

1

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

We're more than 100 miles above the Arctic Circle and continuing farther north.

2

00:00:07,000 --> 00:00:14,000

Brian and some dudes up there in the trees, kind of starting to poke their heads out.

3

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

I think the best move is for us to stay put.

4

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

The scale of what is going on out here is extraordinary.

5

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

You see what these guys have found and try to determine if there's any DNA worth collecting.

6

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

Look at this place.

7

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

This ceiling is going to come down on its back.

8

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

Back up!

9

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

Look at this thing.

10

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

Intact!

11

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

Hey, I'm on a truth.

12

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

My name is Josh Gates.

13

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

Look at that! With a degree in archaeology and a passion for exploration.

14

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

I have a tendency to end up in some very strange situations.

15

00:01:05,000 --> 00:01:08,000

This is horrible. This is officially horrible.

16

00:01:08,000 --> 00:01:15,000

My travels have taken me to the ends of the earth as I investigate the greatest legends in history.

17

00:01:15,000 --> 00:01:17,000

We're good to try, let's go.

18

00:01:17,000 --> 00:01:20,000

This is Expedition Unknown.

19

00:01:21,000 --> 00:01:27,000

The Woolly Mammoth, the largest mammal ever to walk the earth.

20

00:01:27,000 --> 00:01:36,000

Over 12 feet tall and weighing several tons, the mammoth ruled the Ice Age, dominating Northern Europe, North America and Asia.

21

00:01:36,000 --> 00:01:42,000

Yet sometime around 11,000 years ago, they started vanishing from the planet.

22

00:01:43,000 --> 00:01:48,000

To explain the rise and fall of the Woolly Mammoth, I visited Canadian gold mines,

23

00:01:48,000 --> 00:01:53,000

where high-powered water cannons are revealing ancient bones trapped in permafrost.

24

00:01:53,000 --> 00:01:56,000

Oh my God!

25

00:01:59,000 --> 00:02:03,000

And I flew to Seoul, South Korea to visit Soam Biotech,

26

00:02:03,000 --> 00:02:07,000

a laboratory pioneering the controversial technology of cloning.

27

00:02:07,000 --> 00:02:09,000

Cloning. Look at that.

28

00:02:09,000 --> 00:02:14,000

They hoped to turn science fiction into fact by resurrecting the mammoth from extinction.

29

00:02:14,000 --> 00:02:21,000

But to make their dream a reality, they need something elusive, a strand of intact mammoth DNA.

30

00:02:21,000 --> 00:02:28,000

So I flew to Siberia to join scientists Alexei Tikonov and Sinyin Grigoryev on a daring expedition,

31

00:02:28,000 --> 00:02:33,000

hunting for pristine remains buried in the frozen ground for thousands of years.

32

00:02:33,000 --> 00:02:35,000

Welcome to Batagac, Krater.

33

00:02:35,000 --> 00:02:37,000

Whoa.

34

00:02:40,000 --> 00:02:47,000

The crater is a terrifying wonder, a mile-wide sinkhole that formed after locals cut down trees

35

00:02:47,000 --> 00:02:50,000

atop vast mountains of permafrost.

36

00:02:50,000 --> 00:02:54,000

The whole wall is literally just disintegrating.

37

00:02:57,000 --> 00:03:02,000

The rapidly eroding ice offers a snapshot of over 300,000 years of history.

38

00:03:02,000 --> 00:03:08,000

After repelling down into the crater, our team has discovered the femur of a woolly mammoth

39

00:03:08,000 --> 00:03:11,000

from the Pleistocene era.

40

00:03:12,000 --> 00:03:18,000

And we're about to learn if this leg has the DNA I've traveled 13,000 miles to find.

41

00:03:20,000 --> 00:03:21,000

Look at this.

42

00:03:21,000 --> 00:03:22,000

Oh, my God.

43

00:03:22,000 --> 00:03:24,000

That's unbelievable.

44

00:03:25,000 --> 00:03:27,000

Yeah, you see this spongy structure.

45

00:03:27,000 --> 00:03:28,000

That's marrow, yeah?

46

00:03:28,000 --> 00:03:29,000

Yes, it's marrow.

47

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

It's very well preserved.

48

00:03:30,000 --> 00:03:31,000

Wow, okay.

49

00:03:31,000 --> 00:03:33,000

A really good piece of bone.

50

00:03:34,000 --> 00:03:37,000

We bag our first potential DNA specimen.

51

00:03:37,000 --> 00:03:42,000

The more we get, the better our chances of finding clone-worthy material.

52

00:03:42,000 --> 00:03:47,000

We continue to scan the collapsing landscape, which suddenly reveals a second mammoth bone.

53

00:03:47,000 --> 00:03:49,000

Guys, another one here.

54

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

Oh, great.

55

00:03:50,000 --> 00:03:51,000

Yeah, here.

56

00:03:51,000 --> 00:03:52,000

It's a big one.

57

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

Here.

58

00:03:53,000 --> 00:03:54,000

Come on.

59

00:03:54,000 --> 00:03:55,000

Come on.

60

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

Okay, good.

61

00:03:56,000 --> 00:03:59,000

Well, that means twice as many bones, right?

62

00:03:59,000 --> 00:04:01,000

What do you think, maybe from the sand mammoth?

63

00:04:02,000 --> 00:04:03,000

Tusc!

64

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

Oh, really?

65

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

You got a tusk?

66

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

Okay, great.

67

00:04:10,000 --> 00:04:12,000

What do you got?

68

00:04:13,000 --> 00:04:16,000

All these pieces, all broken, yeah?

69

00:04:16,000 --> 00:04:17,000

Trapped in the ice.

70

00:04:17,000 --> 00:04:18,000

Still in the ice.

71

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

Still in the ice, yeah.

72

00:04:21,000 --> 00:04:22,000

Tusks.

73

00:04:22,000 --> 00:04:24,000

Tusks, yeah, pieces of tusks.

74

00:04:24,000 --> 00:04:30,000

Even though the tusk is badly damaged and crushed in the ice, we'll be able to take a sample for later analysis.

75

00:04:30,000 --> 00:04:34,000

We continue to scour the mud at the bottom of the treacherous crater,

76

00:04:34,000 --> 00:04:38,000

and eventually we send the lab specimen cooler back up to the surface.

77

00:04:38,000 --> 00:04:39,000

Okay, hoisted up!

78

00:04:39,000 --> 00:04:41,000

Oh, my chin is...

79

00:04:43,000 --> 00:04:49,000

Our team on the crater's rim pulls it to safety, as for us, we're forced to hike the long way around.

80

00:04:50,000 --> 00:04:55,000

With our first samples on ice, we're ready to continue our search for mammoth DNA.

81

00:04:55,000 --> 00:05:01,000

The crater is located above the Arctic Circle in a remote northern region of Siberia.

82

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

From here, we drive to the nearest, and, well, only city around.

83

00:05:19,000 --> 00:05:31,000

Welcome to Badagai.

84

00:05:31,000 --> 00:05:34,000

This frontier settlement is home to about 4,000 people,

85

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

though, to be honest, I've only seen about a half a dozen of them.

86

00:05:37,000 --> 00:05:39,000

Back in its heyday, it was an industrial town.

87

00:05:39,000 --> 00:05:42,000

It had an active tin mine, it had a logging industry.

88

00:05:42,000 --> 00:05:47,000

It was also home to gulags, the famous Soviet forced labor camps.

89

00:05:48,000 --> 00:05:50,000

But all of that is in the past.

90

00:05:50,000 --> 00:05:52,000

Today, Badagai feels more like a ghost town,

91

00:05:52,000 --> 00:05:57,000

a place that's barely hanging on against the edge of the Siberian wilderness.

92

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

There's not much by way of sightseeing here,

93

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

and after our adventure at the crater, I'm feeling famished.

94

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

So I pop into a local restaurant for a casual bite to eat.

95

00:06:12,000 --> 00:06:16,000

Fairly confident I've just woken up in a Siberian Wes Anderson movie,

96

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

I do my best to ignore the charming art,

97

00:06:19,000 --> 00:06:21,000

which I'm hoping isn't also on the menu.

98

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

Aha!

99

00:06:27,000 --> 00:06:30,000

One night, local delicacy, horse and venison.

100

00:06:31,000 --> 00:06:33,000

Horse and venison.

101

00:06:33,000 --> 00:06:34,000

Got it.

102

00:06:36,000 --> 00:06:38,000

This is for one person? All this?

103

00:06:41,000 --> 00:06:43,000

I guess she's just staying there.

104

00:06:43,000 --> 00:06:45,000

A lot of pressure.

105

00:06:47,000 --> 00:06:48,000

Hmm.

106

00:06:55,000 --> 00:06:57,000

Looks like sea biscuit lost that last race.

107

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

Sorry buddy.

108

00:07:05,000 --> 00:07:10,000

Much of the local economy that's left around here revolves around the trade of mammoth ivory.

109

00:07:10,000 --> 00:07:13,000

So in order to find a source for the DNA we need,

110

00:07:13,000 --> 00:07:16,000

Alexei has linked us up with someone who's connected.

111

00:07:16,000 --> 00:07:20,000

A local craftsman who carved sculptures out of mammoth ivory.

112

00:07:25,000 --> 00:07:26,000

Nice to meet you.

113

00:07:27,000 --> 00:07:28,000

You made this?

114

00:07:30,000 --> 00:07:31,000

Really intricate.

115

00:07:31,000 --> 00:07:33,000

Can you show me how you do this?

116

00:07:33,000 --> 00:07:38,000

I'm like mystified by how you get a block of ivory to turn into this.

117

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

Ivan grabs a small piece of ivory and goes to work.

118

00:07:42,000 --> 00:07:45,000

First with a sanding wheel, then a fine grinding tool.

119

00:07:45,000 --> 00:07:48,000

Mammoth tusk is much denser than elephant ivory,

120

00:07:48,000 --> 00:07:50,000

but in less time than it takes to brush my teeth,

121

00:07:50,000 --> 00:07:53,000

he's able to give me a taste of what he can do.

122

00:07:55,000 --> 00:07:56,000

That's insane.

123

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

Come on.

124

00:08:02,000 --> 00:08:03,000

That's crazy.

125

00:08:04,000 --> 00:08:05,000

You can try to...

126

00:08:05,000 --> 00:08:06,000

For me to make this?

127

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

Yes, sure.

128

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

I have a funny feeling it's not going to look like this.

129

00:08:10,000 --> 00:08:11,000

I'll try.

130

00:08:11,000 --> 00:08:13,000

Okay, and do what?

131

00:08:14,000 --> 00:08:17,000

Can somebody queue up a good unchained melody knockoff?

132

00:08:18,000 --> 00:08:20,000

I feel like Demi Moore is ghost right now.

133

00:08:23,000 --> 00:08:27,000

I know, I'm trying to concentrate, I'm just falling in love with you, so it's hard.

134

00:08:28,000 --> 00:08:30,000

This is the one where I lose my hand.

135

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

Fine, hold on, I just dropped it here. Let me just grab it.

136

00:08:34,000 --> 00:08:35,000

Oh, here we go.

137

00:08:36,000 --> 00:08:37,000

Perfect.

138

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

What do you think?

139

00:08:38,000 --> 00:08:40,000

It's my first try, but it's not bad, right?

140

00:08:41,000 --> 00:08:43,000

Ivan's tusk carving is impressive,

141

00:08:43,000 --> 00:08:48,000

but it also raises questions that could be important as we press on in our hunt for DNA.

142

00:08:48,000 --> 00:08:51,000

Is this type of ivory carving legal?

143

00:08:51,000 --> 00:08:56,000

It's absolutely legal, yeah, because you just pick up this ivory from the melted sediments,

144

00:08:56,000 --> 00:08:59,000

from the melted deposits in Tundra, in the forest.

145

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

So humane ivory?

146

00:09:00,000 --> 00:09:01,000

Humane ivory, yeah.

147

00:09:02,000 --> 00:09:04,000

Where do you get the ivory from?

148

00:09:04,000 --> 00:09:08,000

Your work is great, but where do you get it from?

149

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

Even though this is legal, so-called humane ivory is banned in most of the world.

150

00:09:14,000 --> 00:09:18,000

People here are often very guarded about revealing their sources,

151

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

but in this case, we seem to be in luck.

152

00:09:20,000 --> 00:09:23,000

I have a supplier in the north.

153

00:09:24,000 --> 00:09:28,000

He has a dealer from the north of the republic, and he will come.

154

00:09:28,000 --> 00:09:29,000

Yeah?

155

00:09:29,000 --> 00:09:30,000

Yeah, sure, it's possible.

156

00:09:30,000 --> 00:09:31,000

Can you call him?

157

00:09:31,000 --> 00:09:33,000

He can call, just now.

158

00:09:33,000 --> 00:09:34,000

Sure, go ahead.

159

00:09:35,000 --> 00:09:37,000

Ivan calls up his dealer.

160

00:09:38,000 --> 00:09:39,000

Hello!

161

00:09:39,000 --> 00:09:41,000

And has to convince him to meet us,

162

00:09:41,000 --> 00:09:44,000

which makes this whole thing start to feel all kinds of shady.

163

00:09:46,000 --> 00:09:47,000

Go ahead, man.

164

00:09:47,000 --> 00:09:50,000

But about a half hour later, his tusk dealer arrives.

165

00:09:52,000 --> 00:09:53,000

And have you met this guy or no?

166

00:09:53,000 --> 00:09:55,000

No, it's his first time, yeah.

167

00:09:57,000 --> 00:09:58,000

That's him?

168

00:09:58,000 --> 00:10:01,000

I knew our expedition would take us to the edge of the map.

169

00:10:01,000 --> 00:10:04,000

Now it seems it's taking us to the edge of the law.

170

00:10:15,000 --> 00:10:18,000

I'm in northern Siberia with a team from Soam Biotech Labs,

171

00:10:18,000 --> 00:10:21,000

attempting to clone the Woolly Mammoth.

172

00:10:21,000 --> 00:10:23,000

On our hunt for preserved mammoth DNA,

173

00:10:23,000 --> 00:10:26,000

we've been hooked up with a mammoth ivory dealer,

174

00:10:26,000 --> 00:10:28,000

who may have a potential source.

175

00:10:28,000 --> 00:10:31,000

But the tusk hunting business is a legal grey area in Russia,

176

00:10:31,000 --> 00:10:34,000

and it involves the kind of guys who usually sell stuff

177

00:10:34,000 --> 00:10:36,000

off the back of their truck.

178

00:10:40,000 --> 00:10:41,000

Hello, I'm Josh.

179

00:10:41,000 --> 00:10:43,000

Nice to meet you.

180

00:10:44,000 --> 00:10:47,000

The ivory that Ivan carves with, he gets from you?

181

00:10:50,000 --> 00:10:51,000

Yeah? You have it here?

182

00:10:51,000 --> 00:10:53,000

Yeah, yeah, can we see?

183

00:10:53,000 --> 00:10:55,000

So it's...

184

00:10:56,000 --> 00:10:58,000

Oh my god, that's all ivory.

185

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

Look at this, it's huge.

186

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

And heavy, really heavy.

187

00:11:03,000 --> 00:11:04,000

Look at that.

188

00:11:04,000 --> 00:11:06,000

It was a big male around 50, 60 years old.

189

00:11:06,000 --> 00:11:08,000

What did he do with me?

190

00:11:08,000 --> 00:11:09,000

This is a female.

191

00:11:09,000 --> 00:11:12,000

If I were to buy all of this, both bags,

192

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

how much would that cost for all of the ivory here?

193

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

\$5,000.

194

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

Will he say where this is coming from?

195

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

Can we ask him where it's coming from?

196

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

Okay.

197

00:11:22,000 --> 00:11:25,000

Misha, where do you get all this material from?

198

00:11:25,000 --> 00:11:28,000

From the north, it's called Unigen.

199

00:11:28,000 --> 00:11:31,000

The name of this site is Unigen.

200

00:11:31,000 --> 00:11:32,000

Unigen?

201

00:11:32,000 --> 00:11:37,000

Yeah, it's not a town, only wild teams of mammoth ivory hunters.

202

00:11:37,000 --> 00:11:39,000

It's quite a remote place.

203

00:11:39,000 --> 00:11:41,000

No law, no police.

204

00:11:41,000 --> 00:11:42,000

So it's deadwood?

205

00:11:42,000 --> 00:11:44,000

It's a dangerous place.

206

00:11:44,000 --> 00:11:46,000

And is there more of this stuff up there?

207

00:11:46,000 --> 00:11:49,000

Alexei speaks in hushed tones with the ivory dealer.

208

00:11:49,000 --> 00:11:54,000

If Unigen is his source, then it could be a potential treasure trove of mammoth DNA.

209

00:11:54,000 --> 00:11:57,000

Still, it's one thing to ask where his supply comes from,

210

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

but it's quite another to ask if we can go visit.

211

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

Too many questions here.

212

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

Okay.

213

00:12:02,000 --> 00:12:04,000

Let me talk a little bit.

214

00:12:04,000 --> 00:12:07,000

Let me explain for him about our scientific mission.

215

00:12:07,000 --> 00:12:08,000

Okay.

216

00:12:09,000 --> 00:12:12,000

I have to say, none of this feels legitimate.

217

00:12:12,000 --> 00:12:17,000

But Unigen could be our best chance for finding the crucial DNA we're looking for.

218

00:12:17,000 --> 00:12:21,000

All we have to do is somehow negotiate our passage with black market raiders

219

00:12:21,000 --> 00:12:24,000

and do an isolated wilderness with no law to speak of.

220

00:12:24,000 --> 00:12:25,000

Vasily.

221

00:12:25,000 --> 00:12:29,000

We're going to a scientific organization.

222

00:12:29,000 --> 00:12:32,000

What does Vasily give you?

223

00:12:32,000 --> 00:12:33,000

Hydrot.

224

00:12:33,000 --> 00:12:39,000

Josh, he gave to me some names for this place.

225

00:12:39,000 --> 00:12:40,000

Are they good contacts?

226

00:12:40,000 --> 00:12:41,000

It's a place to start here.

227

00:12:41,000 --> 00:12:42,000

Yeah, okay.

228

00:12:42,000 --> 00:12:43,000

Great.

229

00:12:43,000 --> 00:12:44,000

Thank you very much.

230

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

Appreciate it.

231

00:12:45,000 --> 00:12:52,000

A lot of boats.

232

00:12:52,000 --> 00:12:53,000

Yeah.

233

00:12:53,000 --> 00:12:56,000

After a lot of phone calls to a lot of unlisted numbers,

234

00:12:56,000 --> 00:12:58,000

Alexi makes the decision.

235

00:12:58,000 --> 00:13:01,000

We'll attempt to travel to the Tusk Hunting camps at Unigen.

236

00:13:01,000 --> 00:13:03,000

The site is deep up the Yonah River,

237

00:13:03,000 --> 00:13:06,000

and Alexi has assembled a crack team to get us there,

238

00:13:06,000 --> 00:13:10,000

including additional backup from SOAM Labs back in Korea.

239

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

Nice to meet you.

240

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

Insang Hwang is a veteran of several expeditions to find mammoth DNA,

241

00:13:16,000 --> 00:13:20,000

and he's well-versed in both the science and diplomacy of mammoth hunting.

242

00:13:20,000 --> 00:13:21,000

Insang, nice to meet you.

243

00:13:21,000 --> 00:13:22,000

Nice to meet you.

244

00:13:22,000 --> 00:13:23,000

How are you?

245

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

Good, how are you?

246

00:13:24,000 --> 00:13:25,000

Good, I'm good, I'm good.

247

00:13:25,000 --> 00:13:26,000

You work with the SOAM Lab, yeah?

248

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

Right, right.

249

00:13:27,000 --> 00:13:29,000

So we potentially found this new site, Alexi told me.

250

00:13:29,000 --> 00:13:30,000

We've never been there.

251

00:13:30,000 --> 00:13:33,000

This is the only method of transportation that's available to us.

252

00:13:33,000 --> 00:13:34,000

There's no roads leading there.

253

00:13:34,000 --> 00:13:38,000

We have to travel up north 200 kilometers from here, so it's pretty far.

254

00:13:38,000 --> 00:13:40,000

Will we be welcome up there?

255

00:13:40,000 --> 00:13:43,000

We don't really know, we don't really know, because it's a brand new site.

256

00:13:43,000 --> 00:13:49,000

A lot of hunters are going to be there, and it's impossible to tell whether they have the license

257

00:13:49,000 --> 00:13:52,000

to actually collect ivory from that site.

258

00:13:52,000 --> 00:13:53,000

So there's illegal stuff going on.

259

00:13:53,000 --> 00:13:58,000

Right, we're treading into a very gray area, and we might as well be cautious.

260

00:13:58,000 --> 00:13:59,000

Okay, let's load up.

261

00:13:59,000 --> 00:14:00,000

Let's go.

262

00:14:00,000 --> 00:14:01,000

Let's go.

263

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

A strange mission up a remote river to an unknown destination where people have every reason to be hostile to us.

264

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

The whole thing feels very apocalypse now, but no one said finding Mammoth DNA was going to be a walk in the park.

265

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

Our team climbs aboard every available boat in the area, as well as a hovercraft, where Alexi, Insang and I will lead the convoy.

266

00:14:30,000 --> 00:14:37,000

We're headed 120 miles north of the last outpost of civilization to a lawless frontier camp where anything could happen.

267

00:14:37,000 --> 00:14:40,000

It's a journey that will take over 10 hours up the frigid river.

268

00:14:40,000 --> 00:14:46,000

Where we're going, there are no roads, no law, and in these summer months, no night.

269

00:15:02,000 --> 00:15:03,000

This!

270

00:15:03,000 --> 00:15:05,000

This is the real Siberia.

271

00:15:05,000 --> 00:15:10,000

We're more than 100 miles above the Arctic Circle and continuing farther north.

272

00:15:10,000 --> 00:15:13,000

A few months from now, this trip wouldn't be possible.

273

00:15:13,000 --> 00:15:19,000

This river will be frozen solid, and temperatures all across Siberia will plummet.

274

00:15:19,000 --> 00:15:27,000

But in this brief window, it's possible for us to push north and to see these really remote parts of Russia.

275

00:15:28,000 --> 00:15:35,000

There are hundreds of miles of untouched wilderness laid out in front of us like a carpet.

276

00:15:35,000 --> 00:15:42,000

And we're the only people around to appreciate its stunning beauty.

277

00:15:46,000 --> 00:15:52,000

The farther north we go, the colder it gets, and the reality of our isolation begins to set in.

278

00:15:53,000 --> 00:15:56,000

Looks like we've got a little weather moving in.

279

00:15:56,000 --> 00:16:00,000

Cloud cover and a couple spots of rain.

280

00:16:00,000 --> 00:16:05,000

Up here, the weather changes instantly as storms sweep across 3,000 miles of tundra.

281

00:16:05,000 --> 00:16:08,000

And that isn't all we have to worry about.

282

00:16:13,000 --> 00:16:15,000

Brian and Josh.

283

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

Yeah, what's the matter?

284

00:16:17,000 --> 00:16:20,000

I don't know, he's checking the engine.

285

00:16:20,000 --> 00:16:23,000

It just seems like something's not working.

286

00:16:23,000 --> 00:16:26,000

Can we turn around?

287

00:16:26,000 --> 00:16:30,000

What happened to you? What's the problem?

288

00:16:30,000 --> 00:16:32,000

Yeah, they're not moving.

289

00:16:32,000 --> 00:16:35,000

Yeah, the engine.

290

00:16:37,000 --> 00:16:40,000

This is the wrong part of the world to get stranded.

291

00:16:40,000 --> 00:16:43,000

We don't have the resources or the time to waste.

292

00:16:43,000 --> 00:16:46,000

Any delay, and we might have to abandon our mission.

293

00:16:47,000 --> 00:16:50,000

I think we've got a town. We're having some engine trouble.

294

00:16:57,000 --> 00:17:02,000

On our quest for mammoth DNA in northern Siberia, our convoy is heading up the Yana River,

295

00:17:02,000 --> 00:17:06,000

bound for a remote region where grey market ivory hunters

296

00:17:06,000 --> 00:17:10,000

have reportedly discovered pristine ice age remains.

297

00:17:10,000 --> 00:17:14,000

But now, one of our boats has conked out 100 miles from the nearest town.

298

00:17:14,000 --> 00:17:16,000

What's going on?

299

00:17:16,000 --> 00:17:18,000

I think we've broken down. We're having some engine trouble.

300

00:17:18,000 --> 00:17:23,000

This is like my big sphere out here, because if this boat breaks down and can't be restarted,

301

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

we don't have a lot of room to absorb passengers and gear into the other boats.

302

00:17:27,000 --> 00:17:30,000

We're basically running fully loaded, and so it just causes a problem

303

00:17:30,000 --> 00:17:33,000

that basically jeopardizes the whole mission at this point.

304

00:17:33,000 --> 00:17:36,000

Brian, Danny.

305

00:17:36,000 --> 00:17:40,000

We're going to have to leave you guys here, I think. This is where we park company.

306

00:17:40,000 --> 00:17:42,000

It's been a real honor working with you.

307

00:17:42,000 --> 00:17:44,000

I know you've got room in there.

308

00:17:44,000 --> 00:17:47,000

Look, we're going to send a party back in the spring for you guys, okay?

309

00:17:47,000 --> 00:17:50,000

You just got to get through the winter.

310

00:17:52,000 --> 00:17:56,000

While kidding aside, losing a boat at this point could doom the whole expedition.

311

00:17:56,000 --> 00:17:59,000

We're days from the nearest mechanic.

312

00:17:59,000 --> 00:18:02,000

Then, we catch a break.

313

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

Yes!

314

00:18:05,000 --> 00:18:07,000

Yes!

315

00:18:07,000 --> 00:18:10,000

We're not freezing to death.

316

00:18:10,000 --> 00:18:13,000

Guys, I was never really going to leave you here.

317

00:18:13,000 --> 00:18:16,000

I was going to leave you here.

318

00:18:16,000 --> 00:18:20,000

Okay, back on the way. Let's do it.

319

00:18:22,000 --> 00:18:24,000

Back on the road.

320

00:18:25,000 --> 00:18:27,000

Woo!

321

00:18:29,000 --> 00:18:31,000

There we go!

322

00:18:33,000 --> 00:18:37,000

No sooner do we get going again than the sky changes to match our mood.

323

00:18:37,000 --> 00:18:43,000

Once again, we're sailing through the 24-hour sunshine on the hunt for mammoth DNA.

324

00:18:47,000 --> 00:18:51,000

After nearly 11 hours, we're completely off the grid,

325

00:18:51,000 --> 00:18:57,000

out of touch with the rest of the world, and fast approaching a place that's determined to stay that way.

326

00:18:57,000 --> 00:19:00,000

That looks like the other camp right there. There's a boat there.

327

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

So, I think that's where we're going.

328

00:19:02,000 --> 00:19:04,000

Unigut. Not a town or a village.

329

00:19:04,000 --> 00:19:08,000

Just a ragged collection of campsites in the Siberian wilderness,

330

00:19:08,000 --> 00:19:11,000

where treasure hunters dig for valuable mammoth ivory,

331

00:19:11,000 --> 00:19:14,000

and they don't take kindly to strangers.

332

00:19:14,000 --> 00:19:17,000

Hey guys, we're going to stay in the boats here.

333

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

Let's let Alexei and Simian go up into the camp and talk with these guys.

334

00:19:20,000 --> 00:19:23,000

I think the best move is for us to stay put, okay?

335

00:19:25,000 --> 00:19:26,000

Copy that.

336

00:19:26,000 --> 00:19:27,000

Okay, Alexei?

337

00:19:28,000 --> 00:19:29,000

Let's go.

338

00:19:29,000 --> 00:19:30,000

It's up to you now.

339

00:19:30,000 --> 00:19:31,000

We're back.

340

00:19:31,000 --> 00:19:32,000

Okay.

341

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

Okay.

342

00:19:39,000 --> 00:19:42,000

I think the Russian guys are coming down right now.

343

00:19:42,000 --> 00:19:44,000

Oh yeah, I see dudes. There's dudes up there.

344

00:19:44,000 --> 00:19:45,000

Yeah.

345

00:19:46,000 --> 00:19:49,000

We're in the subdued up there in the trees, kind of starting to poke their heads out.

346

00:19:50,000 --> 00:19:51,000

It's at year nine o'clock.

347

00:19:54,000 --> 00:19:55,000

I think they're actually coming down.

348

00:19:55,000 --> 00:19:56,000

There you go.

349

00:19:56,000 --> 00:19:57,000

Got them, got them, got them.

350

00:19:57,000 --> 00:19:59,000

These guys are coming out to meet the mammoth.

351

00:20:08,000 --> 00:20:12,000

Alexei and Simian negotiate with the ivory hunters for safe passage.

352

00:20:12,000 --> 00:20:16,000

The wrong word in this situation could turn very dangerous.

353

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

It's really up to Alexei and Simian to kind of work their magic,

354

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

because I don't know if these guys would actually say yes to something like this.

355

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

It'd be very surprising if they actually let us film them at all.

356

00:20:35,000 --> 00:20:36,000

Right?

357

00:20:36,000 --> 00:20:37,000

Right?

358

00:20:41,000 --> 00:20:43,000

It takes long minutes, but eventually.

359

00:20:43,000 --> 00:20:45,000

We are welcome here.

360

00:20:45,000 --> 00:20:50,000

They permitted us to stay here, but it's only a problem that they have a request

361

00:20:50,000 --> 00:20:53,000

not to show their faces in our film.

362

00:20:53,000 --> 00:20:55,000

Okay, they don't want to be identified.

363

00:20:55,000 --> 00:20:56,000

Yeah, they don't want to be identified.

364

00:20:56,000 --> 00:20:57,000

Okay, that's fine.

365

00:20:57,000 --> 00:20:58,000

Looks like we're in.

366

00:20:58,000 --> 00:21:03,000

The ivory hunters have allowed us into Unigam, and we have their permission to stay.

367

00:21:06,000 --> 00:21:09,000

But my sense is that most of them aren't people persons,

368

00:21:09,000 --> 00:21:14,000

so we on mode our gear quickly and make our way into the main camp without trying to socialize.

369

00:21:14,000 --> 00:21:18,000

These guys got a little village going in here.

370

00:21:18,000 --> 00:21:20,000

We're clearly in the right place.

371

00:21:20,000 --> 00:21:26,000

In this particular campsite, there are four or five hunters who've been living here for the past two months.

372

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

They fashioned a crude dining room, a kitchen, and to my surprise, a homemade sauna.

373

00:21:31,000 --> 00:21:36,000

We set up our tents at the edge of the site, hoping to get some much needed shut up.

374

00:21:40,000 --> 00:21:44,000

Morning comes quickly in Siberia, especially when there's no night,

375

00:21:44,000 --> 00:21:48,000

but our crack team is ready to tackle the big day.

376

00:21:51,000 --> 00:21:52,000

Where am I?

377

00:21:53,000 --> 00:21:54,000

Where am I?

378

00:22:05,000 --> 00:22:06,000

Oh!

379

00:22:07,000 --> 00:22:09,000

I see a carabin if I wear it out.

380

00:22:09,000 --> 00:22:10,000

Where am I?

381

00:22:17,000 --> 00:22:23,000

To finally reach the Unigam dig site, we have to cross from the camp to the other side of the Yana River.

382

00:22:26,000 --> 00:22:30,000

Even this close, I have no idea what this ivory dig site is going to look like.

383

00:22:30,000 --> 00:22:33,000

Nothing like this has ever been documented before.

384

00:22:33,000 --> 00:22:35,000

We're way off script.

385

00:22:36,000 --> 00:22:39,000

Looks like we're coming into some sort of bay.

386

00:22:39,000 --> 00:22:42,000

I see stuff over there in the banks.

387

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

You see that?

388

00:22:43,000 --> 00:22:45,000

There's some people over there.

389

00:22:45,000 --> 00:22:47,000

I can't tell how many there are.

390

00:22:47,000 --> 00:22:52,000

At long last, Unigam, the mother load for Siberian tusk hunters.

391

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

Here we are.

392

00:22:53,000 --> 00:22:55,000

I'm not sure where, but we're here.

393

00:22:58,000 --> 00:23:02,000

Out on the edge of nowhere, we discover an astonishing site.

394

00:23:02,000 --> 00:23:07,000

Dozens of boats and crude platforms that have been converted into pumping barges.

395

00:23:07,000 --> 00:23:12,000

Filming is touch and go because now we're in the company of more than 50 tusk hunters

396

00:23:12,000 --> 00:23:15,000

from Canada, the largest in the world.

397

00:23:15,000 --> 00:23:18,000

There's a lot of eyes on us and most of them are suspicious.

398

00:23:18,000 --> 00:23:21,000

So I think it's like no faces, right?

399

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

Either cut them off the head or we'll throw a blurt out if they'll give us permission.

400

00:23:25,000 --> 00:23:28,000

But I don't think any of this stuff is on the books, you know?

401

00:23:28,000 --> 00:23:29,000

Yeah.

402

00:23:29,000 --> 00:23:35,000

Gas generators feed water into fire hoses that snake up the beach and into the surrounding woods.

403

00:23:35,000 --> 00:23:39,000

These are the tools that we use to make the water flow.

404

00:23:39,000 --> 00:23:44,000

We follow the hoses like breadcrumbs into the forest, eager to see where it all leads.

405

00:23:44,000 --> 00:23:48,000

There's about, I don't know, 10 fully pressurized fire hoses on this side of the bank,

406

00:23:48,000 --> 00:23:52,000

seven or eight on this side all leading up valley.

407

00:23:52,000 --> 00:23:55,000

We're here to see where the tusk hunters are.

408

00:23:57,000 --> 00:24:00,000

We're here to see where the tusk hunters are.

409

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

We're here to see where the tusk hunters are.

410

00:24:02,000 --> 00:24:04,000

We're here to see where the tusk hunters are.

411

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

Up valley.

412

00:24:09,000 --> 00:24:14,000

We hike through torrents of water rushing back down toward the beach.

413

00:24:14,000 --> 00:24:17,000

And eventually get to the end of the line.

414

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

What we find is both breathtaking and horrifying.

415

00:24:20,000 --> 00:24:23,000

Oh my God!

416

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

In northern Siberia, my quest for mammoth DNA has brought me to a quasi-legal mining operation

417

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

built to unearth ancient mammoth ivory from the permafrost.

418

00:24:33,000 --> 00:24:35,000

Where are you guys from?

419

00:24:35,000 --> 00:24:41,000

So, Josh, this is a tunnel so we can go inside here.

420

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

Oh my God!

421

00:24:46,000 --> 00:24:48,000

We've arrived at the northern Siberia.

422

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

Oh my God!

423

00:24:52,000 --> 00:24:56,000

We've arrived at our destination to find the earth gourd open.

424

00:24:56,000 --> 00:25:02,000

Now we suit up to enter a realm of ice, bone, darkness and danger.

425

00:25:06,000 --> 00:25:07,000

It's huge!

426

00:25:10,000 --> 00:25:13,000

In a long career of traveling to risky locations,

427

00:25:13,000 --> 00:25:18,000

these tunnels are without a doubt the single most dangerous place I have ever set foot.

428

00:25:18,000 --> 00:25:22,000

Waterfalls of ice age mud and gravel roar out of the tunnels

429

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

as the fire hoses continuously blast into the hills.

430

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

None of the passages are structurally reinforced

431

00:25:29,000 --> 00:25:33,000

and millions of pounds of ice hang precariously overhead.

432

00:25:36,000 --> 00:25:38,000

Look at this place.

433

00:25:39,000 --> 00:25:43,000

We carefully walk to the back of the tunnel looking for preserved remains.

434

00:25:43,000 --> 00:25:46,000

It's Simeon who makes the first catch and it's a doozy.

435

00:25:46,000 --> 00:25:47,000

Josh!

436

00:25:48,000 --> 00:25:53,000

I think it's a mammoth excrements.

437

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

That's mammoth poop?

438

00:25:54,000 --> 00:25:55,000

I think so.

439

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

What?

440

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

We are so lucky.

441

00:26:03,000 --> 00:26:05,000

You can smell it.

442

00:26:06,000 --> 00:26:07,000

You can smell it.

443

00:26:08,000 --> 00:26:11,000

Yeah, I can smell it. Why did I do that?

444

00:26:11,000 --> 00:26:12,000

I'm so happy.

445

00:26:13,000 --> 00:26:16,000

I've never seen a guy so happy to find poop before.

446

00:26:17,000 --> 00:26:20,000

It might be gross, but it's also a big deal.

447

00:26:20,000 --> 00:26:25,000

This is only the second time that an intact mammoth dropping has been found in permafrost.

448

00:26:25,000 --> 00:26:31,000

It's a very important scientific example for extracting mammoths in the near of these mammoths.

449

00:26:31,000 --> 00:26:36,000

We can look at what these mammoths ate and many other information.

450

00:26:36,000 --> 00:26:40,000

Much more rare find compared with bone.

451

00:26:40,000 --> 00:26:42,000

That's amazing. That's really cool.

452

00:26:50,000 --> 00:26:54,000

The scale of what is going on out here is extraordinary.

453

00:26:54,000 --> 00:26:58,000

Basically, all through this valley you've just got claim after claim.

454

00:26:58,000 --> 00:27:04,000

Different tusk hunters that are using their own fire hoses to just blast away permafrost.

455

00:27:04,000 --> 00:27:08,000

And so, Simeon, Alexi, Insung and I, we're just going from site to site,

456

00:27:08,000 --> 00:27:10,000

trying to see what these guys have found,

457

00:27:10,000 --> 00:27:13,000

trying to determine if there's any DNA worth collecting.

458

00:27:14,000 --> 00:27:18,000

The tunnels are claustrophobic and in a constant state of disintegration.

459

00:27:18,000 --> 00:27:22,000

One tunnel entrance gives way right next to my cameraman Evan.

460

00:27:29,000 --> 00:27:31,000

Is this one?

461

00:27:34,000 --> 00:27:39,000

We enter each tunnel with great trepidation and we assess the samples as quickly as possible.

462

00:27:39,000 --> 00:27:43,000

Stay too long and we risk becoming additions to the bone pipe.

463

00:27:43,000 --> 00:27:45,000

Hammer of reindeer.

464

00:27:45,000 --> 00:27:46,000

Reindeer.

465

00:27:47,000 --> 00:27:50,000

The reindeer bones stay. We only have eyes for the mammoth.

466

00:27:50,000 --> 00:27:52,000

Okay, no samples in there.

467

00:27:53,000 --> 00:27:57,000

But if one cave doesn't have what we're looking for, there are hundreds more.

468

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

Oh, Josh.

469

00:28:01,000 --> 00:28:02,000

What is it?

470

00:28:02,000 --> 00:28:04,000

That's a neck bone. Neck bone of mammoth.

471

00:28:04,000 --> 00:28:05,000

Neck bone of mammoth.

472

00:28:05,000 --> 00:28:06,000

Neck bone of mammoth.

473

00:28:06,000 --> 00:28:07,000

Neck bone of mammoth.

474

00:28:07,000 --> 00:28:09,000

One of the few vertebrates.

475

00:28:10,000 --> 00:28:12,000

Neck bones, huh? Of the vertebrae.

476

00:28:12,000 --> 00:28:14,000

Oh, look at that.

477

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

We each drag our finds into the clearing to evaluate what we've got.

478

00:28:22,000 --> 00:28:24,000

Oh my God.

479

00:28:24,000 --> 00:28:26,000

This is a skull of a woolly rhinoceros.

480

00:28:26,000 --> 00:28:27,000

Woolly rhinoceros.

481

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

Woolly rhinoceros.

482

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

Look at the teeth.

483

00:28:34,000 --> 00:28:39,000

In this area, the tusk hunters have found a particularly rich vein of mammoth remains.

484

00:28:39,000 --> 00:28:46,000

We're anxious to get a look inside, but before we even get a chance to ask, the ivory hunter is sounding an alarm.

485

00:28:46,000 --> 00:28:47,000

Okay.

486

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

Ah!

487

00:28:52,000 --> 00:28:53,000

Tusk!

488

00:28:53,000 --> 00:28:54,000

Tusk!

489

00:28:54,000 --> 00:28:56,000

Go, go, go! Get in there. Go, go, go ahead, go ahead.

490

00:29:02,000 --> 00:29:05,000

Where? Where is it?

491

00:29:05,000 --> 00:29:06,000

There!

492

00:29:06,000 --> 00:29:09,000

Ha-ha! Look at that! Look at that!

493

00:29:09,000 --> 00:29:12,000

The North Side of Siberia

494

00:29:16,000 --> 00:29:23,000

On the northern edge of Siberia, our trek into man-made ice tunnels to find mammoth DNA has been difficult and dangerous.

495

00:29:23,000 --> 00:29:26,000

But it seems like we've caught a lucky break.

496

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

Yeah! Mama's tough!

497

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

You got a tough one.

498

00:29:32,000 --> 00:29:33,000

Good. That's it.

499

00:29:33,000 --> 00:29:35,000

Where? Where is it?

500

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

There!

501

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

Ha-ha!

502

00:29:37,000 --> 00:29:39,000

Look at that! Look at that!

503

00:29:39,000 --> 00:29:41,000

The big one.

504

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

Ha-ha!

505

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

It's right here.

506

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

Look at this thing.

507

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

Yeah.

508

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

Wow.

509

00:29:46,000 --> 00:29:49,000

In tact, he just knocked it out of the ice.

510

00:29:52,000 --> 00:29:55,000

They're well preserved according to the color that we see right now.

511

00:29:55,000 --> 00:29:57,000

This tusk is an amazing find.

512

00:29:57,000 --> 00:30:02,000

It's why this entire camp is here and why the ground is being turned into Swiss cheese.

513

00:30:02,000 --> 00:30:08,000

If we can get the tusk out of the ice quickly, we might be able to get a DNA sample before the hunters claim it.

514

00:30:09,000 --> 00:30:10,000

Oh!

515

00:30:10,000 --> 00:30:11,000

Yeah, it's falling.

516

00:30:11,000 --> 00:30:13,000

The ceiling is going to come down on us.

517

00:30:13,000 --> 00:30:15,000

We're going to be well preserved here still when the ceiling comes down.

518

00:30:15,000 --> 00:30:18,000

Let's see if we can get it out before this whole thing comes down.

519

00:30:18,000 --> 00:30:20,000

Because it's loosened up all this stuff now with the hose.

520

00:30:22,000 --> 00:30:24,000

Okay, real careful, yeah?

521

00:30:24,000 --> 00:30:26,000

We don't want to break this thing.

522

00:30:26,000 --> 00:30:28,000

Okay, let's try to get it out of here.

523

00:30:28,000 --> 00:30:29,000

Here we go.

524

00:30:33,000 --> 00:30:35,000

Alexi, I got a present for you.

525

00:30:35,000 --> 00:30:37,000

Oh my God.

526

00:30:37,000 --> 00:30:38,000

What do you think?

527

00:30:38,000 --> 00:30:39,000

Unbelievable.

528

00:30:39,000 --> 00:30:40,000

Yeah?

529

00:30:40,000 --> 00:30:41,000

Excellent find.

530

00:30:41,000 --> 00:30:42,000

Beautiful preservation.

531

00:30:42,000 --> 00:30:48,000

The clock is ticking and the tusk is slippery, awkward and weighs well over 100 pounds.

532

00:30:48,000 --> 00:30:53,000

It's crucial to get it out in one piece to protect any DNA inside.

533

00:30:53,000 --> 00:30:59,000

Also, a tusk this intact could be worth up to \$50,000 to the miners.

534

00:30:59,000 --> 00:31:02,000

Chances are, they aren't just going to let us walk away with this thing.

535

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

Okay.

536

00:31:05,000 --> 00:31:07,000

Adult man, pull your mammoths.

537

00:31:07,000 --> 00:31:08,000

Incredible.

538

00:31:08,000 --> 00:31:09,000

How old do you think this is?

539

00:31:09,000 --> 00:31:13,000

We can estimate now it's 30,000, 40,000 years ago.

540

00:31:13,000 --> 00:31:14,000

Incredible.

541

00:31:14,000 --> 00:31:18,000

This is really good because this tusk has been preserved very well.

542

00:31:18,000 --> 00:31:21,000

This is a very good sign, especially for this Uningen site.

543

00:31:21,000 --> 00:31:23,000

Can you pull DNA out of this?

544

00:31:23,000 --> 00:31:24,000

Sure.

545

00:31:24,000 --> 00:31:27,000

Very good material for affecting all the other things.

546

00:31:27,000 --> 00:31:30,000

Very good material for affecting all DNA.

547

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

That's definitely a good start.

548

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

We've got a piece of the puzzle.

549

00:31:33,000 --> 00:31:34,000

Great find.

550

00:31:34,000 --> 00:31:40,000

It takes some delicate negotiating for permission to take a discrete sample, but we get our

551

00:31:40,000 --> 00:31:43,000

specimen and immediately put it on ice with the other finds.

552

00:31:43,000 --> 00:31:47,000

Alexi and Simeon believe we may have just found what we came for.

553

00:31:51,000 --> 00:31:54,000

With our cooler full of mammoth DNA, we're ready to go.

554

00:31:54,000 --> 00:31:58,000

But before we can leave, our tusk hunting hosts step in our way.

555

00:31:58,000 --> 00:32:03,000

Everything with these guys has been precarious, so I'm a little concerned when I see the main

556

00:32:03,000 --> 00:32:06,000

hunter descend into a makeshift cellar to grab something.

557

00:32:06,000 --> 00:32:07,000

What are they getting?

558

00:32:07,000 --> 00:32:08,000

Everything, right?

559

00:32:10,000 --> 00:32:11,000

We toast.

560

00:32:11,000 --> 00:32:17,000

The scientists to our successful mammoth mission, the hunters to a profitable day, and me to the

561

00:32:17,000 --> 00:32:19,000

hope that we don't all go blind here.

562

00:32:19,000 --> 00:32:20,000

Cheers.

563

00:32:20,000 --> 00:32:21,000

Cheers.

564

00:32:21,000 --> 00:32:22,000

What are you eating?

565

00:32:22,000 --> 00:32:23,000

Tea.

566

00:32:23,000 --> 00:32:24,000

Tea.

567

00:32:24,000 --> 00:32:25,000

Tea.

568

00:32:25,000 --> 00:32:26,000

Tea.

569

00:32:26,000 --> 00:32:27,000

Tea.

570

00:32:27,000 --> 00:32:28,000

Tea.

571

00:32:28,000 --> 00:32:29,000

Tea.

572

00:32:29,000 --> 00:32:30,000

Tea.

573

00:32:30,000 --> 00:32:31,000

Tea.

574

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

Tea.

575

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

Tea.

576

00:32:33,000 --> 00:32:34,000

Tea.

577

00:32:34,000 --> 00:32:35,000

Tea.

578

00:32:35,000 --> 00:32:36,000

Tea.

579

00:32:36,000 --> 00:32:37,000

Tea.

580

00:32:37,000 --> 00:32:38,000

Tea.

581

00:32:38,000 --> 00:32:39,000

Tea.

582

00:32:39,000 --> 00:32:40,000

Tea.

583

00:32:40,000 --> 00:32:41,000

Tea.

584

00:32:41,000 --> 00:32:42,000

Here's a little travel tip.

585

00:32:42,000 --> 00:32:44,000

Don't drink with Russians.

586

00:32:47,000 --> 00:32:49,000

They will outpace you.

587

00:32:54,000 --> 00:32:58,000

It's a new day.

588

00:32:58,000 --> 00:33:03,000

I've got a splitting headache, and we load our precious cargo onto the boats.

589

00:33:03,000 --> 00:33:10,000

It's a 10-hour ride to Badagai, then a flight to the city of Yakutsk, where we're bringing

590

00:33:10,000 --> 00:33:15,000

our specimen to the lab of the Northeastern Federal University.

591

00:33:15,000 --> 00:33:21,000

To prepare our samples for testing, we slip on sterile gloves, and it's a good thing.

592

00:33:21,000 --> 00:33:23,000

First up is the mammoth poop.

593

00:33:23,000 --> 00:33:25,000

That is one big pilot.

594

00:33:25,000 --> 00:33:30,000

We only need a tiny piece of it for DNA extraction.

595

00:33:30,000 --> 00:33:34,000

I wish I could tell you this is the first time I've had to put poo in a bottle, but it's

596

00:33:34,000 --> 00:33:37,000

not even the first time this season.

597

00:33:41,000 --> 00:33:42,000

Nice.

598

00:33:42,000 --> 00:33:44,000

There we go.

599

00:33:44,000 --> 00:33:50,000

We then prep the marrow from the Badagai crater, along with our other finds from Unigine.

600

00:33:50,000 --> 00:33:51,000

Bones check, poop check.

601

00:33:51,000 --> 00:33:52,000

We got it.

602

00:33:52,000 --> 00:33:54,000

No, we have another sample.

603

00:33:54,000 --> 00:33:55,000

Even another sample?

604

00:33:55,000 --> 00:33:56,000

Upstairs.

605

00:33:56,000 --> 00:33:57,000

Yes.

606

00:33:57,000 --> 00:33:58,000

Please.

607

00:33:58,000 --> 00:34:00,000

Alexei has been holding out on me.

608

00:34:00,000 --> 00:34:03,000

He has one more mammoth specimen on ice for testing.

609

00:34:03,000 --> 00:34:07,000

He leads me into a Sub-Zero storage room to retrieve it.

610

00:34:07,000 --> 00:34:08,000

Strong smell.

611

00:34:08,000 --> 00:34:09,000

Yeah.

612

00:34:09,000 --> 00:34:10,000

What is this?

613

00:34:10,000 --> 00:34:11,000

Excellent specimen.

614

00:34:11,000 --> 00:34:12,000

It's a trunk of mammoths.

615

00:34:12,000 --> 00:34:13,000

Are you kidding me?

616

00:34:13,000 --> 00:34:14,000

No.

617

00:34:14,000 --> 00:34:16,000

That is so incredible.

618

00:34:16,000 --> 00:34:19,000

First time in the history of the anthology.

619

00:34:19,000 --> 00:34:21,000

The complete trunk of the mammoths.

620

00:34:21,000 --> 00:34:23,000

This is the tip of the trunk.

621

00:34:23,000 --> 00:34:25,000

Look at the preservation on it.

622

00:34:25,000 --> 00:34:26,000

With wool.

623

00:34:26,000 --> 00:34:27,000

With wool.

624

00:34:27,000 --> 00:34:28,000

The wool of the woolly mammoth.

625

00:34:28,000 --> 00:34:32,000

You're looking at the best preserved trunk of a woolly mammoth ever found.

626

00:34:32,000 --> 00:34:37,000

These remains were discovered by Simeon and his team on an island off the coast of Siberia.

627

00:34:37,000 --> 00:34:39,000

That is incredible.

628

00:34:39,000 --> 00:34:40,000

And is this more of it here?

629

00:34:40,000 --> 00:34:41,000

Oh my God.

630

00:34:41,000 --> 00:34:42,000

This is a leg.

631

00:34:42,000 --> 00:34:43,000

This is a leg.

632

00:34:43,000 --> 00:34:44,000

Look at that.

633

00:34:44,000 --> 00:34:46,000

This is a belly.

634

00:34:46,000 --> 00:34:47,000

It's huge.

635

00:34:47,000 --> 00:34:48,000

Look at it.

636

00:34:48,000 --> 00:34:49,000

Excellent preservation.

637

00:34:49,000 --> 00:34:50,000

Unbelievable.

638

00:34:50,000 --> 00:34:51,000

That is awesome.

639

00:34:51,000 --> 00:34:58,000

When these remains were discovered a few years back, the technology to extract ancient and fragile DNA was in its infancy.

640

00:34:58,000 --> 00:35:01,000

So this mammoth has never been fully tested.

641

00:35:01,000 --> 00:35:03,000

Okay, let's get some DNA out of it.

642

00:35:03,000 --> 00:35:07,000

We carefully take a small sample to add to our hull.

643

00:35:07,000 --> 00:35:10,000

Mammoth belly.

644

00:35:10,000 --> 00:35:11,000

Uh-huh.

645

00:35:12,000 --> 00:35:21,000

From the freezer, we go to the genetics lab where the lead technician will prepare our specimens for DNA analysis.

646

00:35:21,000 --> 00:35:23,000

Hello.

647

00:35:27,000 --> 00:35:30,000

We suit up to protect our samples from contamination.

648

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

We don't want our Ice Age Siberian mammoth to read as a 30-something Massachusetts wise-ass.

649

00:35:37,000 --> 00:35:39,000

Okay, so what happens now?

650

00:35:39,000 --> 00:35:45,000

So we have some chemicals here, some solutions, and we're going to cut our sample into even smaller pieces.

651

00:35:45,000 --> 00:35:49,000

So that we can decontaminate them before we actually carry on the experiments.

652

00:35:49,000 --> 00:35:50,000

Okay, got it.

653

00:35:51,000 --> 00:35:56,000

Each specimen is treated with enzymes that strip away everything except the DNA.

654

00:35:56,000 --> 00:36:03,000

It's an involved process, but once she's cleaned away 30,000 years of dirt and grime, it's amazing what we find.

655

00:36:03,000 --> 00:36:04,000

Red meat.

656

00:36:04,000 --> 00:36:05,000

Red meat, yeah.

657

00:36:05,000 --> 00:36:06,000

Wow, look at that.

658

00:36:06,000 --> 00:36:08,000

Unbelievable preservation.

659

00:36:10,000 --> 00:36:16,000

Each specimen is cleaned, cut, and treated, then spun in a centrifuge to isolate any DNA.

660

00:36:19,000 --> 00:36:26,000

Finally, the sample is marked with dye and put on a slide so the results can be viewed in an ultraviolet scanner.

661

00:36:26,000 --> 00:36:27,000

Hey, Mom, I want a truth.

662

00:36:27,000 --> 00:36:28,000

Thank you.

663

00:36:28,000 --> 00:36:29,000

Here we go.

664

00:36:29,000 --> 00:36:30,000

All right.

665

00:36:30,000 --> 00:36:37,000

After thousands of miles of hiking, driving, boating, climbing, and digging across Siberia,

666

00:36:37,000 --> 00:36:42,000

we're about to learn if we've made history and can actually bring the woolly mammoth back to life.

667

00:36:42,000 --> 00:36:43,000

Okay, let's see what we got.

668

00:36:51,000 --> 00:36:58,000

At a genetics lab in Siberia, I'm about to find out if we've succeeded in tracking down a complete strand of mammoth DNA.

669

00:36:58,000 --> 00:37:02,000

The thing we need to actually clone the entire species back to life.

670

00:37:04,000 --> 00:37:05,000

Okay, let's see what we got.

671

00:37:05,000 --> 00:37:07,000

Okay, we got our results.

672

00:37:07,000 --> 00:37:08,000

Okay.

673

00:37:08,000 --> 00:37:11,000

And on the left, we see the reference.

674

00:37:11,000 --> 00:37:18,000

So basically, you start at the bottom, these are the shorter strands of DNA, and then on the top, we see longer pieces of DNA.

675

00:37:18,000 --> 00:37:20,000

So this is just a guide here.

676

00:37:20,000 --> 00:37:21,000

Right, this is the reference.

677

00:37:21,000 --> 00:37:26,000

And if we had the complete DNA of a mammoth, if we had a live cell, what would it look like?

678

00:37:26,000 --> 00:37:28,000

We'll see a line way up here.

679

00:37:28,000 --> 00:37:29,000

Way up at the top.

680

00:37:29,000 --> 00:37:30,000

We would have something right up here.

681

00:37:30,000 --> 00:37:31,000

Right.

682

00:37:31,000 --> 00:37:32,000

That would be kind of complete.

683

00:37:32,000 --> 00:37:33,000

Right.

684

00:37:33,000 --> 00:37:35,000

Okay, so what have we got here?

685

00:37:35,000 --> 00:37:38,000

These are some of the samples that you got from the Bahtagayka creator.

686

00:37:42,000 --> 00:37:45,000

It looks like we actually got some DNA from our samples.

687

00:37:45,000 --> 00:37:46,000

Great.

688

00:37:46,000 --> 00:37:54,000

We're getting shorter pieces of DNA, so maybe 300 to 500 base pairs, which is, you know, it belongs on the shorter side of things.

689

00:37:54,000 --> 00:37:56,000

So are these shorter strands useful at all then?

690

00:37:56,000 --> 00:37:59,000

They're very useful for the study of paleogenetics.

691

00:37:59,000 --> 00:38:02,000

There are two ways to try to clone a mammoth.

692

00:38:02,000 --> 00:38:05,000

First, by using a complete intact strand of DNA.

693

00:38:05,000 --> 00:38:13,000

Or, you can take shorter segments of the DNA and through genetic engineering, attempt to knit them together to create the whole genome.

694

00:38:15,000 --> 00:38:17,000

So, we've got DNA, we're off and running.

695

00:38:17,000 --> 00:38:19,000

Yeah, it's a good start for us.

696

00:38:19,000 --> 00:38:20,000

Good.

697

00:38:20,000 --> 00:38:21,000

Okay, let's check out the other sample.

698

00:38:21,000 --> 00:38:23,000

Right, so these are some of the samples that we collected from Yuningen.

699

00:38:23,000 --> 00:38:28,000

It looks like we were successful in, you know, collecting DNA from them as well.

700

00:38:33,000 --> 00:38:39,000

This column here is from the tusk and it looks like this one particularly is interesting because it's, you know, it's thick.

701

00:38:39,000 --> 00:38:40,000

The line is thick.

702

00:38:40,000 --> 00:38:47,000

That means there's a lot of DNA in whatever we extracted, but it's still fragmented, but it's really good because there's a lot of DNA in it.

703

00:38:47,000 --> 00:38:48,000

That's great.

704

00:38:48,000 --> 00:38:49,000

That's really great.

705

00:38:49,000 --> 00:38:57,000

We put the rest of our samples through the scanner with varying results, but nothing compares to our tusk when it comes to the number of base pairs.

706

00:38:59,000 --> 00:39:02,000

And then we test the mammoth carcass from upstairs.

707

00:39:03,000 --> 00:39:05,000

Alright, let's take a look at our next samples.

708

00:39:05,000 --> 00:39:06,000

Oh.

709

00:39:08,000 --> 00:39:09,000

That's higher.

710

00:39:09,000 --> 00:39:15,000

It actually looks really great because if you compare it with the reference, it's actually above 2,000 base pairs.

711

00:39:16,000 --> 00:39:20,000

So this is probably better than anything we've found so far.

712

00:39:20,000 --> 00:39:21,000

Really?

713

00:39:21,000 --> 00:39:22,000

Yeah.

714

00:39:22,000 --> 00:39:24,000

Up to this point, what's the best sampling you've found?

715

00:39:24,000 --> 00:39:31,000

So the best samples we've found so far were maybe 1,200 or 1,300 base pairs from mammoth bone marrow in previous years.

716

00:39:31,000 --> 00:39:32,000

Okay.

717

00:39:32,000 --> 00:39:34,000

But this is surpassing those results.

718

00:39:34,000 --> 00:39:36,000

This is way above those results that we've found before.

719

00:39:36,000 --> 00:39:37,000

Wow.

720

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

We've just seen history being made.

721

00:39:39,000 --> 00:39:46,000

This sample just yielded up the highest concentration of DNA base pairs ever found in a mammoth sample.

722

00:39:46,000 --> 00:39:49,000

But as good as it is, we've still got a ways to go.

723

00:39:49,000 --> 00:39:53,000

This is great, maybe unprecedented, but not enough to make a mammoth.

724

00:39:53,000 --> 00:39:55,000

This is not enough.

725

00:39:55,000 --> 00:39:56,000

Not nearly, right?

726

00:39:56,000 --> 00:39:57,000

Not nearly, not nearly.

727

00:39:57,000 --> 00:39:59,000

But we just have to keep trying.

728

00:39:59,000 --> 00:40:01,000

Well, that's a hell of a start.

729

00:40:01,000 --> 00:40:02,000

That's great.

730

00:40:02,000 --> 00:40:03,000

Yeah, that's a great start.

731

00:40:03,000 --> 00:40:04,000

Yeah.

732

00:40:04,000 --> 00:40:05,000

We've scored a hit.

733

00:40:05,000 --> 00:40:07,000

No, it's not a complete genetic sequence.

734

00:40:07,000 --> 00:40:09,000

There's lots left to do.

735

00:40:09,000 --> 00:40:16,000

But the information we acquired in this DNA will take us a giant step toward understanding both why the mammoth disappeared

736

00:40:16,000 --> 00:40:18,000

and how we might be able to bring them back.

737

00:40:18,000 --> 00:40:22,000

These are lessons that go far beyond the laboratory.

738

00:40:22,000 --> 00:40:23,000

Thrilled to be here to see that.

739

00:40:23,000 --> 00:40:24,000

That's really something.

740

00:40:24,000 --> 00:40:25,000

Thank you so much.

741

00:40:25,000 --> 00:40:26,000

You're welcome.

742

00:40:26,000 --> 00:40:27,000

All right.

743

00:40:27,000 --> 00:40:28,000

And sunk, thank you.

744

00:40:28,000 --> 00:40:29,000

Thank you.

745

00:40:30,000 --> 00:40:36,000

The woolly mammoth was once the dominant species on Earth, the original too big to fail.

746

00:40:36,000 --> 00:40:43,000

But facing a rapidly changing world and with a new predator in town, the mammoth didn't stand a chance.

747

00:40:43,000 --> 00:40:52,000

As I've explored the melting remains of Siberia's permafrost, it isn't hard to draw a straight line between their fate and our own.

748

00:40:52,000 --> 00:40:58,000

Technology is hurling us into a future where science fiction is fast becoming fact.

749

00:40:58,000 --> 00:41:02,000

To me, reviving the mammoth seems like a worthy enough endeavor.

750

00:41:02,000 --> 00:41:06,000

The question is, what kind of world would a cloned mammoth be born into?

751

00:41:06,000 --> 00:41:12,000

On my journey, I came face to face with the results of a man-made environmental catastrophe.

752

00:41:12,000 --> 00:41:13,000

Whoa.

753

00:41:15,000 --> 00:41:18,000

And then more witness to more destruction in progress.

754

00:41:21,000 --> 00:41:26,000

I'm in awe of the dedicated scientists traveling to the edge of the world to find elusive DNA.

755

00:41:26,000 --> 00:41:32,000

But if we plan to revive the dead, we've got to make an equal effort to preserve the living.

756

00:41:32,000 --> 00:41:41,000

We are melting the coldest regions of our planet, and our obsession with ivory may mean the extinction of living elephants and other endangered species.

757

00:41:41,000 --> 00:41:45,000

The woolly mammoth couldn't adapt, but hopefully we can.

758

00:41:45,000 --> 00:41:49,000

The future of its species and of our own may depend on it.