertical sandstone

bluffs are found along and near Tygarts Creek in the vicinity of Carter Caves State Park and along Big and Little Sinking Creeks in the Grahn area.

The highest elevations are found in the western and southwestern parts of the county. The Carter-Rowan county line follows the drainage divide between Licking River and Tygarts Creek. The highest elevation, 1300 feet, is on a ridge about 3 miles north-northwest of Soldier on this divide. The Carter-Lewis county line follows the drainage divide between Kinniconick and Tygart Creeks. Elevations on this divide commonly exceed 1100 feet and may be as great as 1240 feet. Local reliefs of 300 feet or more in these two areas are common.



The lowest elevation is approximately 542 feet where Little Sandy River leaves the county. Oxbow lakes and abandoned meanders are present in the valley north of Grayson. The normal pool level of Grayson Lake on Little Sandy River south of Grayson is 645 feet. The elevation of Tygarts Creek where it leaves the county is approximately 600 feet.

Carter Caves State Park occupies a scenic area adjacent to the entrenched meandering valley of Tygarts Creek. The elevation of Kentucky Highway 182 at the entrance to the park is approximately 700 feet. Highest points in the park exceed 1000 feet. The elevation of Smoky Valley Lake is 715 feet, and the park lodge is about 930 feet.

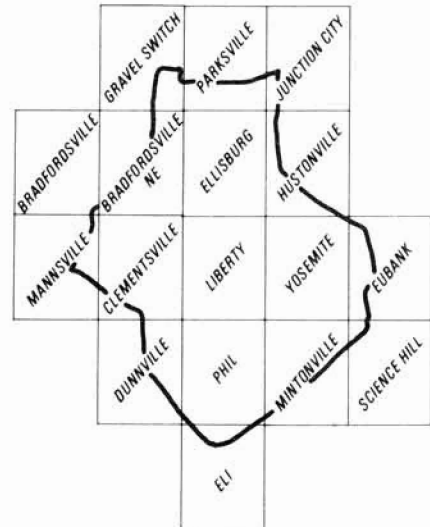
Other elevations in the county include Carter at 674 feet; Globe, 821 feet; Grahn, 700 feet; Grayson, the county seat, 608 feet; Lawton, 790 feet; Olive Hill, 760 feet; Soldier, 985 feet; and Willard, 630 feet.

CASEY COUNTY

Casey County is located in the Mississippian Plateaus area of south-central Kentucky. It is a well-dissected upland area with rather broad valleys and

numerous long, flat-topped ridges. Elevations of the flat ridgetops are commonly about 1100 feet in the north-central, central, and southern portions of the county. In the extreme northern part of the county, individual knobs and nearly flat ridges may have elevations ranging between 1300 and 1400 feet. Chicken Gizzard Ridge, for example, is 10 miles long and has elevations between 1000 and 1260 feet.

The highest elevations are in the southeastern part of the county where a number of isolated knobs and hills rise abruptly above the plateau. The highest of these knobs, and the highest point in the county, is sandstone-capped Green River Knob with an elevation of 1789 feet, located near the Casey-Pulaski County line (Fig. 5). Other high knobs in that area include Dye Knob, 1537 feet; Rocky Knob, 1523 feet; and Sand Knob, 1565 feet. These high knobs are close to the drainage boundary between Green and Cumberland Rivers.



Green River and its tributaries drain most of Casey County. This stream crosses the county from east to west. The flood plain has an elevation of 860 feet on the east and 720 feet on the west. Broad flats occur along this valley and some of its larger tributaries. The lowest elevation in the county is 710 feet, where Green River leaves the county. The flood pool of Green River Lake, elevation 713 feet, barely reaches Casey County. (The normal pool level of Green River Lake is 675 feet.)

The northern part of the county is drained by tributaries of Rolling Fork. Normal stream drainage has so dissected the upland area that the Muldraugh escarpment (Highland Rim) in this part of Kentucky has essentially lost its identity and, instead of presenting a single cuesta, is a mass of irregular knobs and ridges rising 400 feet or so above the larger valleys.

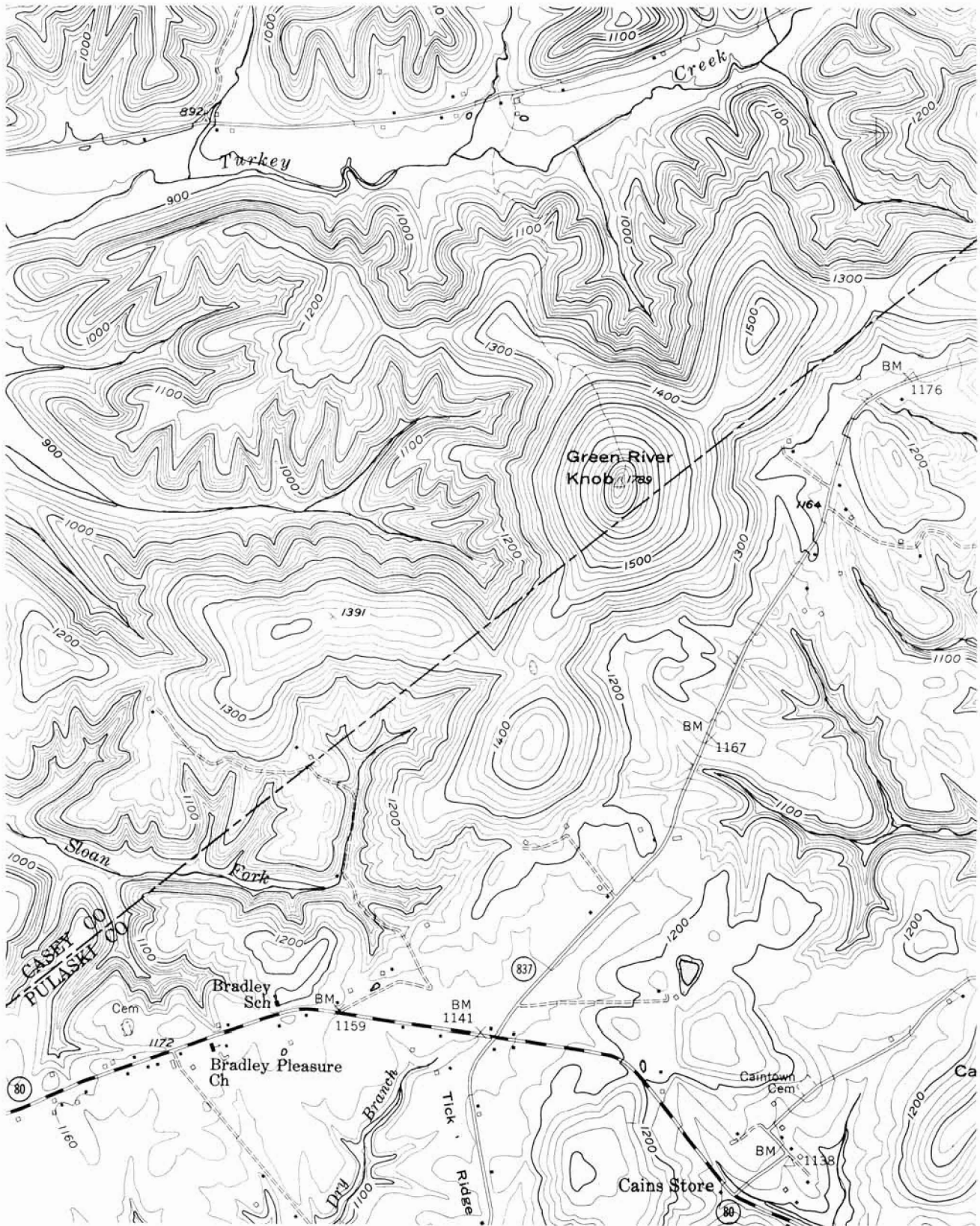
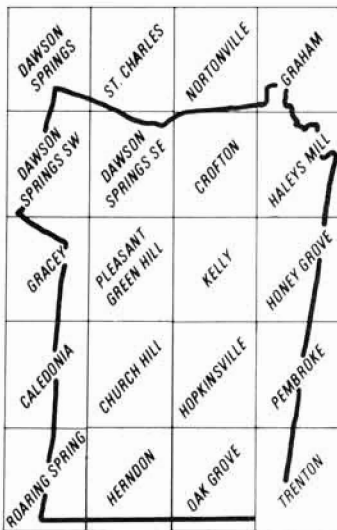


Figure 5. Portion of the Mintonville quadrangle in Casey and Pulaski Counties. Green River Knob, shown here, is not only the highest point in Casey County at 1789 feet, but also is the highest elevation in Kentucky west of the western edge of the Eastern Kentucky coal field.

Slopes throughout the county are steep but there is rarely an unscalable bluff. Local reliefs of 200 to 250 feet are common over much of the county but may exceed 300 to 400 feet in the extreme northern area and near the high knobs in the southeast. The difference in the elevations between the top of Green River Knob and a tributary of Turkey Creek just 1/2 mile away is 820 feet.

The elevation at Clementsville is 771 feet; Dunnville, 750 feet; Liberty, at the courthouse, 816 feet; Middleburg, 840 feet; Mintonville, 1200 feet; and Yosemite, 836 feet.

CHRISTIAN COUNTY



Christian County, located in the Mississippian Plateaus area of southwestern Kentucky, is bordered on the south by the Kentucky-Tennessee state line.

Two distinct terrains characterize the topography of Christian County. The southern part of the county is a nearly flat to gently rolling limestone plain with numerous sinkholes, sinkhole ponds, springs, and sinking creeks. Elevations of the karst plain generally range between 530 and 600 feet. Little River and Red River, two principal streams crossing this area, are rarely entrenched more than 50 to 60 feet. Fractures in the rock are locally expressed as sinkhole alignments and rectilinear drainage patterns.

The northern part of the county, generally north of U.S. Highway 68, is a higher plateau, characterized by sandstone-capped hills and ridges which produce higher elevations and more rugged terrain. Normal stream drainage patterns prevail here. The highest elevations are associated with knobs perched on ridges in the vicinity of a drainage divide which

separates north-flowing tributaries of Pond and Tradewater Rivers from the south- and west-flowing tributaries of Cumberland River. Pilot Rock, on the Christian-Todd County line, is the highest point at 966 feet. Pine Knob is 863 feet. Slopes associated with the sandstone-capped hills and ridges are commonly steep, and may be locally precipitous. Local reliefs may be as great as 300 to 400 feet but are generally less.

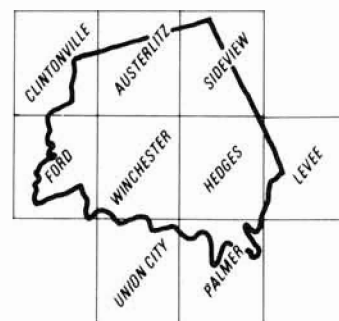
The lowest elevation, 390 feet, is at the northwest corner of the county where Tradewater River enters Hopkins County. The elevation of Pond River, at the northeast corner of the county, is approximately 395 feet. The valleys of both streams are fairly wide and commonly marshy.

There are several small man-made lakes in Christian County. The elevations of those near Hopkinsville are Lake Baxley, 560 feet; Lake Blythe, 593 feet; Buntin Lake, 636 feet; Lake Morris, 581 feet; and Lake Tandy, 570 feet.

Pennyrile State Park and Pennyrile State Forest are located principally in northwestern Christian County. Pennyrile Lake has an elevation of 458 feet, and Lake Beshear, partly in Christian County, is 410 feet. Highest ridges in the State Forest exceed 750 feet.

Elevations of communities are Crofton, 608 feet; Fairview, on the Christian-Todd County line, 620 feet; Gracy, 510 feet; Herndon, 525 feet; Hopkinsville, at the courthouse, 548 feet; and Pembroke, 582 feet.

CLARK COUNTY



Clark County is located in central Kentucky, straddling the border between the Inner and Outer Blue Grass regions. The topography ranges from rolling to hilly. The most conspicuous features are the entrenched valleys of the Kentucky and Red Rivers, which mark the southern boundary. The northeastern portion of the county is drained by tributaries of Licking River, and highest elevations in the county are found on the drainage divide be-

tween the Kentucky and Licking Rivers. The highest elevation, 1120 feet, is on a ridge adjacent to Kentucky Highway 15 about midway between Winchester and Pilot View. Elevations in excess of 1000 feet are found in several parts of the county.

The lowest elevation is the Kentucky River at the junction of Clark, Fayette, and Madison Counties. At this point normal pool level of the river is 549 feet. The Kentucky River at Lock 10 below Ford has a normal pool elevation of 566 feet upstream from the dam and 549 feet below the dam. The Kentucky River is entrenched 300 to 400 feet below the upland, and Red River is entrenched 200 to 300 feet. Bold limestone bluffs are common along the Kentucky River.

Old Indian Field is a broad, flat area developed on relatively resistant rock between Upper Howard and Lubegrud Creeks in the eastern part of the county. Elevations of the broad flats are generally between 780 and 800 feet. Marsha Bottom, a horseshoe-shaped flat area, is an abandoned meander loop of Red River near its junction with the Kentucky River.

Elevation of Winchester, at the courthouse, is 960 feet; Winchester Reservoir, 859 feet at the upper reservoir, and 846 feet at the lower reservoir; Becknerville, 938 feet; Ford, 622 feet; Indian Fields, 745 feet; and Kiddville, 829 feet.

boundary of Clay County.) Elevations here are commonly more than 2000 feet. The highest place in Clay County, 2235 feet, is a mountain area near the junction of the boundaries of Clay, Bell, and Knox Counties. The difference in elevation between this point and Red Bird Creek less than 3 miles east is more than 1100 feet. Local reliefs of 600 feet are common in the southeast portion of the county. Local relief declines gradually northward, and in the northwest portion of the county the local relief is more commonly about 350 feet.

Elevations of some of the named peaks or ridges are Asher Knob, 1951 feet; Cutoff Mountain, 1685 feet; Flatwoods, generally about 1600 feet but with knobs rising as high as 1680 feet; High Knob, 1387 feet; Rock Mountain, 1848 feet; Sand Hills, 1520 to 1760 feet; and Town Mountain, a nearly flat-topped ridge, 1649 feet.

The lowest elevation is South Fork of the Kentucky River where it leaves northern Clay County at an elevation of approximately 690 feet.

The elevation of Manchester, the county seat located in the valley of Goose Creek, is 870 feet. Elevations at other communities are Big Creek, 860 feet; Burning Springs, 920 feet; Creekville, 900 feet; Hima, 870 feet; and Oneida, where Redbird River and Bullskin and Goose Creeks join to form South Fork of the Kentucky River, 827 feet.

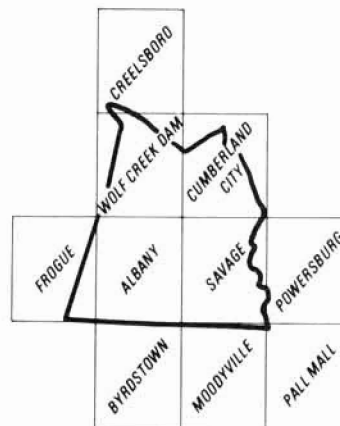
CLAY COUNTY



Clay County is located in the Eastern Kentucky coal field. The terrain is hilly to mountainous, with elevations generally increasing from north to south. The area is maturely dissected with mountains and valleys occupying almost equal areas.

The highest elevations are in the southern portion of the county along or near the divide between the drainage basins of the Cumberland and Kentucky Rivers. (This divide also approximates the southern

CLINTON COUNTY



Clinton County is located in the Mississippian Plateaus area of south-central Kentucky. The southern boundary of the county is the Kentucky-Tennessee state line.

The topography is diverse. Much of the terrain is a gently rolling, limestone plain, approximately 1000 feet in elevation, with characteristic sinkhole topography. Erosion remnants of the western edge

of the Cumberland escarpment dot the landscape in the eastern part of the county and rise above the sinkhole plain as isolated knobs and mountain-like ridges. Tributary valleys of the deeply entrenched Cumberland River, which lies just north of Clinton County, dissect the surface of the limestone plain in the northern part of the county. The southern part of the county is similarly dissected through stream erosion by Wolf River and its tributaries.

Portions of two major flood-control reservoirs touch Clinton County. Lake Cumberland on Cumberland River backs water into portions of northern Clinton County; normal pool elevation is 723 feet. Dale Hollow Lake, an impoundment of Obey River (in Tennessee), backs water up a portion of Wolf River and tributaries in southern Clinton County. The spillway elevation of Dale Hollow Lake is 651 feet. The lowest elevation in the county, approximately 530 feet, is Cumberland River at the junction of Clinton, Cumberland, and Russell Counties.

The highest elevation, 1780 feet, is a knob on an upland complex of sandstone-capped ridges known as Poplar Mountain, located east-northeast of Albany. Other knobs and mountains in the area also attain elevations of 1700 feet or greater, approximately 700 feet above the limestone plain. These include Copperas Knob, 1711 feet; Kennedy Mountain, 1720 feet; and Sewell Mountain, 1760 feet. Bald Rock, on the Clinton-Wayne County line just north of the Kentucky-Tennessee state line, also has an elevation of 1760 feet.

The elevation of Albany, the county seat, is 960 feet. Cumberland City has an elevation of 1053 feet, and Ida is at 921 feet.

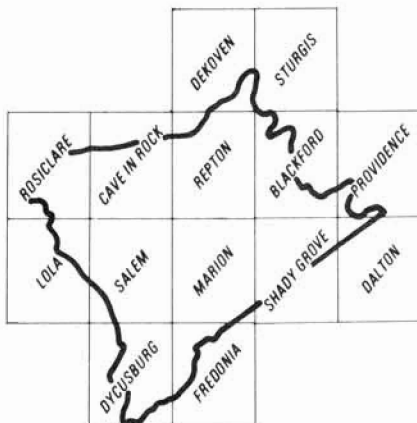
Crittenden County is located in the Western Kentucky fluorspar district of the Mississippian Plateaus area of extreme western Kentucky. The Ohio River forms part of the northern boundary, and Tradewater River marks the northeastern edge of the county. Livingston Creek forms a small part of the southern border, and the county touches Cumberland River in the vicinity of Dycusburg. Thus the county is drained by a diverse stream pattern that has left a well-dissected upland characterized by a variety of irregularly shaped, sandstone-capped hills and ridges (Fig. 6). The orientation of some of the ridges and bluffs is influenced by faulting which is so prevalent in the mineral district. Karst features are also present in the area. Locally, features associated with underground drainage are quite noticeable, but these areas do not constitute a major portion of the total landscape.

Wilson Hill, just south of Marion, is on the drainage divide between the Ohio and Tradewater Rivers. The highest elevation in the county, 842 feet, is found here. Hardin Knob, in the western part of the county, is 826 feet, more than 300 feet above the adjacent valleys. Crayne Knob is 810 feet.

The lowest elevation is the Ohio River at the mouth of Deer Creek, where normal pool elevation is 310 feet. (The new Smithland lock and dam, now under construction, will raise the normal pool elevation of the Ohio River in Crittenden County.) Normal pool elevation of the Ohio River at the mouth of Tradewater River is 320 feet. Flood plains along the Ohio are narrow to nonexistent. Bluffs may rise abruptly 200 to 250 feet above the river.

The elevation of Marion, at the courthouse, is 594 feet. Other elevations include Crayne, 642 feet; Dycusburg, 342 feet; Frances, 542 feet; Repton, 483 feet; and Tolu, 373 feet.

CRITTENDEN COUNTY



CUMBERLAND COUNTY

Cumberland County is located in south-central Kentucky adjacent to the Kentucky-Tennessee state line. It is a well-dissected plateau area with many of the ridgetops having elevations of 950 to 1050 feet, rising 200 to 300 feet above nearby valleys.

The topography of the Grider-Waterview area is less rugged. There are low rolling hills similar to the Outer Blue Grass area, reflecting the nature of the underlying rocks.

The most conspicuous topographic feature is the valley of Cumberland River which crosses the county from northeast to southwest in a series of broad, sweeping meander loops and intervening large

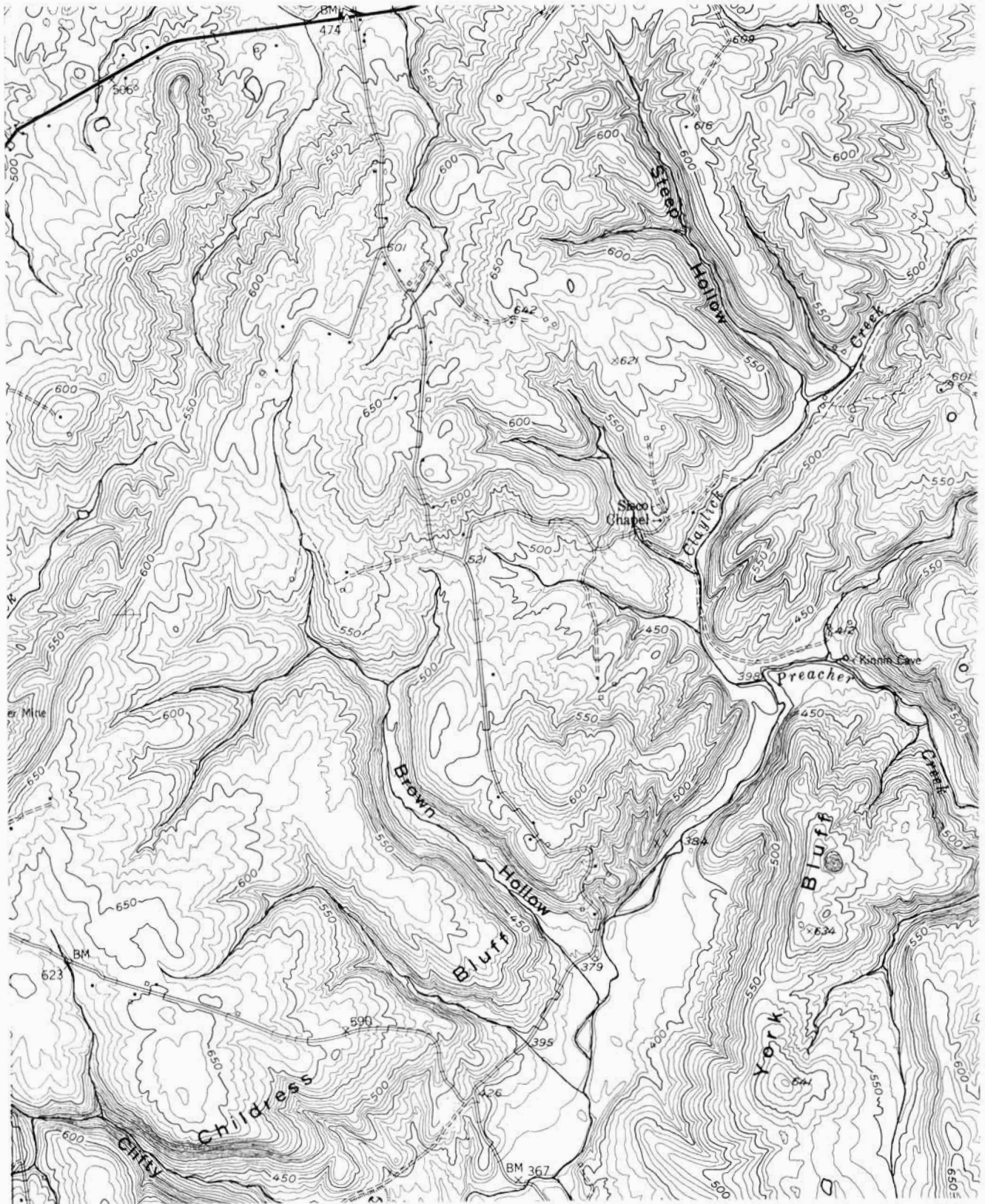
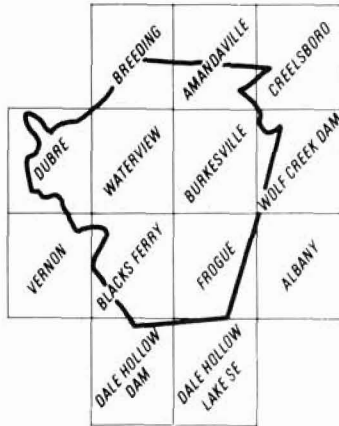


Figure 6. Portion of the Salem quadrangle in Crittenden County showing typical northeast-southwest and north-south trending ridges in the Western Kentucky fluorspar district of the Mississippian Plateaus region.

spurs. Lowest elevations in the county are found along Cumberland River, which leaves the county at an elevation of approximately 510 feet.



The southern part of the county is drained by tributaries of Obey River (in Tennessee). This stream has been impounded to form Dale Hollow Lake, portions of which extend into Cumberland County. The spillway elevation of the reservoir is 651 feet.

The highest elevation in the county appears to be 1110 feet, on a ridge between Camp and Leatherwood Creeks in the northwest corner of the county.

Elevations of communities are Amandaville, 586 feet; Burkesville, at the courthouse, 582 feet (some hills adjacent to Burkesville exceed 900 feet); Grider, 640 feet; Marrowbone, 631 feet; and Waterview, 680 feet.

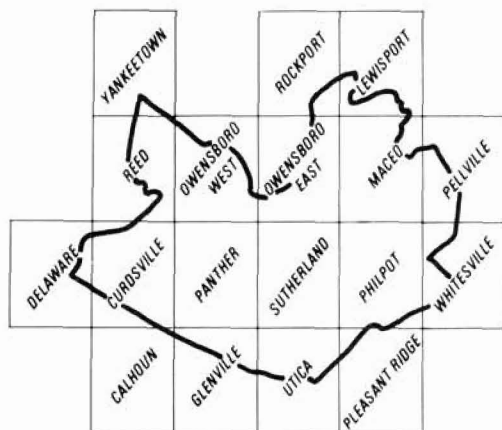
Ohio River at the Daviess-Henderson County line is 347 feet; the normal pool elevation of the Ohio River at the mouth of Blackford Creek in the northeast corner of the county is 358 feet. The elevation of Green River at the Daviess-Henderson County line is 349 feet. Broad flood plains are present along these streams and the alluvial flats rarely attain elevations as high as 400 feet.

The highest elevations are found in the southwestern part of the county. A ridge on the drainage divide between Blackford, Panther, and Pup Creeks, with an elevation of 680 feet, appears to be the highest point. This part of the county is a well-dissected upland with local reliefs ranging between 100 and 150 feet.

Elsewhere in the county the topography is more subdued with low, rolling hills and occasional island-like hill masses surrounded by alluviated valleys. Bon Harbor Hills, a group of hills and ridges surrounded by lowlands, is a striking example. The highest points on Bon Harbor Hills is 550 feet, some 150 feet above the valley flats.

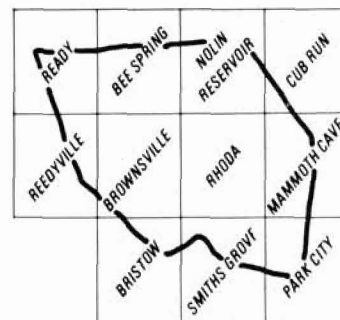
The elevation of Owensboro, the county seat, at the city hall is 400 feet. Elevations at other communities are Curdsville, 392 feet; Delaware, 392 feet; Knottsville, 558 feet; Maceo, 387 feet; Panther, 470 feet; Philpot, 430 feet; Sutherland, 400 feet; West Louisville, 460 feet; and Whitesville, 462 feet.

DAVIESS COUNTY



Daviess County is located in the coal field area of northwestern Kentucky. The Ohio River forms the northern boundary and Green River marks part of the western border. The lowest elevations are along these streams. The normal pool elevation of the

EDMONSON COUNTY



Edmonson County is located on the boundary between the Mississippian Plateaus and Western Kentucky coal field areas. This is the "big cave" country. Much of Mammoth Cave National Park is located in this county.

Although the county does not contain particularly high elevations, the topography is diverse and varied. The most conspicuous topographic features are the Dripping Springs escarpment near the southern edge of the county and the entrenched valley of Green River which follows a sinuous route

across the middle of the county.

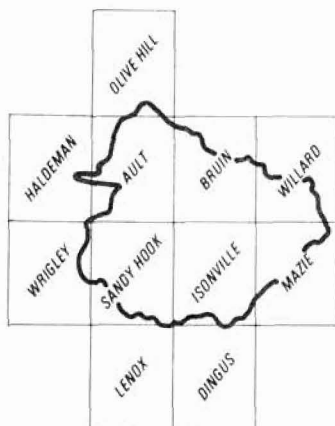
The Dripping Springs escarpment, a southward-facing cuesta, separates a low, slightly rolling sinkhole plain from the higher sandstone-capped plateau. Elevations on the limestone plain are commonly 600 to 650 feet, and the outer edge of the escarpment is 200 feet higher. Locally, the Dripping Springs escarpment has been referred to as "the knobs" but it should not be confused with the belt of knobs of the Muldraugh (Highland Rim) escarpment to the northeast.

The area north of the Dripping Springs escarpment is more highly dissected by stream erosion than the area to the south and contains greater local differences in elevation. Between the escarpment and Green River, there are numerous flat-topped ridges separated by streamless valleys. North of Green River the topography reflects a more normal drainage pattern. Green River is 200 to 300 feet below the surrounding uplands.

The highest elevations in Edmonson County are about 900 feet, found on a ridge about 2 miles east-northeast of Rhoda and on the ridge along Kentucky Highway 1827 (which is on the drainage divide between Green and Nolin Rivers). The lowest elevation is approximately 412 feet, at the point where Green River leaves the county.

Brownsville, the county seat, has an elevation of 537 feet at the courthouse. Other elevations in the county include Bee Spring, 696 feet; headquarters at Mammoth Cave National Park, 740 feet; Green River near the Historic Entrance of Mammoth Cave, 422 feet; maximum elevations on Mammoth Cave Ridge and Flint Ridge, 880 feet; Bald Knob at Park Mammoth Resort, 820 feet; Lindseyville, 699 feet; normal pool elevation of Nolin Lake, 515 feet; Rocky Hill, 625 feet; Rhoda, 542 feet; and Sweeden, 772 feet.

ELLIOTT COUNTY



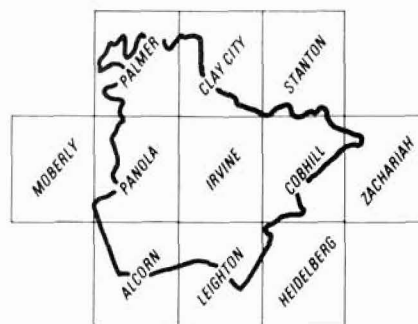
Elliott County is located in the coal field area of northeastern Kentucky. It is a well-dissected upland area. Local reliefs of 250 to 300 feet are common. Locally, precipitous sandstone bluffs rim the valley walls.

The highest elevations are found in the western and southwestern parts of the county. The highest point, 1340 feet, is on the Elliott-Morgan County line, which is also the drainage divide between Little Sandy and Licking Rivers. Locust Knob, at 1316 feet, is another high point in north-central Elliott County.

The lowest elevation in the county is about 645 feet. This is the normal pool level of Grayson Lake and the approximate elevation of Little Fork of Little Sandy River at the Elliott-Carter County line.

The elevation of Sandy Hook, the county seat, is 775 feet. Other elevations include Ault, 1133 feet; Bell City, 770 feet; Isonville, 690 feet; Little Sandy, 790 feet; and Newfoundland, 802 feet.

ESTILL COUNTY



Estill County, in eastern Kentucky, is in parts of both the Outer Blue Grass and the Eastern Kentucky coal field regions. Probably the most striking topographic feature in the county is the escarpment separating these two regions, a rise of 500 to 600 feet between the lowland and the highest mountains.

The Kentucky River crosses the county from southeast to northwest. The deeply entrenched, meandering valley is another conspicuous topographic feature. The river is 400 feet or more below the adjacent uplands where it enters the county, 600 feet or more below the adjacent uplands in the Irvine-Ravenna area, and 200 feet below the higher ridges where it crosses the Outer Blue Grass region.

The highest elevations are found along ridges and isolated mountains near the edge of the escarpment in the western part of the county. The highest point is Zion Mountain, 1511 feet, about 6 1/2 miles

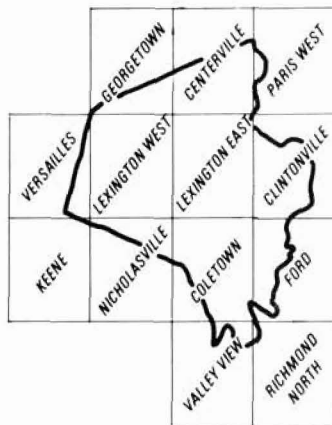
southwest of Irvine. Other high points include Happy Top Mountain, 1500 feet; Preacher Estes Mountain, 1475 feet; Peter Mountain, 1454 feet; Low Knob, 1450 feet; and Big Round Mountain, Buz-zard Roost, and McKinney Mountain, each at 1420 feet. The upland area is generally rugged. Vertical or nearly vertical cliffs commonly rim the narrow ridges and headwater gorges.

The lowest elevation, the Kentucky River at the mouth of Red River, is 566 feet. Nearly flat ridgetops with elevations of 800 to 900 feet are common in the Outer Blue Grass region. The valleys of the Kentucky River and its tributaries in the vicinity of Irvine and Ravenna are commonly broad and contain the largest tracts of flat land in the county.

Pea Ridge, north of Wisemantown, is the core of a large cut-off meander of the Kentucky River. Maximum elevation exceeds 840 feet, approximately 200 feet above the abandoned channel of the river.

The elevation of Irvine, the county seat, is 585 feet. Elevations of other communities are Ravenna, 643 feet; West Irvine, 690 feet; and Wisemantown, 661 feet.

FAYETTE COUNTY



Fayette County is in the heart of the Inner Blue Grass region of Kentucky. Except in the vicinity of the Kentucky River, which marks part of the southern boundary, the area is a gently rolling limestone upland. Local reliefs, except near the Kentucky River, are generally less than 100 feet. Features associated with underground drainage are present in the county but are conspicuous only locally.

The Kentucky River occupies a narrow, steep-sided valley cut 300 feet or more below the adjacent upland. Bold limestone cliffs line much of the valley. The lowest elevation in the county is 549

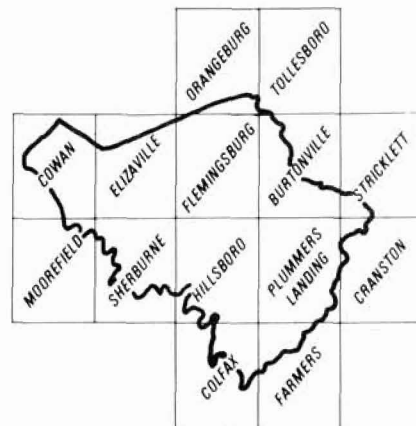
feet, the normal pool elevation of the Kentucky River at Valley View Ferry.

Elevations in excess of 950 feet are common. The highest point in the county is on a nearly flat-topped ridge near the west end of the Athens-Walnut Hill Road where an elevation of 1070 feet is recorded.

The Fayette-Bourbon and part of the Fayette-Clark County lines are along the drainage divide between the Kentucky and Licking Rivers. Elevations in excess of 1000 feet are common in this area.

In Lexington, the elevation at the courthouse is 959 feet; elevation at the Administration Building on the University of Kentucky campus is 975 feet, and the former home of Henry Clay is at 1040 feet. Other elevations in the county include Athens, 956 feet; Avon, 954 feet; Blue Grass Field, 976 feet; Coletown, 970 feet; Fort Spring, 853 feet; and South Elkhorn, 901 feet.

FLEMING COUNTY

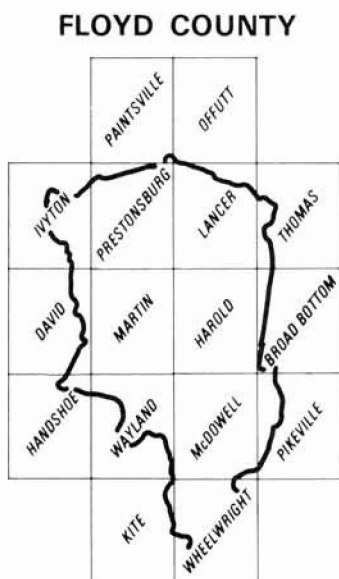


Two distinct landscapes are present in Fleming County. The western part of the county is in the Outer Blue Grass region and is characterized by gently rolling hills and mild local relief. Ridgetops, some of which are nearly flat, have elevations ranging between 900 and 1000 feet. Valleys of the small streams are commonly less than 100 feet lower.

East of a line between Hillsboro and Mount Carmel is a conspicuous escarpment correlative in part with Muldraugh Hill (Highland Rim). Upland elevations east of the escarpment are generally in excess of 1200 feet. Many of the ridges are flat topped, reflecting the presence of resistant strata. Slopes are steep, but there is rarely a precipitous bluff. Isolated knobs and ridges rise higher. The highest elevation appears to be in excess of 1420 feet, a knob on the Fleming-Rowan County line about 3 miles southeast of Plummers Landing.

Licking River marks much of the western boundary of Fleming County. Its meandering valley is generally entrenched some 200 feet. Locally the valley and some of its tributaries are widened at the expense of softer rock. The lowest elevation in the county is 590 feet, at the point where Licking River leaves the county.

The elevation of Flemingsburg, the county seat, is 823 feet. Other elevations include Cowan, 912 feet; Elizaville, 909 feet; Ewing, 940 feet; Grange City, 815 feet; Hillsboro, 868 feet; Mount Carmel, 886 feet; Nepton, 846 feet; Plummers Landing, 765 feet; Poplar Plains, 915 feet; Sherburne, 650 feet; and Wallingford, 795 feet.



Floyd County is located in the mountainous Eastern Kentucky coal field. The area is a completely dissected upland with valleys and ridges occupying about equal amounts of land. Almost the only flat land in the county is found in the narrow valley flats along Levisa Fork of Big Sandy River and some of its tributaries.

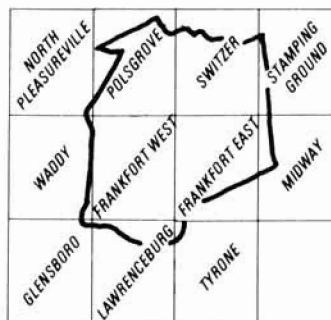
Ridgetop elevations range from 1200 to 1300 feet in the northern part of the county to more than 2000 feet in the southern part. Local reliefs of 600 feet are common, and differences in elevations between ridge crests and nearby valleys may be as great as 900 feet.

The highest elevation in Floyd County is 2320 feet, in the extreme southern part of the county in the vicinity of the junction of Floyd, Knott, and Pike Counties. The lowest elevation is approximately 580 feet, at the point where Levisa Fork of Big Sandy River leaves the county. Dewey Lake, an impoundment on Johns Creek, has a normal pool

elevation of 645 feet.

All the communities are located in the valleys. The elevation of Prestonsburg, the county seat, is 630 feet. Others include Allen, 650 feet; Auxier, 629 feet; Betsy Lane, 671 feet; David, 680 feet; Drift, 684 feet; Dwale, 650 feet; Harold, 664 feet; Hi Hat, 815 feet; Lancer, 633 feet; Langley, 650 feet; Martin, 640 feet; McDowell, 707 feet; Wayland, 714 feet; and Wheelwright, 1102 feet.

FRANKLIN COUNTY



Franklin County, in central Kentucky, occupies parts of both the Inner and Outer Blue Grass regions. It is primarily an upland limestone area, fairly well dissected by normal stream drainage. The topography is rolling to hilly.

The most conspicuous topographic features are the entrenched meandering valleys of the Kentucky River (Fig. 2) and Benson and Elkhorn Creeks. The Kentucky River bisects the county and lies 350 to 400 feet below the adjacent uplands.

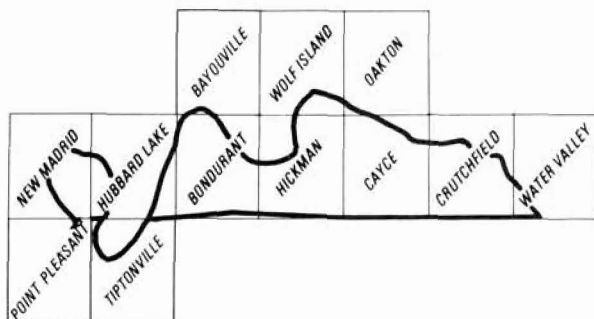
Elevations of the higher ridges are commonly between 850 and 900 feet. The highest point, 930 feet, is on Union Ridge near the east edge of the county. Pea Ridge, approximately 1 mile west of Capital City Airport, has a maximum elevation of 920 feet, and Dry Ridge, near the west edge of the county, has a maximum elevation in Franklin County of 913 feet.

A number of abandoned meanders occur along Elkhorn Creek and the Kentucky River, marking former routes of these streams. Hill-like masses of variable heights occupy the centers of these former stream-valley loops. Examples are The Backbone, an abandoned-meander core on Elkhorn Creek with a maximum elevation of 867 feet, and Fort Hill, an abandoned-meander core on the Kentucky River in Frankfort with a maximum elevation of 790 feet.

The lowest elevation in the county is 455 feet, the normal pool level of the Kentucky River below Lock and Dam No. 4 at Frankfort. The normal pool level of the Kentucky River upstream from this dam is 469 feet.

The elevation of Frankfort at the city hall is approximately 510 feet; the State Capitol is at 595 feet; and the hills around Frankfort are 800 to 820 feet. Other elevations include Bridgeport, 695 feet; Farmdale, 820 feet; Peaks Mill, 525 feet; Swallowfield, 530 feet; and Switzer, 734 feet.

FULTON COUNTY



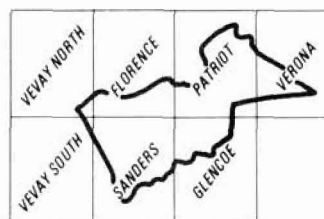
Fulton County, in the Mississippi Embayment region, is the westernmost county in Kentucky. The Mississippi River forms its western and part of its northern boundary. The lowest elevation in the county, and also the lowest elevation in the State, is approximately 260 feet on the Mississippi River at the Kentucky-Tennessee state line. The flood plain is marked by ponds, sloughs, marshes, flood-scour scars, and occasional sand bars (Fig. 7). The relief is low, with elevations generally ranging between 285 and 300 feet.

The topography of the county varies from broad, flat flood plains along the river to a gently rolling upland behind the river bluffs. Local reliefs of 150 feet or more between the flood plain and the top of the bluffs between Hickman and the state line are common. The highest elevation in Fulton County is 500 feet, at the top of the bluff along Kentucky Highway 925 approximately 4 miles east-southeast of Bondurant.

Eastward in the county, upland elevations decline gradually to about 400 feet. However, a low flat ridge on a drainage divide paralleling U.S. Highway 51 north of Fulton has elevations in excess of 450 feet; the highest elevation recorded on this ridge is 480 feet.

The elevation in Hickman, the county seat, is 475 feet on top of the bluffs and 305 feet on the flood plain. Other elevations are Bondurant, 288 feet; Cayce, 400 feet; Crutchfield, 368 feet; and Fulton, at the city hall, 372 feet.

GALLATIN COUNTY



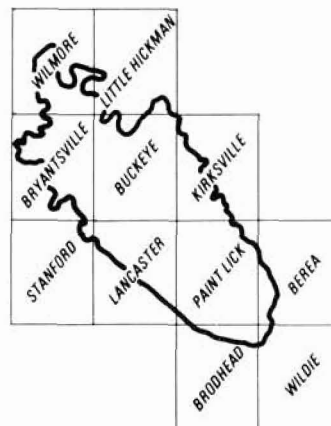
Gallatin County is located in the Outer Blue Grass region in north-central Kentucky. The Ohio River marks the northern boundary, and Eagle Creek marks part of the southern boundary.

The lowest elevations in the county are on the Ohio River. The normal pool elevation of the Ohio below Markland Locks and Dam is 420 feet, and the elevation upstream from the dam is 455 feet. Elevations on Eagle Creek range from 465 to 530 feet. Bluffs adjacent to these two streams are 250 to 300 feet above the valleys.

The county is a well-dissected upland. The principal areas of flat land are in the valleys of the Ohio River and Eagle Creek. Only in the southwest corner of the county are there any significant number of flat-topped ridges. Ridgetop elevations are generally above 750 to 800 feet. The highest elevations appear to be on or near the divide between the Ohio River and Eagle Creek in the southern part of the county. The highest elevation, 920 feet, is on a ridge between Eagle Creek and Interstate Highway 71 approximately 3 miles west of Glencoe.

The elevation of Warsaw, at the courthouse, is 495 feet. The highest point on Johnson Hill, a bluff immediately south of the city, is 854 feet. Glencoe and Sparta, both located in Eagle Creek valley, have elevations of 544 and 503 feet respectively.

GARRARD COUNTY



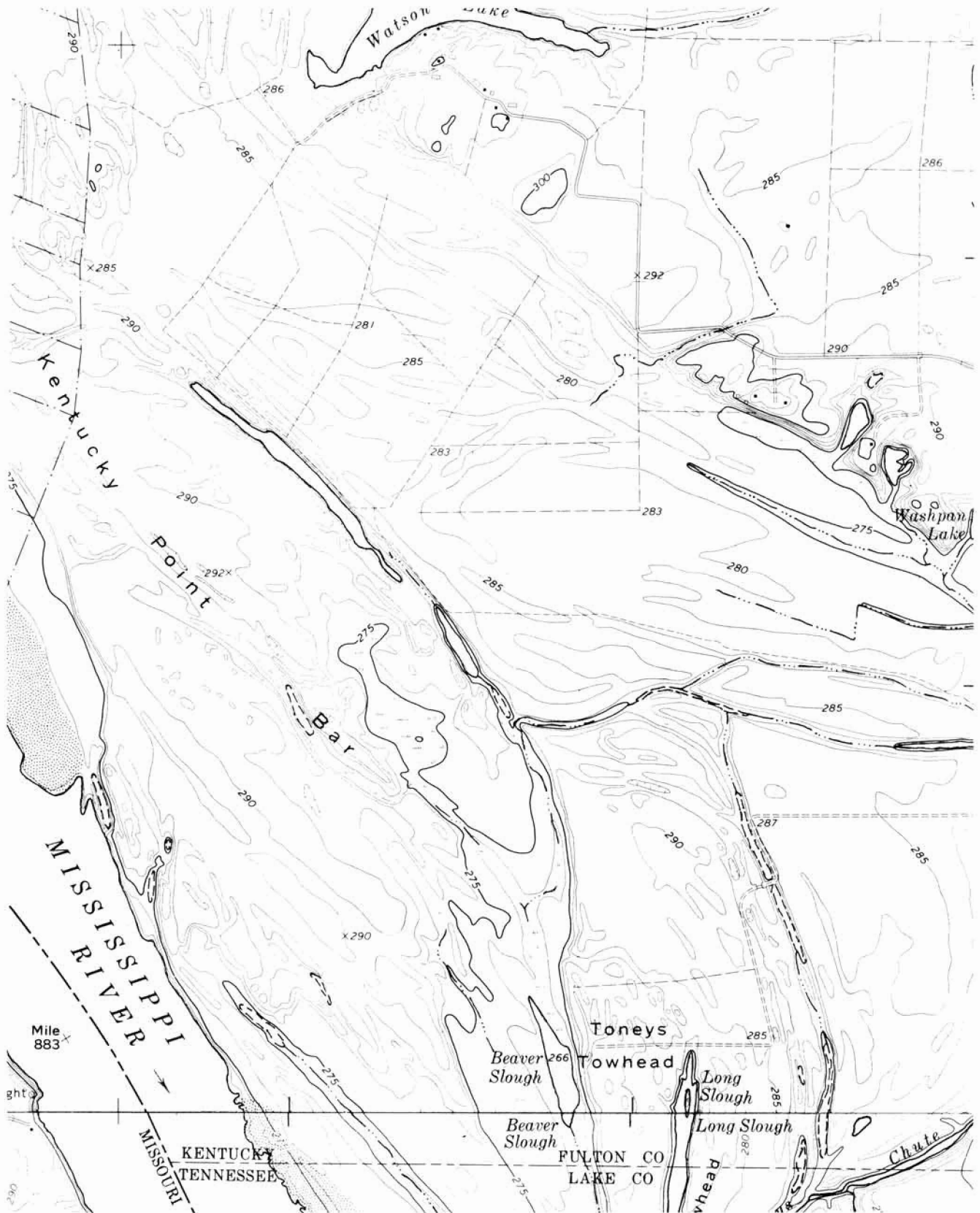


Figure 7. Portions of the New Madrid and Point Pleasant quadrangles in Fulton County. The lowest elevation in Fulton County, and the lowest elevation in the State, is approximately 260 feet on the Mississippi River at the Kentucky-Tennessee state boundary.

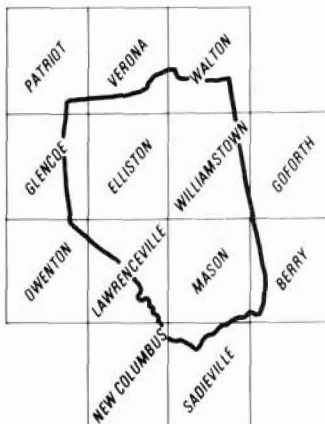
Garrard County, situated in central Kentucky, includes portions of the Inner Blue Grass, Outer Blue Grass, and Knobs (Highland Rim) areas. The county is a dissected upland with a gently rolling to hilly topography. The topography becomes more rugged in proximity to the deep valleys of the Kentucky River, which marks the northern boundary, and Dix River, which forms the northwestern boundary. A nearly flat, slightly karstic, upland plain, at 900 to 1000 feet, occupies a portion of northwestern Garrard County between U.S. Highway 27 and Herrington Lake (Dix River). Elsewhere, except locally in the vicinity of Lancaster, flat areas are rare. Local reliefs along the Kentucky River exceed 300 feet. Local reliefs along Herrington Lake are generally between 150 and 200 feet.

Muldraugh escarpment (Highland Rim) is a striking topographic feature of the southeastern part of the county. The crest of the escarpment rises 300 to 400 feet above the area to the north and contains the highest elevations in the county. Ridgetop elevations in excess of 1300 feet are common. The highest elevation in the county is 1400 feet, on a ridge near the divide between Paint Lick Creek and Dix River about 6 miles south of the community of Paint Lick.

The lowest elevation is 514 feet, the normal pool level of the Kentucky River where it leaves the county. The spillway elevation of Dix Dam at Herrington Lake is 750 feet.

The elevation of Lancaster, at the courthouse, is 1032 feet. Other elevations include Bryantsville, 953 feet; Burdette Knob, a prominent landmark 2 miles south of Bryantsville, 1100 feet; and Paint Lick, 810 feet.

GRANT COUNTY



Grant County is in the highly dissected Outer Blue Grass region. Ridgetop elevations in excess of 900 feet are common. Local reliefs along principal drainage lines are generally in excess of 150 feet but in places are almost 300 feet.

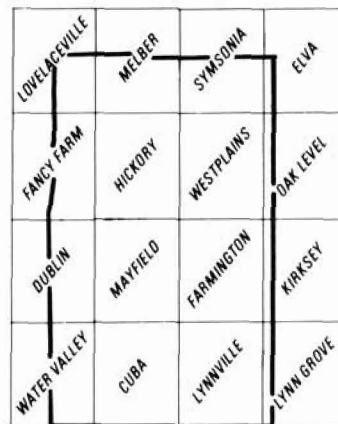
Eagle Creek crosses the western part of the county. It is the largest stream in Grant County and has valley widths of 1/2 mile or more. The lowest elevation, approximately 530 feet, is the point where Eagle Creek leaves the county.

The highest elevations in the county are found along and adjacent to Kentucky Highway 330, 2 miles southwest of Corinth. Here, on a drainage divide between Eagle and Three Forks Creeks, elevations of 1000 feet have been recorded. Many elevations on the north-south divide between Licking River and Eagle Creek drainage systems in the Dry Ridge-Williamstown area are between 950 and 980 feet. Farther north they decline to approximately 920 feet at the Grant-Kenton County line.

The elevation of Williamstown, the county seat, is 974 feet. Other elevations are Corinth, 980 feet; Crittenden, 920 feet; Dry Ridge, 958 feet; Elliston, 588 feet; Jonesville, 914 feet; and Mount Zion, 925 feet.

The spillway elevation of Boltz Lake is 826 feet; the spillway at Corinth Lake is 840 feet, and the one at Williamstown Lake is 785 feet.

GRAVES COUNTY



Graves County, in the Mississippi Embayment region of western Kentucky, is a gently rolling plain of low relief. Slopes are gradual, and local relief is generally less than 100 feet, in many places less than 50 feet. The south- and west-facing slopes of the principal streams are generally steeper than the east- and north-facing slopes (Fig. 8).

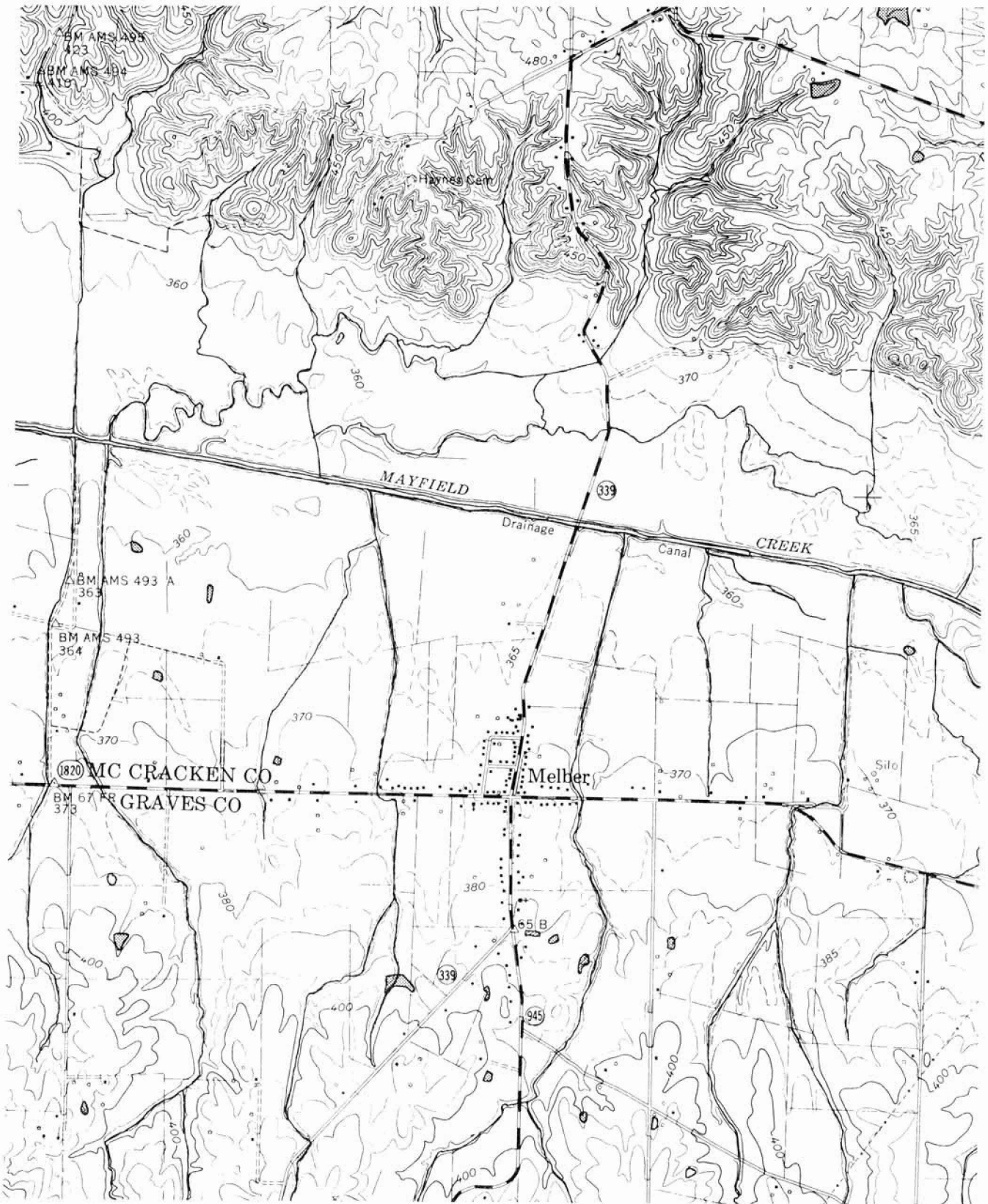


Figure 8. Portion of the Melber quadrangle in Graves and McCracken Counties in the Mississippi Embayment region, showing the topography along Mayfield Creek.

Upland elevations in excess of 500 feet are common throughout most of the county. The highest elevation, 580 feet, is on the ridge between Mayfield and Little Mayfield Creeks in the southeastern part of the county near the Graves-Calloway boundary. Elevations of 570 feet are found on the Tennessee Valley divide and along the drainage divide between Obion and Old Knob Creeks.

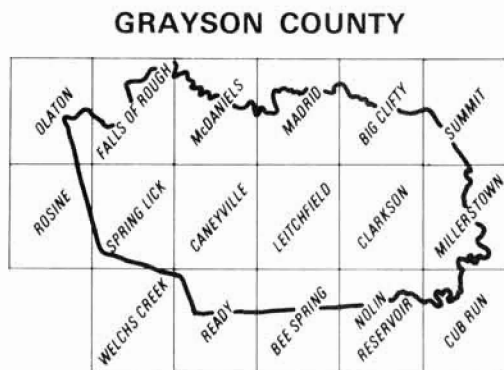
The lowest elevation, approximately 321 feet, is the point of West Fork of Clarks River where it enters McCracken County. Elevations of the valley flats in this area are between 335 and 340 feet. The elevation of the valley bottom of Mayfield Creek at the northwest corner of the county is 340 to 350 feet. The valleys of Clarks River and Mayfield, Obion, and Wilson Creeks are broad and have low gradients. Swampy and other poorly drained topography is indicated.

The elevation of Mayfield, at the courthouse, is 480 feet. Elevations at other communities are Boaz, 395 feet; Cuba, 520 feet; Dublin, 500 feet; Fancy Farm, 440 feet; Farmington, 560 feet; Folsomdale, 440 feet; Lowes, 473 feet; Lynnville, 560 feet; Melber, on the Graves-McCracken County line, 375 feet; Sedalia, 506 feet; Symsonia, 405 feet; Tri City, 522 feet; Water Valley, 387 feet; and Wingo, 469 feet.

ridges gradually decline to the west. The highest point in the county is on Buzzard Ridge, about 3 1/2 miles southwest of Millerstown, where an elevation of 963 feet is recorded. Slopes between streams and the adjacent plateau in the headwaters areas are generally steep, in some places precipitous, reflecting resistant rock units capping the uplands.

Rough River and its tributaries form the northern boundary of Grayson County. The lowest elevation is approximately 395 feet, the point where Rough River leaves the county. Rough River Lake, a flood-control facility on Rough River, has a normal pool elevation of 495 feet and a flood pool elevation of 524 feet.

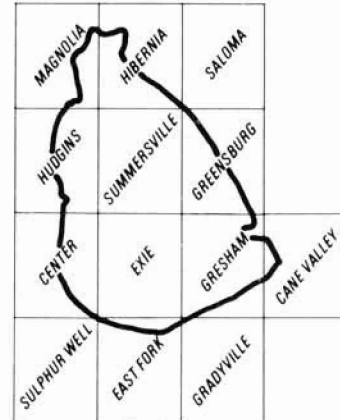
Nolin Lake on Nolin River marks part of the southern border of the county. It has a normal pool elevation of 515 feet and a flood pool elevation of 560 feet. Leitchfield, the county seat, has an elevation at the courthouse of approximately 750 feet. The elevations of other communities are Big Clifty, 752 feet; Caneyville, 490 feet; Clarkson, 730 feet; Millerstown, 589 feet; Millwood, 673 feet; Peonia, 778 feet; Shrewsbury, 660 feet; and Spring Lick, 460 feet.



Grayson County occupies an upland area which includes portions of the Mississippian Plateaus west of the Dripping Springs escarpment and the eastern edge of the Western Kentucky coal field. Much of the area is characterized by flat-topped, sandstone-capped ridges. This flat appearance is broken by occasional knobs and ridges rising above the general plateau level and valleys incised 150 to 200 feet into the upland. Karst features such as sinking streams, sinkholes, and springs are present locally in the eastern part of the county.

The highest elevations are found in the eastern part of the county, and the elevations of the upland

GREEN COUNTY

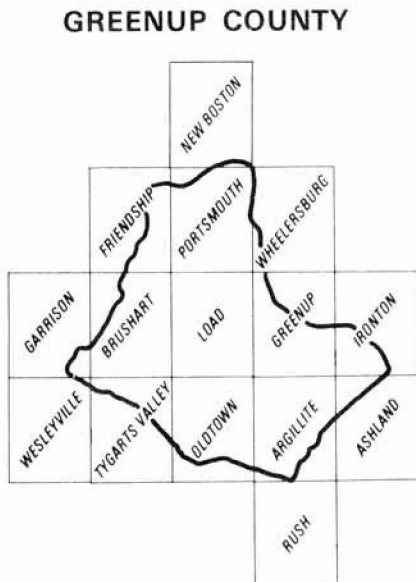


Green County is in the Mississippian Plateaus region of south-central Kentucky. It is primarily a limestone plateau area with upland elevations generally in excess of 750 feet. The incised, meandering valley of Green River traverses the county from east to west and is the most conspicuous topographic feature. Local reliefs of 150 feet between Green River and the adjacent upland are common. Locally, the ridgetops may be flat, but many are narrow. Sinkholes and springs are abundant in the karst area in the vicinity of Big Brush Creek in the northwestern part of the county.

Features associated with underground drainage are present in other parts of the county but are not nearly as conspicuous.

The highest elevations in the county occur on a drainage divide which marks the boundary between Green and Larue Counties. Elevations in excess of 900 feet are common here. The highest elevation, 1045 feet, is less than a mile south of the point where Kentucky Highway 61 crosses the Green-Larue County line. The lowest elevation in the county is approximately 490 feet, the elevation of Green River where it leaves the county.

The elevation of Greensburg, the county seat, is at the junction of U.S. Highway 68 and Kentucky Highway 61, is 632 feet. Other elevations are Gabe, 768 feet; Pierce, 803 feet; Summersville, 820 feet; and Thurlow, 817 feet.



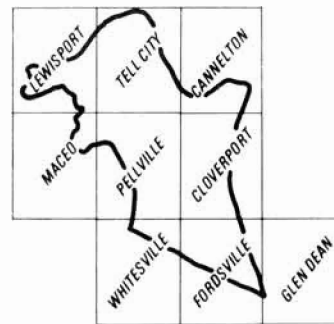
Greenup County is a well-dissected upland area in northeastern Kentucky. Except for a few scattered ridgetops near the western boundary and in the Flatwoods area of northeastern Greenup County, the only flat land is found along the valleys of the Ohio and Little Sandy Rivers and Tygarts Creek.

Elevations are generally highest in the western part of the county and decline to the east. Elevations along the Greenup-Lewis County line, which is the divide between the drainage basins of Tygarts and Kinniconick Creeks, commonly exceed 1100 feet. The highest point on this divide, and the highest point in the county, is 1200 feet at the junction of Greenup, Lewis, and Carter Counties. Ridgetop elevations in the eastern part of the county are generally between 800 and 900 feet.

The lowest point is 485 feet, the normal pool level of the Ohio River where it leaves the county. Valley flats along the river are variable in width. Terraces are recognizable along some stretches of the river, and the elevations of the flood plain range from 520 to 560 feet. Differences in elevations between the river and the adjacent upland commonly exceed 300 feet.

The elevation of Greenup, the county seat, is 536 feet. Other elevations are Argillite, on Little Sandy River, 545 feet; Bellefonte, 671 feet; Flatwoods, at the junction of Kentucky Highways 207 and 750, 689 feet; Russell, on the railroad 550 feet and at the high school 670 feet; South Portsmouth, 550 feet; South Shore, 542 feet; Worthington, 550 feet; and Wurtland, 549 feet.

HANCOCK COUNTY



The topography of Hancock County is typical of the perimeter of the Western Kentucky coal field. It is hilly to rolling except near the Ohio River where wide alluvial flats are present. Locally, particularly in the northeastern part of the county, massive, resistant sandstones contribute to a more rugged terrain characterized by gorge-like valleys and steep, rocky cliffs.

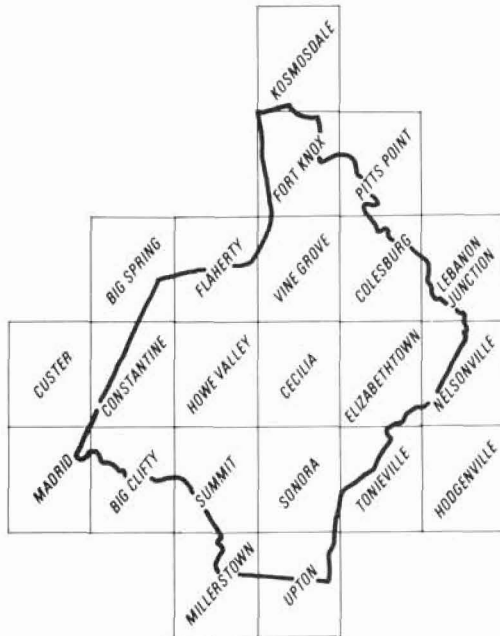
The topography in the western part of the county is more subdued, presenting less variety and fewer prominent features than the eastern portion. The hills are lower and more gently sloping, and the valleys have wider bottoms.

The highest elevation in the county is on a ridge about 1 mile east-southeast of Easton where 840-foot contours are recorded. The greatest local relief is along the Ohio River bluffs where differences in elevation between the river and the adjacent ridgetops are approximately 300 feet.

The lowest elevation is the Ohio River. The normal pool elevation of the river below Cannelton Locks and Dam is 358 feet. The normal pool elevation upstream from the dam is 383 feet. Flood-plain elevations are generally 390 to 400 feet.

The elevation of Hawesville, at the courthouse, is 419 feet. Other elevations are Easton, 563 feet; Lewisport, 394 feet; Pellville, 536 feet; and Roseville, 518 feet.

HARDIN COUNTY



Hardin County, situated largely in the Mississippian Plateaus area of Kentucky, contains a diversity of topographic features. Rolling Fork, which marks the eastern boundary of the county, occupies a broad, flat valley near the edge of Muldraugh Hill (Highland Rim escarpment). Adjacent hills and ridges rise 300 feet above the valley floor. This well-dissected upland, with ridgetop elevations of 800 to 900 feet, is part of the knobs country.

The east-central part of Hardin County is part of an extensive karst landscape. It is a gently rolling plain with springs, sinking creeks, abundant sinkholes, and other features associated with underground drainage in a limestone terrane. Elevations on the sinkhole plain range from 800 feet, east of Elizabethtown, to less than 700 feet at the base of the Dripping Springs escarpment.

The Dripping Springs escarpment marks the boundary between the low sinkhole plateau and a higher tableland to the west. The rise is approximately 200 feet. This upland, with elevations of approximately 850 feet in the east and about 750 feet at the western edge of the county, is dissected by normal stream drainage, incised about 200 feet. Broad, flat-topped ridges occupy areas between narrow stream valleys. Resistant rock formations

make the valley walls steep; cliffs are present locally.

The highest elevation in the county, 1017 feet, is on Blueball Hill, an isolated ridge on the karst plain about 4 miles northeast of Howe Valley. The lowest point, 383 feet, is the normal pool level of the Ohio River at the north end of the county.

The elevation of Elizabethtown, the county seat, at the intersection of U. S. Highways 31-W and 62, is 731 feet. Elevations of other communities are Cecilia, 709 feet; Colesburg, 450 feet; East View, 830 feet; Glendale, 709 feet; Godman Airfield at Fort Knox, 734 feet; Radcliff, 763 feet; Sonora, 720 feet; Stephensburg, 687 feet; Summit, 852 feet; Upton, 744 feet; and Vine Grove, 682 feet. The normal pool level of Rough River Lake, which touches the extreme western end of the county, is 495 feet.

HARLAN COUNTY



Harlan County, in southeastern Kentucky, is in some of the most rugged terrain in the Commonwealth. Great mountain ridges cross the county and are outstanding features of the topography. Valley bottoms are narrow but contain about the only flat land present in the county. All the communities are located along the valley bottoms.

Pine Mountain crosses the northern part of the county from southwest to northeast (Fig. 9). Though not the highest mountain in the county, its linear, spine-like crest and abrupt northern face make it one of the most spectacular topographic features. In general, the crest rises from approximately 2400 feet in the southwest to 2800 feet in the northeast. Variations, of course, are present as gaps or knobs along the long mountain ridge. Hurricane Gap, a prominent landmark north of Cumberland, is approximately 2220 feet.

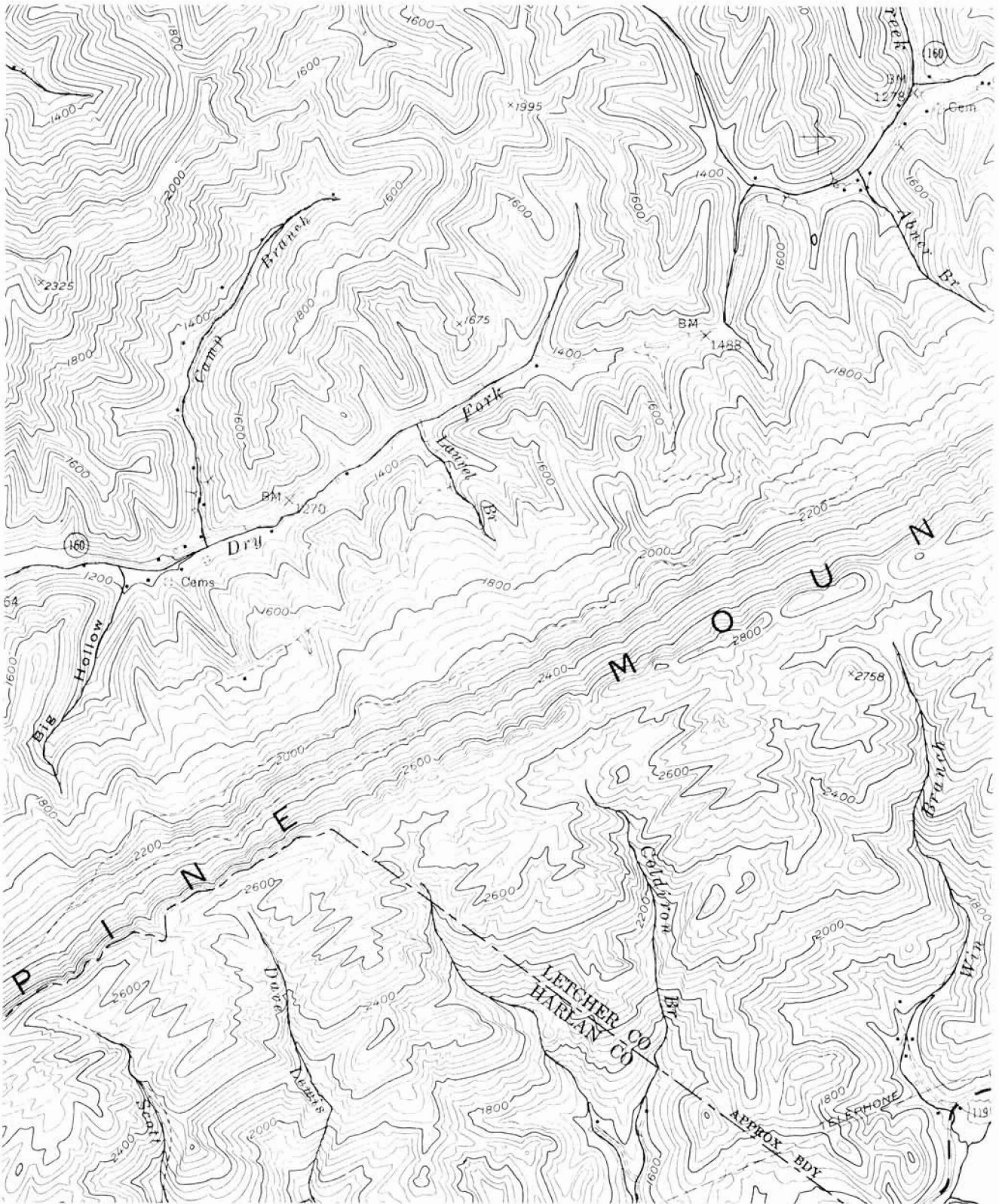


Figure 9. Portion of the Roxana quadrangle showing the topography of Pine Mountain in parts of Harlan and Letcher Counties. This asymmetrical mountain ridge extends approximately 100 miles across southeastern Kentucky from Whitley County to Pike County. The straightness of the ridge is a striking contrast to the irregular mountain ridges to the north.

Cumberland Mountain, along the southern border of Harlan County, is a mirror image of Pine Mountain. It is a long mountain ridge with an abrupt face to the southeast and less steep slope to the north and northwest. Elevations along the crest of Cumberland Mountain, which approximates the Kentucky-Virginia state boundary, range from 2400 to 3500 feet.

The highest elevation in the county, and the highest in Kentucky, is found on Black Mountain, a massive, sinuous range lying between Cumberland and Pine Mountains. Elevations on the crest of Black Mountain generally exceed 3000 feet. The highest recorded elevation on a topographic map in Kentucky is a bench mark at 4139 feet, approximately 3 1/2 miles south-southeast of Lynch in the eastern part of the county (Fig. 10). According to a written communication from R. H. Lyddan, Chief, Topographic Division, U. S. Geological Survey, the highest elevation is 4145 feet, an unmarked point in the area immediately north of the bench mark.

Other high elevations are found on Little Black Mountain, 2600 to 3600 feet, and Brush Mountain, 2400 to 2500 feet.

Cumberland River and its tributaries drain most of Harlan County. Valley sides are steep. For example, Looney Creek, along which are located the communities of Benham and Lynch, is 1800 to 2200 feet below the crest of Benham Spur 1 1/2 miles to the south and 1500 to 1700 feet below the crest of Looney Ridge 1 mile to the north. Cumberland River is approximately 1300 to 1400 feet below the crest of Pine Mountain which parallels it 1 1/2 miles to the northwest. The lowest elevation in the county, approximately 1070 feet, is at the point where Cumberland River leaves the county.

All the communities in Harlan County are at elevations above 1000 feet. The elevation of Harlan, at the courthouse, is 1197 feet. Other elevations are Alva, 1425 feet; Benham, 1602 feet; Caywood, 1320 feet; Cumberland, 1440 feet; Evarts, 1299 feet; Louellen, 1500 feet; Loyall, 1165 feet; Lynch, at the high school, 1800 feet; and Wallins Creek, 1134 feet.

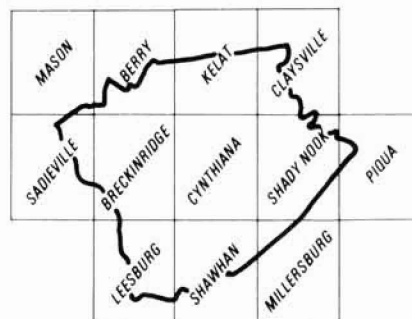
HARRISON COUNTY

Harrison County is in the Blue Grass region of central Kentucky. Most of the county is hilly, typical of the Outer Blue Grass, but the more subdued topography of some of the southern part of the county is more representative of the rolling

terrain of the Inner Blue Grass.

The valleys of Licking River, which marks the eastern boundary, and South Fork of Licking River, which bisects the county, are the most striking topographic features. The largest areas of flat or nearly flat land in the county are found on the inside of the large meander loops of South Fork of Licking River.

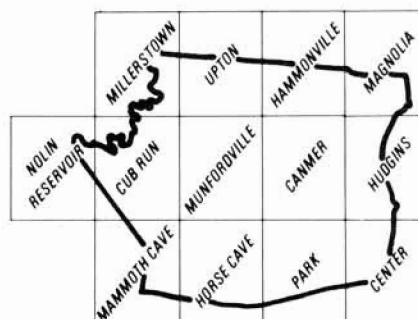
Ridgetop elevations generally range from 800 to 950 feet. Local relief is generally in excess of 100 feet. The greatest local relief occurs along the valleys of the major rivers where it may exceed 200 feet between the streams and the adjacent hilltops.



The highest elevation in Harrison County, 1060 feet, is on a ridge on the Harrison-Scott County line about a mile west of Leesburg. This ridge is part of the drainage divide between Licking and Kentucky Rivers. The lowest elevation, 540 feet, is the point where Licking River leaves the county. South Fork of Licking River leaves the county at an elevation of approximately 605 feet.

The elevation of Cynthiana, at the courthouse, is 725 feet. Elevations of other communities are Berry, 676 feet; Claysville, 582 feet; Connersville, 821 feet; Leesburg, 898 feet; and Robinson, 670 feet.

HART COUNTY



Hart County lies largely in the Mississippian Plateaus area of south-central Kentucky. Topographically, it occupies two plateau areas.

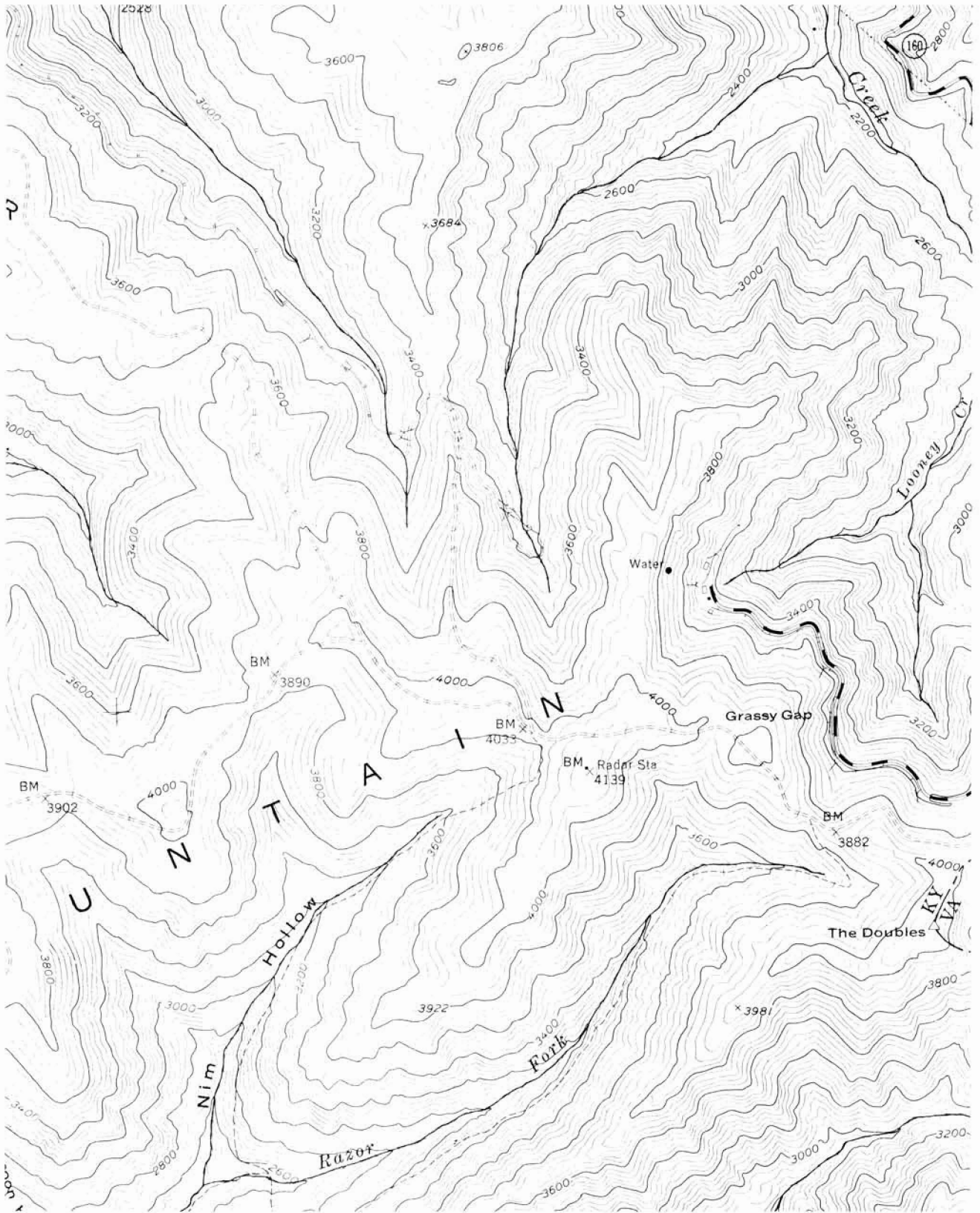


Figure 10. Portion of the Benham quadrangle in Harlan County showing part of Black Mountain. The highest elevation in Kentucky, 4145 feet, is just north of bench mark 4139.

The lower area is a slightly rolling limestone plain characterized by few surface streams and thousands of sinkholes (Fig. 4). Elevations on the sinkhole plain range from about 750 feet on the east to 640 feet on the west, at the base of the Dripping Springs escarpment. The sinkhole plain is studded with irregular hills and ridges, erosion remnants from a retreating escarpment, which rise 100 feet or more.

The Dripping Springs escarpment is a southeastward-facing cuesta which rises 200 feet or more above the sinkhole plain. It is a prominent topographic feature. Behind the escarpment is a higher tableland which locally has been referred to as the Mammoth Cave Plateau. This higher plateau is more highly dissected by stream erosion than the lower plateau. Local reliefs of 200 feet are common in this part of the county.

Green River follows a sinuous route across the center of the county. It is entrenched 150 to 200 feet below the karst plateau. The area north of the river is hilly and contains the highest elevations in Hart County. Several hills attain elevations in excess of 1000 feet. The highest, Frenchman Knob about 6 miles north-northeast of Munfordville, is 1156 feet at the triangulation station. Three high knobs, 6 to 8 miles northeast of Munfordville, are Three Kiln Knob at 1080 feet, Grindstone Knob at 1078 feet, and Knox Knob at 1040 feet. Maxey Knob, south of Green River near the Hart-Green County line, is 1082 feet.

The lowest elevation in the county, 421 feet, is the normal pool level of Green River where it leaves the western edge of the county.

The elevation of Munfordville, at the courthouse, is 612 feet. Elevations of other communities are Bonnieville, 670 feet; Canmer, 645 feet; Cub Run, 766 feet; Hardyville, 704 feet; Hammonville, 710 feet; Horse Cave, 635 feet; and Rowletts, 663 feet. The normal pool elevation of Nolin Lake is 515 feet.

Henderson County is located in northwestern Kentucky in the Western Kentucky coal field. The Ohio River and its ancient channel form the northern boundary of the county. The broad flood plain along the river with elevations of 350 to 370 feet is one of the most striking topographic features of the county. Sloughs, marshes, and flood scours modify the valley floor. The normal pool level of the Ohio River, 331 feet, is the lowest elevation in the county.

South of the flood plain the terrain is rolling. The greatest local relief and the highest elevations are found in the bluffs adjacent to the flood plain. The highest elevation in the county, 588 feet, is in Wolf Hills, northeast of Henderson. This point is more than 200 feet above the adjacent flood plain. The highest point in nearby Audubon Memorial State Park is 567 feet.

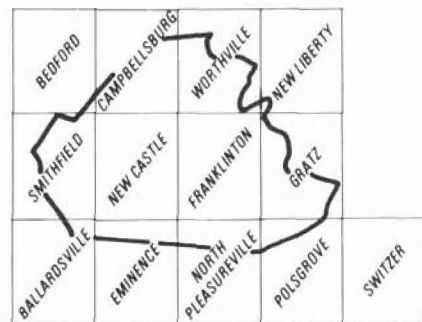
In the interior part of the county ridgetop elevations are generally between 450 and 500 feet. The slopes are more gradual than those of the ridges adjacent to the Ohio River flood plain. Valleys of the small tributary streams appear wide for the size of the streams, and the gradients are low.

Henderson is the county seat, and the elevation at the courthouse is approximately 400 feet. The elevations of other communities are Anthoston, 460 feet; Baskett, 400 feet; Corydon, 460 feet; Dixie, 458 feet; Geneva, 389 feet; Hebbardsville, 423 feet; Reed, 378 feet; Smith Mills, 410 feet; Spottsville, 440 feet; and Zion, 424 feet.

HENDERSON COUNTY



HENRY COUNTY



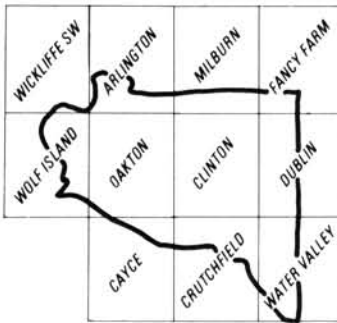
Henry County is a rolling to hilly area, well dissected by normal stream erosion, in the Outer Blue Grass region of north-central Kentucky. The Kentucky River marks the eastern boundary of the county and is the area of greatest local relief. The flood plain has elevations of 460 to 490 feet, and the adjacent hills are 200 to 350 feet higher. Where broad meander loops of the river cut into the upland, the valley walls are very steep, almost precipitous. Elsewhere, few cliffs occur. The lowest

elevation is approximately 425 feet, the level of the Kentucky River where it leaves the county.

Ridgetop elevations are commonly 800 to 900 feet, and local relief away from the valleys of the principal streams is 100 to 150 feet. The highest elevation recorded in the county is 950 feet, on Kentucky Highway 22 just east of Kentucky Highway 55 in Eminence and on a ridge about 3/4 mile east of Franklinton.

The elevation of New Castle, at the courthouse, is 844 feet. Other elevations are Bethlehem, 880 feet; Campbellsburg, 915 feet; Eminence, at the intersection of Kentucky Highway 55 and the Louisville and Nashville Railroad, 939 feet; Franklinton, 868 feet; Lockport, 470 feet; North Pleasureville, 893 feet; Smithfield, 891 feet; and South Pleasureville, 898 feet.

HICKMAN COUNTY



Hickman County, in the Mississippi Embayment region, is a gently rolling area adjacent to the Mississippi River. Upland ridges and hills rarely attain elevations of 500 feet. The highest point, 510 feet, is on the divide between Obion and Sand Creeks about 2 1/2 miles south-southeast of Fulgham.

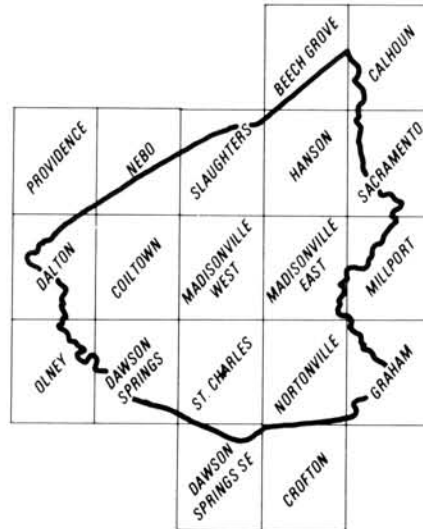
Local reliefs are moderate, generally about 50 feet. The bluffs along the Mississippi are 100 to 200 feet in height and are the sites of the greatest local relief in the county. The bluff at Columbus-Belmont State Park rises approximately 170 feet above the river, and Chalk Bluff is almost 200 feet high.

The lowest elevation is approximately 276 feet, the point where the Mississippi River leaves the county.

The valleys of Bayou du Chien and Obion Creek have low gradients. Obion Creek is a braided stream, and some swampy areas and small oxbow lakes are present along the valley.

The elevation of Clinton, the county seat, is about 385 feet; Columbus is 464 feet; Fulgham is 475 feet; and Oakton is 324 feet.

HOPKINS COUNTY



Hopkins County is in the Western Kentucky coal field. The topography ranges from nearly flat along the broad valleys of Green, Pond, and Tradewater Rivers to hilly in the southern and central parts of the county. The elevations of the valley flats are generally between 380 and 400 feet. Gradients of these rivers and some of the tributary streams are low, and swampy conditions may be present. The lowest elevation in the county, approximately 345 feet, occurs where Green River leaves the county at the junction of McLean and Webster Counties, and where Tradewater River leaves the county at the junction of Caldwell and Webster Counties.

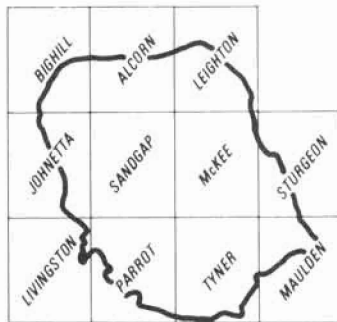
Hills and ridges range from 100 to 300 feet above the valley floors. Ridgetop elevations between 500 and 600 feet are common. The highest elevation, 729 feet, a point on a ridge forming part of the drainage divide between Pond and Tradewater Rivers, is located approximately 3 miles north of Saint Charles.

Madisonville is the county seat. The elevation at the intersection of Center and Main Streets is 470 feet. Elevations of other communities are Ashbyburg, 388 feet; Beulah, 525 feet; Coiltown, 438 feet; Dalton, 405 feet; Dawson Springs, 414 feet; Earlington, 422 feet; Hanson, 433 feet; Jewel City, 385 feet; Mortons Gap, 444 feet; Nebo, 405 feet; Nortonville, 407 feet; Saint Charles, 450 feet; and White Plains, 412 feet.

JACKSON COUNTY

Jackson County is in the coal field area of southeastern Kentucky. It is an upland area characterized by deeply entrenched streams and

cliff-lined valleys. Elevations in excess of 1000 feet prevail over most of the county. Elevations less than 1000 feet are found only along a few of the larger streams.



The highest elevations are in the northwestern part of the county where several ridges and hills attain elevations of 1600 feet or more. The highest point, 1633 feet, is on a ridge near the Jackson-Rockcastle County line about 1 1/4 miles south of Morrill. Maximum local reliefs in this part of the county may exceed 600 feet. A few sinkholes are found in the bottoms of deeper valleys in this part of the county, modifying the normal valley profiles and drainage patterns.

Elevations decrease and the terrain is more subdued in the southeastern part of the county. Ridgetop elevations rarely exceed 1200 to 1300 feet, maximum local reliefs of 300 feet are common, and cliffs are less abundant.

The lowest elevation in the county is approximately 650 feet, the point where Station Camp Creek flows northward out of the northeast corner of the county. In the southwest corner, Rockcastle River leaves the county at an elevation of approximately 870 feet.

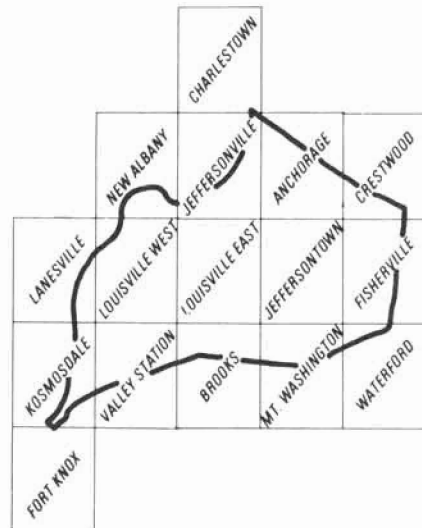
The elevation of McKee, the county seat, is 1030 feet. Other elevations are Annville, 1094 feet; Morrill, 1500 feet; Parrott, 1280 feet; Sandgap, 1490 feet; and Tyner, 1182 feet.

JEFFERSON COUNTY

Jefferson County is on the Ohio River in north-central Kentucky, lying largely in the Outer Blue Grass region. The extreme eastern part of the county is rolling to hilly; the central and northern parts are a tableland of low relief except adjacent to principal drainage lines; and the southwestern corner is in the knobs area adjacent to Muldraugh Hill.

The tableland area occupies the largest part of Jefferson County. To the casual observer, the details

of the topography are obscured by the extensive urban and suburban development. Although locally appearing flat, it is essentially a gently southwestward sloping surface from a high of 790 feet on the east to 500 feet at the foot of the knobs in the southwest part of the county. Floyds Fork and Harrods Creek have cut valleys as much as 150 to 200 feet below this surface in the east-central part of the county. Some sinkholes are present, but these karst features do not constitute an important part of the landscape.



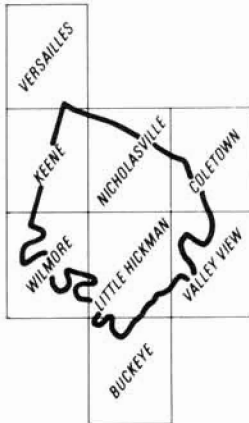
The lowest elevations are found along the Ohio River. Upstream from downtown Louisville the flood plain is relatively narrow but widens appreciably to the south and southwest. Elevations along the flood plain are 430 to 440 feet; terraces 20 feet higher may be present in some areas. The lowest point in the county is 383 feet, the normal pool level of the Ohio River at the mouth of Salt River.

The highest elevations are in the Muldraugh Hill (Highland Rim) area. Here the escarpment rises abruptly 300 to 400 feet above the lowland to the north and east. South Park Hills is a complex of hills and ridges separated by erosion from the main upland to the west. The highest point in South Park Hills, and the highest point in Jefferson County, is 902 feet. Holsclaw Hill, 2 miles to the west, has elevations of 890 feet.

Selected elevations in Louisville are: the courthouse, 462 feet; Churchill Downs, 455 feet; highest elevation in Iroquois Park, 761 feet; terminal building at Standiford Field, 475 feet; main gate at Kentucky Fair and Exposition Center, 480 feet; and University of Louisville campus (South Third Street), 460 feet.

Other elevations in the county include Anchorage, 720 feet; Coral Ridge, 490 feet; Eastwood, 720 feet; Fern Creek, 715 feet; Fisherville, 559 feet; Jeffersontown, 711 feet; Kosmosdale, 449 feet; Middletown, 721 feet; Prospect, 460 feet; and Valley Station, 452 feet.

JESSAMINE COUNTY



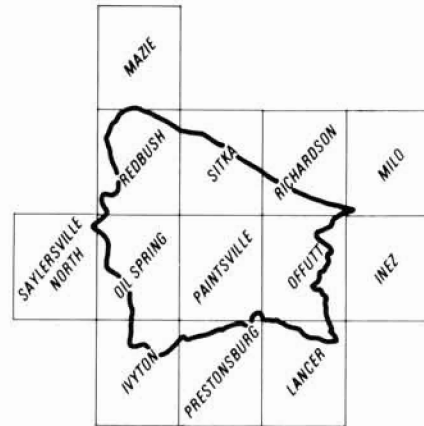
Jessamine County is in the Blue Grass region of Kentucky, lying mostly in the Inner Blue Grass. The terrain is generally gently to mildly rolling, but in the area southeast of lower Hickman Creek in the Little Hickman-Pollard part of the county it becomes hilly, more typical of the Outer Blue Grass.

The Kentucky River marks the entire southern boundary of the county. Its deeply entrenched, meandering valley has a marked influence on the topography of the county. Here are found the lowest elevations, the steepest slopes, and greatest local relief. The lowest elevation in the county, 497 feet, is the normal pool level of the Kentucky River where it leaves the county near Brooklyn Bridge. The valley walls, locally almost vertical, rise 400 feet or more above the stream.

In the upland area away from the river, elevations of 950 to 1000 feet are common. Ridgetops may be flat or nearly so. Karst features are locally conspicuous but do not dominate the landscape. The highest point in the county appears to be 1072 feet, on a ridge just west of the Southern Railroad about 3 miles north of Nicholasville.

The elevation of Nicholasville, the county seat, is 930 feet. Elevations at other communities are High Bridge, 750 feet; Keene, 911 feet; Spears, 994 feet; and Wilmore, 926 feet. The Southern Railroad bridge (High Bridge) over the Kentucky River at the community of High Bridge is at an elevation of 795 feet, 281 feet above the stream.

JOHNSON COUNTY

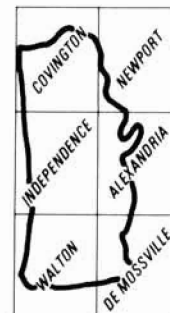


Johnson County is in the Eastern Kentucky coal field. The area is mountainous, and local reliefs of 400 to 500 feet prevail over most of the county. The area is well dissected, and the only flat areas are along the valleys of the major streams. Rugged, rocky cliffs line portions of the valleys of Paint and Little Paint Creeks. Upland elevations in excess of 1000 feet are found in all parts of the county, and ridgetop elevations of 1200 to 1400 feet are common. Stuffley Knob, about 2 miles south-southeast of Oil Springs, is the highest point in the county with an elevation of 1508 feet.

Levisa Fork of Big Sandy River crosses the east-central part of the county, and the lowest elevations in the county are found here. The valley floor is 620 to 630 feet. The lowest point, approximately 550 feet, is the level of Levisa Fork where it leaves the county.

The elevation of Paintsville, the county seat, is about 620 feet. Elevations at other communities are Flat Gap, 815 feet; Offutt, 620 feet; Oil Springs, 843 feet; Redbush, 811 feet; Sitka, 700 feet; Staffordsville, 628 feet; and West Van Lear, 622 feet.

KENTON COUNTY



Kenton County is located in the Outer Blue Grass region in northern Kentucky. The Ohio River marks the north boundary of the county, and the deeply entrenched valley of Licking River marks the east border. The normal pool level of the Ohio River at an elevation of 455 feet is the lowest point.

The area is well dissected by the numerous small streams which flow into the Licking and Ohio Rivers. Hilly terrain predominates and few flat areas are present. Covington, at the confluence of the Licking and Ohio Rivers, occupies the largest area of nearly flat ground in the county. Narrow strips of flat land are present elsewhere along both these streams and along Banklick Creek, a tributary of Licking River. Some of the ridges in central and northern Kenton County are noticeably flatter than those to the south, but none of the upland flat areas are extensive

The upland areas range in elevation from more than 800 feet in the northern part of the county near Covington to more than 900 feet in the southern part of the county. The highest elevation appears to be 960 feet, located on the divide between Banklick and Cruises Creeks near the Kenton-Boone County line. Maximum local relief is along Licking River where differences in elevation between the stream and hilltops may exceed 400 feet. Local reliefs decrease rapidly away from the main streams.

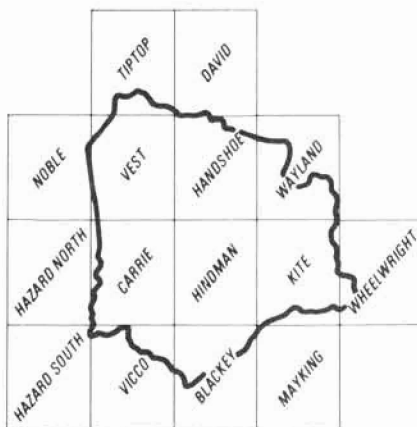
The elevation of downtown Covington is approximately 510 feet. Other elevations are Erlanger, at the city hall, 915 feet; Independence, the county seat, 903 feet; Ludlow, at the city hall, 530 feet; and Piner, 910 feet.

mal stream erosion. Ridges and valleys occupy about equal portions of the landscape. Few large streams are present, and there is a general absence of flat land except narrow strips in the valley bottoms. The lowest elevation, about 675 feet, is at the mouth of Jones Fork where it joins the Right Fork of Beaver Creek.

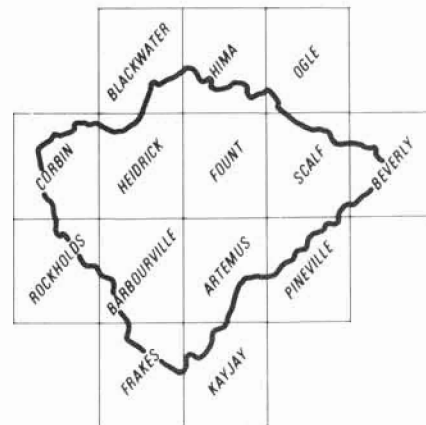
Upland elevations commonly exceed 1400 feet. Local reliefs of 500 to 800 feet are common, generally being greater in the eastern part of the county than in the west. The highest elevations occur in the extreme southern and southeastern parts of the county where mountaintop elevations in excess of 2000 feet are present. These elevations are found along and near the Knott-Floyd, Knott-Pike, and Knott-Letcher County boundaries. The highest point in the county is 2360 feet, on a mountain at the head of Arnold Fork at the junction of Knott, Letcher, and Pike Counties.

The elevation of Hindman, the county seat, is 1031 feet. Elevations at other communities are Carr Creek, 1009 feet; Carrie, 990 feet; Kite, 879 feet; Mousie, 785 feet; Pippa Passes, 1002 feet; and Sassafras, 947 feet.

KNOTT COUNTY



KNOX COUNTY



Knott County is in the mountainous Eastern Kentucky coal field. The area is highly dissected by nor-

Knox County is in the southern part of the Eastern Kentucky coal field. The area is generally mountainous. Ridgetop elevations range from 1300 feet at Corbin in extreme western Knox County to 2000 feet or more in the southern and eastern extremities. The highest elevation is 2322 feet, on a mountain peak near the Knox-Bell County line 2 miles south-southwest of Kayjay. The difference in elevation between the top of this mountain and the valley of Brush Creek, 1 mile east, is more than 1100 feet.

Most of the county lies in the Cumberland

drainage basin except a small area in northern Knox County which drains into the Kentucky River system due to stream piracy by Collins Fork (of Goose Creek). The lowest elevation in the county, 890 feet, is the point where Collins Fork flows northward out of the county.

The principal areas of flat land are in the valleys of Cumberland River and Lynn Camp Creek and in the lower reaches of some of their tributaries. The valley flats along the Cumberland range from 940 to 1000 feet. Cumberland River leaves the county at an elevation of 930 feet, and Lynn Camp Creek leaves the county at Corbin at 1050 feet.

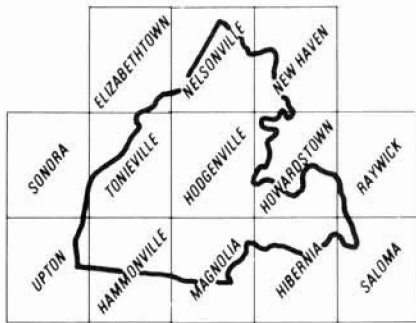
The elevation of Barbourville, at the courthouse, is 986 feet. Elevations at other communities are Artemus, 1016 feet; Boone Heights, 1000 feet; Flat Lick, 1022 feet; Fount, 904 feet; Gray, 1106 feet; Heidrick, 983 feet; Kayjay, 1060 feet; and Walker Memorial State Park, 1000 feet.

the county; elsewhere normal surface stream drainage predominates.

The highest elevations in the county are found along the drainage divide that marks the boundary between Larue and Green Counties and Larue and Taylor Counties. Elevations in excess of 1000 feet are common here. The highest elevation is found along the Larue-Taylor County line, where 1080-foot contours have been recorded.

Hodgenville is the county seat; the elevation at the town square is 730 feet. Elevations at other points of interest are: the entrance to Lincoln Memorial National Historic Park, 774 feet; Abraham Lincoln Boyhood Home, 525 feet; Buffalo, 759 feet; Magnolia, 860 feet; Tonieville, 746 feet; Upton, on the Larue-Hardin County line, 750 feet; and White City, 851 feet.

LARUE COUNTY

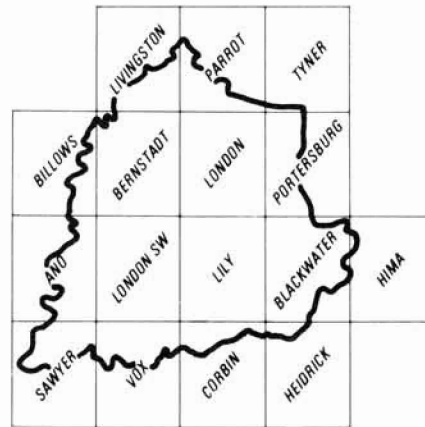


Larue County is in the Mississippian Plateaus area of Kentucky. Rolling Fork, which marks part of the eastern boundary of the county, follows along or near the base of Muldraugh Hill (Highland Rim). The most striking topography in the county is the Muldraugh escarpment which rises 300 to 350 feet above the valley flats (Fig. 11). Steep slopes are present, but sheer cliffs are rare.

The lowest elevations in the county are found along Rolling Fork. The valley flats are around 440 to 450 feet. The lowest point is Rolling Fork where it leaves the county at an elevation of about 421 feet.

Most of Larue County is a low, rolling plateau. Elevations in the northeast at the highest points on Muldraugh Hill (near Kentucky Lincoln Trail and Cecil Ridge) are 1020 feet. The plateau surface declines to the southwest to approximately 750 feet at the western county boundary. Sinkholes are a common feature of the terrain in the western part of

LAUREL COUNTY



Laurel County is located in the coal field area of southeastern Kentucky. The terrain in this part of the Eastern Kentucky coal field looks more like a dissected plateau than a mountain range. Ridgetop elevations of 1200 feet are common in the western and central parts of the county and range up to 1700 feet in the east. Resistant sandstones have caused a number of ridges to be flat topped and also have been the base upon which expanses of nearly flat land have developed in the London and Lily areas.

Rockcastle River forms the western boundary and part of the northern boundary of the county. The lowest elevation is where Rockcastle River joins Cumberland River (Lake Cumberland) at the southwest corner of the county. (The normal pool level of Lake Cumberland is 723 feet.) Laurel River, which forms part of the southern boundary of the county, joins Cumberland River (Lake Cumberland) just 3 1/2 miles east of the mouth of

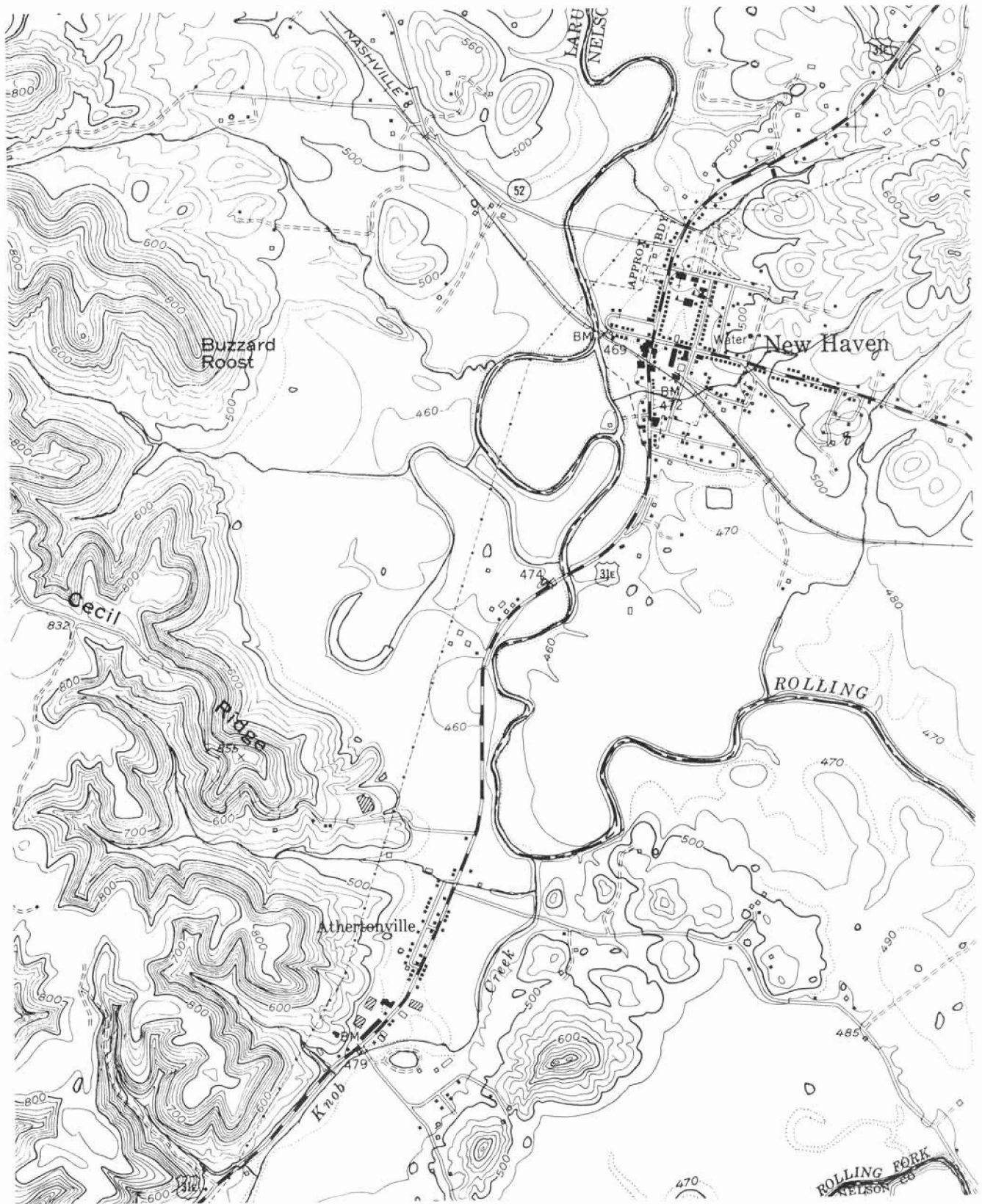


Figure 11. Portion of the New Haven quadrangle in Larue and Nelson Counties showing the edge of Muldraugh Hill (Highland Rim escarpment). This escarpment, generally 300 to 400 feet high, borders the Outer Blue Grass region of Kentucky.

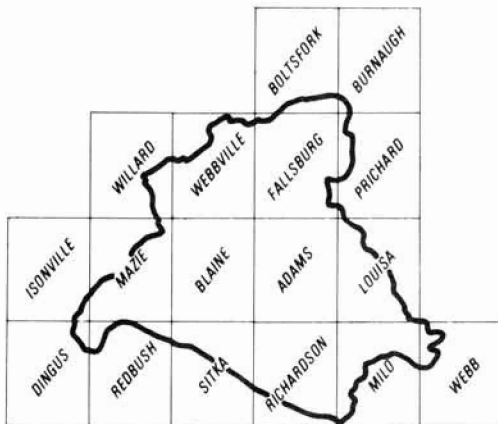
Rockcastle River. These streams have cut their valleys 400 feet or more below the general plateau level. Locally, precipitous sandstone cliffs line these valleys and adjacent tributaries. The valley of Laurel River is not as deeply incised in the eastern part of the county as in the west.

The highest elevations in the county are in the southeast. The Laurel-Knox County line approximates a portion of the watershed boundary between Cumberland and Laurel Rivers. Here elevations in excess of 1700 feet may be found on individual peaks. The highest is 1760, a peak on the Laurel-Knox County line approximately 1 mile southeast of Blackwater.

Elevations of general interest include Bernstadt at 1260 feet; East Bernstadt, 1182 feet; Levi Jackson State Park, approximately 1200 feet; Lily, 1131 feet; London, the county seat, 1255 feet; London-Corbin Airport, 1180 feet; North Corbin, 1127 feet; Pittsburg, 1153 feet; and normal pool level of Wood Creek Lake, 1020 feet.

Laurel River Lake impounds waters of Laurel River 2.3 miles above its confluence with Cumberland River. The conservation pool has an elevation of 982 feet, and the elevation of the power pool is 1018.5 feet.

LAWRENCE COUNTY



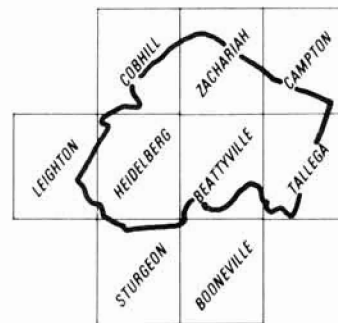
Lawrence County is in the northeastern section of the Eastern Kentucky coal field. It is a well-dissected upland area with ridgetop elevations generally ranging between 900 and 1100 feet. Local reliefs of 300 to 400 feet are common.

The highest elevations are found on the drainage divide between Big Sandy and Licking Rivers in the extreme western part of the county on the boundary with Morgan County. The highest point on this divide is 1320 feet.

Big Sandy River forms the eastern border of the county. The lowest elevations in the county are found here. Upstream from Louisa, the valley flats are narrow. Levisa and Tug Forks join at Louisa and the valley broadens north of this point. The elevation of Big Sandy River where it leaves the county is about 515 feet, the lowest point in Lawrence County.

The elevation of Louisa, the county seat, is 580 feet. Elevations of other communities are Blaine, 650 feet; Buchanan, 560 feet; Fallsburg, 570 feet; Richardson, 600 feet; and Webbville, 649 feet.

LEE COUNTY

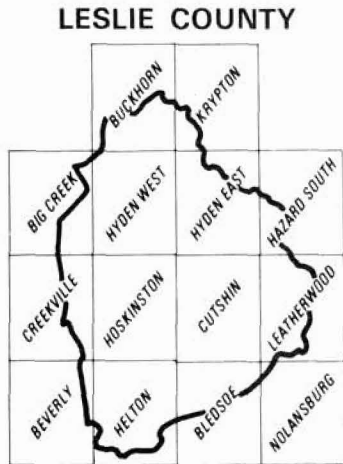


Lee County is near the western edge of the Eastern Kentucky coal field. It is well dissected by normal stream erosion. Upland elevations between 1000 and 1200 feet are typical of most of the area. The north-central and northwestern portions of the county are characterized by cliff-lined valleys and ridges. Underground drainage features are also found in some of the valleys in the northwest sector, modifying some of the normal valley profiles.

The county is drained by the Kentucky River. The Middle and North Forks of the Kentucky River join about 2 miles east-northeast of Beattyville, and the North and South Forks of the Kentucky River join at Beattyville. In this area these streams are entrenched 200 to 300 feet below the adjacent uplands. The lowest elevation in the county is about 610 feet, at the point where the Kentucky River leaves the county near Old Landing. The Pinnacle, a prominent knob 1 mile south of Old Landing, is approximately 600 feet above the river.

The highest point in the county, 1367 feet, is a ridge on the Lee-Owsley County line about 3 1/2 miles southwest of Athol.

The elevation of Beattyville, the county seat, is 666 feet. Elevations at other communities are Athol, 745 feet; Heidelberg, 668 feet; St. Helens, 720 feet; Tallega, 733 feet; and Zachariah, 1239 feet.



Leslie County is in the mountainous Eastern Kentucky coal field. Ridgetop elevations generally range from 1400 to 1600 feet in the north and from 2000 to 2200 feet in the south. The highest elevations in the county, in excess of 2400 feet, are recorded on the Leslie-Harlan County line at the southern edge of the county. The highest point is Peters Knob with an elevation of 2600 feet. Peters Knob is on that portion of the Leslie-Harlan County line which is also the divide between the drainage basins of the Kentucky and Cumberland Rivers.

Leslie County is well dissected by normal stream erosion. Practically all the county is drained by tributaries of the Kentucky River. The Middle Fork of the Kentucky River traverses the county from south to north and has carved a valley 900 to 1000 feet below the adjacent upland. Buckhorn Lake, a flood-control facility, has a normal pool elevation of 757 feet, which is the lowest elevation in the county. The elevation of the flood pool is 820 feet. The elevation of Big Creek, where it leaves northwestern Leslie County, is approximately 850 feet.

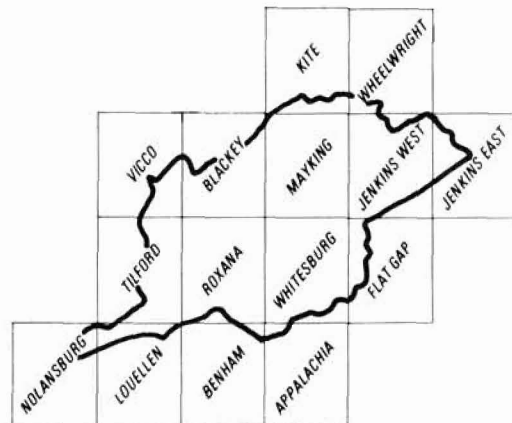
The elevation of Hyden, the county seat, is 870 feet. Other elevations are Cutshin, 1020 feet; Napier, 1156 feet; and Wooten, 873 feet.

LETCHER COUNTY

Letcher County is in the mountainous southeastern part of the Eastern Kentucky coal field. It is an area of rugged terrain and great local relief. No county in Kentucky except Harlan has higher elevations.

Pine Mountain is the most conspicuous and striking topographic feature in the county (Fig. 9). Crossing the county from southwest to northeast, the crest of this long, straight mountain marks approximately two-thirds of the southern county boundary. In the southwest it is the boundary between Letcher and Harlan Counties, and in the

southeast it is the boundary between Letcher County, Kentucky, and Wise County, Virginia. Elevations along the crest of Pine Mountain range from approximately 2900 feet on the west to 2600 feet on the east. The highest elevation on Pine Mountain, 3273 feet, is a peak approximately 5 miles east of Whitesburg. Differences in elevation between the mountain crest and the parallel valley floors approximately 1/2 mile to the north are commonly 1200 to 1300 feet. Two prominent landmarks on Pine Mountain, Hurricane Gap on the Letcher-Harlan County line and Pound Gap on the boundary between Letcher County, Kentucky, and Wise County, Virginia, have elevations of 2220 and 2380 feet, respectively.



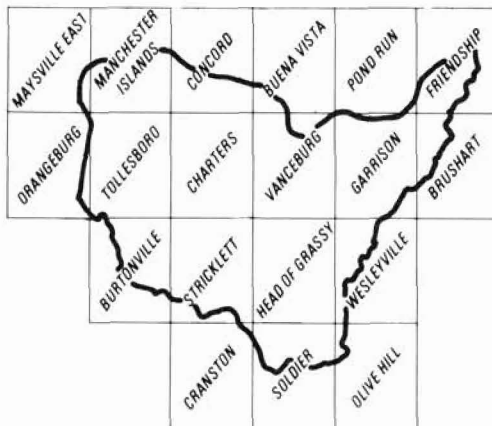
North of Pine Mountain, the terrain is typical of the dissected Eastern Kentucky coal field. It is a region of irregular mountains and valleys with ridgetop elevations commonly between 2000 and 2300 feet. Local relief of 600 feet or more is found over most of this part of the county.

The highest elevations in Letcher County are found on Black Mountain, a large, irregular mountain mass lying south of Pine Mountain. The crest of the mountain approximates part of the boundary between Letcher County, Kentucky, and Wise County, Virginia. Elevations in excess of 3500 feet are common here. The highest elevation in Letcher County, 3720 feet, is a peak on Black Mountain at the extreme southeastern corner of the county.

The lowest elevation in the county, approximately 940 feet, is the point where the North Fork of the Kentucky River leaves the western edge of the county.

All the communities are located in the valleys. The elevation of Whitesburg, the county seat, is 1164 feet. Elevations at other communities are Blackey, 1000 feet; Fleming-Neon, 1300 feet; Gordon, 1309 feet; Jenkins, 1526 feet; Letcher, 1014 feet; Mayking, 1214 feet; and Roxana, 1043 feet.

LEWIS COUNTY



Lewis County is a highly dissected upland area in northeastern Kentucky. The topography is hilly to mountainous. On the western edge of the county, the topography is typical of the Outer Blue Grass, but elsewhere it expresses the characteristics of the Highland Rim. Ridgetop elevations generally exceed 1000 feet and expanses of flat land are few. An exception is the Tollesboro area where broad upland flats are developed on resistant rock formations.

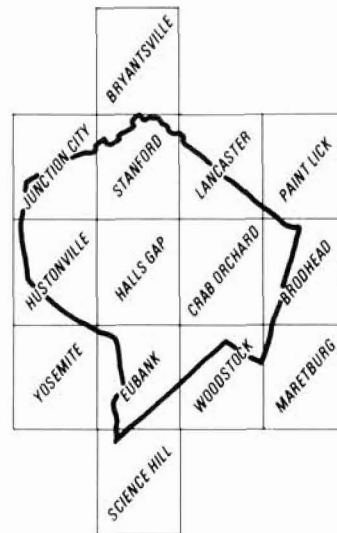
The Ohio River marks the northern border. The lowest elevation in the county is 485 feet, the normal pool level of the Ohio where it crosses the western boundary. Elevations along the valley floor are about 520 to 540 feet.

Local reliefs of 300 feet or more are common in many parts of the county, and the slopes are steep. The greatest local relief is 2 miles west of Garrison, from Round Top (1220 feet) on the bluff overlooking the Ohio River down to river level (485 feet), a difference in elevation of 745 feet.

The highest elevation in Lewis County, 1400 feet, is a knob near the Lewis-Fleming County line about 2 1/2 miles south of Petersville. Elevations in excess of 1300 feet are present along the Lewis-Fleming and Lewis-Rowan County lines where they follow a drainage divide between Kinniconick Creek and Licking River. Eskalapia Mountain, a prominent high area southeast of Tollesboro, attains an elevation of 1200 feet.

The elevation of Vanceburg, the county seat, is 525 feet. Other elevations in the county are Burtonville, 790 feet; Charters, 583 feet; Concord, 526 feet; Firebrick, 580 feet; Garrison, 535 feet; Head of Grassy, 716 feet; Kinniconick, 686 feet; Petersville, 830 feet; Stricklett, 720 feet; and Tollesboro, 816 feet.

LINCOLN COUNTY



Lincoln County, in central Kentucky, includes portions of both the Outer Blue Grass and Mississippian Plateaus regions. Muldraugh Hill (Highland Rim escarpment), which crosses the county south of a line connecting Crab Orchard, Stanford, and Hustonville, is the most conspicuous topographic feature. A similar upland area is present northwest of Moreland in the northwest corner of the county. This escarpment divides the Outer Blue Grass region of northern Lincoln County from the Mississippian Plateaus in the south.

The topography of the northern part of the county is slightly rolling to hilly. Elevations of 1000 feet or greater are found on the highest hills and ridges in this area. Local relief is commonly 100 to 150 feet. The lowest elevation in the county is approximately 760 feet, the point where Dix River leaves the northern tip of the county.

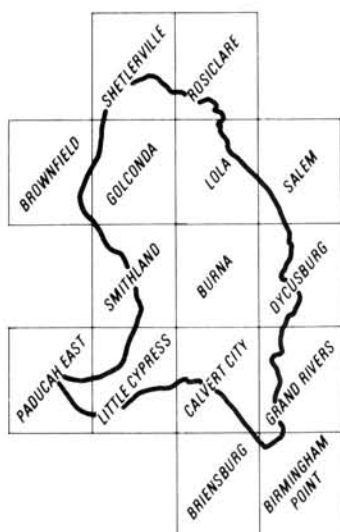
The highest elevations and the sites of greatest local relief are along Muldraugh Hill. The highest point in the county, 1440 feet, is a knob adjacent to the Lincoln-Casey County line approximately 3 miles northwest of Moreland. Elevations along the escarpment are commonly 300 feet above the adjacent Blue Grass region.

The edge of the escarpment is highly dissected; however, to the south, areas of flat land increase and broad tablelands are common. Elevations decline from 1300 feet or more on the edge of the escarpment to 1100 to 1200 feet in the southern part of the county. Buck and Crab Orchard Creeks in the southeastern part of the county occupy valleys which appear much too wide for their streams.

The elevation of Stanford, the county seat, is 946 feet. Other elevations are Chicken Bristle, 921 feet;

Crab Orchard, 952 feet; Halls Gap, 1390 feet; Hustonville, 974 feet; McKinney, 1012 feet; Moreland, 1089 feet; and Waynesburg, 1210 feet. The spillway elevation of Stanford Reservoir is 1060 feet.

LIVINGSTON COUNTY



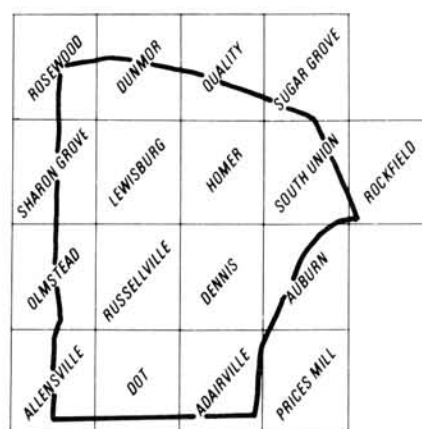
Livingston County is in the "big rivers" area of western Kentucky. The Ohio River marks the northern and western boundaries, and the Tennessee River and Kentucky Lake mark the southern boundary. The Cumberland River and Lake Barkley mark part of the southeastern boundary, and the Cumberland River flows across the middle of the county joining the Ohio River at Smithland. The lowest elevation in the county, 302 feet, is at the confluence of the Ohio and Tennessee Rivers at Livingston Point. Kentucky Lake and Lake Barkley are connected by a navigation canal and maintain the same normal pool elevation of 359 feet.

Outside the flood-plain areas of the Ohio, Tennessee, and Cumberland Rivers, the terrain is hilly. In general, the area south of the Cumberland River consists of irregular, low, rolling hills. Local relief is commonly about 100 feet in this area. North of the Cumberland River the terrain is more rugged; hills are higher and local reliefs are greater. Long northeast-southwest and north-south trending bluffs are conspicuous features of the landscape. Examples include Goodhope Bluff south of Joy with elevations of 600 to 650 feet, Newmans Bluff southwest of Joy with elevations of 550 to 680 feet, and Wilson Bluff northwest of Salem with elevations of 600 to 727 feet. The highest elevation in the county, 754 feet, is on Lockhart Bluff about 4 miles

east of Burna. Local relief along these bluffs and the bluffs adjacent to the Cumberland and Ohio Rivers may be in excess of 200 feet.

Smithland is the county seat, and the elevation at the courthouse is 344 feet. Elevations at other communities are Bayou, 345 feet; Birdsville, 340 feet; Burna, 554 feet; Grand Rivers, 400 feet; Lake City, 419 feet; Lola, 399 feet; Salem, 448 feet; and Tiline, 345 feet.

LOGAN COUNTY



Logan County is in the Mississippian Plateaus area of southwestern Kentucky. The terrain ranges from gently rolling to hilly, and the county can be divided topographically into two broad areas.

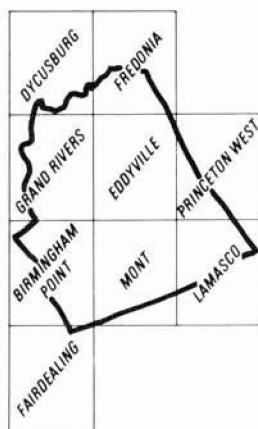
The southern half of the county is a karst (sinkhole) plain with elevations between 600 and 650 feet. Streams, where present, are incised approximately 50 to 75 feet below the surface. The northern half of the county contains higher elevations and more rugged topography. The two areas are separated by the Dripping Springs escarpment, a southward-facing cuesta, which rises 150 feet above the karst plain to an elevation of about 750 feet.

The highest elevations in the county are found in a line of isolated hills and knobs situated just south of U. S. Highway 68 between Auburn and Russellville. These are erosion remnants from the Dripping Springs escarpment, and many attain elevations in excess of 800 feet. The highest of this group, and the highest point in the county, is a knob about 3 1/2 miles southeast of Russellville with an elevation of 868 feet. There are also some high knobs in the northern part of the county near Beechland. Tan Knob, southeast of Beechland, has an elevation of 762 feet; Iron Mountain, southwest of Beechland, is 720 feet.

By contrast, Mud River, which drains the northwestern part of the county, is a slow-flowing, sluggish stream with a low gradient. The lowest elevation in Logan County is approximately 395 feet, at the point where Mud River leaves the county. The elevation of Lake Malone, in the northwest corner of the county, is 450 feet.

The elevation of Russellville, the county seat, is 595 feet. Elevations at other communities are Adairville, 600 feet; Anderson, 637 feet; Auburn, 642 feet; Epleys, 680 feet; Homer, 525 feet; Keysburg, 561 feet; Lewisburg, 483 feet; Olmstead, 590 feet; South Union, 608 feet; and Spa, 490 feet.

LYON COUNTY



Lyon County is in the Mississippian Plateaus area of western Kentucky. Kentucky Lake marks the southwestern boundary of the county and the Cumberland River marks most of the northwestern boundary. Lake Barkley, a multi-purpose reservoir on the Cumberland River, crosses the center of the county. The two lakes are connected by Barkley Canal on the western edge of the county which permits the two impoundments to have a common normal pool elevation of 359 feet. The lowest elevation in the county, approximately 305 feet, is on the Cumberland River at the mouth of Livingston Creek.

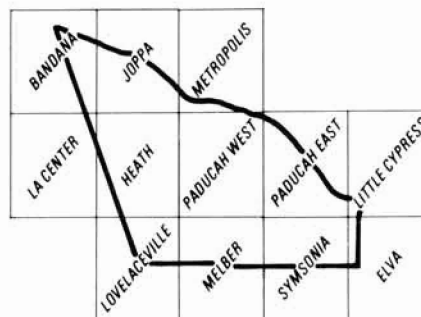
Away from the valleys, the topography is rolling to hilly. A well-developed karst plain on which hundreds of sinkholes have formed is found in the eastern edge and northeastern corner of the county. Elevations in Fredonia Valley, which is part of this area, range between 410 and 460 feet.

The highest elevations are in the southeastern part of the county. The highest point, 670 feet, is on a ridge on the Lyon-Trigg County line approximately 2 miles northeast of Lake Barkley.

The area known as "The Land Between the Lakes" is a hilly area with many ridgetop elevations exceeding 500 feet. The highest elevations in this part of the county are found on the drainage divide between Kentucky Lake and Lake Barkley. Probably the highest natural point here is at the base of the lookout tower (Hematite triangulation station) in the southern part of the county where an elevation of 590 feet is recorded. Iron Hill, south of Suwanee, is 520 feet.

The elevation of Eddyville, the county seat, is 470 feet. Other elevations are Kuttawa (new), 450 feet; Kuttawa (old) 390 feet; and Lamasco, 560 feet. The highest elevation in Vista Ridge Park, located on a conspicuous northeast-trending ridge at old Kuttawa, is 580 feet.

McCRACKEN COUNTY



McCracken County is in the northern part of the Mississippi Embayment region of western Kentucky. The Ohio River marks the northern boundary of the county, and the lowest elevations are found here. Normal pool elevation of the Ohio at Paducah on the upstream side of navigation dam No. 52 is 302 feet; the normal pool elevation below the dam is 290 feet, the lowest elevation in the county.

Topographically, McCracken County is a gently rolling plain. The surface of the upland is rolling, but large areas of level land are present between some of the streams and their headwaters, particularly in the western part of the county. Large areas of nearly level land also occur along the flood plains of the Ohio, Tennessee, and Clarks Rivers.

Highest elevations in the county are found along the Tennessee Valley divide near St. Johns in the southern part of the county where ridgetops have elevations of 500 feet. Other high elevations are present in the uplands between Mayfield Creek and West Fork of Massac Creek in the southwestern part of the county where ridges and knolls attain elevations of 490 feet, and near the headwaters of Massac

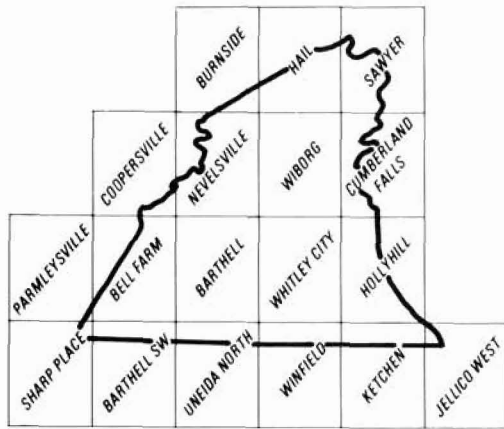
Creek where similar elevations occur. Greatest local reliefs occur in the vicinity of Clarks River and Mayfield Creek where hills commonly rise 100 feet or more above the broad valley flats (Fig. 8). There are no bluffs on the McCracken County shore of the Ohio River.

The elevation of Paducah, at the courthouse, is 341 feet. Other elevations are Barkley Field, 400 feet; Freemont, 367 feet; Future City, 405 feet; Hardmoney, 350 feet; Heath, 385 feet; Krebs, 363 feet; Lone Oak, 475 feet; Melber, 375 feet; and Reidland, 400 feet.

of the county, have carved valleys 400 to 500 feet below the adjacent uplands. Flowing through a narrow cliff-lined gorge over shoals, rapids, and falls, the Cumberland River drops more than 140 feet from the point where it enters the county on the east to Lake Cumberland. Cumberland Falls is the most spectacular drop along this portion of the river, and, because of the volume of water flowing over it, it is the most spectacular waterfall in Kentucky. The lowest elevation in the county is 723 feet, the normal pool level of Lake Cumberland.

The elevation of Whitley City, the county seat, is 1360 feet. Other elevations are Bell Farm, 980 feet; Beulah Heights, 1300 feet; Flat Rock, 1300 feet; Greenwood, 1218 feet; Hollyhill, 1178 feet; Parkers Lake, 1260 feet; Pine Knot, 1420 feet; Silerville, 1426 feet; and Stearns, 1351 feet.

McCREARY COUNTY

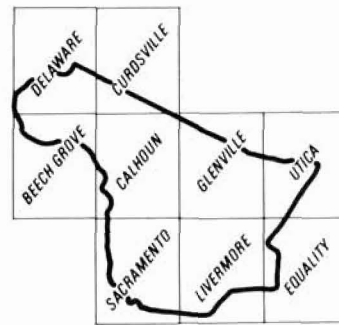


McCreary County is at the southwestern tip of the Eastern Kentucky coal field. It is a well-dissected upland with a hilly to mountainous terrain. Cliff-lined gorges and ridges are present throughout much of the area. Resistant rock formations have produced such scenic features as chimney rocks, natural arches, precipitous cliffs, and waterfalls. Only an occasional flat-topped ridge or a valley flat interrupt the general rugged appearance of the topography.

Ridgetop elevations of 1200 to 1500 feet prevail over most of McCreary County, generally declining from west to east. However, in the southeastern corner of the county scattered ridges and knobs rise 600 feet or more above the general plateau level. The highest elevation is 2165 feet, a knob on Ryans Creek Mountain about 1 1/2 miles southeast of Hollyhill. Stephens Knob, between Hollyhill and the Kentucky-Tennessee state line, has an elevation of 2125 feet. Several other neighboring peaks also attain elevations in excess of 2000 feet.

The Cumberland River, which marks the north-eastern county boundary, and South Fork of the Cumberland River, which crosses the western part

McLEAN COUNTY

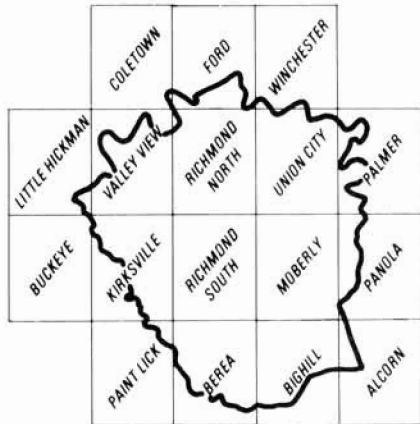


McLean County is located in the Western Kentucky coal field. The topography is characterized by patches of low hills separated by broad valley flats. The wide bottom lands along Green River and its tributaries are the most striking feature of the terrain. The lowest elevations in the county are found here. Elevations along the flood plain are between 380 and 400 feet. The lowest point, approximately 345 feet, is Green River where it leaves the county.

Irregular masses of hills and ridges rise like islands above the broad valley flats. Elevations of ridge crests and hilltops are generally 500 feet or less, but locally they may attain greater heights. The highest elevation in the county, 660 feet, is on Barrett Hill on the McLean-Ohio County line. Grindstone Hill, 3 miles southwest of Glenville, has an elevation of 601 feet. The hills are mildly dissected by normal stream erosion. Local relief of 100 feet or less is common, but in a few instances it may be as great as 200 feet.

The elevation of Calhoun, the county seat, is 395 feet. Other elevations are Beech Grove, 398 feet; Glenville, 441 feet; Island, 430 feet; Livermore, 408 feet; Rumsey, 387 feet; and Sacramento, 497 feet.

MADISON COUNTY



Most of Madison County lies in the Outer Blue Grass region of central Kentucky, but the extreme southern area includes the outer edge of the Eastern Kentucky coal field. Various parts of the county are gently rolling, hilly, and mountainous. The most striking topographic features are the deeply entrenched valley of the Kentucky River which marks the northern boundary of the county and the Cumberland escarpment in the southern area.

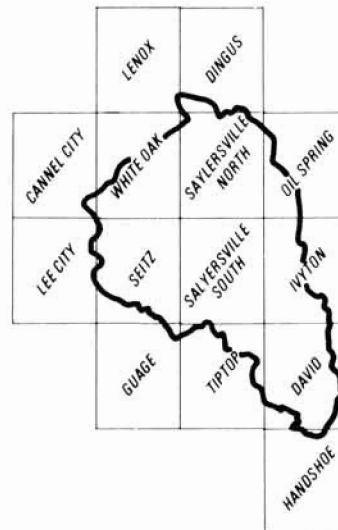
Ridgetops in the northern half of the county are commonly 900 to 1000 feet, some 350 to 450 feet above the Kentucky River. The area is hilly and few flat areas occur. The lowest elevation in the county, approximately 530 feet, is at the confluence of the Kentucky River and Paint Lick Creek at the north-eastern corner of the county.

North and northeast of Berea, in the south-central part of the county, the topography is more subdued. Although the elevations are around 1000 feet, the relief is the lowest in the county. The principal areas of flat land in the county are found here.

The highest elevations and the greatest local reliefs are found in the area south of a line between Berea and Panola. The Cumberland escarpment and the hills resulting from the erosion of the Eastern Kentucky coal field front are striking topographic features. Peaks and ridges rise 600 to 700 feet or more above the valley floors. Pilot Knob at 1411 feet and Indian Fort Mountain at 1552 feet, both near the community of Big Hill, are examples of such erosion remnants. Bear Mountain, 3 miles southeast of Berea, has the highest elevation in Madison County at 1660 feet.

The elevation of Richmond, at the courthouse, is 950 feet. Other elevations are Berea, 1034 feet; Bighill, 813 feet; Bybee, 910 feet; Fort Boonesboro State Park, 585 feet; Kingston, 928 feet; Kirksville, 994 feet; Moberly, 877 feet; Panola, 791 feet; Valley View, 568 feet; and Waco, 827 feet. The spillway elevation of Lake Reba is 857 feet, and at Taylor Fork Lake the spillway is at 825 feet.

MAGOFFIN COUNTY



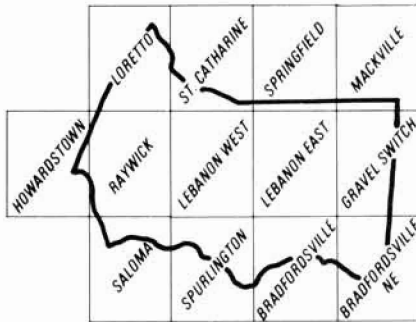
Magoffin County is in the Eastern Kentucky coal field. It is a well-dissected upland typical of the Cumberland Plateau area. Ridgetop elevations generally range from 1100 feet in the northern part of the county to 1400 feet in the southern part, and local reliefs range from 300 feet in the northern part to 400 feet or more in the southern part.

The highest elevations are in the southern part of the county along and near the drainage divide between Licking and Big Sandy Rivers. The highest elevation, 1640 feet, is on the Magoffin-Floyd County line near the southeastern tip of the county.

The lowest elevations and the location of the main areas of flat lands are along the valley of Licking River which crosses Magoffin County from southeast to northwest. The lowest point, approximately 785 feet, is the elevation of Licking River where it leaves the northwestern boundary of the county.

The communities are located in the valleys. The elevation of Salyersville, the county seat, is 854 feet. Other elevations are Ivyton, 954 feet; Royalton, 890 feet; Seitz, 884 feet; Tiptop, 1040 feet; Wheelersburg, 856 feet; and Wonnie, 819 feet.

MARION COUNTY



Marion County includes parts of the Outer Blue Grass and Mississippian Plateaus regions, the area where the Blue Grass meets the knobs. The upland masses that have been separated from the main plateau area by normal stream erosion are the most striking topographic features of this county.

Northern Marion County consists of rolling hills with local relief ranging from 50 to 100 feet. Slopes are rarely steep except adjacent to principal drainage lines. Locally, flat surfaces may be present on ridgetops or benches. Ridgetop elevations generally range between 800 and 900 feet.

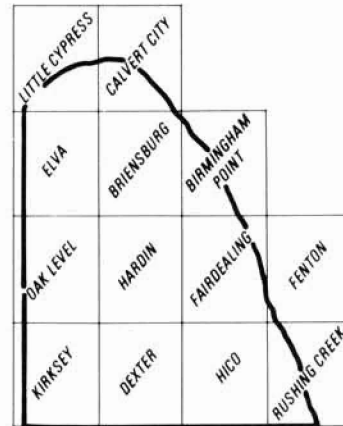
The southern boundary of the county approximates the position of Muldraugh Hill (Highland Rim). Knobs and irregular upland areas are separated from the main plateau by North Rolling Fork and Big South Fork. These hills and knobs rise 400 to 450 feet above the adjacent stream valleys. For example, the difference in elevation between Lovers Leap and North Rolling Fork, 3 miles southwest of Gravel Switch, is 400 feet.

The highest elevations in the county, on the order of 1200 feet, are found principally along the Marion-Casey County line in the southeast corner of the county and in the upland area between Big South Fork and North Rolling Fork on the east edge of the county. The highest point is Putnam Knob, 1260 feet, about 6 miles east of Lebanon. Rohan Knob, a prominent landscape feature on the Marion-Nelson County line north of Holy Cross, has an elevation of 1090 feet.

The lowest elevation, 475 feet, is where Hardin Creek leaves the northern tip of the county. Rolling Fork leaves the county at an elevation of 515 feet.

The elevation of Lebanon, the county seat, is 797 feet. Elevations at other communities are Bradfordsville, 682 feet; Gravel Switch, 910 feet; Holy Cross, 698 feet; Loretto, 744 feet; Raywick, 609 feet; Saint Francis, 701 feet; and Saint Mary, 762 feet.

MARSHALL COUNTY



Marshall County is near the northeast corner of the Mississippi Embayment region of western Kentucky. The Tennessee River marks the northern boundary, and Kentucky Lake, a Tennessee Valley Authority facility on the Tennessee River, forms the eastern boundary. The elevation of the Tennessee River at the Marshall-McCracken County line, the lowest point in the county, is 302 feet. Normal pool elevation of Kentucky Lake is 359 feet.

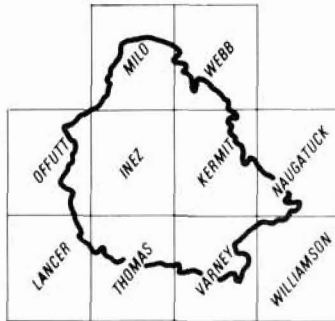
Topographically, Marshall County is a gently rolling plain. Highest elevations are found on the flat-topped ridges between the principal drainage lines and range from 550 feet in the southern part of the county to 450 feet in the northern part. Elevations of 550 feet, the highest in the county, occur on a ridge about 4 miles south of Benton and on a ridge just north of the Marshall-Calloway County line about 4 miles west of Hardin. Local differences in elevation rarely exceed 50 feet except adjacent to drainage lines; here differences between valley bottoms and the upland surface may be 100 to 150 feet. Stream gradients are low. Some swamps are present along the broad, flat valley of East Fork of Clarks River.

The elevation of Benton, at the courthouse, is 430 feet. Elevations at other communities are Aurora, 463 feet; Briensburg, 495 feet; Calvert City, at the railroad, 350 feet; Draffenville, 471 feet; Elva, 346 feet; Gilbertsville, 350 feet; Little Cypress, 349 feet; Palma, 461 feet; Possum Trot, 345 feet; and Sharp, 407 feet. The elevations at the lodges at Kentucky Dam Village and Kenlake State Parks are 415 and 450 feet, respectively.

MARTIN COUNTY

Martin County is in the easternmost part of the Eastern Kentucky coal field. Tug Fork of Big Sandy

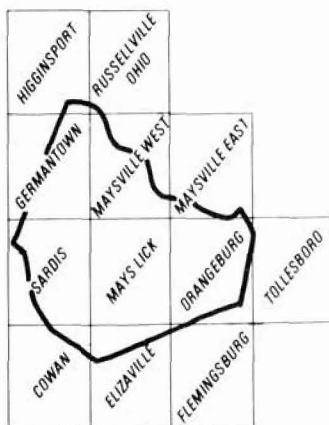
River marks the eastern boundary of both Martin County and the Commonwealth of Kentucky. The lowest elevation in the county, approximately 550 feet, is on Tug Fork at the northern boundary of the county.



The terrain is mountainous. Practically no flat areas may be found except in the valleys, and these are limited. Highest elevations are in the southern part of the county where many of the mountaintops exceed 1400 feet. Elevations generally decline northward and are between 1000 and 1200 feet at the northern border. Chestnut Knob, 3 miles east-northeast of the junction of Martin, Floyd, and Pike Counties, has an elevation of 1600 feet, and a mountain above the headwaters of Hobbs Fork in the southeastern corner of the county is 1606 feet. Local reliefs range from 400 feet in the northern part of the county to 600 feet in the southern area.

The communities are located in valleys. The elevation of Inez, the county seat, is 640 feet. Other elevations are Beauty, 640 feet; Hode, 620 feet; Lovely, 625 feet; Milo, 635 feet; and Warfield, 620 feet.

MASON COUNTY



Mason County, in northern Kentucky, is in the Outer Blue Grass region. The Ohio River marks the

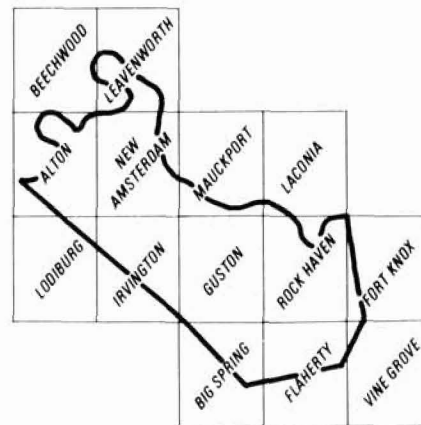
northern boundary of the county and is the area of lowest elevations. The lowest point, the normal pool level of the Ohio River, is 485 feet. The valley flats of the Ohio are about 520 to 530 feet.

The terrain is rolling to hilly, with the area of lowest local relief being in the southern part of the county. The greatest local relief is in the vicinity of the Ohio Valley. Immediately north of Maysville the difference in elevation between ridgetops and the river is more than 400 feet.

Ridgetop elevations of 900 feet are common throughout the county. The highest elevation in the county, 1000 feet, is found on a ridge 1 1/2 miles west of Mays Lick on the drainage divide between Licking River and the North Fork of Licking River.

The city hall of Maysville, the county seat, has an elevation of 520 feet. Elevations of other communities are Dover, 520 feet; Germantown, on the Mason-Bracken County line, 960 feet; Helena, 830 feet; Lewisburg, 750 feet; Mays Lick, 898 feet; Minerva, 940 feet; Orangeburg, 761 feet; Sardis, 945 feet; and Washington, 900 feet.

MEADE COUNTY



Meade County is in the Mississippian Plateaus area of northern Kentucky. The Ohio River marks the northern boundary. The normal pool elevation of the river, 383 feet, is the lowest elevation in the county. Differences in elevation between the river and the adjacent upland commonly approach or exceed 300 to 400 feet.

Most of Meade County is a karst (sinkhole) plain of low local relief. Sinkholes abound in this area, and surface streams are rare except close to the valley of the Ohio River. Elevations on the karst plain range from approximately 700 to 750 feet on the east to 600 to 650 feet on the west. The sinkhole topography is interrupted by an occasional hill or ridge which stands above the general plain level.

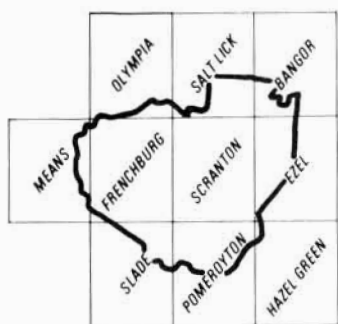
Elevations slightly greater than 1000 feet, the highest in Meade County, are found on Bee Knob Hill, an elongate northeast-southwest ridge on the karst plain 2 1/2 miles northwest of Flaherty.

Northwestern Meade County occupies part of a higher plateau. It is separated from the sinkhole area by the Dripping Springs escarpment, an eastward-facing cuesta. Elevations at the edge of the escarpment are about 800 to 850 feet. The upper plateau surface declines approximately 100 feet to the western edge of the county. The surface is dissected by normal stream drainage, and karst features are rare except in valley bottoms. The valleys are narrow and deeply incised, commonly with local reliefs of 250 feet. The intervening ridges are generally flat topped.

A large valley loop at Wolf Creek, carrying only minor drainage, is a conspicuous topographic feature. It was once a meander of the Ohio River which has been abandoned. The "island" (meander core) in the center of the loop rises more than 300 feet above the encircling valley.

At Brandenburg, the county seat, the elevation on the flood plain is 420 feet; elevation at the edge of the bluff is 550 feet. Other elevations are Battletown, 700 feet; Big Spring, at the junction of Meade, Hardin, and Breckinridge Counties, 680 feet; Flaherty, 793 feet; Garrett, 684 feet; Guston, 698 feet; Muldraugh, 720 feet; Paynesville, 816 feet; and Wolf Creek, 427 feet.

MENIFEE COUNTY



Menifee County is at the western edge of the Eastern Kentucky coal field. It is an upland area well dissected by normal stream drainage. The terrain in the northern and western parts of the county is characterized by cliff-lined ridges. In the southeastern part of the county cliffs are found in the bottoms or midpoints of the valley walls at lower elevations.

Ridgetop elevations of 1100 to 1300 feet are common over most of the county. The ridges are com-

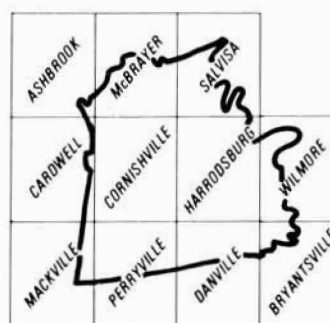
monly narrow but may be almost flat topped, particularly in the northwestern half of the county. The highest elevation in the county, 1428 feet, is a flat-topped ridge on the drainage divide between the Kentucky and Licking Rivers about 3/4 mile north-northeast of Fagan. Isolated knobs on the Menifee-Montgomery and Menifee-Bath County lines have elevations in excess of 1300 feet.

Valleys are cut 100 to 500 feet below the uplands. The picturesque valley of Red River, which marks part of the southern boundary of the county, is 200 to 500 feet deep. The upper part of the valley wall is rimmed with nearly vertical cliffs. The elevation of Red River, where it leaves the county, is approximately 670 feet, the lowest point in the county.

Cave Run Lake, a flood-control facility, impounds waters of Licking River. Normal pool level is 730 feet, and the maximum flood pool (spillway elevation) is 765 feet.

The elevation of Frenchburg, the county seat, is 870 feet. Elevations at other communities are Denniston, 1105 feet; Fagan, 1192 feet; Means, 850 feet; Pomeroyton, 1050 feet; Scranton, 734 feet; and Sudith, 750 feet.

MERCER COUNTY



Mercer County is in the Blue Grass region of central Kentucky. The topography is gently rolling to hilly, with the steepest slopes and greatest local relief being in the eastern edge of the county near the deeply incised valleys of the Dix and Kentucky Rivers.

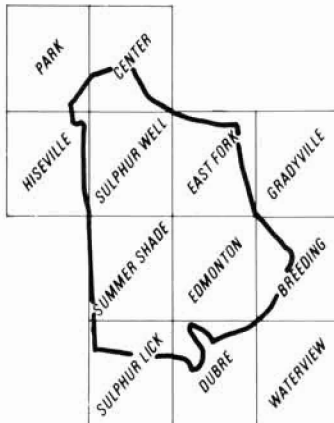
The Kentucky River, Dix River, and Herrington Lake, an impoundment on Dix River, mark the eastern boundary of the county. The spillway elevation of Herrington Lake is 750 feet. The Kentucky River enters Mercer County above Lock No. 7 at an elevation of 514 feet and leaves the county below Lock No. 6 at 483 feet, the lowest elevation in the county. At many places the difference in elevation between the river and the adjacent uplands is 350 to 400 feet.

The area of lowest local relief is in the vicinity of Harrodsburg. Ridgetop elevations are between 900 and 950 feet. Locally, fairly large areas of nearly flat land are present at these elevations. Some sinkhole topography is present on this upland surface, but it does not dominate the landscape. The highest point in Mercer County, 1000 feet, is on a ridge just south of Kentucky Highway 152 about 2 1/2 miles east of the center of Harrodsburg.

The area west of Salt River is hilly. Little flat land is present except along the valleys of Chaplin and Salt Rivers. Ridgetop elevations generally range between 850 and 900 feet, and the local relief is commonly 100 to 150 feet.

The elevation of Harrodsburg, the county seat, in the center of the city, is 850 feet. Other elevations are Bohon, 897 feet; Bondsville, 779 feet; Burgin, 893 feet; Cornishville, 733 feet; Mayo, 900 feet; Nevada, 821 feet; Oregon, 523 feet; Salvisa, 785 feet; and Shakertown, 930 feet. The Southern Railroad bridge (High Bridge) over the Kentucky River near Shakertown is at an elevation of 795 feet, 281 feet above the river.

METCALFE COUNTY



Metcalfe County is in the Mississippian Plateaus area of south-central Kentucky. The northwestern portion of the county contains a karst topography with abundant sinkholes, but most of Metcalfe County is a well-dissected, rolling to hilly, upland plateau. The sinkhole plain has elevations between 750 and 800 feet.

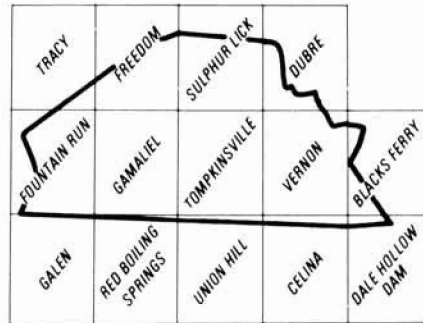
The highest elevations are in the southern and southeastern parts of the county. The highest elevations recorded, 1120 feet, are found on a ridge 1 1/2 miles east of Summer Shade, on Lone Star Ridge 1/2 mile southeast of Lone Star School, and on a ridge 1 1/2 miles southwest of Moore Spring (Subtle post office). Dividing Ridge has elevations in

excess of 1000 feet. The terminus of this ridge at the junction of Metcalfe, Cumberland, and Adair Counties is at an elevation of 1100 feet. These high elevations are along or near the divide separating the Barren River and Green River drainage basins to the north and west from the Cumberland River drainage basin on the southeast. Pilot Knob, on the Metcalfe-Green County line 2 miles east of Center, has an elevation of 1031 feet.

The lowest elevation, 560 feet, is on Little Barren River where it leaves the northern part of the county.

Edmonton, the county seat, is 843 feet. Other elevations include Center, 806 feet; Knob Lick, 755 feet; Randolph, 945 feet; Sulphur Well, 612 feet; and Summer Shade, 877 feet.

MONROE COUNTY



Monroe County is in the Mississippian Plateaus area on the southern border of Kentucky. The topography varies from highly dissected in the eastern part to moderately and mildly dissected in the western and central areas of the county. The most rugged terrain is in the eastern area along or near the valley of the Cumberland River. The topography here is similar to that along Muldraugh Hill, and the west side of the valley is topographically similar to the Muldraugh (Highland Rim) escarpment. The elevation of the river is approximately 500 feet, whereas the adjacent ridges and hills are 300 feet higher. Practically no flat land is present in this part of the county except along the valley bottoms. The lowest point in the county is an elevation between 495 and 500 feet, the elevation of the Cumberland River where it crosses the State line.

The central and western parts of the county are an upland plateau with elevations ranging from 1100 feet on the east to approximately 800 feet on the west. Streams have carved valleys 100 to 150 feet below the upland, and some of the intervening ridges have nearly flat tops. Some karst features are present but do not dominate the landscape. The

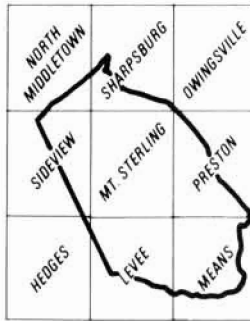
highest elevation in the county, 1141 feet, is near the community of Persimmon, about 7 1/2 miles north-northeast of Tompkinsville. An elevation of 1130 feet has been recorded for a ridge north of Kentucky Highway 100 about 4 miles east-northeast of Tompkinsville. The elevation of Barren River at the west boundary of the county is approximately 595 feet.

The elevation of Tompkinsville, at the courthouse, is 923 feet. Elevations at other communities are Akersville, 840 feet; Bugtussle, 848 feet; Flip-pin, 730 feet; Fountain Run, 775 feet; Gamaliel, 850 feet; Mud Lick, 992 feet; Persimmon, 1090 feet; and Sulphur Lick, 840 feet. The elevation at the entrance of Old Mulkey Meeting House State Park is 910 feet.

hilly, but there are a number of low, broad, flat-topped ridges in the Camargo-Jeffersonville area of southeastern Montgomery County and a few high, flat-topped ridges adjacent to Slate Creek south of Howards Mill in the east-central part of the county.

Elevations of general interest include Mount Sterling, at the courthouse, 970 feet; Camargo, 925 feet; Howards Mill, 775 feet; Jeffersonville, 842 feet; Judy, 1008 feet; Sid Calk Lake, 925 feet; Greenbrier Creek Reservoir, 805 feet; and the lake at Camp McKee, 860 feet.

MONTGOMERY COUNTY

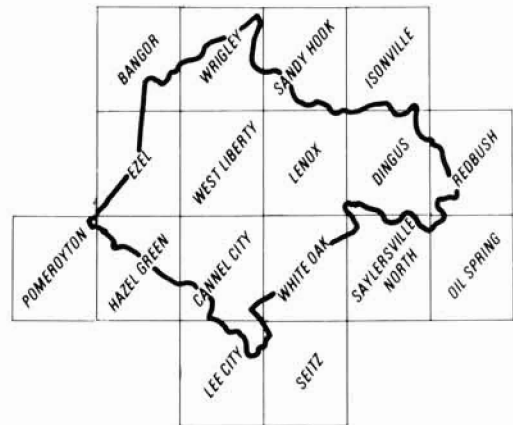


Most of Montgomery County lies in the Outer Blue Grass region of central Kentucky. The eastern and southern edges of the county border the Eastern Kentucky coal field and contain a number of high knobs and ridges, many with elevations in excess of 1200 feet. The highest elevations in the county are found there.

The area is well dissected and is drained by tributaries of the Kentucky and Licking Rivers. Both the highest and lowest points are situated in the southwestern part of the county. The highest elevation, 1447 feet, is a point on Westbrook Mountain near the Montgomery-Powell County line about 4 1/2 miles south of Camargo. The lowest elevation, about 707 feet, is at the junction of Montgomery, Powell, and Clark Counties where Copperas Creek leaves the county.

The elevation of Slate Creek where it crosses the Montgomery-Bath County line is about 730 feet, and the elevation of Hinkston Creek where it leaves the county is about 800 feet. Ridgetop elevations over most of the county range between 1000 and 1100 feet. For the most part the terrain is rolling to

MORGAN COUNTY

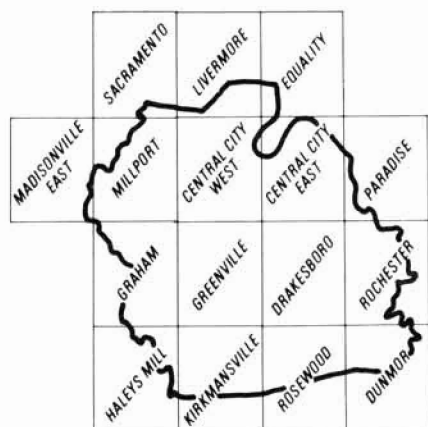


Morgan County is in a well-dissected upland area in the Eastern Kentucky coal field. Ridgetop elevations of 1100 to 1300 feet are common over most of the county. The highest elevations and the greatest local reliefs are found in the eastern and southeastern sections. The highest recorded elevation, 1400 feet, is indicated on a ridge about 1 3/4 miles southwest of Cannel City and also on the Morgan-Wolfe County line near the southern tip of the county.

Streams have carved valleys 200 to 300 feet or more below the upland over most of the county. In the northwestern part of the county many of the valleys are cliff lined, but elsewhere the slopes generally are not as steep. The lowest elevation, before the impoundment of Cave Run Lake, was 690 feet, the point where Licking River leaves the county. Cave Run Lake, a flood-control facility, impounds waters of Licking River. Normal pool level is 730 feet, and the maximum flood pool (spillway elevation) is 765 feet. Principal areas of flat land are in the valleys of the larger streams and, to a lesser extent, on the narrow ridges in the northwestern area.

The elevation of West Liberty, the county seat, is 830 feet. Other elevations are Adele, 1010 feet; Caney, 870 feet; Cannel City, 887 feet; Crockett, 871 feet; Ezel, 948 feet; Grassy Creek, 789 feet; Redwine, 890 feet; White Oak, 800 feet; and Wrigley, 820 feet.

MUHLENBERG COUNTY



Muhlenberg County is in the Western Kentucky coal field. It is a well-dissected upland area with ridgetop elevations ranging from 700 feet in the south to 500 feet in the north. The topography near the southern edge of the county is more rugged than other parts of the area. Valley sides are steep, and some have nearly vertical cliffs. Local relief may be as great as 200 feet. The upland areas between the valleys may be nearly level. In the central and northern parts of the county, hills are not as steep, and the relief is not as great.

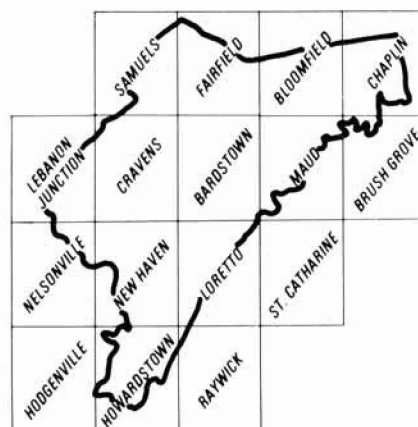
Mud and Green Rivers mark the eastern boundary of Muhlenberg County, and Pond River marks the western boundary. All three are slow-flowing streams and have rather wide valleys. Elevations on the valley floors are generally between 380 and 390 feet. The lowest elevation in the county, 355 feet, is the point where Pond River leaves the northwestern corner of the county. Green River leaves the county at an elevation of about 365 feet.

The highest elevation in the county, 760 feet, is on a ridge about 1 1/2 miles west of Rosewood in the southern part of the county. A ridge at the east edge of Dunmore has an elevation of 730 feet, and Welburn Ridge near the southeast corner of the county is 701 feet.

The elevation of Greenville, at the courthouse, is 538 feet. Other elevations include Beech Creek, at the railroad, 450 feet; Beechmont, 495 feet; Belton, 427 feet; Bremen, 460 feet; Browder, 425 feet; Central City, 430 feet; Cleaton, 450 feet; Depoy, 498

feet; Drakesboro, 440 feet; Dunmore, 589 feet; Graham, 460 feet; Luzerne, 470 feet; Martwick, 490 feet; Millport, 409 feet; Moorman, 421 feet; Paradise, 407 feet; Powderly, 450 feet; Rosewood, 602 feet; and Weir, 629 feet. The elevation of Lake Malone is 450 feet.

NELSON COUNTY



Nelson County includes parts of the Outer Blue Grass of central Kentucky and fringes of the knobs area east of Muldraugh Hill (Highland Rim). The valley of Rolling Fork separates upland masses from the main escarpment in the southwestern part of the county.

The topography of Nelson County is varied, ranging from a nearly flat tableland in the Bardstown area to the rolling hills of the eastern part of the county and the knobs terrain of the western and southwestern areas.

Eastern and north-central parts of the county have a hilly topography, gently to moderately rolling and well dissected. Local relief of 100 feet is common, and steep slopes are rare.

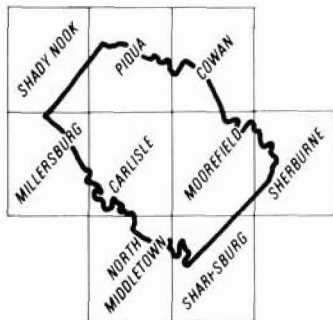
Broad, flat areas are present between valleys in the central part of the county. The tableland dips gently from an elevation of about 750 feet east of Bardstown to about 600 feet west of Bardstown.

The most striking topography in the county is found in the western and southwestern areas. In the knobs area, conical hills and irregular land masses rise 300 to 400 feet or more above the surrounding lowland (Fig. 11). Slopes are steep. The highest elevation in the county, 1090 feet, is on Rohan Knob located on the Nelson-Marion County line. Cecil Ridge, northeast of Howardstown, has a maximum elevation of 1022 feet, and Indian Grave Ridge in Knobs State Forest has a maximum elevation of 902 feet. Several knobs northeast of New Haven also attain elevations in excess of 900 feet.

The lowest elevations in the county are along the valley of Rolling Fork. The lowest point, approximately 390 feet, is where Rolling Fork leaves the county.

The elevation of Bardstown, at the courthouse, is 647 feet. Other elevations are Bloomfield, 657 feet; Boston, 454 feet; Chaplin, 830 feet; Coss Creek, 700 feet; Cravens, 617 feet; Deatsville, 687 feet; Fairfield, 721 feet; Howardstown, 507 feet; Nelsonville, 473 feet; New Haven, 470 feet; New Hope, 518 feet; Samuels, 677 feet; and Woodlawn, 790 feet.

NICHOLAS COUNTY



Nicholas County is in the Outer Blue Grass region of central Kentucky. The terrain is rolling to hilly with moderate local relief. The greatest local relief is along the valley of Licking River which marks the northern boundary of the county. Here differences in elevation between the valley floor and the adjacent upland ridges may be as great as 200 to 250 feet. The lowest elevation in the county, approximately 565 feet, is the point where Licking River leaves the county.

Ridgetop elevations of 900 to 1000 feet prevail throughout most of the county. The highest elevation, 1060 feet, is on a drainage divide between Licking River and Somerset Creek about 3 1/2 miles northwest of Moorefield. There are probably more flat-topped ridges in this area than in any other part of the county.

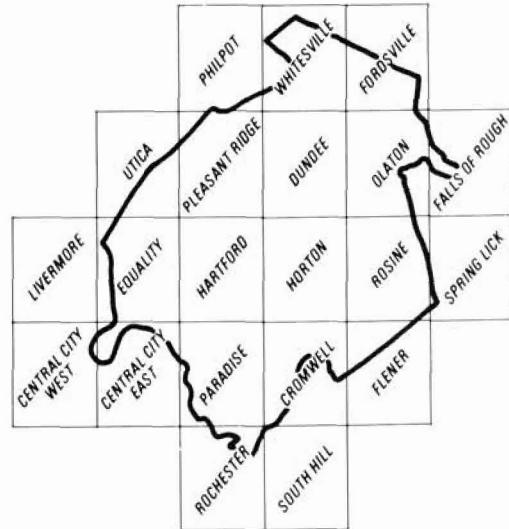
The elevation of Carlisle, the county seat, is 879 feet. Moorefield is at an elevation of 985 feet, and Barterville is at 1000 feet.

OHIO COUNTY

Ohio County is in the Western Kentucky coal field. It is primarily a terrain of rolling hills with local reliefs up to 150 feet (Fig. 12).

The highest elevation, 800 feet, is a hill near the Ohio-Breckinridge County line in the northeastern corner of the county, approximately 4 miles east-

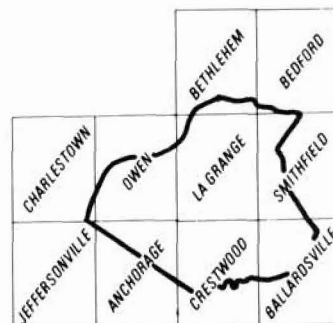
northeast of Fordsville. Rattlesnake Knob, near the southeastern corner of the county, has an elevation of 780 feet. Ridgetop elevations of 500 to 600 feet are found in most parts of the county.



Green River marks parts of the southern and western boundaries, and Rough River crosses the county in a meandering route from east to west. The lowest elevation in the county, approximately 365 feet, is at the confluence of these two streams at the west-central county boundary. Their valleys are broad and flat; elevations along the valley floors are 380 to 400 feet.

The elevation of Hartford, the county seat, is 428 feet. Other elevations are Aetnaville, 487 feet; Beaver Dam, 414 feet; Centerton, 424 feet; Cromwell, 461 feet; Dundee, 420 feet; Fordsville, 468 feet; McHenry, 420 feet; Olaton, 450 feet; Pleasant Ridge, on the Ohio-Daviess County line, 522 feet; Render, 421 feet; and Rosine, 564 feet.

OLDHAM COUNTY



Oldham County is in the Outer Blue Grass region of north-central Kentucky. The Ohio River marks the northwest border, and the normal pool eleva-

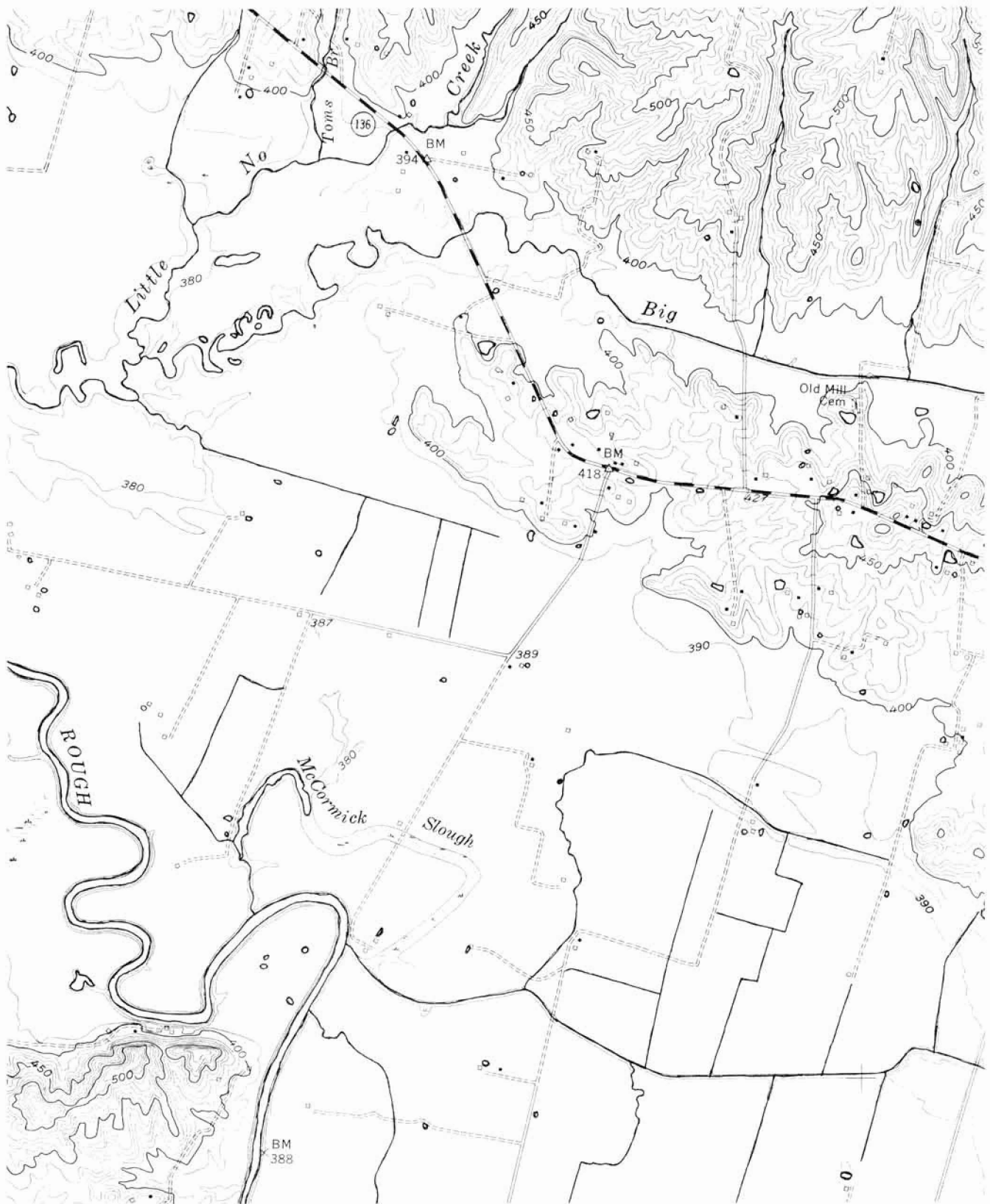


Figure 12. Portion of the Hartford quadrangle in Ohio County showing low hills and broad valleys typical of the Western Kentucky coal field.

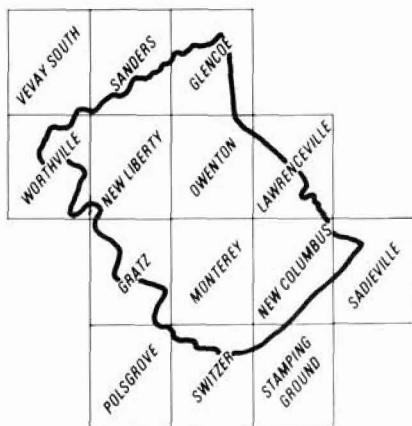
tion of the Ohio, 420 feet, is the lowest elevation in the county. Adjacent bluffs rise abruptly 200 to 350 feet above the river or narrow flood plain and mark the sites of the greatest local relief.

The terrain is gently rolling to hilly with upland elevations ranging from 650 feet on the west to 900 feet on the east. The highest elevation in the county is 920 feet, a flat-topped ridge east of Kentucky Highway 53 about 2 miles southeast of LaGrange.

The eastern edge of the county is more highly dissected by normal stream erosion and is noticeably hilly. A few ridges are flat topped. The width of the ridges increases as one goes westward in the county. In the vicinity of the western edge of the county, wide expanses of gently rolling to nearly flat land are present. Here local relief is slight except near Floyds Fork and Harrods Creek, which have carved valleys 150 to 200 feet below the surrounding upland.

The elevation of LaGrange, the county seat, is 867 feet. Other elevations include Ballardsville, 860 feet; Brownsboro, 721 feet; Buckner, 831 feet; Crestwood, 798 feet; Skylight, 730 feet; and Westport, 486 feet. The elevation of Crystal Lake, southeast of LaGrange, is 777 feet.

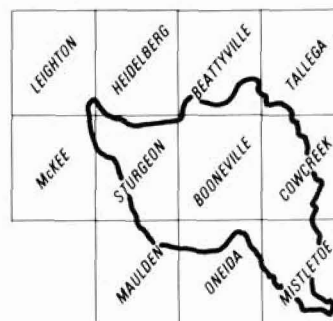
OWEN COUNTY



Owen County is in the Outer Blue Grass region of north-central Kentucky. The Kentucky River marks the western boundary, and Eagle Creek marks the northern boundary. The area is a well-dissected upland, and the topography is definitely hilly. Local relief ranges from approximately 100 feet in headwater areas to more than 350 feet along the bluffs of the Kentucky River and Eagle Creek. Principal areas of flat land are in the valleys of these two streams, and the lowest elevation in the county, approximately 425 feet, is at their confluence at the northwest corner of the county.

Ridgetop elevations are generally between 850 and 950 feet. The highest elevation, 1000 feet, is in Owenton, the county seat. Elevations of other communities are Gratz, 484 feet; Lusbys Mill, 734 feet; Monterey, 487 feet; New Columbus, 869 feet; New Liberty, 894 feet; and Wheatley 880 feet.

OWSLEY COUNTY



Owsley County is in the Eastern Kentucky coal field. Elevations range from a low of approximately 650 feet on the South Fork of the Kentucky River where it leaves the northern edge of the county, to a high of 1720 feet on the Owsley-Clay County line less than 1/2 mile from the junction with Perry County.

The area is well dissected by normal stream erosion. The South Fork of the Kentucky River flows northward, bisecting the county. It has carved a valley that is 300 feet below the upland in the north and is more than 600 feet below the higher adjacent mountains in the south. The Sag, at Booneville, is an abandoned meander loop of the South Fork of the Kentucky River.

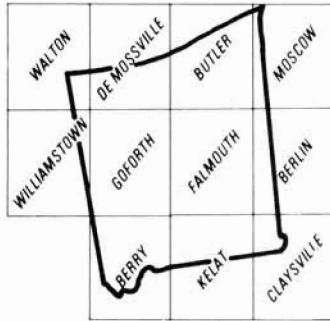
The highest elevations are in the southeastern part of the county, particularly along the drainage divides that mark the approximate boundaries between Owsley and Clay, Perry, and Breathitt Counties. Elevations from 1400 to 1700 feet are found here. The elevations of the ridgetops in the northern part of the county are commonly between 1000 and 1100 feet.

The elevation of Booneville, the county seat, is 708 feet. Elevations at other communities are Cowcreek, 810 feet; Ida May, 715 feet; Island City, 838 feet; Levi, 833 feet; Mistletoe, 858 feet; Sturgeon, 917 feet; and Travellers Rest, 841 feet.

PENDLETON COUNTY

Pendleton County is in the Outer Blue Grass region of northern Kentucky. The terrain is rolling

to hilly. Licking River, which crosses the county in broad, meandering loops 100 to 200 feet below the upland, is the most striking feature of the county. Practically the only flat areas in the county are found in the valley bottom. The elevation of Licking River where it leaves the county at DeMossville is approximately 470 feet.

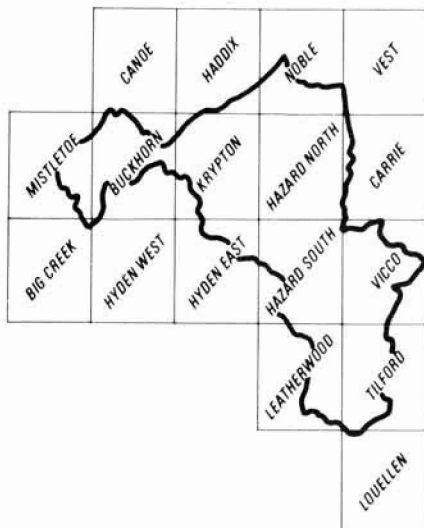


The lowest elevation in the county is 455 feet, the normal pool level of the Ohio River in the vicinity of Carntown. In this area, the ridgetops are more than 360 feet above the river. There is very little flood-plain area along the Ohio in Pendleton County.

Ridgetop elevations are commonly 800 to 900 feet. The highest elevation in the county, 960 feet, is on a ridge adjacent to Kentucky Highway 22 near the Pendleton-Bracken County line.

The elevation of Falmouth, the county seat, is 558 feet. Elevations at other communities are Butler, 540 feet; DeMossville, 521 feet; and Gardnersville, 882 feet.

PERRY COUNTY



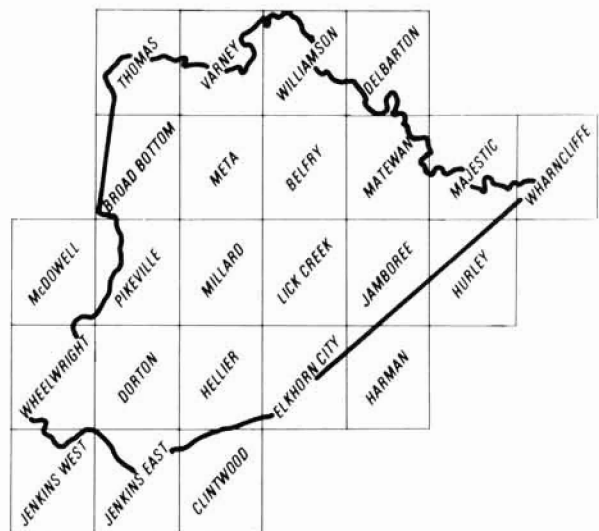
Perry County is in the mountainous Eastern Kentucky coal field. The area is maturely dissected. Ridges and valleys occupy about equal portions of the landscape.

The meandering valleys of the Middle and North Forks of the Kentucky River cross portions of the county and are outstanding topographic features. The principal flat areas in the county and the lowest elevations are found in the valleys of these two streams. The elevation of the Middle Fork of the Kentucky River is approximately 700 feet where it leaves the county, and the elevation of the North Fork is approximately 765 feet where it leaves the county. Buckhorn Lake, a flood-control facility on the Middle Fork, has a normal pool elevation of 757 feet; the elevation of the flood spillway is 820 feet.

Upland elevations generally exceed 1400 feet. Local reliefs of 600 to 800 feet are common. The highest elevations are in the southern extremity of the county where mountaintop elevations in excess of 2000 feet are found. The highest elevation is 2520 feet, a point 1 1/2 miles southwest of Tilford near the Perry-Letcher County line.

All the communities are in valleys. The elevation of Hazard at the courthouse is 880 feet. Elevations at other communities are Buckhorn, 740 feet; Chavies, 805 feet; Cornettsville, 953 feet; Krypton, 806 feet; Leatherwood, 1600 feet; Tilford, 1605 feet; and Vicco, 949 feet.

PIKE COUNTY



Pike County is the easternmost county in the Eastern Kentucky coal field. It is a highly dissected upland with irregular mountain ridges occupying

about the same amount of area as the valleys. Mountaintop elevations range from 1300 to 1600 feet in the north; some are more than 2000 feet in the south. Local reliefs of 500 to 800 feet or more are common over most of the county.

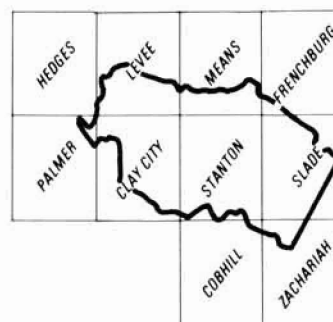
The most striking topographic feature in Pike County is Pine Mountain which lies along the southern border between Shelby Gap and Elkhorn City. This mountain is part of a linear ridge which extends more than 100 miles from Bell County to Pike County. Its straight, spine-like crest and great height sets it apart from the sinuous and irregular ridges to the north. Precipitous cliffs are common along the crest where elevations range from 2600 feet to more than 3000 feet. The difference in elevation between the crest and Elkhorn Creek at the foot of the mountain may be as great as 2000 feet. The highest elevation on Pine Mountain, and the highest elevation in Pike County, is 3149 feet, on a peak approximately 2 1/4 miles southwest of Ashcamp.

For the most part, mountainous ridges throughout the county are narrow and sharp. A striking exception is the tableland 3 miles east of Dorton called "Flatwoods." Flatwoods is a mesa-like upland with broad flats at 2550 to 2600 feet, standing out like an island in a region of narrow, irregular hills and ridges (Fig. 13). The highest point is at the base of Flatwood Lookout Tower, where an elevation of 2846 feet has been recorded.

The principal areas of flat land in Pike County are in the valleys. These areas are narrow and are the locations of the communities, railroads, and principal highways. Tug Fork of Big Sandy River marks the eastern boundary of the county. The lowest elevation in the county, approximately 610 feet, is where Tug Fork leaves the northeastern corner of the county. Levisa Fork of Big Sandy River flows across the western part of the county and leaves at an elevation of approximately 620 feet. The confluence of Levisa and Russell Forks is approximately 660 feet.

The elevation of Pikeville, the county seat, is 685 feet. Elevations at other communities are Ashcamp, 1064 feet; Belfry, 709 feet; Buskirk, 720 feet; Dorton, 1017 feet; Draffin, 729 feet; Elkhorn City, 800 feet; Fedscreek, 830 feet; Freeburn, 740 feet; Hellier, 1160 feet; Henry Clay, 1020 feet; Jamboree, 911 feet; McVeigh, 1012 feet; Meta, 745 feet; Millard, 712 feet; Phelps, 839 feet; Pinson, 812 feet; Robinson Creek, 760 feet; Shelby Gap, 1384 feet; Shelbiana, 720 feet; South Williamson, 640 feet; Tolar, 680 feet; and Varney, 907 feet. The flood pool level of Fishtrap Lake, on Levisa Fork, is 825 feet.

POWELL COUNTY



Powell County, in eastern Kentucky, is at the western edge of the Eastern Kentucky coal field. The area is a well-dissected upland, being drained principally by Red River, a tributary of the Kentucky River. Elevations in excess of 1200 feet and local reliefs of 400 feet or more are common. Part of the famed scenic gorge of Red River marks the Powell-Menifee County line. Downstream from the gorge the valley widens appreciably and contains the principal areas of flat land in the county.

Powell County is characterized by sandstone-capped ridges, steep to precipitous valley walls, and craggy pinnacles. The eastern part of the county lies in the heart of the natural bridge region of Kentucky, an area of magnificent natural sandstone arches. Natural Bridge State Park is located here in one of the most picturesque portions of the Commonwealth.

A small area of rolling hills typical of the Outer Blue Grass region lies southwest of Clay City. Ridgetop elevations are commonly about 800 feet, some 200 above Red River.

The highest elevation in the county is about 1440 feet. This is found on Pilot Knob about 2 miles east of Westbend, State Rock, and two other points on or near the Powell-Estill County line south and southwest of Stanton. The lowest elevation, 580 feet, is where Red River leaves the county.

Other elevations of interest are Stanton, the county seat, 659 feet; the lodge at Natural Bridge State Park, 860 feet; top of Natural Bridge, 1280 feet; Clay City, 621 feet; Nada, 696 feet; Slade, 720 feet; and Westbend, 740 feet.

PULASKI COUNTY

Pulaski County, in southern Kentucky, lies largely in the Mississippian Plateaus region. The Cumberland escarpment, which crosses the southeastern part of the county, is the most con-

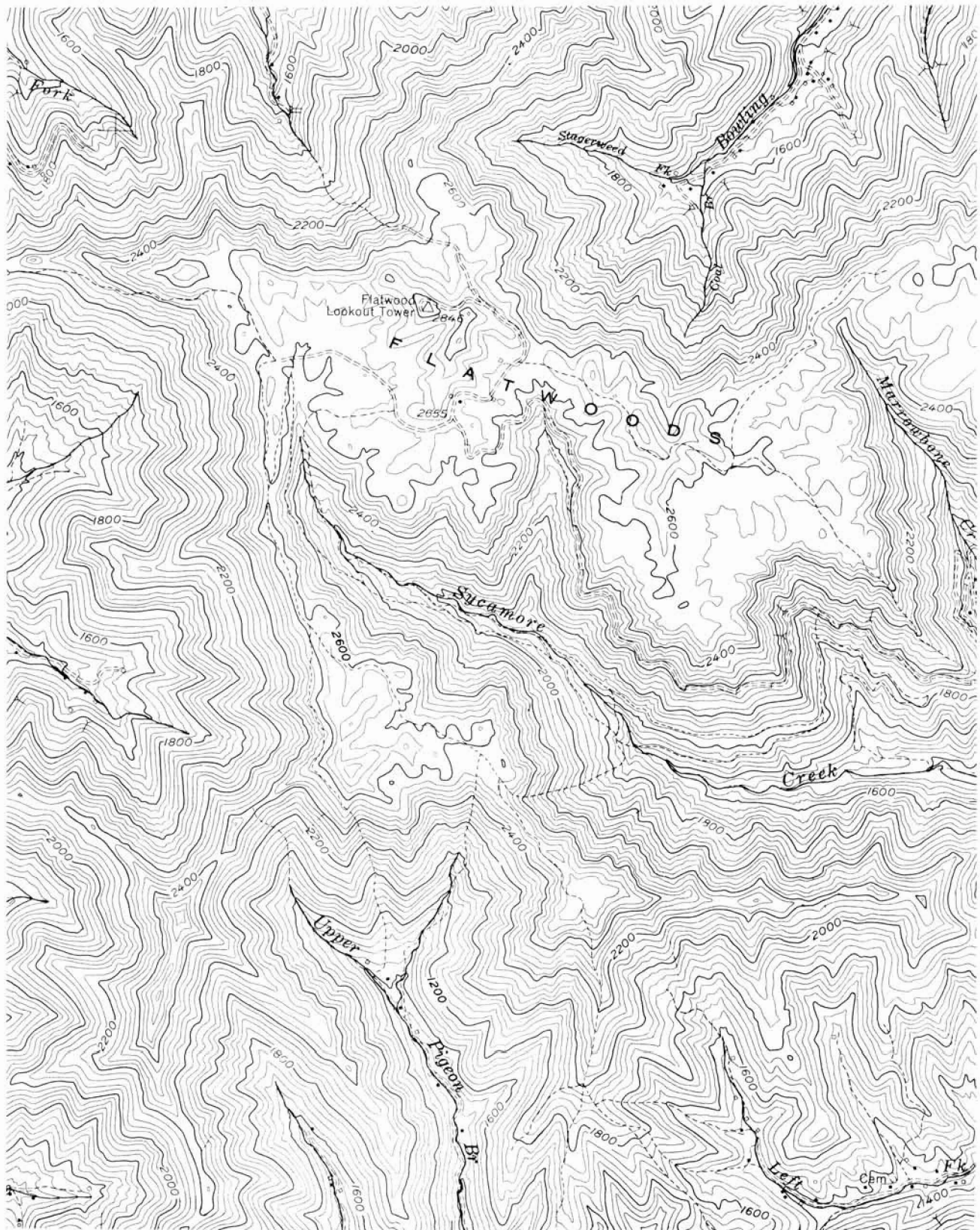
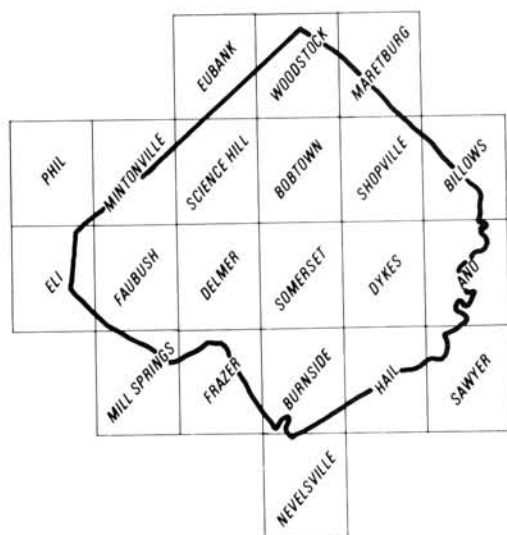


Figure 13. Portion of the Dorton quadrangle showing the Flatwoods area of southwestern Pike County. Natural, flat-topped ridges such as this are extremely unusual in the interior of the Eastern Kentucky coal field where ridges and valleys normally occupy almost equal amounts of the terrain.

spicuous topographic feature and the locale of the most rugged terrain.



The Mississippian Plateaus region in the county is a moderately to well-dissected upland, ranging in elevation from approximately 1150 feet at the western edge of the county to 950 feet at Somerset. Numerous hills and knobs punctuate the plateau. These are erosion remnants of the Eastern Kentucky coal field upland to the east and rise 200 to 400 feet above the surrounding surface. Reservoir Knob, 1283 feet, at Somerset, and Big Knob, 1439 feet, northwest of Somerset, are examples of such features. The highest elevation in Pulaski County is approximately 1680 feet, the point where the Pulaski-Casey County line crosses the southeast flank of Green River Knob (Fig. 5).

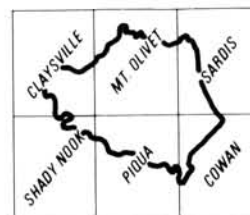
The central portion of Pulaski County (the eastern part of the Mississippian Plateaus) is characterized by sinkholes, sinking creeks, springs, and related subsurface drainage features. Valleys with subterranean drainage features indent the Cumberland escarpment. Some of these valleys are perched above present drainage levels as the result of waters being diverted to underground drainage systems.

The edge of the Eastern Kentucky coal field is 300 to 400 feet above the sinkhole area to the west. The higher ridges generally have elevations of 1200 to 1300 feet. Precipitous cliffs line many of the valleys which are deeply incised in the upland.

The Cumberland River crosses southern Pulaski County, and portions of Lake Cumberland extend into the southwestern part of the county. The lowest elevation in the county is 723 feet, the normal pool elevation of Lake Cumberland.

The elevation of Somerset, at the city square, is 975 feet. Elevations at other communities are Alpine, 1150 feet; Ano, 1106 feet; Bobtown, 1100 feet; Burnside, 860 feet; Delmer, 980 feet; Dykes, 835 feet; Eubank, 1202 feet; Faubush, 1150 feet; Mount Victory, 1184 feet; Nancy, 1084 feet; Science Hill, 1117 feet; Shopville, 879 feet; Sloans Valley, 854 feet; and Batesville, 872 feet.

ROBERTSON COUNTY



Robertson County is in the Outer Blue Grass region in northern Kentucky. The terrain is hilly. Licking River, which marks the southern and western boundaries, and the North Fork of Licking River, which marks the northern boundary, are the most striking topographic features in the county.

Ridgetop elevations generally range from 800 to 950 feet. Local relief is generally in excess of 100 feet. The greatest local relief is found along the valley of Licking River where differences in elevations between the stream and the adjacent hills and ridges may exceed 200 feet.

The highest elevation in Robertson County is 1009 feet, on a ridge adjacent to Kentucky Highway 539, 2 miles west-northwest of Mount Olivet. This ridge is part of the drainage divide between Licking River and the North Fork of Licking River and contains some of the highest elevations in the county.

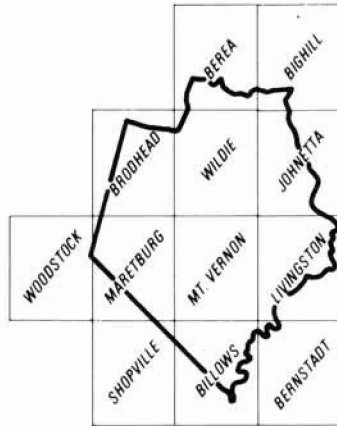
The lowest elevation, approximately 550 feet, is the point where Licking River leaves the county. The North Fork of Licking River leaves the county at an elevation of about 605 feet.

The elevation of Mount Olivet, the county seat, is 958 feet. The entrance to Blue Licks Battlefield State Park is at 692 feet. The elevation of Kentontown is 733 feet, and Piqua is at 680 feet.

ROCKCASTLE COUNTY

The area covered by Rockcastle County includes portions of both the Mississippian Plateaus and the Eastern Kentucky coal field. The terrain is generally hilly; locally the topography can be described as

rugged. A conspicuous tableland is present between Brodhead and Renfro Valley. This topography of low local relief contrasts strikingly with the hill country to the north and the almost mountainous terrain to the south. The elevation of the tableland is approximately 1200 feet. Karst features such as sinkholes and streamless valleys may be found at scattered points in the central part of the county.



The highest elevation in the county, 1638 feet, is on a ridge near the Rockcastle-Jackson County line in the northeast corner of the county, not far from the top of the Cumberland escarpment. Valleys in this area are incised as much as 500 feet below the highest ridges and hills.

The highest hills and ridges in the Eastern Kentucky coal field area of eastern and southeastern Rockcastle County are commonly 1200 to 1400 feet. Differences in elevations between the valley bottoms and adjacent uplands are 400 feet or more in many places. The valley sides are steep, and precipitous cliffs may be present.

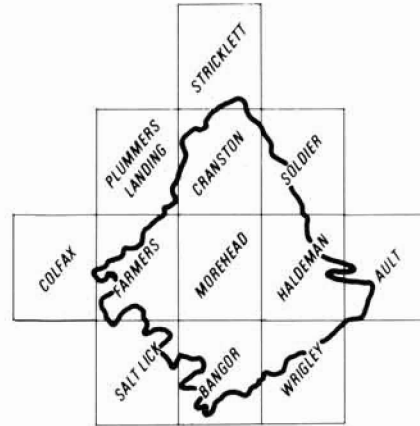
Rockcastle River marks the southeastern border of the county. The lowest elevation in the county, approximately 810 feet, is the point where Rockcastle River passes the extreme southern tip of the county. The elevation of Dix River, where it leaves the northwestern part of the county, is approximately 875 feet.

Mount Vernon is the county seat; the elevation at the courthouse is about 1170 feet. The elevation of Boone Gap, at the Rockcastle-Madison County line, is 1150 feet. Other elevations are Brodhead, 940 feet; Lake Linville spillway, 969 feet; Livingston, 889 feet; Mareburg, 1149 feet; Renfro Valley, 950 feet; and Wildie, 929 feet.

ROWAN COUNTY

The topography of Rowan County represents a

mixture of the Highland Rim and the western edge of the Eastern Kentucky coal field (Fig. 14). It is a well-dissected upland area, drained by numerous small streams. Licking River forms the western boundary of the county, and the drainage of the county flows into it by the way of southwest-oriented valleys.



Flat-topped ridges and bedrock terraces associated with resistant strata are present in the western part of the county. Except for these areas and the valleys of the principal streams, little flat land can be found. Most of the county can be described as hilly to mountainous. In the southeastern part of the county some of the high ridges and mountains are capped with resistant sandstones which have produced vertical or nearly vertical bluffs.

The highest elevation in the county is Limestone Knob, located about 3 miles southwest of Morehead. Limestone Knob is 1435 feet in elevation, more than 700 feet above the valley of Triplet Creek which is less than a mile to the north. Clack Mountain, 2 miles south of Clearfield, has elevations in excess of 1320 feet; Sugarloaf Mountain, 5 1/2 miles north of Farmers, is 1356 feet. The knob on which Triangle Lookout Tower is located, 2 miles east of Morehead, is at 1386 feet.

The lowest elevation is 625 feet, the point where Licking River leaves the county. A flood-control structure has been constructed upstream from Farmers to create a reservoir in Licking River valley. The reservoir, designated Cave Run Lake, has a normal pool level of 730 feet and a maximum flood pool of 765 feet.

The elevation of Morehead, the county seat, is 748 feet. Other elevations include Clearfield, 740 feet; Cranston, 769 feet; Farmers, 670 feet; and Haldeman, 940 feet.

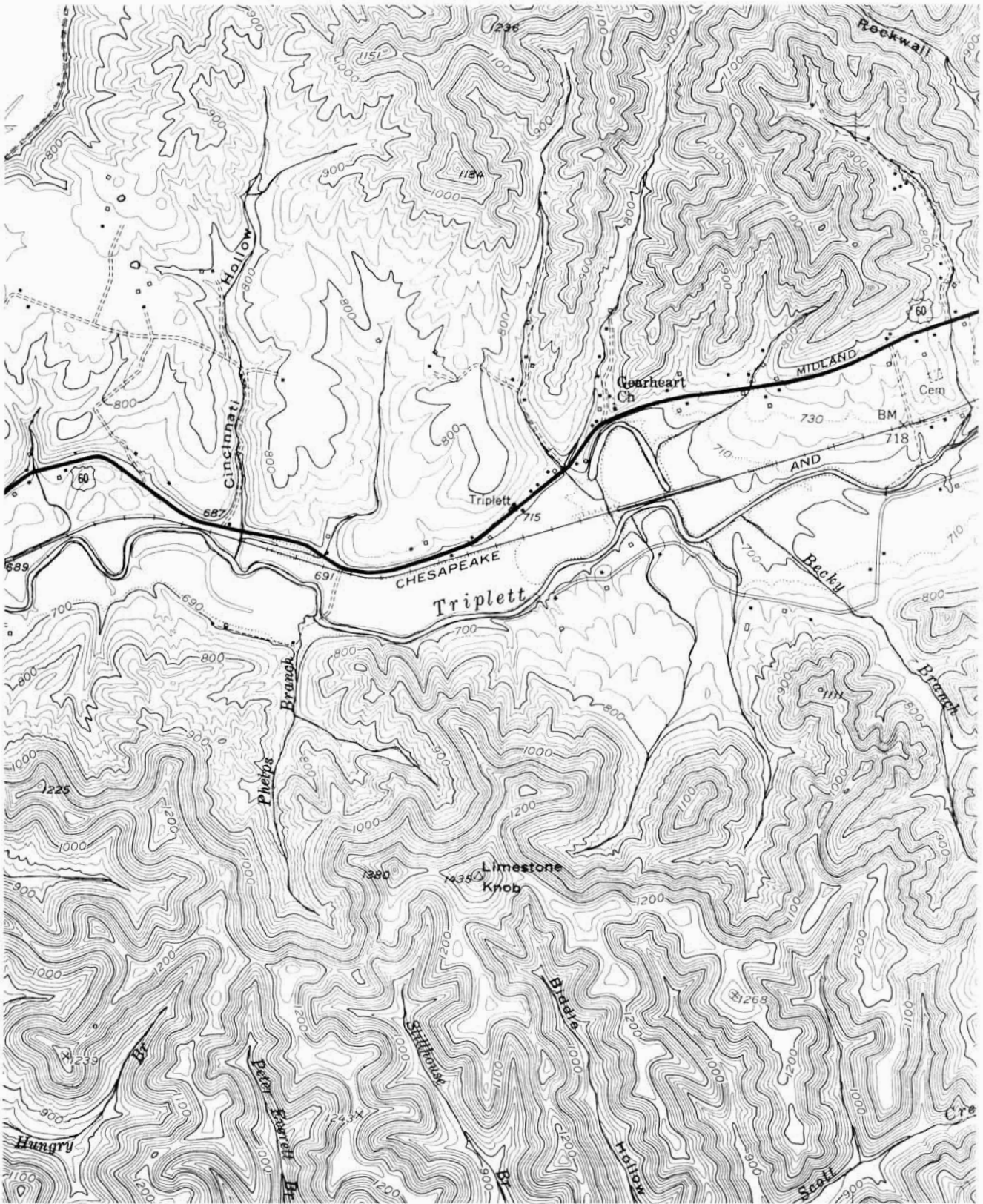
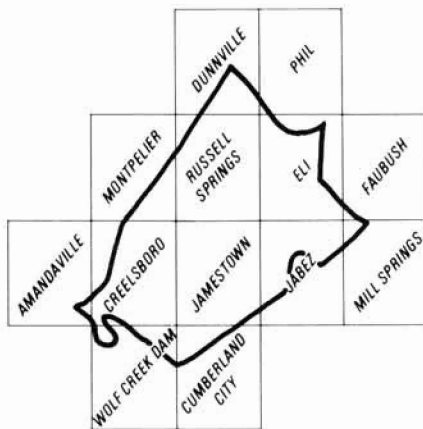


Figure 14. Portion of the Morehead quadrangle in Rowan County showing the edge of the Cumberland escarpment. The highest hills and ridges on the edge of the escarpment can be as much as 600 feet above the lowland to the west.

RUSSELL COUNTY



Russell County is in the Mississippian Plateaus region of south-central Kentucky. The area is a moderately to well-dissected plateau, and the resulting terrain is rolling to hilly. Locally, particularly in the vicinity of U.S. Highway 127 north of Russell Springs, ridges are wider and are nearly flat topped. Elevations on the plateau range from 900 feet in the southwest to 1100 feet in the north-east corner. The highest point in the county appears to be 1140 feet, on Roytown Ridge in the north-eastern corner of the county.

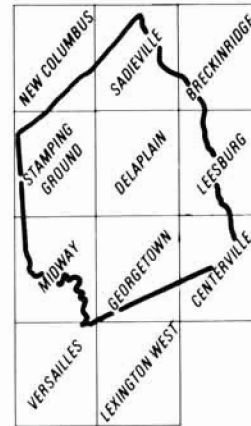
Local reliefs of 100 to 200 feet are common throughout the county. The greatest local relief is found along Cumberland River. Cumberland River and Lake Cumberland are along or near the southern border of the county. The normal pool level of Lake Cumberland is 723 feet. The elevation of Cumberland River below Wolf Creek Dam is approximately 550 feet. The lowest elevation in Russell County is approximately 530 feet where the river leaves the county. The uplands adjacent to the river and lake have elevations of 900 to 1000 feet.

The elevation of Jamestown, the county seat, is 970 feet. Other elevations are Creelsboro, 613 feet; Eli, 1015 feet; Freedom, 1034 feet; Jabez, 1058 feet; and Russell Springs, 1090 feet.

SCOTT COUNTY

Scott County covers portions of both the Inner and Outer Blue Grass regions of central Kentucky. The topography ranges from gently rolling to hilly. Local relief is generally less than 100 feet in the southern part of the county, but 100 feet or more in the northern part. The greatest local reliefs are in the vicinity of Eagle Creek where differences in elevation between the stream and adjacent upland exceed 140 feet.

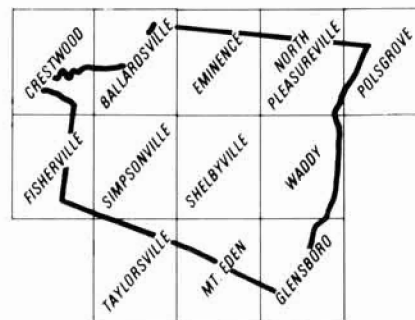
Ridgetop elevations generally range between 900 and 1000 feet. The highest elevation in the county, 1060 feet, is on a ridge on the Scott-Harrison County line 1 mile west of Leesburg (Harrison County). This ridge is also part of the drainage divide between the Kentucky and Licking Rivers.



The lowest elevation in the county, about 690 feet, is the point where North Elkhorn Creek leaves the county. Eagle Creek leaves the county at an elevation of approximately 715 feet.

The elevation of Georgetown, the county seat, is 840 feet. Elevations at other communities are Delaplain, 880 feet; Great Crossing, 800 feet; Newtown, 861 feet; Paynes Depot, 845 feet; and Sadieville, 858 feet.

SHELBY COUNTY

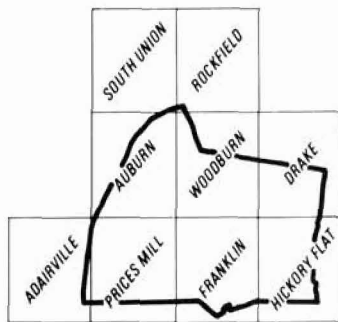


Shelby County is in the Outer Blue Grass region of north-central Kentucky. The topography is rolling to hilly, and local reliefs of 100 feet are common throughout most of the area. Elevations generally range from 750 feet in the west to 900 feet in the east and north. An exception is Jephtha Knob, a mass of irregular hills 1 mile south of Clay Village, which rises some 300 feet above the surrounding terrain. The highest point on Jephtha Knob, and the highest elevation in Shelby County, is 1188 feet.

Brashears and Guist Creeks are the principal streams in the county. They have carved valleys approximately 100 feet below the adjacent upland. Brashears Creek leaves the southern part of the county at an elevation of approximately 565 feet; Guist Creek at 550 feet has the lowest elevation in the county. The spillway elevation of Guist Creek Lake east of Shelbyville is 760 feet.

The elevation of Shelbyville, the county seat, is 760 feet. Elevations at other communities are Bagdad, 912 feet; Christianburg, 904 feet; Clay Village, 908 feet; Elmburg, 880 feet; Finchville, 760 feet; Graefenburg, 738 feet; Harrisonville, 889 feet; Lincoln Ridge, 770 feet; Montclair, 773 feet; Mount Eden, on the Shelby-Spencer County line, 841 feet; Peytona, 922 feet; Southville, 809 feet; and Todds Point, 820 feet.

SIMPSON COUNTY

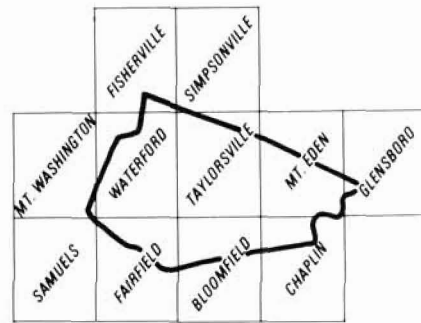


Simpson County is in the Mississippian Plateaus area of southern Kentucky. For the most part, it is a gently rolling plain characterized by underground drainage features. Sinkhole topography is found in almost every part of the county, but it is more pronounced in the central and western areas than in the east. Elevations on the sinkhole plain range from almost 800 feet in the southeast corner of the county to 650 feet in the northern part.

The highest elevation in Simpson County, 928 feet, is the top of Pilot Knob, an isolated hill near the northwest corner of the county. This prominent landmark rises more than 200 feet above the surrounding area. The lowest elevation, 490 feet, is the point where West Fork of Drakes Creek leaves the northern part of the county.

The elevation of Franklin, at the courthouse, is 720 feet. Elevations at other communities are Gold City, 722 feet; Hickory Flat, 709 feet; Hillsdale, 666 feet; Prices Mill, 577 feet; Providence, 736 feet; and Salmons, 675 feet.

SPENCER COUNTY

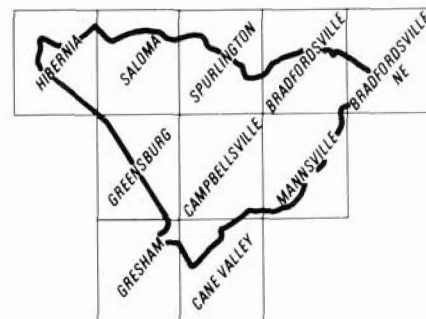


Spencer County, in the Outer Blue Grass region, is characterized by a rolling to hilly topography. Local reliefs of 100 to 150 feet are common, but Salt River and its major tributaries have cut valleys 200 to 250 feet below the surrounding upland. Hilltop and ridgetop elevations range from 700 feet in the western part of the county to more than 800 feet in the eastern part. Slopes are rarely steep except close to major drainage lines, and flat areas can be found locally, both in valleys and on ridgetops.

The highest elevation in the county, 880 feet, is on a ridge near the Spencer-Shelby County line 2 miles southeast of Mount Eden. The lowest elevation, 420 feet, is the point where Salt River leaves the western tip of the county.

The elevation of Taylorsville, the county seat, is 490 feet. Other elevations are Little Mount, 758 feet; Mount Eden, on the Spencer-Shelby County line, 841 feet; Wakefield, 715 feet; and Waterford, 485 feet.

TAYLOR COUNTY



Taylor County is in the Mississippian Plateaus area of south-central Kentucky. The area is a dissected plateau varying from gently rolling to hilly. A small sinkhole-plain area is present in the northwest near the headwaters of Brush and Little Brush Creeks. Broad, flat-topped ridges charac-

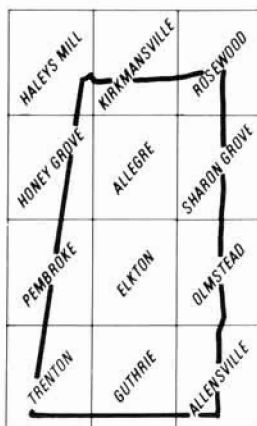
terize the central part of the county, but elsewhere the topography is generally rolling to hilly.

The valleys of Green River and some of its tributaries are relatively broad and flat. The lowest elevation is 570 feet where Green River leaves the county. Green River Lake, a flood-control facility on Green River, has a normal pool elevation of 675 feet and a maximum flood pool elevation of 713 feet.

Highest elevations in the county are along the drainage divide between Green and Salt Rivers. Elevations in excess of 1000 feet are common here. This divide also marks the Taylor-Marion County line and follows, in part, Muldraugh Hill (Highland Rim escarpment). The highest point is 1200 feet, on a ridge on the Taylor-Marion County line near the junction with Casey County. Bass Ridge on the Taylor-Casey County line also has elevations between 1000 and 1100 feet.

The elevation of Campbellsville, at the courthouse, is 810 feet. Elevations at other communities are Mannsville, 733 feet; Saloma, 900 feet; and Spurlington, 1000 feet. The elevation of the spillway at Sportsman Club Lake is 838 feet.

TODD COUNTY



Todd County is in the Mississippian Plateaus area of southwestern Kentucky. The Dripping Springs escarpment, a south-facing cuesta, is parallel to and north of U. S. Highway 68 between Daysville and Fairview and divides the county into two distinct topographic areas.

The southern part of the county is a karst (sinkhole) plain at an elevation of approximately 600 feet; this area has hundreds of solution features such as sinkholes and sinking creeks. The terrain is gently rolling and the relief is slight.

The Dripping Springs escarpment rises 200 feet or more above the sinkhole plain and is the most conspicuous topographic feature in the county (Fig. 15). Elevations along the outer edge of the escarpment are from 800 to 850 feet. A knob on the escarpment 2 miles west of Daysville has an elevation of 858 feet, and Keeling Hill, 2 miles east of Fairview, has an elevation of 848 feet.

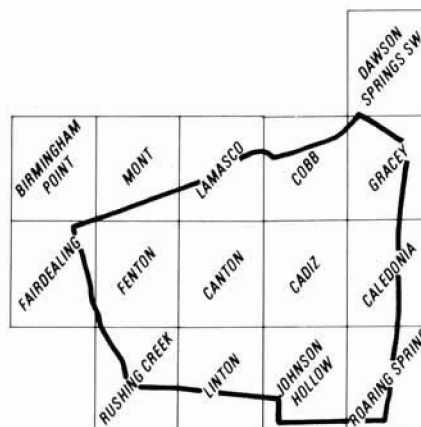
The area north of the escarpment is a high plateau. This part of the county contains the highest elevations and areas of greatest local relief, and is more highly dissected by normal stream erosion than other parts. Headwater streams occupy narrow valleys and are bordered by rocky cliffs in some places.

The highest point in Todd County is Pilot Rock adjacent to Kentucky Highway 507 at the Todd-Christian County line. The elevation of the top of Pilot Rock is 966 feet. Tucker Ridge, 4 miles north-northeast of Pilot Rock, has an elevation of 880 feet.

The lowest elevation in Todd County is approximately 405 feet, the point where Pond River leaves the northwest corner of the county. The elevation of Lake Malone, in the northeast corner of the county, is 450 feet.

The elevation of Elkton, at the courthouse, is 631 feet. Elevations at other communities are Allegre, 644 feet; Allensville, 581 feet; Claymour, 678 feet; Clifty, 813 feet; Daysville, 645 feet; Fairview, on the Todd-Christian County line, 620 feet; Guthrie, 548 feet; Hermon, 612 feet; Kirkmansville, 500 feet; Sharon Grove, 646 feet; and Trenton, 590 feet.

TRIGG COUNTY



Trigg County is located on the Kentucky-Tennessee state line in southwestern Kentucky. The topography of the eastern part of the county is

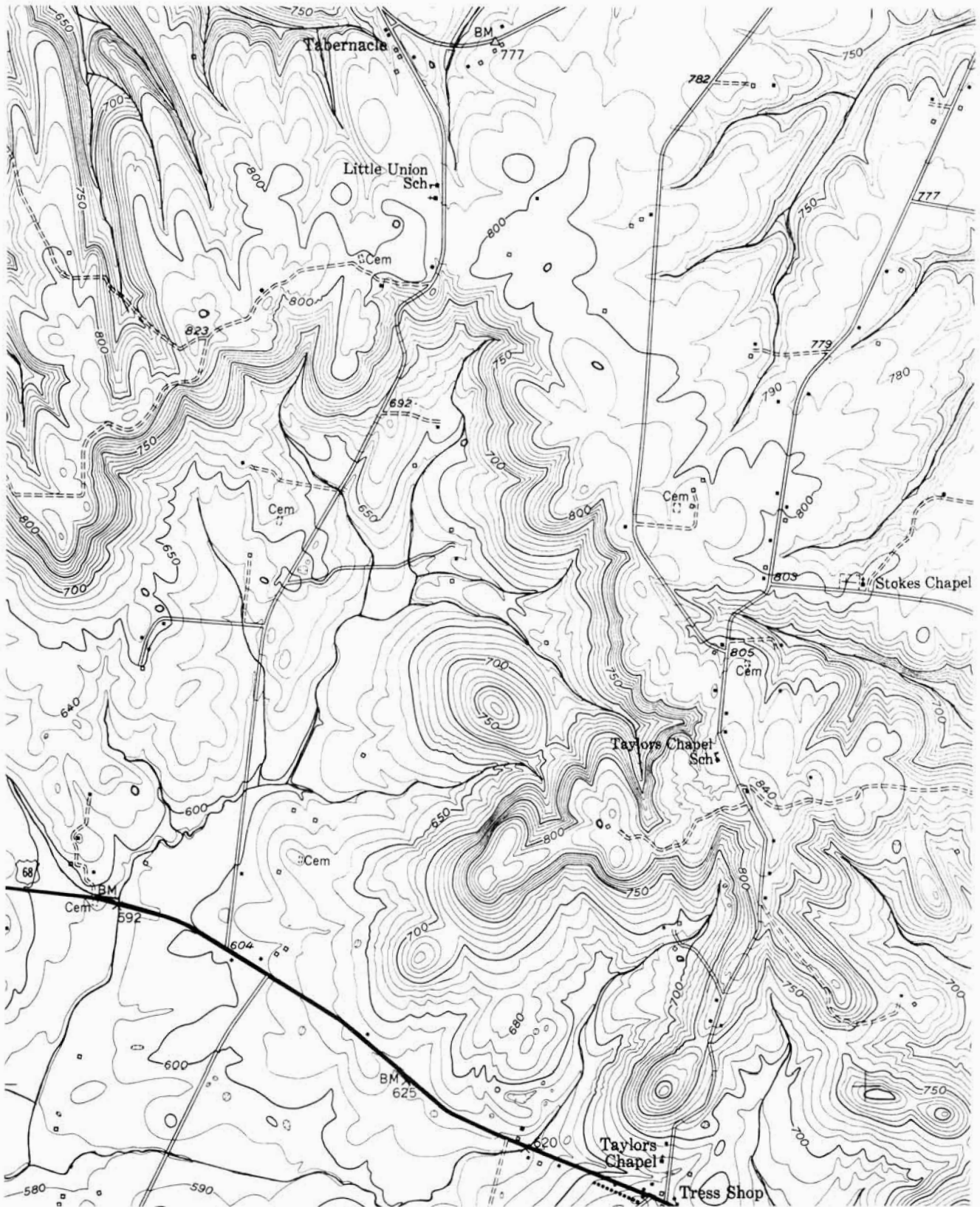


Figure 15. Portion of the Elkton quadrangle showing the Dripping Springs escarpment in the Mississippian Plateaus area of Todd County. The Dripping Springs escarpment is a conspicuous topographic feature that can be traced from Caldwell County eastward to Barren County and from there, northward to Breckinridge County.

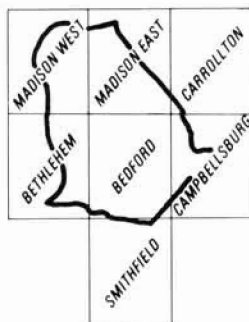
typical of the Mississippian Plateaus area. Sinkholes and features associated with underground drainage abound in this area. Scattered hills and ridges, capped with more resistant rocks, rise above the karst (sinkhole) plain. The highest elevation in the county, 813 feet, is on Buie Knob, 2 miles southeast of Cerulean Springs in the northeast corner of the county. Other knobs in this area attain elevations in excess of 700 feet. The sinkhole plain immediately to the south is generally at elevations between 500 and 550 feet.

The western and south-central parts of the county are areas of irregular hills and ridges. Ridgetop elevations in the south-central area range from 600 feet to more than 700 feet.

Probably the most striking features of the Trigg County landscape are the two large, man-made lakes—Kentucky Lake along the western border of the county and Lake Barkley which crosses west-central Trigg County from south to north. Both lakes have normal pool elevations of 359 feet, the lowest elevation in the county. The area west of Lake Barkley is part of the region called “The Land Between the Lakes.” Highest hills and ridges here generally range from 500 to 600 feet.

The elevation of Cadiz, at the courthouse, is 423 feet. Other elevations of interest are Caledonia, 455 feet; Canton, 450 feet; Cerulean Springs, 513 feet; Linton, 390 feet; and Roaring Spring, 550 feet.

TRIMBLE COUNTY



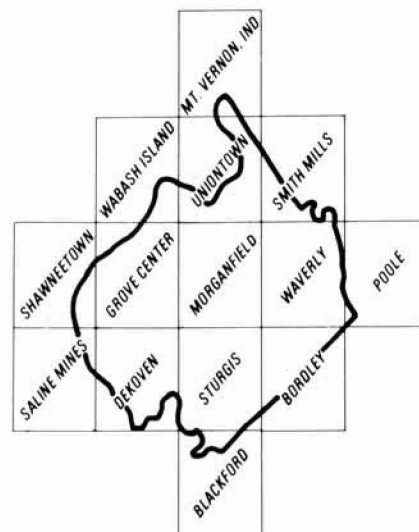
Trimble County is in the Outer Blue Grass region of north-central Kentucky. The Ohio River marks the northern and western borders. The normal pool elevation of the Ohio, 420 feet, is the lowest elevation in the county. Adjacent bluffs rise abruptly 300 feet above the river and mark the sites of the greatest local relief. Where flats are present along the Ohio River, they are at an elevation of approximately 470 feet.

The area is a well-dissected upland. It is hilly, and steep slopes are common. Local reliefs of 150 to 200 feet are present. A few small sinkholes may be found near the tips of the larger ridges. Upland elevations are 750 to 800 feet in the west; some are more than 900 feet in the central part of the county, and they are generally about 850 feet in the east. Most of the higher elevations are along or near a flat-topped ridge near the center of the county, which is a drainage divide between Little Kentucky River on the east and minor tributary streams to the Ohio River on the west. The highest elevation in the county, 970 feet, is on Fishers Ridge south of Kentucky Highway 1226 about 3 3/4 miles north-northeast of Bedford.

Little Kentucky River crosses the southeastern part of the county and has carved a valley 200 to 250 feet below the adjacent upland. Bunker Hill, a core of an abandoned meander of Little Kentucky River, has an elevation of 686 feet and stands 186 feet above the surrounding valley.

The elevation of Bedford, the county seat, is 910 feet. Elevations at other communities are Milton, 468 feet; Monitor, 924 feet; Mt. Pleasant, 859 feet; and Wisers Landing, 470 feet.

UNION COUNTY



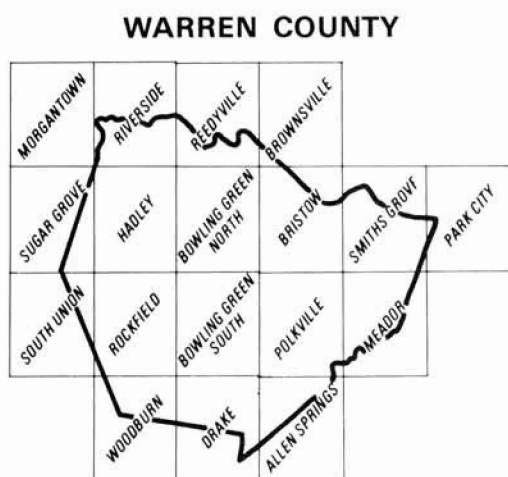
Unon County is in the westernmost part of the Western Kentucky coal field. The Ohio River marks the western boundary, and Tradewater River forms the southern boundary. The topography varies from broad, flat flood plains with elevations of less than 400 feet along the Ohio and Tradewater Rivers and their tributaries to island-like hill masses that rise 150 to 200 feet or more above the valley flats. Local

relief throughout the county is generally less than 100 feet, but some of the hills and ridges overlooking the Ohio are 200 to 250 feet above the river. Steep slopes are not abundant, but bluffs may be found along the Ohio and Tradewater Rivers and in some of the hill areas.

Elevations in excess of 600 feet are rare in Union County. The highest elevation in the county is 673 feet, a knob in Chalybeate Hills 2 1/2 miles south of Morganfield. Nearby Spring Hills has an elevation of 640 feet; Bald Hill, 2 miles southwest of Spring Grove, is 620 feet.

The lowest elevation, 320 feet, is at the confluence of the Ohio and Tradewater Rivers at the southwestern corner of the county. Current scars, sloughs, and swamps characterize the flood plain of the Ohio throughout its length in the county. Elevations on the flood plain generally range between 340 and 350 feet.

The elevation of Morganfield, the county seat, is 437 feet. Elevations at other communities are Bordley, 417 feet; Breckinridge Job Corps Center, at Whitaker Way entrance, 400 feet; Caseyville, 355 feet; Dekoven, 380 feet; Grangertown, 370 feet; Grove Center, 390 feet; Henshaw, 375 feet; Hitesville, 407 feet; Spring Grove, 416 feet; Sturgis, 375 feet; Sullivan, 377 feet; Uniontown, 365 feet; and Waverly, 407 feet. The elevation of Moffitt Lake is 420 feet.



Warren County is in the Mississippian Plateaus area of southern Kentucky. Topographically, the county mainly occupies parts of two plateau areas. The lower area is a slightly rolling, karst (sinkhole) plain characterized by few surface streams and hundreds of sinkholes. The elevations on the plain range from more than 650 feet in the southeast to

approximately 500 feet in the vicinity of Bowling Green.

A second and higher plateau lies to the northwest and is separated from the sinkhole plain by the Dripping Springs escarpment, a southeast-facing cuesta which traverses the county from northeast to southwest. The Dripping Springs escarpment, which rises approximately 200 feet above the sinkhole plain, is the most prominent topographic feature in the county. Elevations along the crest of the escarpment generally range from 700 to 750 feet. Locally, the Dripping Springs escarpment has been referred to as "the knobs," but it should not be confused with the belt of knobs of Muldraugh Hill which is associated with a different group of rocks.

The area north and west of the Dripping Springs escarpment is more highly dissected by stream erosion than the lower karst plain and contains greater local differences in elevation. Local relief of 200 feet is common in this part of the county.

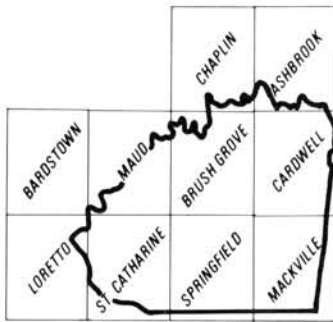
The highest point in Warren County is Pilot Knob, an isolated hill about 2 miles southeast of Smiths Grove, with an elevation of approximately 955 feet. It towers more than 300 feet above Smiths Grove. The lowest elevation is approximately 395 feet, the elevation at the confluence of Barren and Green Rivers in the northwest corner of the county. Green River marks the northern boundary of the county, and Barren River crosses the full width of the county in a northwesterly direction.

The elevation of Bowling Green at the courthouse is 510 feet, and the highest point on the Western Kentucky University campus is about 650 feet. Other elevations include Alvaton, 660 feet; Bristow, 540 feet; Drake, 587 feet; Hadley, 680 feet; Hardcastle, 569 feet; Hays, 672 feet; Oakland, 579 feet; Polkville, 568 feet; Rich Pond, 590 feet; Riverside, 550 feet; Rockfield, 590 feet; Smiths Grove, 630 feet; Woodburn, 638 feet; and the spillway at Shanty Hollow Lake, 439 feet.

WASHINGTON COUNTY

The topography of Washington County is typical of the Outer Blue Grass region of central Kentucky. It is a well-dissected upland of irregular hills and ridges (Fig. 1). Very little flat land occurs except in the valleys of the larger streams. An exception is the flat-topped ridge which forms the divide between Cartwright and Hardins Creeks and in the Mooresville area of the county. Ridgetop elevations range from 1000 feet in the southeast corner of the county to 800 feet in the northwest corner. Dif-

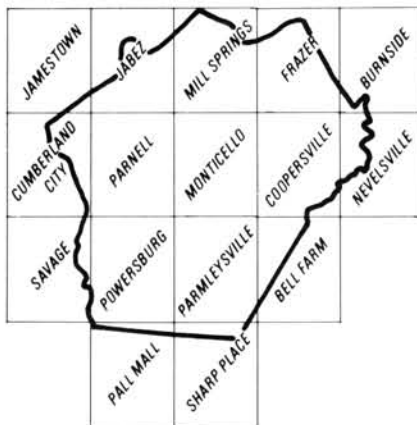
ferences in elevations between valley bottoms and ridgetops are generally 100 to 150 feet.



The highest elevation in the county, 1020 feet, is on a ridge south of U.S. Highway 150 near the southeastern corner of the county. The lowest elevation, approximately 475 feet, is found at the confluence of Brush Fork and Hardins Creek at the northwest corner of the county.

The elevation of Springfield, the county seat, is 733 feet. Other elevations include Cardwell, 847 feet; Fredericktown, 520 feet; Mackville, 917 feet; Maud, 558 feet; Mooresville, 768 feet; Texas, 897 feet; and Willisburg, 857 feet. The elevation of Willisburg Lake is 720 feet.

WAYNE COUNTY



Wayne County, in southern Kentucky, covers portions of both the Mississippian Plateaus and the Eastern Kentucky coal field areas. The Cumberland escarpment, which traverses the county from southwest to northeast and separates these two areas, is the most conspicuous topographic feature.

The western part of the county is a karst (sinkhole) plain with elevations generally ranging from 950 to 1050 feet. Numerous hills, knobs, and other irregular land masses, all erosional remnants of the upland to the east, dot the lower plateau and

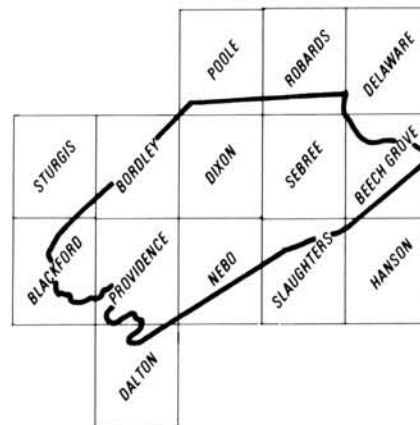
rise as much as 500 to 600 feet above it. Morris Hill at 1560 feet and Sulphur Spring Mountain at 1540 feet, both just south of Monticello, are examples of these upland masses almost completely surrounded by the sinkhole region. Karst valleys indent the western edge of the escarpment, and surface waters flowing off the highlands may disappear into underground routes before reaching trunk streams.

The Eastern Kentucky coal field portion of the county is a higher plateau area almost completely dissected by normal stream erosion. Precipitous cliffs rim many of the ridges, standing out in bold relief. Highest elevations are found on the western edge of the plateau and may be as great as 1700 feet in the southwestern area. Brokedown Cliff at 1700 feet and Round Cliff at 1780 feet, both south and southeast of Powersburg, are noticeable high points. Another ridge, located in the same area and 3/4 mile north of the Kentucky-Tennessee line has a recorded elevation of 1788 feet, possibly the highest in the county.

Lake Cumberland is along or near the northern boundary of Wayne County. The lowest elevation in the county, 723 feet, is the normal pool elevation of the lake.

The elevation of Monticello, the county seat, is 923 feet. Other elevations include Coopersville, 861 feet; Frazer, 904 feet; Mill Springs, 844 feet; Parmleysville, 895 feet; and Powersburg, 916 feet.

WEBSTER COUNTY



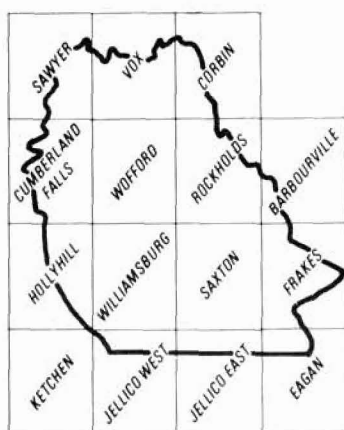
Webster County is in the Western Kentucky coal field. Green River marks the northeastern boundary, and Tradewater River forms the southwestern boundary. The lowest elevations in the county are found along these streams. The lowest point, approximately 325 feet, is where Tradewater River leaves the western corner of the county. Green River

leaves the county at an elevation of about 345 feet. The broad valley flats along Green River are at elevations between 380 and 390 feet, and those along Tradewater River are 350 to 360 feet.

Away from the flood plains, the terrain is rolling to hilly. Elevations in excess of 600 feet are rare in the county. The highest elevation, 640 feet, has been recorded on Steamport Hill 1 1/2 miles east of Sebree, on a ridge 2 1/2 miles south-southwest of Sebree, and on a ridge 5 miles north of Dixon. The hill on which Dixon Lookout Tower is located has an elevation of 610 feet. Local reliefs are less than 100 feet in many places. A notable exception is Steamport Hill which rises as much as 240 feet above the surrounding valleys.

The elevation of Dixon, the county seat, is 538 feet. Other elevations include Blackford, 368 feet; Clay, 379 feet; Lisman, 410 feet; Onton, 461 feet; Providence, at the intersection of Kentucky Highways 109 and 132, 450 feet; Sebree, 404 feet; Slaughters, 460 feet; Wheatcroft, 372 feet; and Williams, 369 feet.

WHITLEY COUNTY



Whitley County is on the southern border of the Eastern Kentucky coal field. It is a well-dissected upland with a hilly to mountainous terrain. The topography in the northern part of the county is more subdued than that normally found in the Eastern Kentucky coal field. Broad, gently rolling to nearly flat-topped ridges at elevations of approximately 1200 feet are common here. Many of the headwater streams have shallow valleys, and the area has a distinct plateau-like appearance.

The southern part of Whitley County is mountainous. Pine Mountain, the highest and most striking topographic feature in the county, crosses the southeastern part of the county from southwest to

northeast. This linear mountain ridge extends almost 10 3/4 miles across Whitley County, 5 miles of which mark the Whitley-Bell County boundary. Elevations in excess of 2000 feet are common along the spine-like crest. The highest elevation in the county, 2220 feet, is a peak on Pine Mountain located near the eastern extremity of the county.

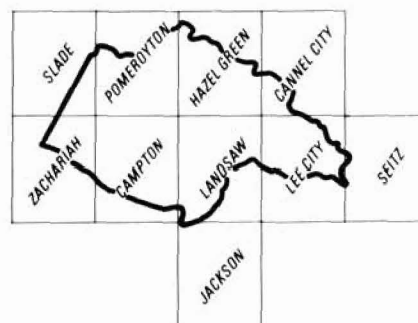
A number of other mountains in the southern part of Whitley County also attain elevations in excess of 2000 feet. Among them are Bear Wallow Mountain, 2188 feet; Jellico Mountain, 2160 feet; Round Mountain, 2011 feet; Ryans Creek Mountain, 2040 feet; Vanderpool Mountain, 2165 feet; and Wolf Knob, 2140 feet.

Cumberland River crosses the county from east to west and then flows northward, marking the boundary between Whitley and McCreary Counties. This part of the river occupies a narrow, rocky gorge some 400 feet deep, and descends rapidly over a series of shoals, rapids, and falls. Cumberland Falls which is located here is the site of one of Kentucky's oldest and most scenic state parks. The lowest elevation in the county, 723 feet, is the normal pool level of Lake Cumberland at the north edge of the county.

Laurel River Lake impounds waters of Laurel River 2.3 miles above its confluence with Cumberland River. The conservation pool has an elevation of 982 feet; elevation of the power pool is 1018.5 feet.

The elevation of Williamsburg, the county seat, is 961 feet. Other elevations include Corbin, at the city hall, 1090 feet; Emlyn, 971 feet; Rockholds, 986 feet; Saxton, 968 feet; Wofford, 936 feet; Woodbine, 1120 feet; and Dupont Lodge at Cumberland Falls State Park, approximately 1090 feet.

WOLFE COUNTY



Wolfe County is in the western part of the Eastern Kentucky coal field. It is a well-dissected upland area with ridgetop elevations between 1200 and

1300 feet over most of the county. Local reliefs of 250 to 300 feet are common.

The northwestern part of the county is characterized by narrow, cliff-rimmed, flat-topped ridges. This is part of the famous natural bridge country of Kentucky. Natural rock arches, pinnacles, and precipitous cliffs are part of the landscape in this area. In other parts of the county the slopes are not as steep, but the ridgetop elevations are essentially the same.

The highest elevation in Wolfe County is 1460 feet, on a ridge near the Wolfe-Breathitt County line about 3 1/2 miles southwest of Lee City in the southeastern part of the county.

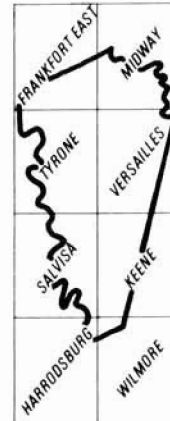
Valleys are cut 100 to 500 feet below the uplands. The valley of Red River, which marks part of the northern boundary of the county, is 200 to 500 feet deep. The upper part of the valley wall is rimmed with nearly vertical cliffs. The elevation of Red River, where it leaves the county, is approximately 690 feet. The lowest elevation in the county, 650 feet, is on the North Fork of the Kentucky River where the county boundary crosses a meander of this stream.

The elevation of Campton, the county seat, is 960 feet. Other elevations include Bethany, 800 feet; Hazel Green, 937 feet; Helechawa, 957 feet; Landsaw, 943 feet; Pine Ridge, 1256 feet; Stillwater, 914 feet; and Zachariah, on the Wolfe-Lee County line, 1239 feet.

WOODFORD COUNTY

Woodford County is in the western part of the Inner Blue Grass region of central Kentucky. It is a gently to moderately rolling limestone upland with ridgetop elevations ranging from 950 feet in the east

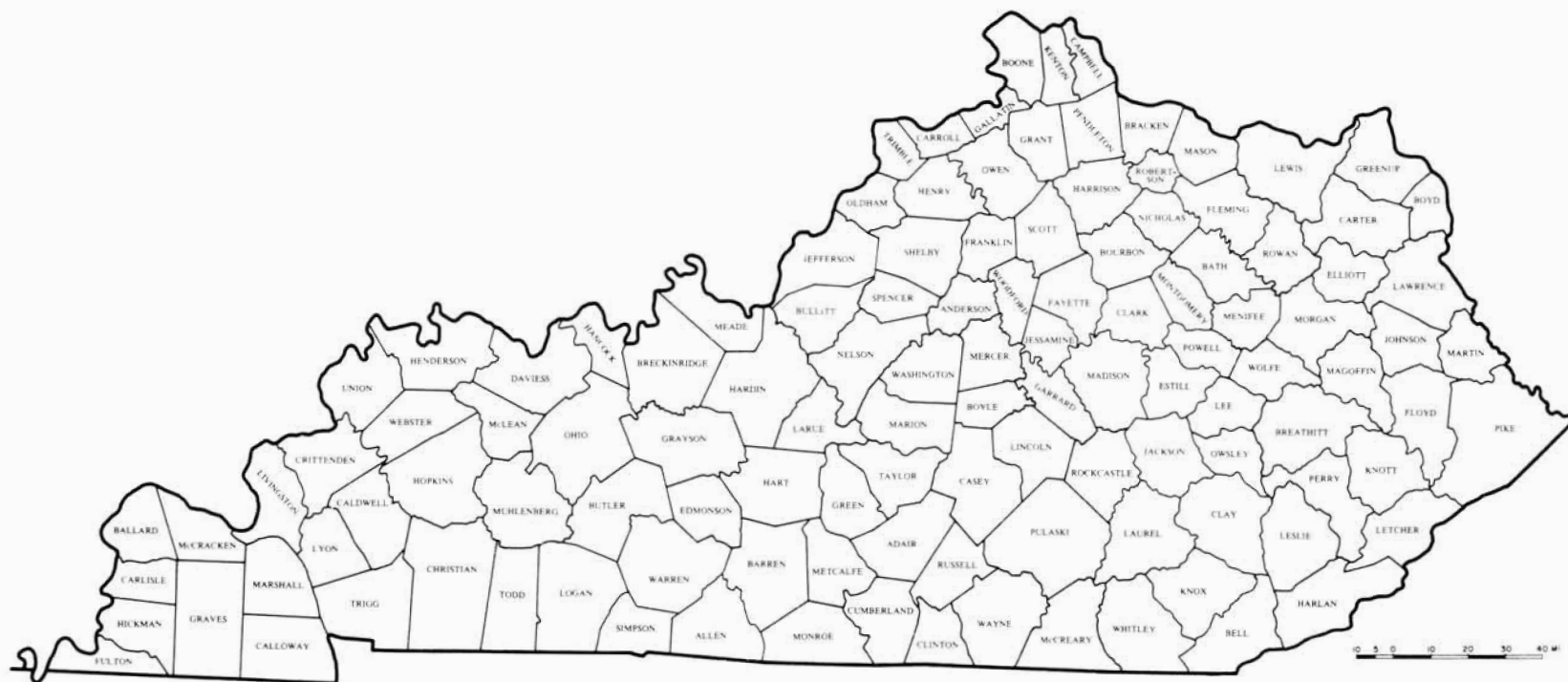
to 850 feet in the western part of the county. The tops of some ridges are almost flat. Karst features are locally conspicuous but do not dominate the landscape.



The Kentucky River forms the western boundary of the county. The river has carved its valley 300 to 350 feet below the adjacent upland (Fig. 2). Almost precipitous limestone bluffs line the valleys of the Kentucky River and the lower portions of some of its tributaries. Greatest local reliefs are found in these areas.

The highest elevation in the county, 1000 feet, is on a ridge north of Dry Ridge Pike, southeast of Versailles. The lowest elevation is 469 feet, the normal pool level of the Kentucky River where it leaves the county. The normal pool level of the Kentucky River upstream from Lock No. 5 is 483 feet.

The elevation of Versailles, at the courthouse, is approximately 895 feet. Other elevations include Midway, 840 feet; Millville, 570 feet; Mortonville, 780 feet; Nugent Crossroads, 861 feet; and Nonesuch, 813 feet.



Locations of counties in Kentucky