Kansas Vs. Missouri

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Appeal No. : 322 U.S. 213

Appellant : Kansas

Respondent : Missouri

Judgement :

Kansas v. Missouri - 322 U.S. 213 (1944)
U.S. Supreme Court Kansas v. Missouri, 322 U.S. 213 (1944)

Kansas v. Missouri

No. 9, original

Argued January 31, 1944

Decided May 8, 1944

322 U.S. 213

BILL IN EQUITY

SYLLABUS

Upon the evidence in this case, in which Kansas claims title to certain land now lying on the Missouri side of the Missouri River in the Forbes Bend area, Kansas has failed to show that, at any time during the period in question, the main channel of the Missouri River shifted from a course such as the river now follows (or one slightly closer to the Kansas bluffs) to one following the course of the channel on the Missouri side when the flow was divided. Therefore, the land in dispute must be awarded to Missouri, and the boundary will be fixed in accordance with the recommendations of the Special Master. Pp. 322 U. S. 214 , 322 U. S. 232 .

Bill of complaint by Kansas against Missouri to determine and fix the boundary between the States. Leave to file the bill was granted by this Court, 310 U.S. 614.

MR. JUSTICE RUTLEDGE delivered the opinion of the Court.

Kansas brings this original suit against Missouri to have determined their common boundary from the mouth of the Kaw or Kansas River northwardly, over a distance of approximately 128 miles, along the channel of the Missouri River to its intersection with Kansas' north boundary line.

At the time of Kansas' admission to the Union, January 29, 1861, the western boundary of Missouri followed the

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thread of the Missouri River -- that is, the middle line of its main navigable channel -- between these points. [Footnote 1] This line then became the common boundary of the two states. [Footnote 2] The bill of complaint was filed in 1940. It alleged that the thread of the stream had shifted frequently, sometimes suddenly, sometimes gradually, and that these changes had caused controversies concerning the true boundary. When the proceeding began, it was in dispute at a number of places. [Footnote 3] But, during pendency of the suit, the parties have settled all differences except one. This relates to the section of the boundary in the Forbes Bend region. [Footnote 4]

After the filing of the suit, a master was appointed. Extensive hearings were held. Both documentary and oral evidence was presented. The master has filed his report, which makes findings and conclusions in favor of Missouri. Kansas says these are contrary to the law and to the weight of the evidence.

The land in dispute consists of about 2000 acres. This now lies on the Missouri side of the river toward the lower end of Forbes Bend. Kansas claims this land was at one time soil accreted to the Kansas bank, which an avulsive change in the course of the main channel has put back on the Missouri side, or, in the alternative, that the tract

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formed as an island on the Kansas side of the main channel and, as a result of a sudden shift in that channel to the other side of the island and the drying up of the old course, it has become physically attached to Missouri. In either event, Kansas urges, it follows that the boundary remains at the center of the river's former main channel. Missouri denies that the land accreted to Kansas, that there was avulsion, or that the island ever lay on the Kansas side of the main channel.

The states are not in dispute about the applicable law. They agree that, when changes take place by the slow and gradual process of accretion, the boundary moves with the shifting in the main channel's course. [Footnote 5] Likewise, they agree that a sudden or avulsive change in that course does not move the boundary, but leaves it where the channel formerly had run. [Footnote 6]

However, the parties are sharply at odds over the facts and the conclusions to be drawn from the evidence. In view of this, and since we think the facts as presented by the evidence are conclusive of the controversy, it becomes necessary to sketch them and to refer to portions of the evidence in order to give an understanding of the issues and the basis for our conclusions.

I

Forbes Bend lies between Doniphan County, Kansas, and Holt County, Missouri. The disputed boundary, according to the master's findings, extends along the main channel of the river as it now flows for a distance of about five miles bending southeasterly from Channel Mileage Station 515 to Station 510 (as measured and marked in

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1890). As the river enters Forbes Bend from the north, it flows east of south. Near the point of entrance, it is joined by Wolf Creek. This comes into the river from the Kansas side in an easterly direction. The mouth of Wolf Creek is roughly adjacent to Station 515. From this point, the Kansas bluffs swing in a gradual convex curve southeasterly until they reach a point above Station 510. On the Missouri side, the bluffs run, as they do on the Kansas side, generally southeasterly. Throughout the Forbes Bend region, the distance as the crow flies from the Kansas bluffs to the Missouri bluffs is four miles, more or less. Adjacent to and parallel with the Missouri bluffs, but between them and the river, lie tracks of the Burlington Railroad.

The Missouri River is a vagrant, turbulent stream. Its name reflects this character. The Big Muddy is said to carry more silt than any other river except the Yellow River in China. It is constantly changing its course within the region between its bluffs, shifting from side to side as natural forces work upon its flow. Expert testimony is that a change of conditions in one bend produces changes as great, or nearly so, in the next bend below.

The river flows around a big bend, known as Wolf Creek Bend, just before it reaches the mouth of Wolf Creek. Here it runs almost due south. It is conceded by all that, in 1900, the river flowed southeasterly in a single channel from the mouth of Wolf Creek, hugging the Kansas bluffs throughout the entire course of flow to Station 510. As it presently flows, the river makes a wide arc, first to the left, or Missouri, bank in a course almost due east or north of east, before it turns sharply to the south again at a point midway between the bluffs, and follows this southerly course until it strikes the old main channel at the Kansas bluffs above Station 510.

This bend now is in the form of a bow, with the river proper forming the bow and the old channel along the Kansas bank its string. Roughly,

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therefore, the difference between the present flow through Forbes Bend and the flow in 1900 is the difference between the bow and the string. At the center of the bow, the distance between the old channel and the present one appears to be, at most, one mile.

However, as will appear, the channel's present location results from more complex changes than merely a movement of the river north and east over the distance lying between these two channels. According to the greatly preponderant, though not undisputed, evidence, there was a division of channels in Forbes Bend from about 1914 or 1917 to 1927 or 1928. During this time, the more westerly, or Kansas, channel lay slightly west of where the present channel runs. The Missouri, or easterly, channel lay on the other side of the area in dispute, which then formed part of a bar or island. At one time, probably about 1922 or 1923, during the period of greatest erosion of the Missouri bank, this channel came within half a mile or less of the Burlington tracks. The Missouri channel, with the river above it, then followed a course almost due east or slightly north of east from below the mouth of Wolf Creek to the point of its closest approach to the railroad. Then it swung sharply to the south and, in a curving line, came back to join the original channel near the Kansas bluffs above Station 510.

From the recital thus far, it is clear that, in 1900, the land which then lay where the disputed tract now lies was Missouri land. This is undisputed. Likewise, the tract now is attached to Missouri on the easterly bank of the river. This is because the Missouri channel dried up during some five to eight years beginning around 1927 or earlier. But, before that process began, for many years, the land in question lay between the two channels. And it is from conflicting views concerning whether, how, and when these major changes took place the parties derive their respective claims to sovereignty over this soil.

Kansas first claims that the land in dispute became hers by accretion. Her principal theory is that, beginning in 1900 and during a period extending to 1917 or to 1927, the river channel, due to changes upstream, gradually moved out from the Kansas bluffs over a distance of some three to three and a half miles to the north and east. [Footnote 7] As Missouri soil thus was being cut away, it is said the land in question was built up gradually on the Kansas side. In any event, if it was not connected firmly to the Kansas shore, it was separated only by narrow and irregular chutes and sloughs, not by any sort of regular channel. Then, either in 1917 [Footnote 8] or in 1927, [Footnote 9] ice jams forming in the river caused it suddenly to leave its channel near the Missouri bluffs and to open a new one near where the present channel runs. Relying upon accretion from 1900 to 1917 or 1927 for acquisition of the disputed area, Kansas relies upon avulsion in 1917 or 1927 to prevent losing the area again to Missouri. Her alternative theory of island formation is relied on in case that of accretion and avulsion fails on the proof. By this, the island formed on her side of the main channel and the subsequent shift of the main

flow to the Kansas channel and drying up of the Missouri channel did not affect her jurisdiction.

Missouri meets all of Kansas' claims with denial on the facts. She says first that the land in question has been at no time accreted soil of Kansas. On the contrary, she claims that the disputed area formed as an island in the river bed beginning about 1910 or 1912, and from then until 1927 or 1928, there was a divided flow around this island, a Missouri channel running north and east of it with a Kansas channel to the south and west. She insists that the Kansas channel always remained the main channel of the stream, and only a minor one reached proximity to the railroad tracks. Accordingly, she says the island formed as Missouri land, and always remained Missouri territory. Missouri thus opposes her view of island

formation both to Kansas' view of that process and to her claim of accretion and avulsion.

However, Missouri adds a further argument, even if the Kansas theory of accretion is conceded. According to this, the effect of the accretion to the Kansas bank is counteracted by the fact that at no time was there an avulsive change, whether, in 1917 or in 1927. On the contrary, the river moved back gradually as it came. In this view, the accretive process working against Missouri ended in 1923 or 1924, when the Missouri channel reached greatest proximity to the railroad tracks. Beginning in those years and continuing gradually until 1933 or 1934, the river moved slowly back to a point beyond the location of the present channel. Thus, purporting to follow the accretion theory in both directions, Missouri claims the land in question.

It may be noted that crucial to Kansas' case, whether on her theory of accretion and avulsion or on that of island formation, is the need for showing that the main channel followed the course of the Missouri channel.

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II

Roughly, the history of the Bend, for our purposes, may be divided into three periods -- namely, from 1900 to 1917, from 1917 to 1928, and from 1928 to 1940, when this suit was begun. There is documentary evidence as well as oral testimony for the period prior to 1900. There is little or no documentary evidence in the form of maps, photographs, drawings, or other materials from 1900 to 1923. There is a considerable amount of documentary material from 1923 on.

Perhaps the most important documentary item is a map of the Forbes Bend region compiled from the field in 1923 by the United States Engineer Office at Kansas City, designated as complainant's Exhibit 46 in this record. Another map of considerable assistance, with information penciled on it by two witnesses who testified at the hearings, is complainant's Exhibit 47. This purports to show in less

detail than Exhibit 46 conditions in the Bend in 1926. The witnesses' penciled additions, placing channels and other landmarks, with their testimony, give considerable information about conditions in the Bend from 1921 or 1922 on to 1926 and later. Assistance also is derived from complainant's Exhibit 56. This is an aerial survey photograph of the Forbes Bend region made in 1941, showing conditions when this suit was begun. Reference to these exhibits will be made as the testimony of some of the witnesses is referred to.

It is clearly established that, sometime around 1900, fixed by some older witnesses variously as beginning earlier and by others later, the river began a northerly and eastward movement, cutting away the Missouri bank and filling in on the Kansas bank. [Footnote 10] Neighborhood testimony attributes the beginning of this movement to some change

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in conditions upstream, taking place apparently around the mouth of Wolf Creek or in Wolf Creek Bend above. [Footnote 11] Whatever this change may have been, it apparently threw the current of the stream against the solid rock formation on what is known as Lookout Mountain. This is a point on the Kansas bluffs about a mile or a mile and a half below the mouth of Wolf Creek. The current, striking this rock with force, was thrown over to the north, or Missouri, bank.

The soil composition of the north bank is a common formation in the Missouri River valley. Underneath the surface soil is sand or quicksand. This is covered by a layer of gumbo soil. Testimony in the record discloses there is no great erosion when the water is very high or very low. But when it is at an intermediate stage, the water comes in contact with the underlying sand, washes it out, and the topsoil falls into the river in great chunks, often twenty feet long by ten feet wide. As the current was forced from the Kansas rock to the Missouri sand, it undercut more and more of the Missouri soil. Evidence in the record also shows that, between 1900 and 1920, or a little later, from 4,000 to 5,000 acres of Missouri soil was washed into the river by this process. On this stood houses, barns, a school building known as the Baker schoolhouse, and other structures, which either went

into the river as the soil was undermined or were moved to prevent their falling in. The Baker schoolhouse, which in 1900 was a mile or more northeast from the river bank, was moved about 1915 to prevent its going into the river. [Footnote 12]

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By that time, the erosion was moving at great speed, and this continued until the farthest point was reached, a half mile or less from the Burlington railroad, about 1923 to 1925. [Footnote 13]

The clear weight of the evidence is that there was only a single channel of the river until about 1912 or 1914. Witnesses for both Kansas and Missouri substantiate this. [Footnote 14] The evidence also clearly establishes that there was a divided flow from 1917 or earlier to 1927. This too is substantiated by both Kansas and Missouri witnesses. [Footnote 15] The evidence, however, is conflicting concerning when the division first took place and whether, while it remained, the Kansas channel or the Missouri channel was the main one.

Witnesses for Missouri, and some for Kansas, testify that the division occurred before 1917, and that the two channels remained substantially equal or the Kansas channel was the larger in the volume of water carried between the time of the division and sometime between 1922 and 1927 or 1928. [Footnote 16] The Missouri witnesses fairly uniformly agree that the flow in the two channels was at

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least "fifty-fifty," and some of them say the Kansas channel always carried the heavier volume of water. [Footnote 17] They also generally agree that the Missouri channel began to decrease and the Kansas channel to increase in volume at some time before 1927. Some place the beginning of this process as early as 1921 or 1922. [Footnote 18] The evidence is substantial that the decrease in the Missouri flow and the increase in the Kansas flow began before 1927, and it is almost unanimous that, from 1928 on, the Missouri channel contained no current, or only the flow of Mill Creek Drainage Ditch, which by that time had been diverted into the Missouri channel. Witnesses for Missouri attribute

a substantial portion of the filling up of the Missouri channel to deposits made by the Mill Creek Ditch. [Footnote 19] They agree, and the evidence for Kansas hardly contradicts this, [Footnote 20] that, between 1928 and 1934, the Missouri channel

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almost completely dried up. The great preponderance of the evidence as a whole is that this occurred gradually over a period of years, varying according to different witnesses from two or three to eight or ten years.

On the other hand, Kansas witnesses are not in accord among themselves as to what occurred in the Bend between 1912 and 1928. Some of them say there was a divided flow. [Footnote 21] Others deny this, but qualify their denials by asserting that, although the main channel of the river ran over into Missouri close to the Burlington tracks until 1927, there were chutes on the island, and particularly there was one chute running from about the mouth of Mill Creek Ditch as it was in 1917 (directly across northerly from the northern end of the bar or island) due south to the Kansas bluffs at about Station 510. [Footnote 22] However, they maintain generally that this was a small chute, or smaller than the Missouri channel, at any rate, up to 1922 or 1923. A few say it was small until 1927, when the alleged ice jam occurred. [Footnote 23]

Some witnesses for Kansas maintain that there were big ice jams in 1917 [Footnote 24] and in 1927. [Footnote 25] Different witnesses testify to the two alleged jams. Those who say one occurred in 1917 assert that it threw the main flow back from the Missouri channel into the Kansas channel. Likewise, some of those who say there was a jam in 1927

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accredit the same consequence to that jam. The two Kansas theories of avulsion therefore are entirely inconsistent, though each is supported by some evidence. If there was avulsion in 1917, there hardly could have been avulsion, on this record, in 1927. On the other hand, several Kansas witnesses, familiar with the territory

during one or both of the two years in question, testify they saw no ice jams in those years. [Footnote 26] Others say they saw ice, but not in large or unusually large quantities or with unusual effects on the flow of the river. [Footnote 27] Nearly all of the Missouri witnesses deny that there were ice jams either in those years or at other times, although some refer to ice in the river as not uncommon in winter or early spring. The Missouri witnesses are fairly unanimous in saying that at no time had ice conditions or others caused a sudden change in the river's course, [Footnote 28] and in this they are supported by a number of Kansas witnesses. [Footnote 29]

When we turn to complainant's Exhibit 46, we find very substantial support for Missouri's view that, during the controverted period, the flow of the river was divided, and that the Kansas channel equalled or exceeded the Missouri channel in the flow or volume of water carried. This map, compiled by the Corps of Engineers of the United States Army, who had charge of the river's development, shows conditions in 1923. Two channels appear, with a large sand bar or island between them. The map places the Missouri channel within less than a half mile of the Burlington tracks. It shows a width of about 1250 feet at the narrowest point. Soundings, read from the

south end of the island around the curve to its north end, disclose that the deepest water ran from point to point as follows: 15 feet, 16 feet, 25 feet, 13 feet, 14 feet. On the westerly side of the island, the Kansas channel was a little wider at its narrowest point. Its soundings from south to north at appropriate intervals were 31 feet, 12 feet, 12 feet and 13 feet. The Missouri channel meandered from the south to the east and north and then back around the north end of the island or bar in a due westerly direction. On the other hand, the Kansas channel was much shorter, running straight north from the south end of the island along its western shore to its northern end. The map shows that the higher portion of the island was covered with willows, and a small part at the lower end was under cultivation. Furthermore, it is significant that, at the north end of the island, just opposite the mouth of Mill Creek Ditch, the water in the Missouri channel was comparatively shallow.

Exhibit 46 furnishes the most reliable evidence in the record of conditions in Forbes Bend at a given time. If only this exhibit and the facts it discloses were considered, clearly it could not be ruled that the main navigable channel of the river was the Missouri channel. For purposes of navigation, the Kansas channel was much the shorter and more direct and, from the soundings as well as the shorter flow, it apparently carried at least an equal volume of water.

Exhibit 47, which is described as a revision from airplane photographs shows in general a somewhat similar though less detailed picture for 1926. However, two witnesses for Kansas, Kenneth Robinson and Joseph H. Gray, who hunted in the region from 1920 to 1927 or 1928, testified concerning this exhibit and marked on it in penciled lines their recollections of the channels, respective courses in 1922. Their testimony gives perhaps the strongest support to Kansas' case that the main channel,

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during a portion of the disputed period, was on the Missouri side. But, apart from its inconsistency as to the location and direction of the Kansas chute, [Footnote 30] it does not accord with the more reliable evidence given concerning conditions in the Bend at the same time by complainant's Exhibit 46, and it is contradicted by numerous witnesses for Missouri, as well as by some for Kansas, in allocating a larger flow to the Missouri channel. It cannot, therefore, be accepted as controlling.

III

The evidence need not be stated in further detail. In our opinion, it fully supports the master's ultimate findings and conclusions. It was his view, first, that there was no avulsive change, whether in 1917, 1927, or at any time. He found there was some evidence of an ice jam in 1917, and more to substantiate such a claim for 1927. But he also found, and the evidence, though not undisputed, fully substantiates his conclusion, that neither of these jams was sufficient to cause a sudden change in the river's course.

There is very considerable doubt on the record as a whole whether the alleged jam in 1917 occurred at all.

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In any event, the preponderant evidence is that it amounted to little, if anything, more than the normal piling of ice on the heads of bars and islands during the spring breakup. [Footnote 31] There is evidence that this occurred each year. The proof, therefore, to sustain avulsion in 1917 is not sufficient, and this phase of the case may be put aside.

We agree with the master that the evidence to show a more unusual piling up of ice at the head of the island in 1927 is somewhat stronger. [Footnote 32] But we also agree with him that the evidence as a whole is clearly preponderating that this did not cause an avulsive change. As has been stated, there is some evidence that the alleged 1927 jam caused the main channel of the river to shift then, and suddenly, from the Missouri channel to the Kansas channel as the latter flowed from 1927 or 1928 until the government's revetment work on the river forced the channel to its present location after 1935. But this is not enough to sustain Kansas' case.

Both by virtue of her position as complainant and on the facts, Kansas has the burden of proof in this case. *Cf. Oklahoma v. Texas,* 260 U. S. 606 . The disputed location was in Missouri in 1900. It lies on the Missouri side now, and has done so, by practically all the evidence, since at least 1927 or 1928. These facts put upon Kansas the burden of showing that, in the meantime, the land lay on the Kansas side of the main channel by virtue of natural changes which were effective to change the jurisdiction. Kansas has shown beyond doubt that one branch of the river eroded to a point or points north and east of this land, probably as early as 1920, possibly earlier. But beyond this fact, whether on her theory of accretion and avulsion or on that of island formation, the weight of the evidence is against her view of what occurred.

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Kansas' main difficulty, perhaps, is that, by attempting to prove one theory of what happened in Forbes Bend, she divides the weight of her evidence, and thus goes far to disprove her other theory. To show accretion and avulsion, she was required to prove that the river's main channel moved gradually from the Kansas bluffs in 1900 to the farthest erosion point in Missouri in 1927, and then suddenly shifted back to a new channel cut then through the middle of the accreted soil, leaving the old one from that time on a minor or dry one. To show sovereignty by island formation, it was necessary to prove that the island formed on the Kansas side of the main channel, in which event a subsequent shift in the main flow to the other side of the island would not affect her jurisdiction, [Footnote 33] although Missouri's alternative contention seems to be to the contrary. [Footnote 34] By proving the formation of the island, Kansas in effect disproves that the disputed area became accreted soil attached firmly to the Kansas bank. Her own evidence in this respect, added to that given by Missouri, far outweighs the evidence she presented to show accretion beyond where the present channel lies, and creates an overwhelming preponderance that the flow was divided from 1912, or, at any rate, 1917 to 1927 or 1928; that the island formed in this period, and thus that the soil in question was not at any time attached firmly to the Kansas bank by accretion. If it was formed as island soil, it was not accreted soil.

Kansas' evidence concerning the division of flow and formation of the island, together with that concerning

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the drying up of the Missouri channel, also proves not that the river suddenly cut a new channel through accreted soil in 1927, but that it merely shifted the volume of flow from one channel to another preexisting one. In other words, it goes to disprove both accretion and avulsion. Missouri and Kansas witnesses are agreed that the main flow was in the Kansas channel from 1927 on. and there is substantial agreement that, by 1933 or 1935, the Missouri channel had dried up, except for the flow of Mill Creek Ditch, and largely had filled up by deposits from that stream and other forces. Missouri witnesses say this drying up began before 1927, some as early as 1922 or 1923, and therefore continued for ten or twelve

years. Kansas witnesses generally say it began in 1927, and continued for from three to seven or eight years. Only a few of them say the ice jam that year cut a new channel. More testify that the main flow then shifted from one channel to the other, and some join the witnesses for Missouri in saying that this shift began earlier. Except for the few witnesses who testify to the sudden cutting of a new channel, the great weight of the testimony is that whatever change occurred in reduction of the flow in the Missouri channel required several years to complete. It was a gradual process, and therefore not the sudden shift necessary to show avulsion. We need not decide what the effect would be if the evidence had shown this was a gradual cutting of a new channel. It was, at most, a gradual shifting from one to another. Kansas clearly has failed to prove that there was a single channel of the river which gradually moved over to the farthest erosion point, meanwhile accreting this land to her soil, then suddenly moved back, either in 1917 or in 1927, to a new channel cut through the accreted soil. Only by accepting the evidence given by the few witnesses who supported this theory, which was contradicted both by the weight of her own evidence concerning island formation

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and by substantially all that was offered for Missouri, could a finding in Kansas' favor be made under the theory of accretion and avulsion.

Kansas' stronger case upon the proof is on the theory of island formation. On this, as under that of accretion and avulsion, it was necessary for her to show that the Missouri channel was the river's main channel, and thus the island, which is now part of the disputed land, was formed on her side of the river's thread. On this crucial issue, Kansas' case is stronger, perhaps, than in any other respect. She presented substantial evidence to show that, while the river was divided or during some part of that period, more especially from 1921 or 1922 to 1927, the Missouri channel was the main one, both in volume of water carried and, less clearly, in availability for navigation. There is, however at least an equal weight of evidence, given both by Missouri witnesses and by some for Kansas, that the Kansas channel remained the main navigable channel throughout the period of division.

The evidence on this controlling issue unfortunately is not as free from conflict or doubt as we might wish. But it cannot be said, when account is taken of all the evidence, both oral and documentary, that a preponderance sustains Kansas' view that the main channel ever changed to the Missouri side. Kansas' burden required preponderant proof. She has not made it.

As the case has been made, both the master and this Court have had to rely upon the inadequate and inconclusive documentary evidence and the conflicting and often vague recollections of neighborhood witnesses. The sum does not add up to the weight of proof Kansas was required to establish in order to prevail. The master saw and heard the witnesses. His conclusions in all respects were in favor of Missouri. We find no basis in the record for any conclusion that he performed his task with other than fair, disinterested, painstaking effort and attitude.

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His judgment accords with the conclusions we make from our own independent examination of the record. It is not necessary for us to decide more than that Kansas has failed to show that the main channel of the river shifted at any time in question from a course such as the river now follows, or one slightly closer to the Kansas bluffs, to one following the course of the Missouri channel when the flow was divided.

It follows the land in dispute must be awarded to Missouri, and the boundary will be fixed as the master has recommended in his report. A decree will be entered accordingly. [*See post,* p. 322 U. S. 654 .]

[Footnote 1]

Cf. Missouri v. Kansas, 213 U. S. 78 ; *Missouri v. Nebraska,* 196 U. S. 23 .

[Footnote 2]

Act of Admission of Kansas, Jan. 29, 1861, 12 Stat. 126; Kansas Constitution of 1859, Charters and Constitutions of the United States, Part I, pp. 629, 630.

[Footnote 3]

The complaint alleged disputes over the line at points along the river between War Department Survey Stations 399 and 405 at other points in Atchison County, Kansas, and at points along the river between War Department Survey Stations 510 and 515 (Forbes Bend).

[Footnote 4]

Attempts at settlement by negotiation had been authorized by Kansas before this proceeding was begun (Laws of Kansas 1939, c. 355). Apparently they were unavailing, and this suit was instituted. After it was begun, however, the parties agreed to a settlement with respect to all areas but this one, and incorporated it in this record. It will be made part of the decree.

[Footnote 5]

Jefferis v. Garrison East Omaha Land Co., 134 U. S. 178 ; *St. Clair County v. Lovingston,* 23 Wall. 46; *Nebraska v. Iowa,* 143 U. S. 359 .

[Footnote 6]

Nebraska v. Iowa, 143 U. S. 359 ; *Missouri v. Nebraska,* 196 U. S. 23 ; *Oklahoma v. Texas,* 260 U. S. 606 .

[Footnote 7]

Since Kansas claims avulsive change both in 1917 and in 1927, and that the accretion began about 1900 or shortly thereafter, her claim necessarily implies that the period of accretion extended either from 1900 to 1917 or from 1900 to 1927.

[Footnote 8]

At that time, according to this claim, the main channel of the river flowed through the so-called Missouri channel to the north and east, but was suddenly changed by the ice jam back from that channel into a chute on the Kansas side. This chute previously had cut across the allegedly accreted land a little to the west of where

the present channel now lies. The complaint alleges that the ice jam occurred "on or about February 1918." The scanty testimony in the record, if completely accepted, would establish the ice jam in 1917, rather than in 1918; *cf.* note 24 *infra.*

[Footnote 9]

The complaint alleges that the ice jam occurred "during the year 1927." The witnesses who testify to the jam at this time date it variously in 1927, 1928, and 1929; *cf.* note 25 *infra.*

[Footnote 10]

C. McWilliams (1892); P. Dyer (1898); C. Hudgins (1900); J. H. Simpson (1904); J. E. Simpson (1905).

[Footnote 11]

Cf. testimony of L. F. Stalcup.

[Footnote 12]

Witnesses vary as to the exact time from 1910-11 to 1916 (J. H. Peret: 1910-12; Mrs. S. Jenkins: 1910-12; R. E. Simpson: 1913; C. McWilliams: 1912-13; C. Harper: 1915; C. Hudgins: 1915; B. Hudgins: 1916; E. McCoy: 1915). But most of them put this event in 1912 or later, and the most reliable testimony, by those who moved the building. (C. Hudgins and B. Hudgins), places it in 1915 or 1916.

[Footnote 13]

C. McWilliams (1924-25); E. McCoy (1922); A. H. Murray (1922-23); Ralph Dyer (1923-24); W. Metcalf (1917); *cf.* E. A. Cole (1923, 1928).

[Footnote 14]

Varying dates are given for the time at which a divided flow was first noted.

Kansas witnesses: I. Muse: 1900; L. F. Stalcup: 1910-1911; J. E. Simpson: 1912-13, 1917; O. McKay: 1917; R. E. Simpson: 1918; C. Baskins: 1917; C. W. Ryan: 1917 or 1919; J. McKay: 1920.

Missouri witnesses: D. Barbour: 1903; B. Hudgins: 1914; C. Harrison: 1914; Ralph Dyer: 1913-14; C. Harper: 1915; A. H. Murray: 1915; H. H. Hall: 1916; W. Metcalf: 1916; J. Fitzgerald: 1917; Raymond Dyer: 1917-1918.

[Footnote 15]

See note 14 *supra.* A few Kansas witnesses maintain there was only one channel through this period.

[Footnote 16]

See note 14 *supra.* Kansas' witnesses testified variously that there always had been a channel on the Kansas side, that it was swifter than the Missouri channel (J. H. Simpson), that the Kansas channel was the "main river" (Mrs. J. Coufal), that the Kansas channel was much the larger in 1918 (R. E. Simpson), that most of the water was on the Kansas side in 1920 (P. Bottiger); *cf.* C. B. Caton, that the river was just about evenly divided in 1917 (C. Baskins). Missouri witnesses said that there was always a substantial flow in the Kansas channel, and that it was about as large or larger than the Missouri channel (*e.g.,* Ralph Dyer, B. Hudgins, c. Dinwiddie, J. Fitzgerald, C. Harper, Raymond Dyer). They placed boats in the Kansas, rather than the Missouri, channel (E. McCoy); in 1918 (W. L. Moore); 1916 to 1929 (H. H. Hall), and in 1927 (C. Hudgins).

[Footnote 17]

See note 16 *supra.*

[Footnote 18]

W. Metcalf:1917; W. L. Moore: 1918; C. Dinwiddie: 1920-22; C. Harrison: 1921; J. Fitzgerald: 1923-1925; *cf.* P. Bottiger:1920.

[Footnote 19]

J. Fitzgerald, E. Wales, J. H. Peret (Kansas witness); *cf.* E. McCoy C. Harper.

[Footnote 20]

E.g., J. H. Gray: 1928 *et seq.;* A. F. Hays: 1926 *et seq.;* J. B. Gray: 1927-30; G. Atkinson: 1929-after 1934; J. H. Peret: 1929-33; C. Coufal: 1929-33; C. W. Ryan: 1928-31; some Kansas witnesses claim the drying up of the Missouri channel was a sudden concomitant of an ice jam in 1929, but add that the Missouri channel contained water until 1933 or 1934 (*e.g.,* C. Coufal, E. A. Cole), or 1935 or 1936, when it dried up as a result of government diking and revetment work upstream (*e.g.,* J. Coufal).

[Footnote 21]

See note 14 *supra.*

[Footnote 22]

E.g., A. F. Hays, C. Coufal, K. Brownlee, K. Robinson.

[Footnote 23]

E. A. Cole, J. Coufal. Cole is a Kansas claimant to ownership of part of the disputed land. Coufal once worked for him.

[Footnote 24]

C. Baskins: 1917; J. E. Simpson: 1917; P. Dyer: 1917; C. Dyer.

[Footnote 25]

E. A. Cole: 1929; C. Coufal: 1929; J. Coufal: 1929; Mrs. J. Coufal: 1929; E. L. Rockwell: 1927; I. Overstreet: 1927; H. W. Linville: 1927; P. Dyer: 1927 or 1928. Mrs. Coufal, however, testified the "main river" was on the Kansas side of the island at that time. In this respect, her testimony flatly contradicts that of her

husband and Cole.

[Footnote 26]

D. Baskins, J. Kotsch, R. E. Simpson, J. H. Simpson, W. Prusman, G. Atkinson.

[Footnote 27]

I. Muse, L. F. Stalcup; *cf.* A. P. Staver.

[Footnote 28]

C. Hudgins v. Harrison, C. Dinwiddie, R. L. Greene, W. Metcalf, E. Wales; *cf.* E. McCoy, H. H. Hall, D. Barbour.

[Footnote 29]

Cf. note 20 *supra;* J. Kotsch, W. Prusman, C. McWilliams.

[Footnote 30]

They agreed that the Missouri channel flowed around the island not far from the Burlington tracks, turning south at that point and flowing against the Kansas bluffs at Station 510. They also agreed that the Kansas channel was a chute. But they differed concerning its direction and location. Robinson placed it as running almost due south across the center of the island in a straight course. Gray placed the Kansas chute more to the west, and with a curving course. Both testified that the Missouri channel was the main channel at that time. The inconsistency between Exhibit 46 and the testimony and drawings of Robinson and Gray may be accounted for in part, though not altogether, by the fact they were in the Bend for hunting and fishing purposes, chiefly in the fall, whereas Exhibit 46 was made from surveys in June and July. The difference in time, however, is hardly enough to account for the difference either in width or depth of the Kansas channel as shown by the exhibit and by their testimony.

[Footnote 31]

Cf. notes 27-29 *supra.*

[Footnote 32]

Cf. note 25 *supra.*

[Footnote 33]

Missouri v. Kentucky, 11 Wall. 395; *Davis v. Anderson-Tully Co.,* 252 F. 681; *Commissioners v. United States,* 270 F. 110.

[Footnote 34]

Missouri apparently urges that, even if the land formed as an island on the Kansas side, the process by which the main channel shifted from the eastern to the western channel and the former gradually filled with alluvial deposits, thus connecting the island to the Missouri shore, entitles it to sovereignty over the disputed lands.