

1

00:00:00,000 --> 00:00:12,000

We could be 100,000 years ago, it feels primordial.

2

00:00:12,000 --> 00:00:14,000

Yaa-ha!

3

00:00:19,000 --> 00:00:22,000

This is the Rosetta Stone of human evolution.

4

00:00:27,000 --> 00:00:29,000

You can identify a relative of mine?

5

00:00:29,000 --> 00:00:33,000

These are ancestors who many folks might not even call human.

6

00:00:37,000 --> 00:00:39,000

Unbelievable.

7

00:00:47,000 --> 00:00:48,000

Almost there!

8

00:00:59,000 --> 00:01:01,000

My God.

9

00:01:12,000 --> 00:01:16,000

In my travels, I've investigated the world's greatest mysteries,

10

00:01:16,000 --> 00:01:19,000

from buried treasures to vanished empires.

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00:01:19,000 --> 00:01:23,000

But tonight, I'm tackling the biggest mystery of all.

12

00:01:23,000 --> 00:01:24,000

You.

13

00:01:24,000 --> 00:01:25,000

Me.

14

00:01:25,000 --> 00:01:28,000

All of us who call ourselves human.

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00:01:28,000 --> 00:01:32,000

Up until very recently, everything we knew about our earliest ancestors

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00:01:32,000 --> 00:01:36,000

came from a handful of fossils and a lot of guesswork.

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00:01:39,000 --> 00:01:44,000

But now, science is uncovering the missing pieces of our evolutionary puzzle.

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00:01:44,000 --> 00:01:48,000

And new discoveries are exposing shocking facts about our past

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00:01:48,000 --> 00:01:50,000

that impact all of us today.

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00:01:51,000 --> 00:01:53,000

Would you like to be smarter?

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00:01:53,000 --> 00:01:58,000

In South Africa, an archaeologist is revealing how we got the brains we have today

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00:01:58,000 --> 00:02:00,000

and how to make them even better.

23

00:02:00,000 --> 00:02:04,000

Having trouble quitting smoking, worried about diseases.

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00:02:04,000 --> 00:02:08,000

The answers to your future health may be found hiding in your DNA,

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00:02:08,000 --> 00:02:14,000

in ancient genes from species that went extinct 40,000 years ago.

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00:02:15,000 --> 00:02:19,000

And an archaeological site on the Indian Ocean could hold the key

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00:02:19,000 --> 00:02:22,000

to why our species survived to colonize the world.

28

00:02:22,000 --> 00:02:26,000

And also offers us a dire warning for what lies ahead.

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00:02:27,000 --> 00:02:31,000

Humanity's origin story is the first chapter of your biography.

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00:02:31,000 --> 00:02:34,000

And it's being rewritten at this very moment.

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00:02:34,000 --> 00:02:40,000

Join me on an epic global quest to meet our ancient relatives face to face

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00:02:40,000 --> 00:02:43,000

and learn their long forgotten secrets.

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00:02:43,000 --> 00:02:46,000

Secrets that might just save our future.

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00:02:53,000 --> 00:02:55,000

My name is Josh Gates.

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00:02:57,000 --> 00:02:58,000

Explorer.

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00:02:58,000 --> 00:02:59,000

Adventurer.

37

00:03:01,000 --> 00:03:04,000

And a guy who ends up in some very strange situations.

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00:03:06,000 --> 00:03:07,000

That was exciting.

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00:03:07,000 --> 00:03:11,000

With a degree in archaeology and a passion for the unexplained,

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00:03:11,000 --> 00:03:13,000

I traveled to the ends of the earth,

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00:03:13,000 --> 00:03:16,000

investigating the greatest legends in history.

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00:03:16,000 --> 00:03:17,000

Okay, let's punch it.

43

00:03:18,000 --> 00:03:20,000

This is Expedition Unknown.

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00:03:23,000 --> 00:03:29,000

My journey to understand our mysterious origins begins in the exotic wilderness of...

45

00:03:29,000 --> 00:03:30,000

Wisconsin?

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00:03:35,000 --> 00:03:37,000

Specifically the University of Wisconsin,

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00:03:37,000 --> 00:03:41,000

where I'm meeting distinguished anthropologist, Dr. John Hawks.

48

00:03:43,000 --> 00:03:44,000

Hiya.

49

00:03:44,000 --> 00:03:45,000

Hey.

50

00:03:45,000 --> 00:03:46,000

How are you?

51

00:03:46,000 --> 00:03:47,000

I'm John.

52

00:03:47,000 --> 00:03:48,000

Nice to meet you.

53

00:03:48,000 --> 00:03:49,000

Nice to meet you as well.

54

00:03:49,000 --> 00:03:50,000

Pleasure.

55

00:03:50,000 --> 00:03:52,000

So, thanks for taking the time. I appreciate it.

56

00:03:52,000 --> 00:03:53,000

Absolutely.

57

00:03:53,000 --> 00:03:55,000

You are an anthropologist?

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00:03:55,000 --> 00:03:56,000

That's right.

59

00:03:56,000 --> 00:03:57,000

Or serial killer?

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00:03:57,000 --> 00:03:59,000

Well, one of the two.

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00:03:59,000 --> 00:04:00,000

Why not both?

62

00:04:00,000 --> 00:04:01,000

Exactly.

63

00:04:01,000 --> 00:04:08,000

And so I was hoping that you could walk me through the entire history of human evolution in about two minutes.

64

00:04:08,000 --> 00:04:10,000

Yeah, well, I'll do my best.

65

00:04:12,000 --> 00:04:15,000

So definition of evolution is biological change over time.

66

00:04:15,000 --> 00:04:16,000

That's it.

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00:04:16,000 --> 00:04:18,000

Species change over time.

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00:04:18,000 --> 00:04:19,000

That's right.

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00:04:19,000 --> 00:04:21,000

Okay, so let's dispel a couple of myths.

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00:04:21,000 --> 00:04:23,000

We did not evolve from monkeys.

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00:04:23,000 --> 00:04:24,000

That's absolutely right.

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00:04:24,000 --> 00:04:25,000

Right?

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00:04:25,000 --> 00:04:28,000

The monkeys that are in the world today have their own evolutionary histories.

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00:04:28,000 --> 00:04:31,000

We share ancestors in common with them,

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00:04:31,000 --> 00:04:34,000

but those ancestors were different from either of us.

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00:04:34,000 --> 00:04:37,000

So we have our monkeys, we have our apes, we have us,

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00:04:37,000 --> 00:04:41,000

and then somewhere back in history, we have a relative.

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00:04:41,000 --> 00:04:42,000

That's right.

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00:04:42,000 --> 00:04:46,000

When does the human line start heading this way and apes and monkeys head this way?

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00:04:46,000 --> 00:04:48,000

Around 7 million years ago.

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00:04:48,000 --> 00:04:51,000

People think of it like that diagram that we've all seen.

82

00:04:51,000 --> 00:04:53,000

That's exactly the march of progress.

83

00:04:53,000 --> 00:04:58,000

You start sort of stooped down and then you get a little bigger and a little higher,

84

00:04:58,000 --> 00:05:00,000

and finally you're fully modern human.

85

00:05:00,000 --> 00:05:01,000

Right.

86

00:05:01,000 --> 00:05:02,000

It doesn't work that way at all.

87

00:05:02,000 --> 00:05:04,000

We're not a chain of progress.

88

00:05:04,000 --> 00:05:07,000

We are this crazy, diverse tree.

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00:05:07,000 --> 00:05:13,000

So it turns out the march of progress and just about everything else they taught you in school is wrong.

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00:05:14,000 --> 00:05:19,000

Up until about 20 years ago, the human family tree looked something like this.

91

00:05:19,000 --> 00:05:22,000

Our first human ancestors split off from other primates,

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00:05:22,000 --> 00:05:25,000

and pretty soon start walking on two legs.

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00:05:25,000 --> 00:05:30,000

A few million years later, they make stone tools and figure out fire.

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00:05:30,000 --> 00:05:34,000

Our brains grow until, boom, homo sapiens,

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00:05:34,000 --> 00:05:37,000

aka modern humans like you and me.

96

00:05:37,000 --> 00:05:40,000

It's nice and tidy, but there's a problem.

97

00:05:40,000 --> 00:05:45,000

Scientists keep discovering new relatives, and the story of our evolution?

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00:05:45,000 --> 00:05:47,000

Well, it keeps evolving.

99

00:05:47,000 --> 00:05:51,000

Arranged in front of us is the current portrait of our growing family,

100

00:05:51,000 --> 00:05:54,000

and John introduces me to the granddaddy of us all,

101

00:05:54,000 --> 00:05:58,000

our very first human ancestor, discovered in 2001.

102

00:05:58,000 --> 00:06:01,000

Without him, there wouldn't be a you.

103

00:06:01,000 --> 00:06:03,000

This is Sahelanthropus Chadensis.

104

00:06:03,000 --> 00:06:06,000

Sahelanthropus Chadensis.

105

00:06:06,000 --> 00:06:07,000

It doesn't need to be this hard.

106

00:06:07,000 --> 00:06:08,000

This is Chad.

107

00:06:08,000 --> 00:06:09,000

Yes.

108

00:06:09,000 --> 00:06:10,000

It's appropriate.

109

00:06:10,000 --> 00:06:11,000

It's from Chad.

110

00:06:11,000 --> 00:06:12,000

Perfect.

111

00:06:12,000 --> 00:06:13,000

This is Chad.

112

00:06:13,000 --> 00:06:14,000

Yes.

113

00:06:14,000 --> 00:06:15,000

So we start with the Chads.

114

00:06:15,000 --> 00:06:16,000

Yes.

115

00:06:16,000 --> 00:06:19,000

The Chads are really very different from us and more similar to apes,

116

00:06:19,000 --> 00:06:23,000

and most of their skeleton, and they all live in Africa.

117

00:06:23,000 --> 00:06:26,000

Our early branches of our tree, all African branches.

118

00:06:26,000 --> 00:06:27,000

Got it.

119

00:06:28,000 --> 00:06:30,000

So, back to our family tree.

120

00:06:30,000 --> 00:06:35,000

Grandpa Chad goes here on the bottom about 7.2 million years ago.

121

00:06:35,000 --> 00:06:38,000

Chad has some relatives, so these guys get their own branch.

122

00:06:38,000 --> 00:06:43,000

In fact, most of them actually hung out on branches because we weren't walking fully upright yet.

123

00:06:43,000 --> 00:06:47,000

Those first steps were taken by these guys called Australopiths.

124

00:06:47,000 --> 00:06:52,000

Except now, we found more of them as well as their bigger cousins, Heranthropus.

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00:06:53,000 --> 00:06:56,000

Next comes our group known as Homo.

126

00:06:56,000 --> 00:07:01,000

The big players here are Homo habilis, Homo erectus, and Neanderthals.

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00:07:01,000 --> 00:07:04,000

About 2 million years ago, we begin migrating out of Africa,

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00:07:04,000 --> 00:07:08,000

where paleoanthropologists keep finding more lost relatives,

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00:07:08,000 --> 00:07:13,000

like 3-foot-tall Hobbit humans in Indonesia and Denisovans in Siberia.

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00:07:13,000 --> 00:07:17,000

And perched at the very top of our growing family tree are Homo sapiens,

131

00:07:17,000 --> 00:07:20,000

aka Modern Man.

132

00:07:20,000 --> 00:07:24,000

But in 2010, DNA evidence revealed that in the not too distant past,

133

00:07:24,000 --> 00:07:29,000

Homo sapiens were interbreeding with Denisovans, Neanderthals,

134

00:07:29,000 --> 00:07:31,000

and even yet to be named species,

135

00:07:31,000 --> 00:07:34,000

making our tree more of a tangle of vines.

136

00:07:34,000 --> 00:07:39,000

Despite all the intermingling, by about 25,000 years ago,

137

00:07:39,000 --> 00:07:42,000

every single other species had died off.

138

00:07:42,000 --> 00:07:49,000

And our messy family was pruned down to just one branch, Homo sapiens, the last man standing.

139

00:07:49,000 --> 00:07:54,000

Just a really complicated, intricate picture that we're getting.

140

00:07:54,000 --> 00:07:57,000

Some people might look at this table and say,

141

00:07:57,000 --> 00:08:03,000

Bunch of bones. Why is it important that we understand this story?

142

00:08:03,000 --> 00:08:05,000

I think there's two big reasons.

143

00:08:05,000 --> 00:08:10,000

When we look at humans in the world today, we all have genes from these ancient people.

144

00:08:10,000 --> 00:08:16,000

And those genes are affecting your personality, they're affecting your health,

145

00:08:16,000 --> 00:08:20,000

they're affecting your biology in ways that matter to you.

146

00:08:20,000 --> 00:08:23,000

We tend to think about inheritance in this really short time scale.

147

00:08:23,000 --> 00:08:25,000

It's our parents, it's our grandparents.

148

00:08:25,000 --> 00:08:28,000

But we're inheriting genetic material from all of our relatives.

149

00:08:28,000 --> 00:08:31,000

That's right. You have to understand the world that we're making now,

150

00:08:31,000 --> 00:08:34,000

with smartphones and technology, etc., is not the world we're adapted to.

151

00:08:34,000 --> 00:08:37,000

We're adapted to the world that our ancestors lived in.

152

00:08:37,000 --> 00:08:38,000

Right.

153

00:08:38,000 --> 00:08:43,000

And we keep changing things, but our genes are trying to live in the past.

154

00:08:43,000 --> 00:08:45,000

And that makes a difference to us.

155

00:08:45,000 --> 00:08:49,000

Wow. So if I want to understand me, I've got to understand them.

156

00:08:49,000 --> 00:08:51,000

That's right. Got it.

157

00:08:51,000 --> 00:08:55,000

The reason it's important, when we realize that there were 20 or more species

158

00:08:55,000 --> 00:08:59,000

of our close relatives that are now gone, we understand that

159

00:08:59,000 --> 00:09:02,000

actually things did not go so well for our family in the past.

160

00:09:02,000 --> 00:09:03,000

Right.

161

00:09:03,000 --> 00:09:07,000

Understanding why our relatives are all gone, we're the only ones left,

162

00:09:07,000 --> 00:09:11,000

is going to be essential to understanding how we can survive in the future.

163

00:09:11,000 --> 00:09:13,000

Wow.

164

00:09:13,000 --> 00:09:15,000

Alright, well, I want to understand me.

165

00:09:15,000 --> 00:09:18,000

I also want to hopefully endure into the future,

166

00:09:18,000 --> 00:09:20,000

and have my kids endure into the future.

167

00:09:20,000 --> 00:09:21,000

How do I understand all this?

168

00:09:21,000 --> 00:09:22,000

You've got to get out there.

169

00:09:22,000 --> 00:09:25,000

There are discoveries being made all the time, right?

170

00:09:25,000 --> 00:09:27,000

As we're talking here, there are discoveries being made, right?

171

00:09:27,000 --> 00:09:28,000

Right.

172

00:09:28,000 --> 00:09:31,000

And the best way to start is to go to where all of this began.

173

00:09:31,000 --> 00:09:32,000

Africa.

174

00:09:32,000 --> 00:09:34,000

Africa.

175

00:09:34,000 --> 00:09:39,000

To dig into humanity's past and learn what it means for our future,

176

00:09:39,000 --> 00:09:42,000

I catch a flight out of Madison.

177

00:09:42,000 --> 00:09:45,000

Three connections and the entire planet of the apes reboot later,

178

00:09:45,000 --> 00:09:47,000

I touch down in Tanzania.

179

00:09:48,000 --> 00:10:02,000

I'm headed to an archeological site where scientists are finding stunning evidence

180

00:10:02,000 --> 00:10:06,000

that is rewriting the book on our earliest ancestors.

181

00:10:06,000 --> 00:10:08,000

Welcome to Africa's Great Rift Valley.

182

00:10:08,000 --> 00:10:13,000

It was here that ancient hominids began the long evolutionary journey

183

00:10:13,000 --> 00:10:16,000

that led to who and what we are today.

184

00:10:16,000 --> 00:10:22,000

Getting approval to film at the archeological site requires more than just filling out a form.

185

00:10:22,000 --> 00:10:25,000

I need permission from the gatekeepers.

186

00:10:35,000 --> 00:10:37,000

Welcome party.

187

00:10:37,000 --> 00:10:43,000

These are the Maasai, a semi-nomadic tribe of warriors and cattle rustlers

188

00:10:43,000 --> 00:10:46,000

who live amidst Africa's big game.

189

00:10:46,000 --> 00:10:48,000

They have inhabited this land for centuries.

190

00:10:48,000 --> 00:10:52,000

The village and their chief offer me a warm welcome.

191

00:10:52,000 --> 00:10:53,000

Nice to meet you.

192

00:10:53,000 --> 00:10:54,000

Thank you.

193

00:10:54,000 --> 00:10:55,000

It's incredible.

194

00:10:55,000 --> 00:10:58,000

And then put me to the test.

195

00:10:59,000 --> 00:11:01,000

So explain the jumping.

196

00:11:01,000 --> 00:11:02,000

It's a competition.

197

00:11:02,000 --> 00:11:03,000

It's competition.

198

00:11:03,000 --> 00:11:05,000

And we look at the one who jumped higher than the other.

199

00:11:05,000 --> 00:11:10,000

The adumu or jumping dance is an important initiation ceremony,

200

00:11:10,000 --> 00:11:13,000

demonstrating a warrior's strength and skill.

201

00:11:13,000 --> 00:11:16,000

The best dancers seem to defy gravity.

202

00:11:17,000 --> 00:11:18,000

Hey.

203

00:11:18,000 --> 00:11:20,000

Yes, come try.

204

00:11:20,000 --> 00:11:21,000

We have to do it.

205

00:11:21,000 --> 00:11:22,000

Okay.

206

00:11:22,000 --> 00:11:23,000

All right, bring it on.

207

00:11:23,000 --> 00:11:24,000

Here we go.

208

00:11:32,000 --> 00:11:33,000

Oh, boy.

209

00:11:40,000 --> 00:11:47,000

If leaping is my passport, this investigation may never get off the ground.

210

00:11:47,000 --> 00:11:49,000

I think he won.

211

00:11:53,000 --> 00:11:57,000

I may have come in second, but I'm still being treated like an honored guest.

212

00:11:57,000 --> 00:12:01,000

And the chief invites me to join him for a special ceremony.

213

00:12:01,000 --> 00:12:02,000

A warning.

214

00:12:02,000 --> 00:12:08,000

What you are about to see is intense and could fairly be called cruel.

215

00:12:08,000 --> 00:12:11,000

It is also a time honored Masai tradition,

216

00:12:11,000 --> 00:12:14,000

the sacred letting of blood from a prized cow.

217

00:12:24,000 --> 00:12:27,000

So they'll take blood from the cows jugular vein actually,

218

00:12:27,000 --> 00:12:29,000

and then they'll use a natural compound,

219

00:12:29,000 --> 00:12:31,000

which they'll put in the wound.

220

00:12:31,000 --> 00:12:33,000

It naturally cauterizes it.

221

00:12:33,000 --> 00:12:36,000

And the cow actually ends up being fined.

222

00:12:36,000 --> 00:12:39,000

The gourd is then passed my way.

223

00:12:39,000 --> 00:12:44,000

Its contents, the price of admission to the world of our ancient ancestors.

224

00:12:44,000 --> 00:12:45,000

Thank you.

225

00:12:47,000 --> 00:12:48,000

Bottoms up.

226

00:12:57,000 --> 00:13:03,000

My mission to understand who we were when our first ancestors came down from the trees

227

00:13:03,000 --> 00:13:08,000

has brought me to the Great Rift Valley in Tanzania to meet a leading anthropologist.

228

00:13:08,000 --> 00:13:14,000

But before I can continue my journey, I'm paying my respects to the native Masai people.

229

00:13:14,000 --> 00:13:18,000

The chief of this village has invited me to join him in a ceremonial drink.

230

00:13:18,000 --> 00:13:21,000

And it's not pasteurized.

231

00:13:23,000 --> 00:13:24,000

Thank you.

232

00:13:26,000 --> 00:13:27,000

Bottoms up.

233

00:13:28,000 --> 00:13:34,000

The Masai believe that drinking cow's blood is a ritual that honors the very essence of the animal.

234

00:13:43,000 --> 00:13:46,000

It's like a very hot glass of milk filled with iron.

235

00:13:49,000 --> 00:13:53,000

I'm not eager for a refill, but I do appreciate the power of the gesture.

236

00:13:54,000 --> 00:13:55,000

You almost ate it now.

237

00:13:55,000 --> 00:13:59,000

Yeah! All right. I'm Masai now. I'm in. I'm in the club.

238

00:14:02,000 --> 00:14:06,000

It was a bloody ordeal, but I've earned the chief's blessing.

239

00:14:06,000 --> 00:14:09,000

These are your lands and I appreciate you letting us cross through them.

240

00:14:09,000 --> 00:14:10,000

It's okay.

241

00:14:10,000 --> 00:14:11,000

Thank you very much.

242

00:14:11,000 --> 00:14:12,000

And you too. You're welcome again.

243

00:14:12,000 --> 00:14:13,000

Thank you.

244

00:14:13,000 --> 00:14:14,000

Satti Sana.

245

00:14:17,000 --> 00:14:20,000

I drive deeper into Tanzania's wilderness.

246

00:14:21,000 --> 00:14:26,000

Through terrain that looks absolutely prehistoric.

247

00:14:27,000 --> 00:14:32,000

Eventually, I reach my destination, the office of Dr. Charles Museba,

248

00:14:32,000 --> 00:14:36,000

who is unearthing shocking facts about our earliest ancestors

249

00:14:36,000 --> 00:14:40,000

and how becoming bipedal shaped how we eat, how we think,

250

00:14:40,000 --> 00:14:42,000

and how we act to this day.

251

00:14:42,000 --> 00:14:43,000

Nice to meet you.

252

00:14:43,000 --> 00:14:45,000

You're a hard man to find.

253

00:14:45,000 --> 00:14:48,000

Without the GPS, I would have been hoping for this.

254

00:14:48,000 --> 00:14:50,000

Without the GPS, I would have been hopeless.

255

00:14:50,000 --> 00:14:51,000

So where are we?

256

00:14:51,000 --> 00:14:53,000

This is an exciting place.

257

00:14:53,000 --> 00:14:54,000

Let's check it out.

258

00:14:54,000 --> 00:14:55,000

Absolutely.

259

00:14:55,000 --> 00:14:58,000

In fact, Laetoli is also a very famous place.

260

00:14:58,000 --> 00:15:03,000

This is where paleoanthropologist Mary Leakey made the find of the century.

261

00:15:03,000 --> 00:15:06,000

Four million year old human footprints.

262

00:15:06,000 --> 00:15:13,000

These small steps for early man represent a giant leap for mankind, walking upright.

263

00:15:14,000 --> 00:15:18,000

Dr. Museba brings me to meet his team, who are following, quite literally,

264

00:15:18,000 --> 00:15:22,000

in Dr. Leakey's footsteps as they scour volcanic ash

265

00:15:22,000 --> 00:15:25,000

for fossilized evidence from our collective past.

266

00:15:25,000 --> 00:15:26,000

Hi, everybody.

267

00:15:26,000 --> 00:15:27,000

Hi.

268

00:15:27,000 --> 00:15:29,000

You guys are bundled up here.

269

00:15:29,000 --> 00:15:30,000

This is a tight operation.

270

00:15:30,000 --> 00:15:33,000

It's like a giant game of twisters going on here.

271

00:15:34,000 --> 00:15:36,000

So what's really happening? Walk me through it.

272

00:15:36,000 --> 00:15:38,000

So what are you seeing here?

273

00:15:38,000 --> 00:15:41,000

We're actually doing what we call surface collection,

274

00:15:41,000 --> 00:15:43,000

but we have to do it systematically.

275

00:15:43,000 --> 00:15:46,000

So that's why you're seeing this great system.

276

00:15:49,000 --> 00:15:50,000

Dr. Museba, what do you got there?

277

00:15:50,000 --> 00:15:52,000

We have the proximal end of the femur.

278

00:15:52,000 --> 00:15:55,000

I was going to say it was the proximal end of a femur.

279

00:15:55,000 --> 00:15:56,000

Why are you laughing?

280

00:15:56,000 --> 00:15:57,000

No.

281

00:15:57,000 --> 00:15:58,000

I knew what it was.

282

00:15:58,000 --> 00:15:59,000

I didn't know.

283

00:15:59,000 --> 00:16:00,000

I didn't know.

284

00:16:01,000 --> 00:16:07,000

What Dr. Dean has found is part of the leg bone of a three million year old antelope

285

00:16:07,000 --> 00:16:11,000

that roamed these plains when early hominids made the Laetoli footprints.

286

00:16:12,000 --> 00:16:16,000

Incredible to think that animal was walking around over three million years ago

287

00:16:16,000 --> 00:16:19,000

and that the remains are right here at the surface.

288

00:16:19,000 --> 00:16:21,000

You're not working in a big trench here.

289

00:16:21,000 --> 00:16:23,000

This is really right at your fingertips.

290

00:16:23,000 --> 00:16:25,000

Josh, you want to give us a hand?

291

00:16:25,000 --> 00:16:26,000

Yeah, I would love to give you a hand.

292

00:16:26,000 --> 00:16:27,000

Okay, well, come with me.

293

00:16:27,000 --> 00:16:28,000

How's the pay?

294

00:16:28,000 --> 00:16:29,000

Uh...

295

00:16:29,000 --> 00:16:31,000

They're laughing.

296

00:16:32,000 --> 00:16:36,000

For several hours, we carefully inspect every square inch of dirt.

297

00:16:37,000 --> 00:16:42,000

Oh, something here.

298

00:16:42,000 --> 00:16:45,000

What do we got?

299

00:16:45,000 --> 00:16:47,000

What do you think?

300

00:16:50,000 --> 00:16:52,000

It looks like a flat bone.

301

00:16:52,000 --> 00:16:55,000

Yeah, it's a rib.

302

00:16:55,000 --> 00:16:56,000

It's a rib from?

303

00:16:56,000 --> 00:17:01,000

Yeah, from an antelope about 3.4 million years ago.

304

00:17:02,000 --> 00:17:05,000

Finding animal bone fossils is routine out here.

305

00:17:05,000 --> 00:17:09,000

But what happens next is just plain luck.

306

00:17:13,000 --> 00:17:14,000

Hey, Josh.

307

00:17:14,000 --> 00:17:15,000

Holy s***.

308

00:17:15,000 --> 00:17:16,000

Oh, my God.

309

00:17:16,000 --> 00:17:17,000

What is it?

310

00:17:17,000 --> 00:17:18,000

It's a tooth.

311

00:17:18,000 --> 00:17:19,000

It's a tooth?

312

00:17:19,000 --> 00:17:20,000

Yes.

313

00:17:20,000 --> 00:17:21,000

It's a name Sizer.

314

00:17:21,000 --> 00:17:22,000

From?

315

00:17:22,000 --> 00:17:24,000

One of our own ancestors.

316

00:17:24,000 --> 00:17:27,000

This tooth is from one of our ancient ancestors.

317

00:17:27,000 --> 00:17:28,000

Yes, it is.

318

00:17:29,000 --> 00:17:30,000

Unbelievable.

319

00:17:30,000 --> 00:17:32,000

How often does that happen?

320

00:17:32,000 --> 00:17:33,000

Not that often.

321

00:17:33,000 --> 00:17:34,000

Hey!

322

00:17:34,000 --> 00:17:36,000

Nice work, man.

323

00:17:36,000 --> 00:17:38,000

That's incredible.

324

00:17:38,000 --> 00:17:42,000

This is maybe all that remains of a distant relative.

325

00:17:42,000 --> 00:17:43,000

Yes.

326

00:17:43,000 --> 00:17:48,000

Dr. Museba explains that the tooth belongs to *Australopithecus afarensis*,

327

00:17:48,000 --> 00:17:53,000

the species that made the Laetoli footprints 3.6 million years ago.

328

00:17:53,000 --> 00:17:58,000

Fines like this are crucial to understanding what our earliest ancestors ate

329

00:17:58,000 --> 00:18:02,000

and how this can affect our diet and behavior today.

330

00:18:03,000 --> 00:18:05,000

We can take this tooth into a lab.

331

00:18:05,000 --> 00:18:11,000

We can do chemical analysis and then we can tell whether these guys were vegetarian

332

00:18:11,000 --> 00:18:14,000

or they had a little bit of meat in their diet.

333

00:18:14,000 --> 00:18:15,000

Incredible.

334

00:18:15,000 --> 00:18:18,000

This tooth kind of opens the door to a lot of questions that I have.

335

00:18:18,000 --> 00:18:21,000

You know, how we ate, what we ate.

336

00:18:21,000 --> 00:18:24,000

You know, our earliest ancestors, I kind of have two different visions of them.

337

00:18:24,000 --> 00:18:27,000

You know, some people describe them as like scavengers.

338

00:18:27,000 --> 00:18:29,000

You know, we're down out of the trees,

339

00:18:29,000 --> 00:18:33,000

but we're kind of opportunistic and getting what we can.

340

00:18:33,000 --> 00:18:38,000

And then this other image of them, more the kind of pop culture image of them, is the hunter.

341

00:18:38,000 --> 00:18:40,000

It's a big question.

342

00:18:40,000 --> 00:18:43,000

Who were we when we first began?

343

00:18:43,000 --> 00:18:46,000

Organized and intelligent hunters?

344

00:18:46,000 --> 00:18:51,000

Or, as many have suggested, scavengers and primarily herbivores like apes.

345

00:18:52,000 --> 00:18:53,000

Which is right.

346

00:18:53,000 --> 00:18:55,000

To answer that, let's take a drive.

347

00:18:55,000 --> 00:18:56,000

A drive?

348

00:18:56,000 --> 00:18:57,000

Yes.

349

00:18:57,000 --> 00:18:58,000

Boys up for a drive?

350

00:18:58,000 --> 00:18:59,000

Let's go.

351

00:18:59,000 --> 00:19:01,000

Should I just keep this or what?

352

00:19:01,000 --> 00:19:03,000

No, you cannot keep that.

353

00:19:13,000 --> 00:19:17,000

The owner of this tooth was us, version 1.0.

354

00:19:17,000 --> 00:19:21,000

But just how close was this beta model to modern man?

355

00:19:22,000 --> 00:19:26,000

In order to understand how our ancestors got their food,

356

00:19:26,000 --> 00:19:30,000

we have to compare ancient animal bones with those of modern prey.

357

00:19:30,000 --> 00:19:32,000

And modern prey being killed by what?

358

00:19:32,000 --> 00:19:34,000

Being killed by lions.

359

00:19:34,000 --> 00:19:35,000

Lions?

360

00:19:35,000 --> 00:19:36,000

Okay.

361

00:19:36,000 --> 00:19:38,000

We're going looking for lions?

362

00:19:38,000 --> 00:19:39,000

Yes.

363

00:19:39,000 --> 00:19:40,000

That sounds dangerous.

364

00:19:40,000 --> 00:19:41,000

It is dangerous.

365

00:19:41,000 --> 00:19:42,000

Great.

366

00:19:42,000 --> 00:19:43,000

Okay, confirmed.

367

00:19:43,000 --> 00:19:44,000

It's dangerous.

368

00:19:48,000 --> 00:19:54,000

By comparing the bite marks on a lion's lunch with the marks on three million year old fossils,

369

00:19:54,000 --> 00:19:57,000

we can determine how our ancient ancestors ate.

370

00:19:57,000 --> 00:20:00,000

Did a skilled hunting party make the kill?

371

00:20:00,000 --> 00:20:04,000

Or were we surviving on berries and lion leftovers?

372

00:20:09,000 --> 00:20:11,000

That's something you don't want to hit with a car.

373

00:20:11,000 --> 00:20:12,000

It's all legs.

374

00:20:13,000 --> 00:20:17,000

But the animal we're chasing is far more dangerous.

375

00:20:18,000 --> 00:20:20,000

This is lion country.

376

00:20:20,000 --> 00:20:23,000

No cages, no second chances.

377

00:20:23,000 --> 00:20:27,000

More than 250 people are killed by lions every year.

378

00:20:27,000 --> 00:20:30,000

Out here, man is not at the top of the food chain.

379

00:20:30,000 --> 00:20:35,000

So it's about 80 to probably 100 lions out here.

380

00:20:35,000 --> 00:20:37,000

It's hard to see them in this tall grass.

381

00:20:37,000 --> 00:20:40,000

By the time you actually see them, it's almost too late.

382

00:20:41,000 --> 00:20:47,000

After hours of off-roading, we finally encounter Africa's apex predator.

383

00:20:48,000 --> 00:20:49,000

There.

384

00:20:49,000 --> 00:20:51,000

Oh, oh, oh, oh, oh, oh.

385

00:20:52,000 --> 00:20:53,000

Hi.

386

00:20:54,000 --> 00:20:56,000

Oh my God.

387

00:20:59,000 --> 00:21:02,000

Big male lion right in front of the vehicle.

388

00:21:02,000 --> 00:21:07,000

Male lions are highly territorial, often working in groups to protect their turf.

389

00:21:07,000 --> 00:21:08,000

Or just shut up.

390

00:21:08,000 --> 00:21:09,000

There's another one.

391

00:21:09,000 --> 00:21:10,000

Another lion, another male.

392

00:21:12,000 --> 00:21:14,000

We gotta move here.

393

00:21:22,000 --> 00:21:26,000

I'm searching Africa's Serengeti for the secrets of our earliest ancestors.

394

00:21:26,000 --> 00:21:31,000

Secrets that may help us understand ourselves and even save our future.

395

00:21:32,000 --> 00:21:36,000

Dr. Charles Musiba and I are looking for lions with a fresh kill.

396

00:21:36,000 --> 00:21:42,000

The bones will help us determine if our ancestors from 4 million years ago were ape-like scavengers

397

00:21:42,000 --> 00:21:45,000

or were organized and intelligent hunters.

398

00:21:46,000 --> 00:21:52,000

After hours of searching, we discover that the king of the jungle is also the king of the road.

399

00:21:56,000 --> 00:21:57,000

Hi.

400

00:21:59,000 --> 00:22:01,000

Oh my God.

401

00:22:01,000 --> 00:22:02,000

Or just shut up.

402

00:22:02,000 --> 00:22:03,000

There's another one.

403

00:22:03,000 --> 00:22:04,000

Another lion, another male.

404

00:22:06,000 --> 00:22:07,000

We gotta move here.

405

00:22:07,000 --> 00:22:10,000

Okay, let's back up a little bit here.

406

00:22:10,000 --> 00:22:14,000

Surrounded, we carefully maneuver around the lions.

407

00:22:15,000 --> 00:22:27,000

The males are the ferocious protectors of the pride, but it's the females who do all the hunting.

408

00:22:27,000 --> 00:22:31,000

We're gonna find a hunter, a kill, we've gotta look for the females.

409

00:22:31,000 --> 00:22:32,000

Yes.

410

00:22:32,000 --> 00:22:35,000

So we drive deeper into the bush.

411

00:22:35,000 --> 00:22:40,000

Our encounter with the king of the jungle means the queen must be close by.

412

00:22:41,000 --> 00:22:42,000

Oh, lions, lions.

413

00:22:42,000 --> 00:22:43,000

Two females.

414

00:22:43,000 --> 00:22:44,000

Oh yeah.

415

00:22:44,000 --> 00:22:45,000

Look at that, two females.

416

00:22:46,000 --> 00:22:48,000

Oh look, there's a warthog up there.

417

00:22:52,000 --> 00:22:53,000

Look at that.

418

00:22:54,000 --> 00:22:56,000

I think she is gonna go for it.

419

00:22:57,000 --> 00:23:00,000

Oh, she is definitely going after that warthog.

420

00:23:00,000 --> 00:23:02,000

Pumba, run.

421

00:23:04,000 --> 00:23:07,000

Okay, okay, let's see if we can follow him.

422

00:23:08,000 --> 00:23:10,000

Hakuna Matata.

423

00:23:10,000 --> 00:23:12,000

We're gonna major Matata.

424

00:23:15,000 --> 00:23:21,000

They went around there, so they should maybe pop out in here.

425

00:23:22,000 --> 00:23:24,000

I don't see them, they just disappeared.

426

00:23:30,000 --> 00:23:32,000

Oh, two females, that's them.

427

00:23:32,000 --> 00:23:33,000

That's them?

428

00:23:33,000 --> 00:23:34,000

They got a kill.

429

00:23:34,000 --> 00:23:35,000

Is it the warthog?

430

00:23:40,000 --> 00:23:41,000

No, it's not.

431

00:23:45,000 --> 00:23:46,000

What is it?

432

00:23:47,000 --> 00:23:48,000

I think it's a wildebeest.

433

00:23:48,000 --> 00:23:49,000

It's a wildebeest.

434

00:23:52,000 --> 00:23:54,000

Okay, we got our fresh kill now what?

435

00:23:54,000 --> 00:23:57,000

Well, now we have to go out and have a look at it.

436

00:23:59,000 --> 00:24:00,000

Do you think you're gonna do that?

437

00:24:00,000 --> 00:24:01,000

Not right now.

438

00:24:04,000 --> 00:24:05,000

So how long will they eat for?

439

00:24:05,000 --> 00:24:07,000

They will eat for hours.

440

00:24:07,000 --> 00:24:08,000

Okay.

441

00:24:08,000 --> 00:24:09,000

Let's go and come back later.

442

00:24:09,000 --> 00:24:10,000

Come back here later?

443

00:24:10,000 --> 00:24:11,000

Yes.

444

00:24:11,000 --> 00:24:12,000

Okay, we'll let them eat.

445

00:24:12,000 --> 00:24:16,000

To collect data, it's important we don't disturb the lions while they eat.

446

00:24:17,000 --> 00:24:20,000

So we leave Africa's fiercest predator to its feast

447

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

and return to the site several hours later to see what's left.

448

00:24:26,000 --> 00:24:29,000

No lions, at least none we can see.

449

00:24:30,000 --> 00:24:33,000

So they're gone, where I don't know, and now what?

450

00:24:33,000 --> 00:24:36,000

We're gonna step out of the car and have a look.

451

00:24:36,000 --> 00:24:37,000

I knew you were gonna say that.

452

00:24:37,000 --> 00:24:39,000

But we have to be very careful.

453

00:24:39,000 --> 00:24:40,000

There are so many of them.

454

00:24:40,000 --> 00:24:41,000

But we have to be very careful.

455

00:24:41,000 --> 00:24:43,000

There are so many lions around here.

456

00:24:43,000 --> 00:24:44,000

Yeah.

457

00:24:44,000 --> 00:24:48,000

While we can't see the two female lions that we're feeding earlier,

458

00:24:48,000 --> 00:24:50,000

that doesn't mean they can't see us.

459

00:24:50,000 --> 00:24:51,000

Okay, here we go.

460

00:24:51,000 --> 00:24:52,000

Nice and clear.

461

00:24:52,000 --> 00:24:53,000

Let's go.

462

00:24:53,000 --> 00:24:57,000

So with a great deal of trepidation, I open the car door

463

00:24:57,000 --> 00:25:00,000

and we step out into the wild.

464

00:25:02,000 --> 00:25:03,000

This is crazy.

465

00:25:07,000 --> 00:25:08,000

Where's the carcass?

466

00:25:08,000 --> 00:25:09,000

It's all gone.

467

00:25:09,000 --> 00:25:10,000

It's gone.

468

00:25:10,000 --> 00:25:11,000

Yeah.

469

00:25:11,000 --> 00:25:14,000

These lions took this thing down to nothing, basically.

470

00:25:16,000 --> 00:25:18,000

Look, and we have a jaw bone here.

471

00:25:18,000 --> 00:25:19,000

And here.

472

00:25:19,000 --> 00:25:20,000

Right here.

473

00:25:20,000 --> 00:25:21,000

Yeah.

474

00:25:21,000 --> 00:25:23,000

Josh, here, put these gloves.

475

00:25:25,000 --> 00:25:27,000

This is actually a long bone.

476

00:25:27,000 --> 00:25:28,000

The part of the jaw.

477

00:25:29,000 --> 00:25:30,000

Oh, yeah, look at that.

478

00:25:30,000 --> 00:25:32,000

Nice puncture mark right there.

479

00:25:32,000 --> 00:25:34,000

So this is where the tooth went in right there.

480

00:25:35,000 --> 00:25:36,000

And on the jaw.

481

00:25:36,000 --> 00:25:37,000

Look at that.

482

00:25:37,000 --> 00:25:38,000

That's a puncture wound right there.

483

00:25:38,000 --> 00:25:39,000

So that's a tooth.

484

00:25:39,000 --> 00:25:40,000

It's going right into the jaw.

485

00:25:40,000 --> 00:25:41,000

Right into the jaw.

486

00:25:41,000 --> 00:25:42,000

Unbelievable.

487

00:25:42,000 --> 00:25:44,000

Now think about this.

488

00:25:44,000 --> 00:25:48,000

If our ancestors would come out and try to see if they could get some meat,

489

00:25:48,000 --> 00:25:50,000

there's nothing there.

490

00:25:50,000 --> 00:25:51,000

How would you survive?

491

00:25:51,000 --> 00:25:53,000

That's the biggest question, right?

492

00:25:53,000 --> 00:25:54,000

You wouldn't.

493

00:25:54,000 --> 00:25:56,000

It seems like just scavenging wouldn't have been enough.

494

00:25:56,000 --> 00:25:57,000

Absolutely.

495

00:25:58,000 --> 00:26:02,000

To make the case that our ancestors didn't settle for leftovers,

496

00:26:02,000 --> 00:26:06,000

Dr. Musiba shows me fossils he found at his dig site.

497

00:26:08,000 --> 00:26:09,000

So these are fossilized bones.

498

00:26:09,000 --> 00:26:10,000

And about how old are these?

499

00:26:10,000 --> 00:26:13,000

About 2.8 to 3 million years ago.

500

00:26:13,000 --> 00:26:14,000

These are actually from the Wildebeest.

501

00:26:14,000 --> 00:26:15,000

These are from the Wildebeest?

502

00:26:15,000 --> 00:26:16,000

Yes.

503

00:26:16,000 --> 00:26:18,000

So this and this are the same?

504

00:26:18,000 --> 00:26:19,000

Yes.

505

00:26:19,000 --> 00:26:20,000

Okay.

506

00:26:20,000 --> 00:26:22,000

And so what do we see in these bones from 3 million years ago?

507

00:26:22,000 --> 00:26:24,000

So if you look right here.

508

00:26:24,000 --> 00:26:25,000

This mark here.

509

00:26:25,000 --> 00:26:27,000

This mark, yeah, right there.

510

00:26:27,000 --> 00:26:30,000

And we can actually look at it by magnifying on the glass.

511

00:26:31,000 --> 00:26:32,000

You see that groove?

512

00:26:32,000 --> 00:26:33,000

Yeah.

513

00:26:33,000 --> 00:26:34,000

And it looks different than the bite marks.

514

00:26:34,000 --> 00:26:35,000

Exactly.

515

00:26:35,000 --> 00:26:36,000

So that's a cut mark?

516

00:26:36,000 --> 00:26:37,000

Yes.

517

00:26:37,000 --> 00:26:39,000

So that was made by one of our ancestors with a tool?

518

00:26:39,000 --> 00:26:40,000

Exactly.

519

00:26:41,000 --> 00:26:42,000

Wow.

520

00:26:42,000 --> 00:26:45,000

We just have a cut mark there without a bite mark.

521

00:26:45,000 --> 00:26:46,000

And if you're butchering animals,

522

00:26:46,000 --> 00:26:48,000

there's lots of meat to take off of them.

523

00:26:48,000 --> 00:26:49,000

So you're not just dealing with scraps?

524

00:26:49,000 --> 00:26:50,000

Absolutely.

525

00:26:51,000 --> 00:26:56,000

What Dr. Musiba's fossil shows us is that prehistoric humans began hunting meat

526

00:26:56,000 --> 00:26:58,000

well over 3 million years ago,

527

00:26:58,000 --> 00:27:01,000

almost immediately after walking upright.

528

00:27:02,000 --> 00:27:04,000

Just imagine you're a biped.

529

00:27:04,000 --> 00:27:06,000

You're freeing your hands.

530

00:27:06,000 --> 00:27:07,000

Yeah.

531

00:27:07,000 --> 00:27:09,000

You can use your hand to make tools.

532

00:27:09,000 --> 00:27:13,000

And probably they were cooperating and hunting together as a group.

533

00:27:13,000 --> 00:27:17,000

Really suggests also, I think, an intelligence.

534

00:27:17,000 --> 00:27:23,000

Hunting requires a high degree of cooperation, communication, and strategy.

535

00:27:23,000 --> 00:27:26,000

The cut marks on this bone suggest that millions of years ago,

536

00:27:26,000 --> 00:27:31,000

our brains had already developed far beyond our primate cousins.

537

00:27:31,000 --> 00:27:36,000

Our ancestors, as they were evolving, their brain was also expanding.

538

00:27:36,000 --> 00:27:41,000

That actually requires a diet which includes high protein.

539

00:27:41,000 --> 00:27:43,000

So where do you get that?

540

00:27:43,000 --> 00:27:44,000

Meat.

541

00:27:44,000 --> 00:27:45,000

Exactly.

542

00:27:45,000 --> 00:27:49,000

So of about 2 million years, their brains grew 3 times bigger.

543

00:27:49,000 --> 00:27:50,000

3 times bigger?

544

00:27:50,000 --> 00:27:51,000

Yes.

545

00:27:51,000 --> 00:27:52,000

Wow.

546

00:27:53,000 --> 00:27:55,000

Walking upright allowed us to hunt,

547

00:27:55,000 --> 00:27:58,000

and more protein led to bigger brains.

548

00:27:58,000 --> 00:28:02,000

Our gray matter grew from less than a pound to about 3 pounds.

549

00:28:02,000 --> 00:28:06,000

And this brain growth kicked our evolution into overdrive.

550

00:28:06,000 --> 00:28:13,000

The addition of consuming high amounts of protein fundamentally alters our evolution.

551

00:28:13,000 --> 00:28:14,000

It does.

552

00:28:14,000 --> 00:28:17,000

This episode brought to you by the Meat Council.

553

00:28:17,000 --> 00:28:18,000

This is incredible.

554

00:28:18,000 --> 00:28:19,000

Thank you.

555

00:28:19,000 --> 00:28:20,000

You're welcome.

556

00:28:20,000 --> 00:28:21,000

Really, really amazing stuff.

557

00:28:21,000 --> 00:28:26,000

Protein supercharged our brain, and we became smarter and better hunters.

558

00:28:26,000 --> 00:28:34,000

Now, I'm going to see these ancient skills in action by joining one of the last hunter-gatherer societies on Earth,

559

00:28:34,000 --> 00:28:36,000

the Hadza tribe.

560

00:28:36,000 --> 00:28:42,000

I had about 100 miles south of Leitoli near the shores of Lake Ayasi,

561

00:28:42,000 --> 00:28:46,000

where I meet my guide, Dr. Elgidius Ichimbaki.

562

00:28:46,000 --> 00:28:48,000

So let's talk about the Hadza.

563

00:28:48,000 --> 00:28:49,000

Yeah.

564

00:28:49,000 --> 00:28:51,000

These are people that live really traditionally, right?

565

00:28:51,000 --> 00:28:52,000

Indeed.

566

00:28:52,000 --> 00:28:55,000

We were living 100,000 years ago.

567

00:28:55,000 --> 00:28:56,000

Exactly.

568

00:28:56,000 --> 00:28:59,000

So they are literally living in the Stone Age.

569

00:28:59,000 --> 00:29:00,000

Exactly.

570

00:29:00,000 --> 00:29:02,000

They take us back in history.

571

00:29:04,000 --> 00:29:08,000

After three hours on a bumpy dirt road,

572

00:29:11,000 --> 00:29:14,000

we arrive at the Hadza camp.

573

00:29:14,000 --> 00:29:15,000

This is it?

574

00:29:15,000 --> 00:29:17,000

Yeah, that's the Hadza camp.

575

00:29:18,000 --> 00:29:22,000

I'm about to enter a world that much of humanity abandoned long ago,

576

00:29:22,000 --> 00:29:24,000

a land that time forgot.

577

00:29:32,000 --> 00:29:34,000

The Hadza chief, Montana.

578

00:29:34,000 --> 00:29:35,000

Montana.

579

00:29:35,000 --> 00:29:36,000

Nice to meet you.

580

00:29:36,000 --> 00:29:37,000

Montana, Bauer.

581

00:29:37,000 --> 00:29:38,000

Montana.

582

00:29:38,000 --> 00:29:39,000

Montana.

583

00:29:39,000 --> 00:29:40,000

Montana, Bauer.

584

00:29:40,000 --> 00:29:41,000

Montana, Bauer.

585

00:29:41,000 --> 00:29:42,000

Montana, Bauer.

586

00:29:42,000 --> 00:29:43,000

Gosh.

587

00:29:43,000 --> 00:29:44,000

I'll have this.

588

00:29:44,000 --> 00:29:45,000

Hey, it looks great.

589

00:29:45,000 --> 00:29:46,000

It looks very good on you.

590

00:29:46,000 --> 00:29:47,000

You look like Don King.

591

00:29:47,000 --> 00:29:48,000

Do you know who that is?

592

00:29:48,000 --> 00:29:49,000

No.

593

00:29:49,000 --> 00:29:50,000

Well, you look just like him.

594

00:29:50,000 --> 00:29:51,000

You look great.

595

00:29:51,000 --> 00:29:53,000

Chief, thank you for letting us come here

596

00:29:53,000 --> 00:29:56,000

and for allowing us to film your village.

597

00:30:01,000 --> 00:30:02,000

That language is amazing.

598

00:30:02,000 --> 00:30:03,000

What's the Hadza language?

599

00:30:03,000 --> 00:30:04,000

It's the click language.

600

00:30:04,000 --> 00:30:06,000

It's the click language.

601

00:30:06,000 --> 00:30:10,000

The click language, the Hadza speak, is an isolate,

602

00:30:10,000 --> 00:30:12,000

unrelated to any other known tongues.

603

00:30:12,000 --> 00:30:16,000

The word Hadza itself simply means human.

604

00:30:17,000 --> 00:30:19,000

Chief Ndere shows me his village.

605

00:30:19,000 --> 00:30:23,000

35 Hadza living with just the bare essentials.

606

00:30:24,000 --> 00:30:27,000

Basic huts and fire and hides for warmth.

607

00:30:27,000 --> 00:30:30,000

Survival tools discovered by Homo erectus

608

00:30:30,000 --> 00:30:32,000

more than a million years ago.

609

00:30:32,000 --> 00:30:35,000

Chief, if I'm trying to understand how

610

00:30:35,000 --> 00:30:39,000

our ancient ancestors lived and hunted,

611

00:30:39,000 --> 00:30:41,000

and I know that the Hadza still hunt

612

00:30:41,000 --> 00:30:43,000

and live very traditionally.

613

00:30:43,000 --> 00:30:45,000

Can you teach me how to be a Hadza?

614

00:30:45,000 --> 00:30:50,000

I can teach you how to hunt and then you become a Hadza.

615

00:30:50,000 --> 00:30:51,000

Okay.

616

00:30:52,000 --> 00:30:56,000

The chief shows me the Hadza arsenal, bows and arrows,

617

00:30:56,000 --> 00:30:59,000

an innovation dating back about 70,000 years.

618

00:30:59,000 --> 00:31:01,000

Simple wooden arrow, very sharp.

619

00:31:01,000 --> 00:31:03,000

Be careful, they allow that to do with the poison.

620

00:31:03,000 --> 00:31:04,000

Ow!

621

00:31:04,000 --> 00:31:05,000

Oh no.

622

00:31:05,000 --> 00:31:06,000

Oh no.

623

00:31:06,000 --> 00:31:10,000

All kidding aside, these handmade arrows are razor sharp.

624

00:31:10,000 --> 00:31:12,000

But before I'm allowed to join a hunt,

625

00:31:12,000 --> 00:31:15,000

I'll need to show that I can use one of these things.

626

00:31:15,000 --> 00:31:16,000

Can I see how you do it?

627

00:31:28,000 --> 00:31:30,000

That's it, I'll be in the car if you need me.

628

00:31:33,000 --> 00:31:35,000

It's your time, come and try.

629

00:31:36,000 --> 00:31:38,000

So, so just like that?

630

00:31:38,000 --> 00:31:39,000

Yep.

631

00:31:39,000 --> 00:31:43,000

I've got one chance, one shot, to prove I'm worthy

632

00:31:43,000 --> 00:31:46,000

of the secrets of our ancestors.

633

00:31:56,000 --> 00:31:59,000

I'm with the Hadza tribe in Tanzania to learn

634

00:31:59,000 --> 00:32:01,000

how the secrets of our first ancestors

635

00:32:01,000 --> 00:32:04,000

profoundly affect our lives today.

636

00:32:04,000 --> 00:32:06,000

The Hadza are hunter-gatherers,

637

00:32:06,000 --> 00:32:09,000

and their daily lives may be closer to our prehistoric relatives

638

00:32:09,000 --> 00:32:11,000

than anywhere else on Earth.

639

00:32:12,000 --> 00:32:13,000

Okay.

640

00:32:14,000 --> 00:32:17,000

Before I'm allowed into the Hadza Inner Circle,

641

00:32:17,000 --> 00:32:19,000

I need to prove my skill with a bow.

642

00:32:23,000 --> 00:32:24,000

Ow!

643

00:32:24,000 --> 00:32:25,000

Woo!

644

00:32:28,000 --> 00:32:31,000

I will have been a good cook what I like, Ali.

645

00:32:31,000 --> 00:32:34,000

Yes, you are good, you join them tomorrow morning for the hunt.

646

00:32:34,000 --> 00:32:35,000

For the hunt?

647

00:32:35,000 --> 00:32:36,000

Then I cook one.

648

00:32:38,000 --> 00:32:39,000

Good!

649

00:32:39,000 --> 00:32:40,000

Yeah?

650

00:32:40,000 --> 00:32:41,000

I don't know what that means, but I'm in.

651

00:32:41,000 --> 00:32:43,000

Okay, tomorrow we hunt.

652

00:32:43,000 --> 00:32:44,000

Bepe.

653

00:32:51,000 --> 00:32:53,000

Joining the Hadza on a hunt is a huge honor.

654

00:32:53,000 --> 00:32:55,000

This is not for sport.

655

00:32:55,000 --> 00:32:57,000

It is their only means of survival,

656

00:32:57,000 --> 00:32:59,000

and we are not the only predators.

657

00:32:59,000 --> 00:33:02,000

There are lions and big game here as well.

658

00:33:02,000 --> 00:33:04,000

It's a real life hunger games,

659

00:33:04,000 --> 00:33:07,000

and I just hope the odds are ever in my favor.

660

00:33:07,000 --> 00:33:10,000

Well, it is dawn, and we are off like a shot.

661

00:33:10,000 --> 00:33:11,000

The men are up, the dogs are up,

662

00:33:11,000 --> 00:33:14,000

we have our bows and arrows, and we are headed out.

663

00:33:14,000 --> 00:33:17,000

Dogs are a relatively modern addition to the hunt,

664

00:33:17,000 --> 00:33:22,000

domesticated by groups like the Hadza about 20 to 30,000 years ago.

665

00:33:23,000 --> 00:33:26,000

Within minutes, I get a first-hand lesson

666

00:33:26,000 --> 00:33:29,000

in the Hadza's blistering skill with a bow.

667

00:33:30,000 --> 00:33:31,000

Did you get it?

668

00:33:31,000 --> 00:33:32,000

Here you go.

669

00:33:34,000 --> 00:33:35,000

Wee!

670

00:33:35,000 --> 00:33:36,000

Wow!

671

00:33:38,000 --> 00:33:40,000

This tiny bird has been sniped at a distance

672

00:33:40,000 --> 00:33:42,000

through dense branches.

673

00:33:42,000 --> 00:33:43,000

Wow!

674

00:33:43,000 --> 00:33:44,000

Nice aim.

675

00:33:44,000 --> 00:33:45,000

Yeah?

676

00:33:45,000 --> 00:33:46,000

Unbelievable.

677

00:33:46,000 --> 00:33:48,000

And they'll eat this, yeah?

678

00:33:48,000 --> 00:33:49,000

Yeah, they do.

679

00:33:49,000 --> 00:33:50,000

Wow!

680

00:33:50,000 --> 00:33:51,000

No bear.

681

00:33:51,000 --> 00:33:54,000

And it turns out we're not the only predators

682

00:33:54,000 --> 00:33:56,000

hunting these birds.

683

00:33:56,000 --> 00:33:58,000

Josh, look at that tree.

684

00:33:58,000 --> 00:33:59,000

Where am I looking at?

685

00:34:00,000 --> 00:34:01,000

It's a snake.

686

00:34:01,000 --> 00:34:02,000

Right there?

687

00:34:02,000 --> 00:34:03,000

Yeah, yeah, yeah.

688

00:34:03,000 --> 00:34:04,000

It's a green mamba.

689

00:34:04,000 --> 00:34:05,000

That's a green mamba?

690

00:34:05,000 --> 00:34:06,000

Oh, yes.

691

00:34:06,000 --> 00:34:08,000

Green mamba is extremely dangerous.

692

00:34:08,000 --> 00:34:10,000

That is a snake that can kill you.

693

00:34:10,000 --> 00:34:12,000

It's also a snake that can move really quickly

694

00:34:12,000 --> 00:34:14,000

and almost jump, so even under a tree,

695

00:34:14,000 --> 00:34:16,000

not very safe from it.

696

00:34:16,000 --> 00:34:18,000

Growing up to seven feet long,

697

00:34:18,000 --> 00:34:20,000

the green mamba's venomous bite can be fatal

698

00:34:20,000 --> 00:34:22,000

in under 30 minutes.

699

00:34:22,000 --> 00:34:25,000

Out here in the bush, that's a death sentence.

700

00:34:26,000 --> 00:34:28,000

Everything out here is dangerous.

701

00:34:30,000 --> 00:34:33,000

With the sun rising, we pick up the pace.

702

00:34:33,000 --> 00:34:36,000

It will take more than a sparrow to feed a village.

703

00:34:37,000 --> 00:34:39,000

Since we left camp, the hodts have not stopped walking,

704

00:34:39,000 --> 00:34:41,000

and something tells me they're not going to.

705

00:34:41,000 --> 00:34:43,000

It's just past 7.30.

706

00:34:43,000 --> 00:34:45,000

We've already covered three miles.

707

00:34:50,000 --> 00:34:52,000

Oh, they got something.

708

00:34:52,000 --> 00:34:54,000

Oh, it's a gazelle!

709

00:35:12,000 --> 00:35:13,000

I was up.

710

00:35:13,000 --> 00:35:15,000

Koshu died the other day.

711

00:35:18,000 --> 00:35:19,000

I'm sorry.

712

00:35:19,000 --> 00:35:20,000

I'm sorry.

713

00:35:21,000 --> 00:35:22,000

Gone.

714

00:35:24,000 --> 00:35:25,000

They lost it.

715

00:35:25,000 --> 00:35:29,000

Now, think about how many calories, collectively,

716

00:35:29,000 --> 00:35:32,000

we have expended trying to chase this animal.

717

00:35:32,000 --> 00:35:35,000

Each hunt is a game of risk and reward.

718

00:35:35,000 --> 00:35:37,000

To win, you have to sweat,

719

00:35:37,000 --> 00:35:39,000

but if you miss your target,

720

00:35:39,000 --> 00:35:41,000

you don't earn any food to replenish your strength.

721

00:35:41,000 --> 00:35:42,000

Remember these guys?

722

00:35:42,000 --> 00:35:45,000

Don't go back to camp for pizza after this.

723

00:35:45,000 --> 00:35:47,000

No kill, no dinner.

724

00:35:51,000 --> 00:35:55,000

We hike on, and soon discover there are more fresh tracks here.

725

00:35:55,000 --> 00:35:56,000

That's it.

726

00:35:57,000 --> 00:35:58,000

I got tracks.

727

00:36:00,000 --> 00:36:03,000

Tracks that could turn the hunters into the hunted.

728

00:36:04,000 --> 00:36:05,000

Push back.

729

00:36:21,000 --> 00:36:24,000

Looks like they may have trapped a bush pig,

730

00:36:24,000 --> 00:36:25,000

which is like a boar.

731

00:36:25,000 --> 00:36:27,000

It's actually very dangerous.

732

00:36:27,000 --> 00:36:28,000

These things can charge out,

733

00:36:28,000 --> 00:36:30,000

and they can absolutely eviscerate you.

734

00:36:30,000 --> 00:36:33,000

Now, this is probably a really good snapshot

735

00:36:33,000 --> 00:36:35,000

of how our ancient ancestors hunted,

736

00:36:35,000 --> 00:36:37,000

minus the bows and arrows.

737

00:36:37,000 --> 00:36:38,000

At least in the earliest years,

738

00:36:38,000 --> 00:36:40,000

they would have had only simple spear points.

739

00:36:40,000 --> 00:36:43,000

But clearly, it would have taken organization,

740

00:36:43,000 --> 00:36:45,000

intelligence, cooperation,

741

00:36:45,000 --> 00:36:47,000

and a lot of other things.

742

00:36:47,000 --> 00:36:49,000

Otherwise, they would have gone hungry and died,

743

00:36:49,000 --> 00:36:51,000

and none of us would be here today.

744

00:36:53,000 --> 00:36:57,000

Weighing upwards of 300 pounds with razor sharp tusks,

745

00:36:59,000 --> 00:37:01,000

a charging bush pig can kill.

746

00:37:06,000 --> 00:37:08,000

So coordination is essential.

747

00:37:10,000 --> 00:37:12,000

Not just to capture our dinner,

748

00:37:12,000 --> 00:37:14,000

but to survive the hunt.

749

00:37:14,000 --> 00:37:16,000

Bows at the ready.

750

00:37:16,000 --> 00:37:18,000

We attempt to flush out the bush pig

751

00:37:18,000 --> 00:37:21,000

using what may have been early man's first tool,

752

00:37:21,000 --> 00:37:22,000

a rock.

753

00:37:30,000 --> 00:37:31,000

A rock.

754

00:37:34,000 --> 00:37:35,000

A rock.

755

00:37:35,000 --> 00:37:36,000

A rock.

756

00:37:36,000 --> 00:37:37,000

A rock.

757

00:37:37,000 --> 00:37:38,000

A rock.

758

00:37:38,000 --> 00:37:39,000

A rock.

759

00:37:39,000 --> 00:37:40,000

A rock.

760

00:37:40,000 --> 00:37:41,000

A rock.

761

00:37:41,000 --> 00:37:42,000

A rock.

762

00:37:42,000 --> 00:37:43,000

A rock.

763

00:37:44,000 --> 00:37:45,000

We got it.

764

00:37:46,000 --> 00:37:48,000

We give chase.

765

00:37:57,000 --> 00:38:00,000

But it disappears into another dense thicket.

766

00:38:06,000 --> 00:38:10,000

But not before extracting a heavy toll from our hunting party.

767

00:38:13,000 --> 00:38:16,000

A few of the dogs have actually been injured by the bush pig.

768

00:38:16,000 --> 00:38:18,000

One of them has been gored a little bit.

769

00:38:18,000 --> 00:38:21,000

He's going to be okay, but they want to get him back to the camp.

770

00:38:21,000 --> 00:38:25,000

This just as easily could have been any of these hunters here or any of us.

771

00:38:25,000 --> 00:38:29,000

The animals they're going after are legitimately really dangerous.

772

00:38:30,000 --> 00:38:32,000

They carry the dog back to camp,

773

00:38:32,000 --> 00:38:34,000

but the rest of the hunting party pushes on.

774

00:38:34,000 --> 00:38:36,000

In the primal world of the Hadza,

775

00:38:36,000 --> 00:38:39,000

where the stakes are life or death for the tribe,

776

00:38:39,000 --> 00:38:41,000

the chase never stops.

777

00:38:41,000 --> 00:38:44,000

Soon we're on the trail of something new.

778

00:38:50,000 --> 00:38:53,000

They've spotted a wild cat called a caracal.

779

00:39:12,000 --> 00:39:14,000

It's over here.

780

00:39:14,000 --> 00:39:16,000

It's in the tree.

781

00:39:16,000 --> 00:39:18,000

We got it.

782

00:39:25,000 --> 00:39:29,000

I may be driving in the remote reaches of Tanzania's Serengeti,

783

00:39:29,000 --> 00:39:32,000

but there's one thing I can't seem to escape.

784

00:39:32,000 --> 00:39:34,000

Rush hour traffic.

785

00:39:34,000 --> 00:39:35,000

It's not something I see every day.

786

00:39:35,000 --> 00:39:37,000

In the middle of the road.

787

00:39:41,000 --> 00:39:44,000

The real road hogs though are the elephants.

788

00:39:44,000 --> 00:39:46,000

Oh, big boy.

789

00:39:46,000 --> 00:39:48,000

Wow.

790

00:39:48,000 --> 00:39:50,000

Crazy.

791

00:39:50,000 --> 00:39:54,000

Okay, just an elephant, just a young male elephant.

792

00:39:54,000 --> 00:39:58,000

Mad dogging me from the side of the road shouldn't be a problem.

793

00:40:00,000 --> 00:40:03,000

And the crosstown commute is bananas.

794

00:40:03,000 --> 00:40:05,000

Monkey road walk.

795

00:40:05,000 --> 00:40:07,000

Excuse me.

796

00:40:07,000 --> 00:40:09,000

Excuse me.

797

00:40:09,000 --> 00:40:11,000

You.

798

00:40:15,000 --> 00:40:19,000

In my quest to understand the life of prehistoric man,

799

00:40:19,000 --> 00:40:23,000

I've left the museums, the textbooks, and the fossils behind,

800

00:40:23,000 --> 00:40:27,000

and stepped into a world a hundred times older than the pyramids,

801

00:40:27,000 --> 00:40:30,000

hunting with the Hadza tribe of Tanzania.

802

00:40:30,000 --> 00:40:34,000

Their prehistoric survival strategies show how traits pass down

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00:40:34,000 --> 00:40:39,000

from our earliest ancestors impact how we think and act today.

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00:40:42,000 --> 00:40:44,000

After hours of searching,

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00:40:44,000 --> 00:40:48,000

we've spotted a wild African cat called a caracal.

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00:40:52,000 --> 00:40:54,000

It's over here.

807

00:40:54,000 --> 00:40:56,000

It's in the tree.

808

00:40:58,000 --> 00:41:00,000

He got it.

809

00:41:05,000 --> 00:41:07,000

Watch out.

810

00:41:17,000 --> 00:41:19,000

Incredible.

811

00:41:27,000 --> 00:41:31,000

Now, this may seem brutal, and it is.

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00:41:31,000 --> 00:41:36,000

It absolutely is, but consider that this hunting is the only way

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00:41:36,000 --> 00:41:38,000

that they feed their entire village.

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00:41:38,000 --> 00:41:40,000

There's no economy, there's no money.

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00:41:40,000 --> 00:41:42,000

Nobody's going to a restaurant here.

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00:41:42,000 --> 00:41:45,000

And for those of us who eat meat but buy it in the supermarket,

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00:41:45,000 --> 00:41:49,000

it's easy to forget that it still costs a life.

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00:41:54,000 --> 00:41:58,000

We've now learned that our ancestors' protein-rich diet enlarged our brains.

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00:41:58,000 --> 00:42:03,000

But my time with the Hadza underscores that it's become a double-edged sword.

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00:42:03,000 --> 00:42:07,000

We're still biologically programmed for the world of our distant relatives

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00:42:07,000 --> 00:42:09,000

when protein was hard to get,

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00:42:09,000 --> 00:42:13,000

and we expended a lot of calories trying to chase it.

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00:42:13,000 --> 00:42:18,000

Today, the cravings that drove us to hunt drive us to the burger joint,

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00:42:18,000 --> 00:42:21,000

a trip which burns a lot less energy.

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00:42:21,000 --> 00:42:27,000

All because we still react to instincts encoded by our ancestors millions of years ago.

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00:42:29,000 --> 00:42:29,200

The

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00:42:37,000 --> 00:42:43,000

Cooking the day's catch and sharing it over a campfire is a ritual as old as hunting itself.

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00:42:43,000 --> 00:42:44,000

It's good.

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00:42:44,000 --> 00:42:48,000

There isn't much meat to go around, but having never worked harder for a meal,

830

00:42:48,000 --> 00:42:51,000

I can't remember feeling more satisfied.

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00:42:52,000 --> 00:42:57,000

And for dessert, the Hadza share another ancient ritual.

832

00:43:00,000 --> 00:43:02,000

I don't know what it is, but I'll try it, sure.

833

00:43:04,000 --> 00:43:08,000

I was back in college there for a second.

834

00:43:11,000 --> 00:43:16,000

I want to thank you for trying to teach me how to hunt today.

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00:43:16,000 --> 00:43:20,000

Your way of life takes a lot of skill and a lot of perseverance.

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00:43:20,000 --> 00:43:23,000

How long would it take for me to become a Hadza?

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00:43:26,000 --> 00:43:28,000

It's going to take me ten years just to learn the language.

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00:43:28,000 --> 00:43:29,000

Even more.

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00:43:29,000 --> 00:43:30,000

Even more?

840

00:43:30,000 --> 00:43:31,000

Yeah.

841

00:43:31,000 --> 00:43:32,000

No.

842

00:43:32,000 --> 00:43:35,000

I can't make that noise.

843

00:43:39,000 --> 00:43:44,000

Hunting with the Hadza showed me the awesome power of communication and cooperation.

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00:43:45,000 --> 00:43:52,000

These skills not only made our early human ancestors formidable survivors.

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00:43:52,000 --> 00:43:53,000

Sure.

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00:43:53,000 --> 00:43:58,000

They became the very building blocks of language and civilization,

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00:43:58,000 --> 00:44:03,000

giving birth to art, music, and of course, dance.

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00:44:03,000 --> 00:44:07,000

It took millions of years of programming to make you, you.

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00:44:07,000 --> 00:44:12,000

And scientists are now realizing that the key to understanding ourselves and our future

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00:44:12,000 --> 00:44:16,000

lies in decoding what we inherited from our prehistoric past.

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00:44:16,000 --> 00:44:17,000

Woo!

852

00:44:17,000 --> 00:44:19,000

Good boy, Rob.

853

00:44:19,000 --> 00:44:21,000

Thank you, Africa. Good night.

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00:44:21,000 --> 00:44:25,000

And to do that, we need to look inside ourselves, literally.

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00:44:26,000 --> 00:44:29,000

I fly from Tanzania to San Diego, California,

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00:44:30,000 --> 00:44:34,000

where Dr. Nathaniel Pearson has been analyzing a swab of my DNA

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00:44:34,000 --> 00:44:40,000

to see exactly how much of my ancient ancestors still live on in my genetic code.

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00:44:40,000 --> 00:44:41,000

Nathan?

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00:44:41,000 --> 00:44:42,000

Oh, hey.

860

00:44:42,000 --> 00:44:43,000

Hey, how are you, man? Nice to meet you.

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00:44:43,000 --> 00:44:44,000

Pleasure.

862

00:44:44,000 --> 00:44:46,000

Actually, it's not nice to meet you. I'm very nervous to meet you.

863

00:44:46,000 --> 00:44:47,000

Why?

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00:44:47,000 --> 00:44:49,000

Because, you know, when we talk about early human ancestors,

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00:44:49,000 --> 00:44:51,000

it's all been very hypothetical up to this point,

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00:44:51,000 --> 00:44:54,000

but now you have my DNA. It's getting real. It's getting real. It's personal now.

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00:44:54,000 --> 00:44:55,000

It's getting real. That's right.

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00:44:55,000 --> 00:44:57,000

So talk to me. What's going on in here?

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00:44:57,000 --> 00:45:01,000

So DNA is like a cookbook for the proteins that make your body up.

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00:45:01,000 --> 00:45:04,000

I've never had anybody explain it so clearly. That's amazing.

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00:45:04,000 --> 00:45:05,000

That's all it is, right?

872

00:45:05,000 --> 00:45:06,000

It's a cookbook.

873

00:45:06,000 --> 00:45:11,000

It's also becoming the ultimate artifact that traces how we mix together over time.

874

00:45:11,000 --> 00:45:14,000

So it's like a cookbook with a lot of old recipes tucked into margins.

875

00:45:14,000 --> 00:45:15,000

Yeah, and the recipes get mashed up.

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00:45:15,000 --> 00:45:17,000

Got it. So I'm a mess is what you're saying.

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00:45:17,000 --> 00:45:18,000

All of us are.

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00:45:18,000 --> 00:45:19,000

But it's a beautiful mess.

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00:45:19,000 --> 00:45:20,000

Yes.

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00:45:20,000 --> 00:45:21,000

And this is kind of like an example of that.

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00:45:21,000 --> 00:45:26,000

Nathan has organized human DNA from around the world into pools

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00:45:26,000 --> 00:45:28,000

and arranged them by color on this chart

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00:45:28,000 --> 00:45:32,000

to show me what population my own genetic recipe comes from.

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00:45:32,000 --> 00:45:36,000

This is sort of beautiful tapestry mixing all kinds of DNA from different parts of the world.

885

00:45:36,000 --> 00:45:40,000

The green here would be parts of Southern Europe Mediterranean.

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00:45:40,000 --> 00:45:42,000

The orange here will be West Africa.

887

00:45:42,000 --> 00:45:43,000

Okay.

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00:45:43,000 --> 00:45:45,000

And you're seeing those in different mixes as you move across.

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00:45:45,000 --> 00:45:47,000

Once you get to the purple, that's North Asia.

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00:45:47,000 --> 00:45:51,000

There have been waves that come sort of sloshing out of Africa to other parts of the world.

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00:45:51,000 --> 00:45:55,000

Those waves are sloshing together and forming these kinds of mixes over time.

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00:45:55,000 --> 00:45:56,000

Got it.

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00:45:56,000 --> 00:45:57,000

And those mixes then mix on.

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00:45:57,000 --> 00:45:58,000

Yes.

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00:45:58,000 --> 00:46:00,000

We're going to see where your thread kind of fits in.

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00:46:00,000 --> 00:46:01,000

This is you.

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00:46:01,000 --> 00:46:02,000

Okay.

898

00:46:02,000 --> 00:46:03,000

And this is your mix.

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00:46:03,000 --> 00:46:07,000

And so we see here this dark blue that represents a lot of sort of North European ancestry.

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00:46:07,000 --> 00:46:08,000

My mother's British.

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00:46:08,000 --> 00:46:09,000

My parents are white.

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00:46:09,000 --> 00:46:10,000

This is kind of what I would expect.

903

00:46:10,000 --> 00:46:11,000

This is not surprising.

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00:46:11,000 --> 00:46:12,000

Right.

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00:46:12,000 --> 00:46:13,000

And so there's a little sliver there of blue.

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00:46:13,000 --> 00:46:16,000

It's a little component from sort of Southern Asia a long time ago.

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00:46:16,000 --> 00:46:17,000

Wow.

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00:46:17,000 --> 00:46:19,000

But there's little bits of mystery in everybody's genome.

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00:46:19,000 --> 00:46:23,000

I want to emphasize this is all kind of like a bird's eye view of your recent ancestor.

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00:46:23,000 --> 00:46:24,000

Sure.

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00:46:24,000 --> 00:46:26,000

What I want to do now is dive a little bit deeper.

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00:46:26,000 --> 00:46:28,000

We want to look at those individual strings of DNA.

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00:46:28,000 --> 00:46:29,000

Okay.

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00:46:29,000 --> 00:46:33,000

And what they can tell us more deeply about you.

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00:46:33,000 --> 00:46:37,800

This tapestry shows my ancestry going back about 33 generations.

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00:46:37,800 --> 00:46:43,000

But evidence of far more distant relatives lies hidden deep in my genetic code.

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00:46:43,000 --> 00:46:46,000

Let's talk about, you know, early ancestors.

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00:46:46,000 --> 00:46:52,360

When we look at your DNA, we can look back and find traces that hint at early quite mysterious

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00:46:52,360 --> 00:46:57,000

forebears who probably date back about 2000 generations.

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00:46:57,000 --> 00:46:58,000

2000 generations.

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00:46:58,000 --> 00:46:59,000

Yeah.

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00:46:59,000 --> 00:47:00,000

So that's about how many years?

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00:47:00,000 --> 00:47:02,000

That's about 40 to 50,000 years ago.

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00:47:02,000 --> 00:47:05,000

You can find ancestors of mine that far back.

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00:47:05,000 --> 00:47:06,000

We can.

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00:47:06,000 --> 00:47:08,000

Who am I related to?

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00:47:08,000 --> 00:47:09,000

I'm not sure if you're ready.

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00:47:09,000 --> 00:47:14,000

These are ancestors who many folks might not even call human.

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00:47:14,000 --> 00:47:18,000

Next time on Expedition Unknown.

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00:47:18,000 --> 00:47:24,000

Our investigation into what makes us human kicks into high gear.

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00:47:24,000 --> 00:47:29,000

This is the Rosetta Stone of human evolution.

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00:47:29,000 --> 00:47:34,000

I take a dangerous journey into the wilderness to meet our closest living relatives.

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00:47:34,000 --> 00:47:38,000

Face to face.

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00:47:38,000 --> 00:47:45,000

We'll descend beneath the earth to discover the evolutionary leap that made us smarter.

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00:47:45,000 --> 00:47:47,000

Josh, look at this.

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00:47:47,000 --> 00:47:49,000

That is a 2.1 million year old tool.

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00:47:49,000 --> 00:47:52,000

That's crazy.

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00:47:53,000 --> 00:47:59,000

And risk it all to learn the secret to our future survival.

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00:47:59,000 --> 00:48:01,000

Almost there.

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00:48:01,000 --> 00:48:03,000

Whoa, whoa, whoa.