

1

00:00:00,000 --> 00:00:05,640

The important thing is the Star Map that Betty saw.

2

00:00:05,640 --> 00:00:09,680

I strongly recommend the book or the television movie which gets shown every once in a while,

3

00:00:09,680 --> 00:00:13,560

the UFO incident, James Earl Jones, Estelle Parsons.

4

00:00:13,560 --> 00:00:17,840

I was technical advisor on the film referred to Universal by the Air Force, which I don't

5

00:00:17,840 --> 00:00:23,720

understand at all, but it happened on Bled.

6

00:00:23,720 --> 00:00:27,000

Betty saw a Star Map that looked like this.

7

00:00:27,000 --> 00:00:34,360

Supposedly heavy trade routes, light trade routes, occasional excursions is the word

8

00:00:34,360 --> 00:00:37,240

I'm looking for.

9

00:00:37,240 --> 00:00:39,120

She asked the alien where you are on the map.

10

00:00:39,120 --> 00:00:41,240

Wise Guy says, you know where you are?

11

00:00:41,240 --> 00:00:42,240

No.

12

00:00:42,240 --> 00:00:44,240

How can I tell you where I'm from if you don't know where you're at?

13

00:00:44,240 --> 00:00:46,240

End of discussion.

14

00:00:46,240 --> 00:00:49,560

Dr. Simon has her go over it again.

15

00:00:49,560 --> 00:00:51,200

She draws it.

16

00:00:51,200 --> 00:00:52,200

This is what came out.

17

00:00:52,200 --> 00:00:53,200

It's in the book.

18

00:00:53,200 --> 00:00:54,840

Probably we'll never know what it means.

19

00:00:54,840 --> 00:00:57,800

Obviously, there's no reference point.

20

00:00:57,800 --> 00:01:00,800

There's a couple hundred billion stars in the galaxy.

21

00:01:00,800 --> 00:01:01,800

Obviously they're not there.

22

00:01:01,800 --> 00:01:03,760

There are a thousand stars in the local neighborhood.

23

00:01:03,760 --> 00:01:05,400

Obviously they're not there.

24

00:01:05,400 --> 00:01:07,640

Hopeless, it seemed.

25

00:01:07,640 --> 00:01:13,760

Until a brilliant woman named Marjorie Fish did something nobody else had ever done.

26

00:01:13,760 --> 00:01:19,280

She built a total, I think now it's up to 26, three-dimensional models of our local galactic

27

00:01:19,280 --> 00:01:20,280

neighborhood.

28

00:01:20,840 --> 00:01:23,400

Here's one of her best ones from Ohio State University.

29

00:01:23,400 --> 00:01:25,520

Use it as a teaching tool.

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00:01:25,520 --> 00:01:30,560

Every one of those beads stands for a particular star and it's proper three-dimensional location.

31

00:01:30,560 --> 00:01:37,160

Now, the hard part here, we know the angles to look at for a star from here, but we don't

32

00:01:37,160 --> 00:01:40,280

know the distances very well because the astronomers aren't going anywhere.

33

00:01:40,280 --> 00:01:43,120

What difference does it make how far or how near the stars are?

34

00:01:43,120 --> 00:01:45,360

She thought she'd get a lot of matches.

35

00:01:45,360 --> 00:01:46,920

The idea was to look at it from all different directions.

36

00:01:46,960 --> 00:01:50,280

She found a three-dimensional pattern that matched the two-dimensional one that Betty

37

00:01:50,280 --> 00:01:51,280

had drawn.

38

00:01:51,280 --> 00:01:52,280

Didn't get a match.

39

00:01:52,280 --> 00:01:57,880

Then a new catalog came out with the best distance data ever published, the Gleasy 1968

40

00:01:57,880 --> 00:01:58,880

catalog.

41

00:01:58,880 --> 00:01:59,880

Rebuilt the model.

42

00:01:59,880 --> 00:02:00,880

There was the pattern.

43

00:02:00,880 --> 00:02:02,680

Angle for angle, line length for line length.

44

00:02:02,680 --> 00:02:05,120

It was a great day for Marjorie.

45

00:02:05,120 --> 00:02:08,360

This is the sun.

46

00:02:08,360 --> 00:02:10,440

Several special things.

47

00:02:10,440 --> 00:02:13,720

All the pattern stars are the right kind for planets in life.

48

00:02:14,680 --> 00:02:20,000

Remember, only 46 out of 1,000 qualify and yet not only are all the pattern stars the

49

00:02:20,000 --> 00:02:24,840

right kind for planets in life, but all the right kind for planets in life in this well-defined

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00:02:24,840 --> 00:02:29,800

three-dimensional volume of space are part of the pattern.

51

00:02:29,800 --> 00:02:30,800

Coming and going.

52

00:02:30,800 --> 00:02:31,800

You've got it both ways.

53

00:02:31,800 --> 00:02:33,480

All the right kind and only the right kind.

54

00:02:33,480 --> 00:02:36,200

The chance of that being a coincidence.

55

00:02:36,200 --> 00:02:40,600

You grab a dozen stars and they just happen to be all the right kind and only the right

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00:02:40,600 --> 00:02:41,600

kind.

57

00:02:41,600 --> 00:02:43,080

One in 10,000.

58

00:02:43,080 --> 00:02:45,880

It is not a coincidence.

59

00:02:45,880 --> 00:02:50,200

Turns out incidentally that all the pattern stars are in a plane, like thin slices of

60

00:02:50,200 --> 00:02:55,360

pepperoni on a very thin pepperoni pizza, not like raisins in a big fat loaf or raisin

61

00:02:55,360 --> 00:02:56,360

bread.

62

00:02:56,360 --> 00:02:59,040

It has never been discovered before.

63

00:02:59,040 --> 00:03:03,200

It's very helpful when you're traveling to stay in the plane instead of having to go

64

00:03:03,200 --> 00:03:06,640

out of the plane and take much more energy.

65

00:03:06,640 --> 00:03:11,480

Nobody doing what Marjorie did back when the experience happened in 61, but the book came

66

00:03:11,480 --> 00:03:13,400

out The Interrupted Journey in 66.

67

00:03:13,400 --> 00:03:17,000

Could have identified the stars properly because the correct distance data wasn't available

68

00:03:17,000 --> 00:03:19,560

until after 1968.

69

00:03:19,560 --> 00:03:24,680

The only source of the correct information, in other words, at the time this event took

70

00:03:24,680 --> 00:03:28,400

place was somebody who'd been away from our solar system.

71

00:03:28,400 --> 00:03:31,800

And none of us had been, so it must be alien.

72

00:03:31,800 --> 00:03:38,080

If you want to know the names of the neighboring stars and get a scale, here's the sun.

73

00:03:38,080 --> 00:03:42,800

These distances are in light years, 27 light years, 26 light years.

74

00:03:42,800 --> 00:03:45,880

Near a star to the sun is 4.5 light years away.

75

00:03:45,880 --> 00:03:50,760

Near a star we expect to have planets in life, to a steady 11 light years away.

76

00:03:50,760 --> 00:03:55,680

36.6 light years, call it 37, will be generous.

77

00:03:55,680 --> 00:04:03,960

The base stars, the heavy trade routes between them, Z1 and Z2, in particular, to which the

78

00:04:03,960 --> 00:04:07,680

normal responses, who cares, never heard of those two dumb sounding stars.

79

00:04:07,680 --> 00:04:08,680

Of course you haven't heard of them.

80

00:04:08,680 --> 00:04:09,680

You can't see them from here.

81

00:04:09,680 --> 00:04:12,680

You've got to go below the equator.

82

00:04:12,680 --> 00:04:14,160

Anything special?

83

00:04:14,160 --> 00:04:17,360

Well, yes, as it happens.

84

00:04:17,360 --> 00:04:18,360

They're unique.

85

00:04:18,360 --> 00:04:23,800

They're the closest to each other, a pair of sun-like stars in our entire local neighborhood.

86

00:04:23,800 --> 00:04:28,440

A hundred times closer to each other than the sun is to the next star over.

87

00:04:28,440 --> 00:04:31,840

They're lousy three light weeks apart.

88

00:04:31,840 --> 00:04:35,920

It's a weekend trip at the right speed.

89

00:04:35,920 --> 00:04:41,160

Now we're so far out in the boondocks we don't see the smoke from the next guy's chimney.

90

00:04:41,160 --> 00:04:43,160

These guys got next door neighbors.

91

00:04:43,160 --> 00:04:46,840

It wouldn't be surprising if they got started on their interstellar travel kick a little

92

00:04:46,840 --> 00:04:49,480

bit before we did.

93

00:04:49,480 --> 00:04:52,240

You can see the other star all day long.

94

00:04:52,240 --> 00:04:55,320

You can directly observe planets around the other star.

95

00:04:55,320 --> 00:05:02,760

And in addition, those two stars are only a billion years older than the sun, something

96

00:05:02,760 --> 00:05:06,920

we wouldn't have known except for Marjorie Fish's work.

97

00:05:06,920 --> 00:05:12,880

I did the first article on this work in 1972 in Saga Magazine, convinced Terry Dickinson

98

00:05:12,880 --> 00:05:17,760

of Astronomy Magazine, then the editor to do an article.

99

00:05:17,760 --> 00:05:20,920

Terry is Canada's finest astronomy writer.

100

00:05:20,920 --> 00:05:23,840

He's even a member of the Order of Canada.

101

00:05:23,840 --> 00:05:27,760

He did the article that got more response than anything they've ever published before

102

00:05:27,760 --> 00:05:29,840

or since.

103

00:05:29,840 --> 00:05:35,080

They published over the next year in the early 70s nine more letters.

104

00:05:35,080 --> 00:05:41,280

Then they put out this 32 page full color booklet and immediately sold 10,000 copies,

105

00:05:41,280 --> 00:05:42,800

unheard of for this kind of thing.