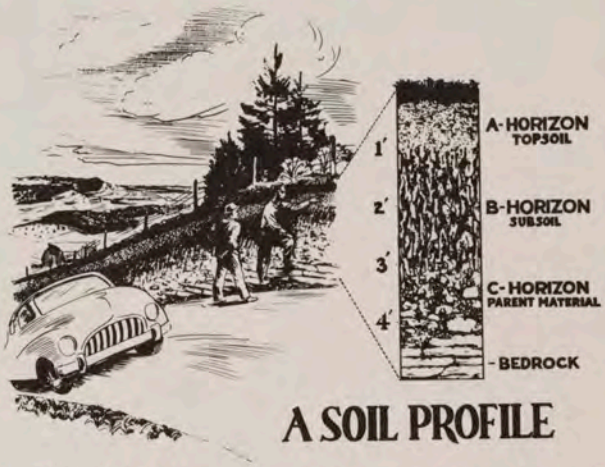
SOILS
OF
TOWN OF FOX LAKE
Dodge County
WISCONSIN

F. D. Hole, G. B. Lee, E. A. Brickbauer

This preliminary town soil map is intended to serve until the U. S. Department of Agriculture publishes a detailed soil map of Dodge County in color, and to supplement that detailed map when it becomes available. Several sets of uncolored, large-scale town maps, showing detailed soils information, will be bound together in the form of an Atlas of Soil Maps for Dodge County. These atlases may be consulted in the office of the County Agent, the Soil Conservation District Office, at the Soils Department, University of Wisconsin, at Madison, and at other places to be announced.

How to Know Your Soils



A SOIL PROFILE

A SOIL PROFILE. A vertical cross-section of a soil, made of layers of surface soil and subsoil, is called a soil profile. To find out what a soil is like, look at the side of a newly-dug pit or fresh road cut. Above is a sketch of one type of soil, showing four soil layers or "horizons":

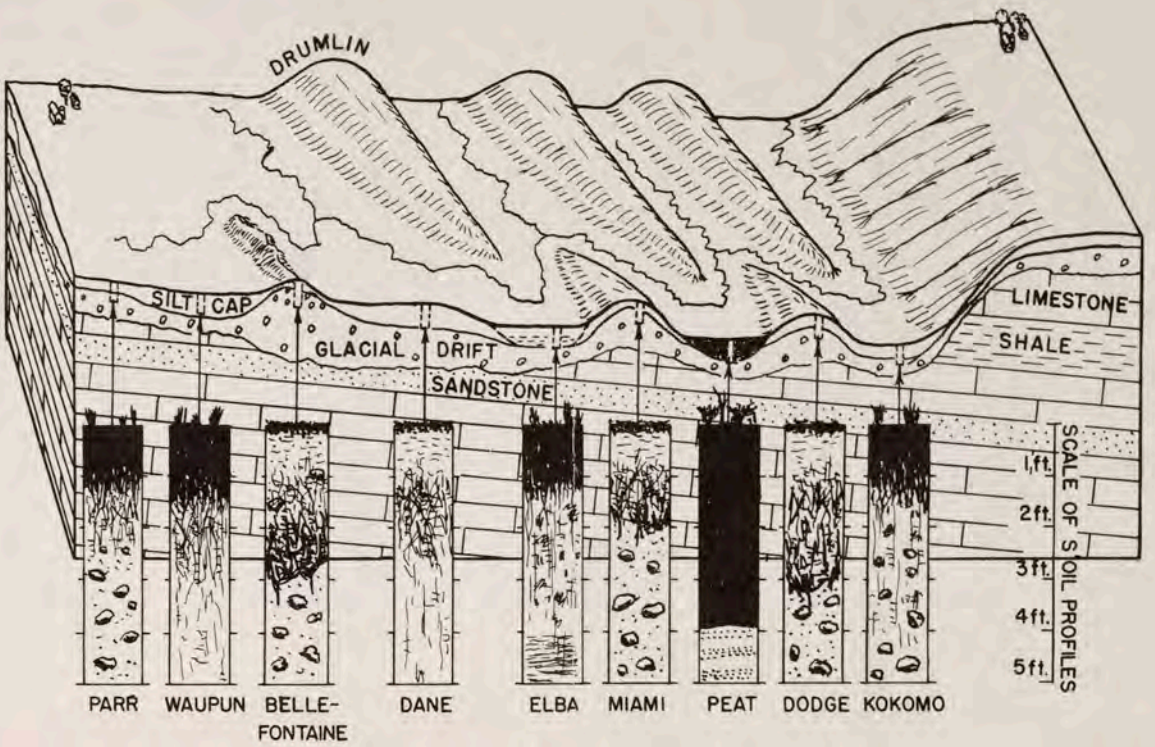
(1) Dark colored surface soil (A_1)
(2) Light colored subsurface soil (A_2)
(3) Brown subsoil (B)
(4) Yellow stony clay (C)

Each soil or soil group has a particular kind of profile.

Soil Survey Division
Wisconsin Geological and Natural History Survey
and the
Agricultural Experiment Station
University of Wisconsin at Madison
1953

SOILS CHANGE FROM PLACE TO PLACE. As you cross a field, look for differences in soil. These differences may be in any one layer or in several layers of the soil profile. A buried sand bed may merge into a buried clay bed. Or the surface soil may change from a flour-like silt loam into a gritty sandy loam. Soil surveyors drew lines—soil boundaries—on the map wherever one kind of soil changes to another kind of soil. The diagram gives sketches of some of the kinds of soil found in various positions on the sides of the hills and valleys of Dodge County.

LAY OF THE LAND. Dodge County has to the north (1) the rolling upland; to the south (2) the drumlin upland, with its hundreds of long streamline hills; (3) the hilly upland where the Niagara limestone bluff occurs near Mayville and Iron Ridge, and to the southeast; (4) the level wet lands, including the Horicon Marsh, between the drumlins and other hills.



Five Soils Cover most of Dodge County

Although there are many kinds of soils in the area, only five groups are extensive in Dodge County. According to preliminary estimates, they occupy 80% or more of the area of the county:

Name of Soil Group	Soil Symbols	Names of Soil Series	General Agricultural Rating
1. Parr	91	Parr (shallow silt cap)	Good
	28	Waupun (deep silt cap)	Excellent
	426	Corwin (moderate drainage)	Excellent
2. Miami	55	Miami (shallow silt cap)	Fair to Good
	61	Dodge (moderately deep cap)	Good
	25	Dane (deep silt cap)	Good
	177	Calamus (moderate drainage)	Good
3. Bellefontaine	155	Bellefontaine	Fair
4. Kokomo	63	Kokomo	Good when well drained
	214	Elba	
5. Peat and Muck	99, 9	Badoura, Houghton	Good when well drained

The Parr soils formed for the most part under open prairie and associated oak openings, growing on wind-blown, limey silt ("loess"). Where the silt was deepest (more than 40 inches deep) over the glacial drift, the dark Waupun (well drained) and Corwin (moderately well drained) soils formed. The well drained Miami, Dodge, and Dane silt loams, and the moderately well drained Calamus silt loam are light colored soils developed under forest vegetation on limey silt, resting on stony glacial drift. Where the silt was shallow and the underlying material gravelly, the Bellefontaine soil formed with a reddish brown clayey subsoil. In wet depressions are found Kokomo, Elba, peat and muck soils. The Kokomo (on glacial drift) and Elba (on old lake beds) are black mineral soils with bluish gray and yellow mottled subsoils. Peat and muck are dark brown to black organic soils.

What the Soil Map Shows

The soil map shows where the various kinds of soils of Dodge County occur. Soil symbols are given on the map as numbers and letters. These are explained in the List of Soils on the back of the map, and in the legend below the map.

One of the important soil properties is texture (coarseness or fineness of the surface soil). Soil is made up of sticky clay, flour-like silt, gritty sand, and organic matter. The principal kinds are: clay soil (contains about 50% clay); silt loam soil (contains about 65% silt); loam soil (contains about 40% silt and 35% sand); sandy loam soil (contains about 60% sand); sand soil (contains about 90% sand). Silt loams and loams are best for general farming. They contain enough clay and silt to store water and plant nutrients, and enough sand to form a loose open soil. Under favorable drainage conditions, peat and muck respond well to good management.

SOIL TYPE NAMES. Soils are classified into series named after places. For example, the Elba silt loam is named after the town of Elba in Dodge County, where this soil was first studied in Wisconsin. Many of the soil names listed on the back of the map are tentative and some may be changed if soil scientists find that these soils have already been studied and named in other states.

LIST OF SOILS OF NORTHWESTERN DODGE COUNTY

(A list of soil numbers used on the town soil maps, with names and general productivity ratings of the soils)

(The soils listed in blue are the most extensive in northwestern Dodge County)

Soil Number	Name † of Soil with Descriptive Terms	Gen. Productivity Rating* for	
		Crops	Pasture
	SOILS OF UPLANDS: LOAMS, WELL DRAINED		
25	Dane silt loam (Brown; deep; over limey stony loam)	Good	Good
28	Waupun silt loam (Dark gray; very deep)	Best	Best
55	Miami silt loam (Brown; over stony loam)	Good	Good
58	Bellefontaine loam (Brown; shallow; over reddish clay, over gravelly loam)	Fair	Fair
61	Moderately deep Dane (#25) silt loam (Dodge)	Good	Good
72	Fox loam (Brown; flats)	Fair	Fair
73	Fox silt loam (Brown; moderately deep; flats)	Good	Good
84	Deep Fox silt loam (Brown; deep; flats)	Best	Best
91	Parr silt loam (Dark gray; moderately deep over limey, stony loam)	Good	Good
149	Rockton silt loam (Dark gray; moderately deep over limestone bedrock)	Good	Good
155	Bellefontaine silt loam (Brown; shallow over reddish clay, over limey gravelly loam)	Fair	Good
177	Calamus silt loam (Grayish brown; deep; moderately well drained Dane, #25)	Good	Good
181	Coloma loamy sand (Light brown; very deep)	Poor	Poor
191	Parr silt loam, shallow (compare with #91)	Fair	Fair
201	Rockton silt loam, shallow (compare with #149)	Fair	Fair
208	Whalen loam (Brown; moderately deep over limestone bedrock)	Good	Good
254	Ottawa fine sandy loam (Brown; deep over reddish clay; old lake flat)	Fair	Fair
255	Atwater silt loam (Brown; more shallow and stony than Miami; #55)	Poor	Fair
260	Rio loamy fine sand (Brown; deep)	Fair	Fair
268	Rio sandy loam (Brown, deep)	Fair	Fair
291	Dark phase, Atwater silt loam (more stony than shallow Parr, #191)	Poor	Fair
327	Wallkill silt loam (Brown soil deposit over peat and muck)	Fair	Good
328	Washtenaw silt loam (Brown soil deposit over black mineral soil)	Good	Good
426	Corwin silt loam (Dark gray; deep; moderately well drained Waupun, #28)	Best	Best
	SOILS OF UPLANDS: LOAMS, IMPERFECTLY DRAINED		
178	Clyman silt loam (Brownish gray over gray spotted soil; wetter than Dane, #25)	Fair	Good
226	Imperfectly drained Waupun silt loam (#28)	Fair	Good
233	Homer silt loam (Brownish gray; wetter than Fox, #84)	Fair	Good
264	Shiocton (Kibbie) silt loam (Brownish gray; deep; old lake flat)	Fair	Good
283	Berrien loamy fine sand (Deep over red clay; wetter than Ottawa)	Poor	Fair
284	Berrien sandy loam (Deep; dark brown over reddish clay; old lake flat)	Poor	Fair
	SOILS OF DEPRESSIONS: BLACK MINERAL SOILS WITH BLUISH GRAY SUBSOILS		
63	Kokomo silt loam and silty clay loam		
	Where undrained		Fair
	Where drained	Good	Good
169	Wauseon loam (wetter than Berrien, #284)		Fair
179	Kokomo stony silt loam (compare with #63)		Fair
214	Elba silt loam and silty clay loam (old lake bed)		
	Where undrained		Fair
	Where drained	Good	Good
231	Brookston silt loam and silty clay loam (Not quite as wet Kokomo, #63)	Fair	Good
290	Keowns silt loam (wetter than #264)		
	Where undrained		Fair
	Where drained	Good	Good
369	Wet sand		
409	Detour silty clay loam (deep over limestone bedrock)	Fair	Fair
	SOILS OF DEPRESSIONS: BLACK ORGANIC SOILS		
9	Houghton muck		
	Where undrained		
	Where drained	Good	Good
99W	Badoura peat, undrained		
99	Badoura peat, drained	Good	Good
187	Muck, 30″–42″ deep over sand, Where drained	Good	Good
286	Muck, 10″–30″ on silt and clay, Where drained	Fair	Fair
287	Muck, 10″–30″ on sand, Where drained	Fair	Fair
302	Muck, 10″–30″ on marl, Where drained	Fair	Fair
384	Peat, 30″–42″ on sand, Where drained	Good	Good
385	Peat, 10″–30″ on sand, Where drained	Fair	Fair
386	Peat, 30″–42″ on silt and clay, Where drained	Good	Good
387	Peat, 10″–30″ on silt and clay, Where drained	Fair	Fair

* Ratings group the soils into 4 grades: 1—Best, 2—Good, 3—Fair, 4—Poor. If no rating is given, the soil is unsuitable for such use. In areas where erosion is severe or slopes steep, the general rating given for the soil is too high. This is also true wherever good agricultural soils occur in areas too narrow for common field operations. †Names are tentative. Some soil names may be changed in the light of new information on the soils of Wisconsin and adjoining states.

SOIL MAP, TOWN OF FOX LAKE, DODGE COUNTY, WISCONSIN

HOW TO READ THE MAP

This soil map shows section lines, roads, houses, and streams, and it shows the soils, the slope of the land, and the eroded areas. Each first number on the map stands for a soil.

Example: 25 = Dane silt loam.

The soil numbers on the map are followed by letters which tell you how steep the slope is.

Example: 25C = Dane silt loam, with a slope of 6 to 11 per cent (the surface of the soil rises or falls 6 to 11 feet in every 100 feet of horizontal distance).

The letters M and K indicate pit-and-mound terrain.

Example: 25CK = Dane silt loam, with many short slopes of 6 to 11 per cent.

A number follows the slope letter to tell the degree of erosion.

Example: 25C2 = Dane silt loam, with a slope of 6 to 11 per cent, moderately eroded.

SOIL SURVEY, 1953, BY THE SOIL SURVEY DIVISION, WISCONSIN GEOLOGICAL AND NATURAL HISTORY SURVEY, IN COOPERATION WITH THE U. S. SOIL CONSERVATION SERVICE AND THE COLLEGE OF AGRICULTURE.

SLOPE LETTERS

SIMPLE SLOPES

Level land (0-1.9%)	A
Gently sloping land (2-5%)	B
Sloping land (6-11%)	C
Moderately steep land (12-18%)	D
Steep land (19-29%)	E
Very steep land (30%+)	F

COMPLEX SLOPES

(0-6%)	M
(6-11%)	CK
(12-18%)	DK
(19-29%)	EK
(30%+)	FK

EROSION SYMBOLS

Deposition	+
Slight erosion	1
Moderate erosion	2
Severe erosion	3
Very severe erosion	4

MAP SIGNS

State line
County line
Township line
Town line
Section line
Paved highway
Bituminous highway
Road
Lane
Railroad
House
School
Creamery
Church
Cemetery
Power-transmission line
Quarry
Bluff or escarpment
Stony Spot
Sandy Spot
Lake
River
Permanent Stream
Intermittent Stream
Spring
Marshy Spot
Dam
Soil Boundary

SCALE IN MILES

0 ½ 1

TURN THIS BOTTOM FLAP TO FIND THE COMPLETE LIST OF SOIL NUMBERS

SOIL MAP, TOWN OF WESTFORD, DODGE COUNTY, WISCONSIN

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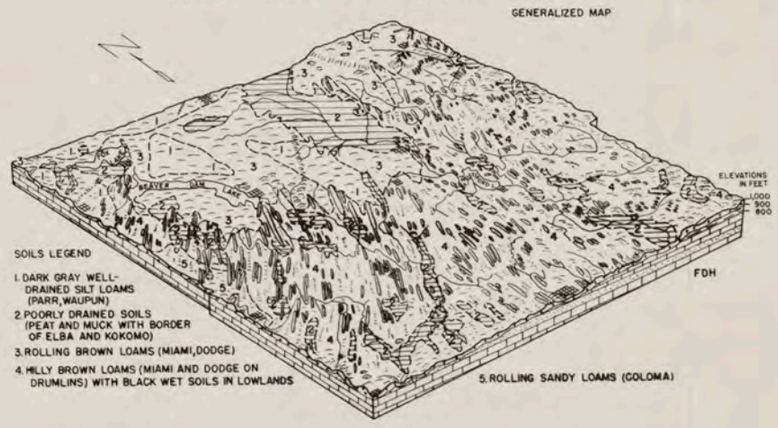
SOILS OF DODGE COUNTY, WISCONSIN

GENERALIZED MAP



SCALE IN MILES

0 ½ 1

MAP SIGNS

State line
County line
Township line
Town line
Section line
Paved highway
Bituminous highway
Road
Lane
Railroad
House
School
Creamery
Church
Cemetery
Power-transmission line
Quarry
Bluff or escarpment
Stony Spot
Sandy Spot
Lake
River
Permanent Stream
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Spring
Marshy Spot
Dam
Soil Boundary

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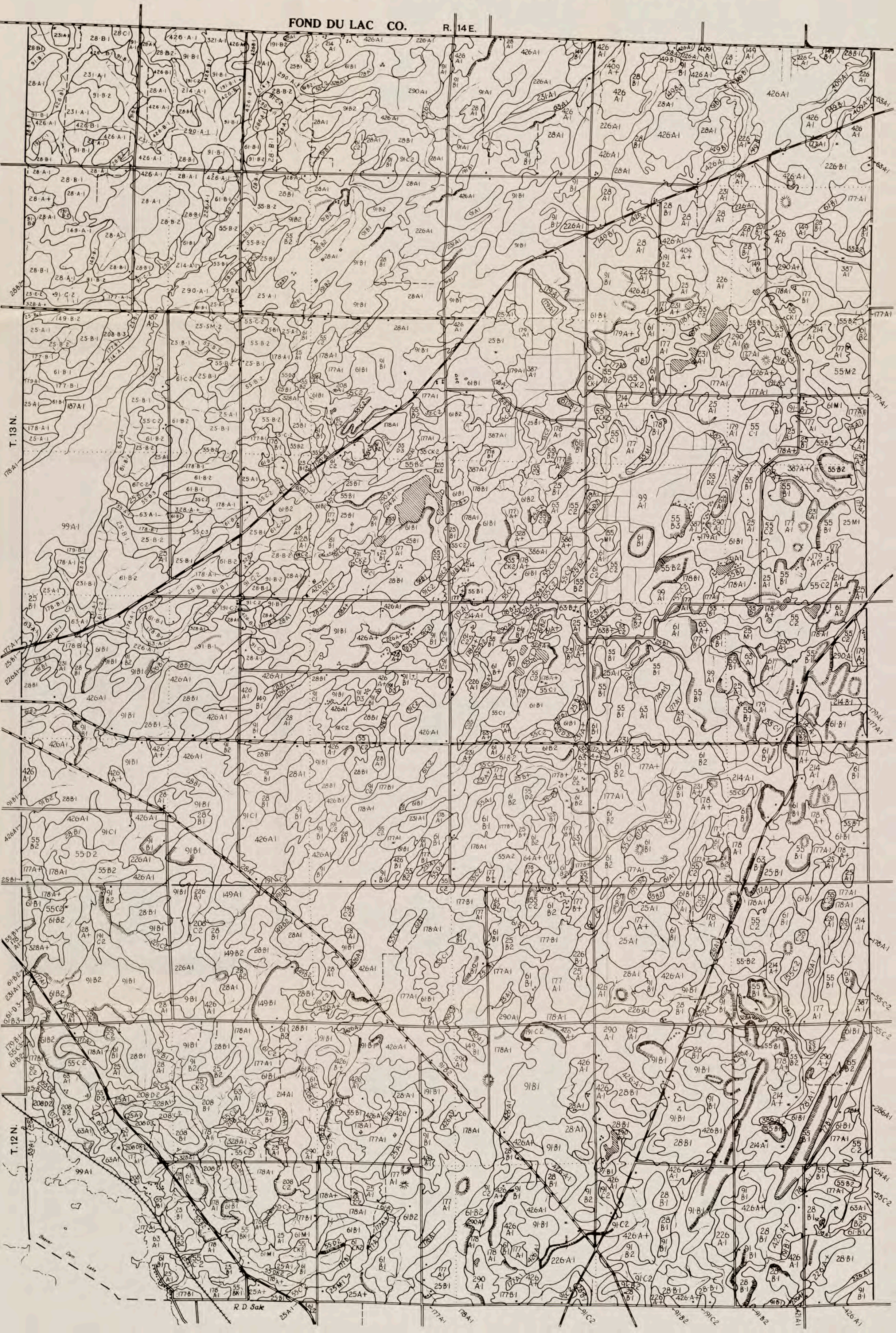
SOIL MAP, TOWN OF TRENTON, DODGE COUNTY, WISCONSIN



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SOILS OF DODGE COUNTY, WISCONSIN

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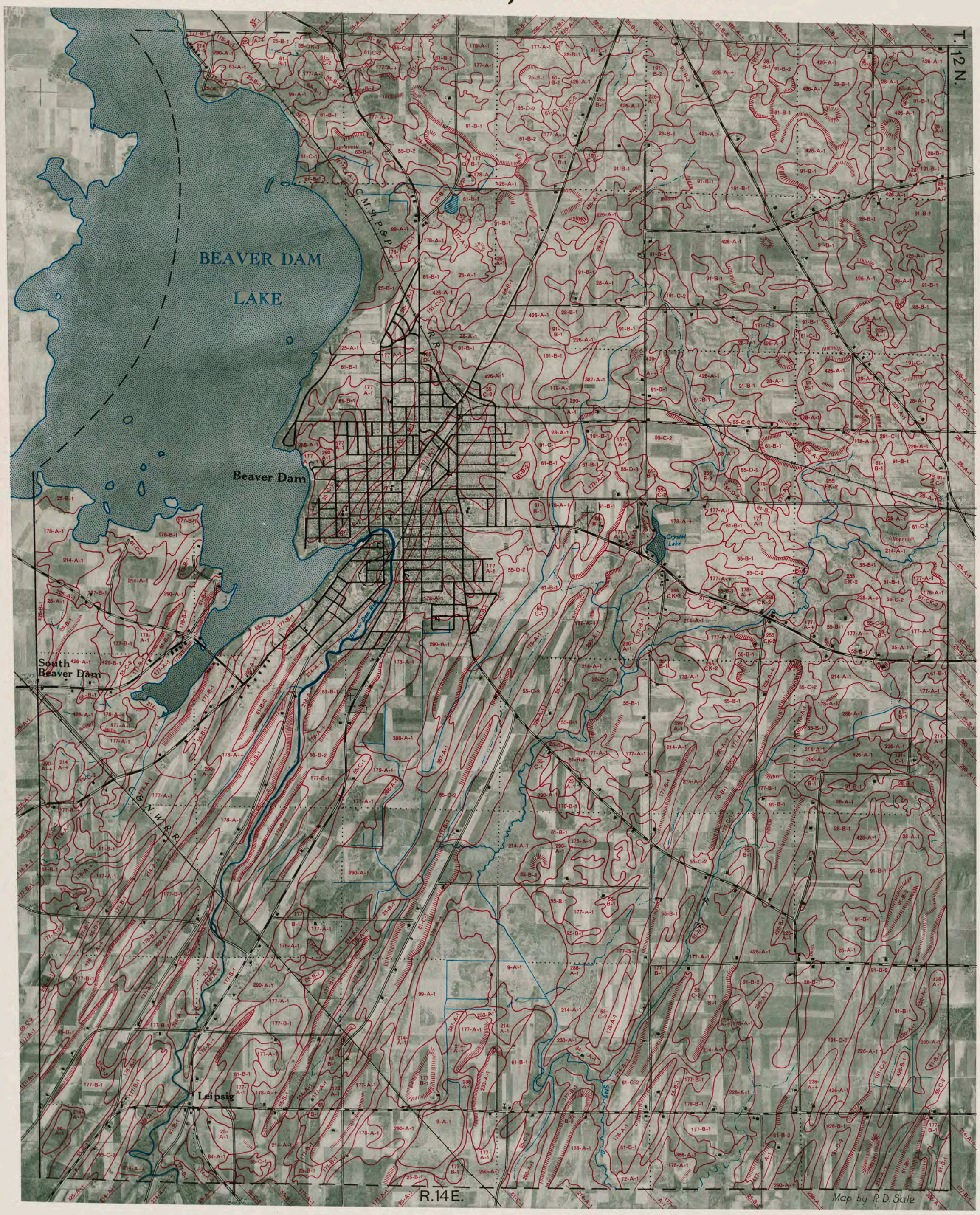
SOIL MAP, TOWN OF BEAVER DAM, DODGE COUNTY, WISCONSIN



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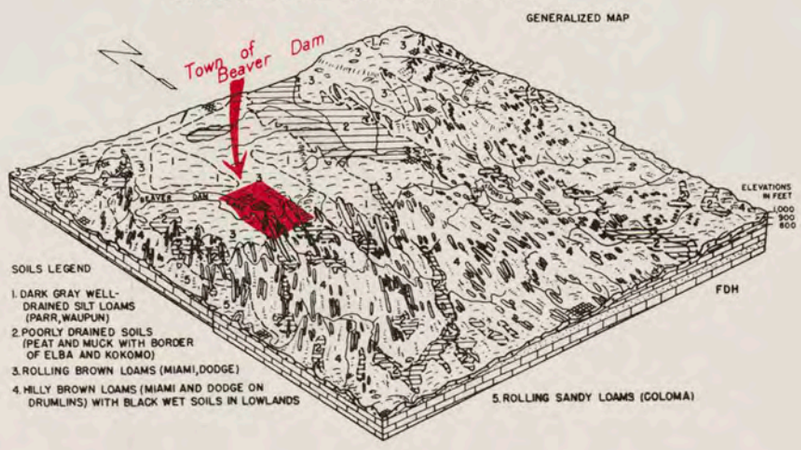

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