



The UFO Rabbit Hole

THE INTERDIMENSIONAL
& ULTRATERRESTRIAL
HYPOTHESES

Episode 5

1
00:00:00,380 --> 00:00:10,230

[Music]

2
00:00:10,240 --> 00:00:15,570

so

3
00:00:33,030 --> 00:00:31,269

[Music]

4
00:00:35,990 --> 00:00:33,040
welcome back to the ufo rabbit hole

5
00:00:38,150 --> 00:00:36,000
podcast i'm your host kelly chase

6
00:00:39,830 --> 00:00:38,160
i hope everyone is well hydrated and has

7
00:00:42,069 --> 00:00:39,840
done their stretches because this

8
00:00:43,510 --> 00:00:42,079
episode is where we start a whole new

9
00:00:45,430 --> 00:00:43,520
leg of our journey

10
00:00:47,750 --> 00:00:45,440
this my friends is where we start to

11
00:00:49,990 --> 00:00:47,760
truly go through the looking glass

12
00:00:51,830 --> 00:00:50,000
exploring the shadowy region of human

13
00:00:54,150 --> 00:00:51,840

experience that lives beyond the

14

00:00:55,510 --> 00:00:54,160

boundaries of our understanding

15

00:00:57,430 --> 00:00:55,520

it's the place where the deepest

16

00:01:00,150 --> 00:00:57,440

mysteries of science collide with the

17

00:01:02,790 --> 00:01:00,160

world of the hypothetical the mythical

18

00:01:05,109 --> 00:01:02,800

and for some even the divine

19

00:01:06,710 --> 00:01:05,119

and if i'm being honest i'm actually a

20

00:01:08,630 --> 00:01:06,720

little bit nervous

21

00:01:10,390 --> 00:01:08,640

because while we've flirted with the

22

00:01:11,510 --> 00:01:10,400

fantastical throughout these last few

23

00:01:13,590 --> 00:01:11,520

episodes

24

00:01:16,070 --> 00:01:13,600

we've done so while holding firmly to

25

00:01:18,870 --> 00:01:16,080

the guide rope of proven or at the very

26

00:01:21,109 --> 00:01:18,880

least respectable science but if we're

27

00:01:23,030 --> 00:01:21,119

going to go any further and truly begin

28

00:01:24,870 --> 00:01:23,040

to grapple with the mystery at the heart

29

00:01:27,109 --> 00:01:24,880

of the ufo phenomenon

30

00:01:28,630 --> 00:01:27,119

we have to be willing to venture outside

31

00:01:29,830 --> 00:01:28,640

of the boundaries of the established

32

00:01:31,830 --> 00:01:29,840

narrative

33

00:01:33,350 --> 00:01:31,840

in other words things are about to get

34

00:01:35,590 --> 00:01:33,360

pretty strange

35

00:01:38,310 --> 00:01:35,600

and to be honest there's something about

36

00:01:40,149 --> 00:01:38,320

doing this that feels like a risk

37

00:01:42,310 --> 00:01:40,159

after all there are things that we

38

00:01:43,429 --> 00:01:42,320

simply don't say allowed in polite

39

00:01:45,350 --> 00:01:43,439

society

40

00:01:47,749 --> 00:01:45,360

there are topics that we just don't

41

00:01:48,789 --> 00:01:47,759

touch for fear of what will rub off on

42

00:01:49,990 --> 00:01:48,799

us

43

00:01:51,990 --> 00:01:50,000

getting to this point in our

44

00:01:54,469 --> 00:01:52,000

conversation and speaking about these

45

00:01:57,190 --> 00:01:54,479

things publicly feels like crossing the

46

00:01:59,270 --> 00:01:57,200

rubicon there's no going back from here

47

00:02:01,910 --> 00:01:59,280

i've really struggled actually with this

48

00:02:04,069 --> 00:02:01,920

intro over the past few days because no

49

00:02:06,069 --> 00:02:04,079

matter how many times i restart it or

50

00:02:07,910 --> 00:02:06,079

come at it from a different angle it

51
00:02:09,029 --> 00:02:07,920
just keeps coming out sounding like an

52
00:02:12,309 --> 00:02:09,039
apology

53
00:02:13,270 --> 00:02:12,319
which i hate because i'm not sorry

54
00:02:15,430 --> 00:02:13,280
listen

55
00:02:17,910 --> 00:02:15,440
something is happening here

56
00:02:19,830 --> 00:02:17,920
something big and there are a million

57
00:02:22,229 --> 00:02:19,840
things that we don't know and maybe

58
00:02:25,110 --> 00:02:22,239
can't know about what it is or what it

59
00:02:27,750 --> 00:02:25,120
means but what is clear is that even the

60
00:02:30,309 --> 00:02:27,760
most mundane explanations for whatever

61
00:02:33,110 --> 00:02:30,319
this phenomenon might be would change

62
00:02:34,869 --> 00:02:33,120
everything about life as we know it

63
00:02:36,949 --> 00:02:34,879

when i started this line of questioning

64

00:02:39,509 --> 00:02:36,959

earlier this year the thing that was

65

00:02:42,150 --> 00:02:39,519

most startling to me was the realization

66

00:02:43,910 --> 00:02:42,160

of just how certain i was of things that

67

00:02:46,470 --> 00:02:43,920

weren't certain at all

68

00:02:49,030 --> 00:02:46,480

and how immediately dismissive i was of

69

00:02:50,949 --> 00:02:49,040

huge swaths of knowledge and evidence

70

00:02:53,270 --> 00:02:50,959

simply because it didn't fit into this

71

00:02:55,030 --> 00:02:53,280

respectable little box of ideas that an

72

00:02:56,790 --> 00:02:55,040

intelligent college-educated

73

00:02:58,390 --> 00:02:56,800

white-collar professional is allowed to

74

00:03:00,949 --> 00:02:58,400

entertain

75

00:03:02,550 --> 00:03:00,959

so i made the commitment to myself

76

00:03:04,949 --> 00:03:02,560

quietly because i was still worried

77

00:03:06,869 --> 00:03:04,959

about what people would think to go back

78

00:03:08,070 --> 00:03:06,879

to the drawing board and to learn

79

00:03:09,350 --> 00:03:08,080

everything that i could about this

80

00:03:11,910 --> 00:03:09,360

phenomenon

81

00:03:14,630 --> 00:03:11,920

i would keep an open mind and do my best

82

00:03:16,710 --> 00:03:14,640

not to judge the data or to let my own

83

00:03:18,869 --> 00:03:16,720

biases dictate my path

84

00:03:21,350 --> 00:03:18,879

but rather just to let it unfold and to

85

00:03:23,270 --> 00:03:21,360

follow it wherever it may lead

86

00:03:24,630 --> 00:03:23,280

i'm still on that journey and i still

87

00:03:25,430 --> 00:03:24,640

don't have the answers that i'm looking

88

00:03:27,589 --> 00:03:25,440

for

89

00:03:30,070 --> 00:03:27,599

but it has been a truly life-altering

90

00:03:32,390 --> 00:03:30,080

experience to recognize how much i've

91

00:03:34,869 --> 00:03:32,400

let other people's opinions shape

92

00:03:37,509 --> 00:03:34,879

not just what i believed but what i even

93

00:03:39,670 --> 00:03:37,519

allowed myself to entertain

94

00:03:42,789 --> 00:03:39,680

i've always considered myself to be a

95

00:03:45,270 --> 00:03:42,799

clear rational independent thinker

96

00:03:47,430 --> 00:03:45,280

and it's been humbling to recognize the

97

00:03:48,949 --> 00:03:47,440

extent to which that has not actually

98

00:03:50,390 --> 00:03:48,959

been the case

99

00:03:52,710 --> 00:03:50,400

and to be clear

100

00:03:55,270 --> 00:03:52,720

i am not asking for you to accept or

101
00:03:57,830 --> 00:03:55,280
believe any of what follows

102
00:03:59,190 --> 00:03:57,840
all i ask is that you try not to reject

103
00:04:01,190 --> 00:03:59,200
it outright

104
00:04:03,750 --> 00:04:01,200
to get the full picture of the ufo

105
00:04:06,390 --> 00:04:03,760
phenomenon we need to look at every

106
00:04:08,390 --> 00:04:06,400
piece of evidence and every theory even

107
00:04:10,229 --> 00:04:08,400
the ones that seem too outlandish or

108
00:04:11,750 --> 00:04:10,239
don't seem to fit

109
00:04:13,670 --> 00:04:11,760
so when we come across a piece of

110
00:04:15,509 --> 00:04:13,680
information that seems ridiculous or

111
00:04:17,990 --> 00:04:15,519
that makes you uncomfortable or that you

112
00:04:20,229 --> 00:04:18,000
just don't even know what to do with

113
00:04:21,830 --> 00:04:20,239

just put it on the shelf

114

00:04:24,390 --> 00:04:21,840

you can come back to it from time to

115

00:04:26,469 --> 00:04:24,400

time pick it up reconsider it in the

116

00:04:27,830 --> 00:04:26,479

light of new evidence weigh it against

117

00:04:29,030 --> 00:04:27,840

different ideas that you've picked up

118

00:04:31,270 --> 00:04:29,040

along the way

119

00:04:33,350 --> 00:04:31,280

and eventually you'll either find a use

120

00:04:35,189 --> 00:04:33,360

for it or you'll get rid of it

121

00:04:36,950 --> 00:04:35,199

or maybe you'll keep it on the shelf as

122

00:04:38,390 --> 00:04:36,960

a fun little oddity that you pull out at

123

00:04:40,390 --> 00:04:38,400

parties

124

00:04:42,230 --> 00:04:40,400

but wherever it ends up you'll be

125

00:04:44,070 --> 00:04:42,240

putting it there after thoughtful

126

00:04:46,150 --> 00:04:44,080

consideration

127

00:04:48,070 --> 00:04:46,160

you may very well still find a lot of

128

00:04:50,469 --> 00:04:48,080

what we talk about in this episode to be

129

00:04:52,390 --> 00:04:50,479

preposterous when all is said and done

130

00:04:54,550 --> 00:04:52,400

but in keeping an open mind on this

131

00:04:56,550 --> 00:04:54,560

journey you'll be giving yourself more

132

00:04:59,110 --> 00:04:56,560

complete access to the full scope of

133

00:05:01,430 --> 00:04:59,120

thinking around this phenomenon allowing

134

00:05:04,469 --> 00:05:01,440

yourself to form what you believe to be

135

00:05:07,430 --> 00:05:04,479

the best explanation on your own

136

00:05:09,990 --> 00:05:07,440

so with that in mind let's get moving we

137

00:05:12,230 --> 00:05:10,000

have a lot of ground to cover today as

138

00:05:15,029 --> 00:05:12,240

we consider some of the more exotic

139

00:05:17,270 --> 00:05:15,039

explanations for the ufo phenomenon

140

00:05:19,990 --> 00:05:17,280

and a fantastic place to start this

141

00:05:21,430 --> 00:05:20,000

conversation is with the work of jacques

142

00:05:23,830 --> 00:05:21,440

valle

143

00:05:26,230 --> 00:05:23,840

villa is an internet pioneer computer

144

00:05:28,310 --> 00:05:26,240

scientist venture capitalist author

145

00:05:30,710 --> 00:05:28,320

astronomer and one of the most venerated

146

00:05:33,670 --> 00:05:30,720

of ufology's founding fathers

147

00:05:36,310 --> 00:05:33,680

his work has in many ways defined modern

148

00:05:38,710 --> 00:05:36,320

ufology and it's almost impossible to

149

00:05:40,870 --> 00:05:38,720

get a true handle on the more unusual

150

00:05:42,950 --> 00:05:40,880

hypotheses for the origin of the ufo

151
00:05:44,150 --> 00:05:42,960
phenomenon without understanding his

152
00:05:46,390 --> 00:05:44,160
work

153
00:05:50,469 --> 00:05:46,400
valet's interest in the phenomenon began

154
00:05:52,790 --> 00:05:50,479
in 1955 when he saw a ufo over his home

155
00:05:55,749 --> 00:05:52,800
just outside of paris france

156
00:05:57,430 --> 00:05:55,759
six years later in 1961 while working as

157
00:05:59,430 --> 00:05:57,440
an astronomer for the french space

158
00:06:01,590 --> 00:05:59,440
committee he claimed to have witnessed

159
00:06:04,309 --> 00:06:01,600
the destruction of tapes of an unknown

160
00:06:06,870 --> 00:06:04,319
object orbiting the earth the peculiar

161
00:06:09,110 --> 00:06:06,880
object was in retrograde orbit something

162
00:06:11,110 --> 00:06:09,120
that is rare among man-made artificial

163
00:06:13,350 --> 00:06:11,120

satellites because of the difficulty of

164

00:06:14,550 --> 00:06:13,360

launching into orbit against the earth's

165

00:06:16,390 --> 00:06:14,560

rotation

166

00:06:18,469 --> 00:06:16,400

valet and his team assumed that what

167

00:06:20,070 --> 00:06:18,479

they had found was a natural satellite

168

00:06:20,950 --> 00:06:20,080

that had been captured by the earth's

169

00:06:22,629 --> 00:06:20,960

orbit

170

00:06:25,110 --> 00:06:22,639

but before they could investigate it

171

00:06:27,430 --> 00:06:25,120

further an unnamed supervisor came into

172

00:06:29,590 --> 00:06:27,440

the room and erased the tape

173

00:06:32,629 --> 00:06:29,600

this sparked a lifelong interest for

174

00:06:34,629 --> 00:06:32,639

valet in the phenomenon but despite his

175

00:06:37,029 --> 00:06:34,639

personal experiences and his lifelong

176

00:06:39,830 --> 00:06:37,039

dedication to searching for answers

177

00:06:42,150 --> 00:06:39,840

valet is so well respected because he

178

00:06:44,390 --> 00:06:42,160

has never been a fanatic and has always

179

00:06:46,870 --> 00:06:44,400

been a scientist first

180

00:06:48,710 --> 00:06:46,880

valet received his phd in industrial

181

00:06:52,070 --> 00:06:48,720

engineering and computer science from

182

00:06:54,230 --> 00:06:52,080

northwestern university in 1967.

183

00:06:56,309 --> 00:06:54,240

it was there that he met his mentor jay

184

00:06:58,550 --> 00:06:56,319

allen heineck who was chair of the

185

00:07:00,710 --> 00:06:58,560

astronomy department and the two began

186

00:07:03,110 --> 00:07:00,720

to conduct non-institutional research

187

00:07:04,710 --> 00:07:03,120

into the ufo phenomenon

188

00:07:07,029 --> 00:07:04,720

heineck is an interesting character

189

00:07:09,110 --> 00:07:07,039

himself and understanding his background

190

00:07:10,070 --> 00:07:09,120

can further illuminate valet and his

191

00:07:14,230 --> 00:07:10,080

work

192

00:07:16,629 --> 00:07:14,240

between 1947 and 1969 heineck served as

193

00:07:18,710 --> 00:07:16,639

the scientific advisor to the air force

194

00:07:21,270 --> 00:07:18,720

in their study of ufos under the code

195

00:07:22,950 --> 00:07:21,280

names project sign project grudge and

196

00:07:25,510 --> 00:07:22,960

project blue book

197

00:07:27,589 --> 00:07:25,520

although the name changed over the years

198

00:07:30,550 --> 00:07:27,599

the mission of this project remained the

199

00:07:33,909 --> 00:07:30,560

same to investigate and most importantly

200

00:07:36,150 --> 00:07:33,919

to debunk reported ufo sightings

201
00:07:39,029 --> 00:07:36,160
in this role hynek was the air force's

202
00:07:41,990 --> 00:07:39,039
lead debunker a job that the hard-nosed

203
00:07:44,629 --> 00:07:42,000
highly skeptical scientist relished

204
00:07:46,950 --> 00:07:44,639
he regarded the ufo phenomenon as

205
00:07:48,710 --> 00:07:46,960
utterly ridiculous and as a fad that

206
00:07:50,629 --> 00:07:48,720
would soon pass

207
00:07:53,110 --> 00:07:50,639
much of the language that is used to

208
00:07:54,869 --> 00:07:53,120
this day to discredit and stigmatize the

209
00:07:57,670 --> 00:07:54,879
phenomenon and those who report having

210
00:07:59,749 --> 00:07:57,680
experienced it is a direct result of

211
00:08:01,430 --> 00:07:59,759
hynek's intentional and systematic

212
00:08:03,670 --> 00:08:01,440
approach to the subject

213
00:08:06,469 --> 00:08:03,680

including being the first to attribute

214

00:08:08,869 --> 00:08:06,479

ufo sightings to swamp gas

215

00:08:10,869 --> 00:08:08,879

however after two decades of working

216

00:08:13,189 --> 00:08:10,879

with the air force heineck changed his

217

00:08:15,270 --> 00:08:13,199

tune and began to study the ufo

218

00:08:18,550 --> 00:08:15,280

phenomenon in earnest

219

00:08:20,469 --> 00:08:18,560

in 1973 he founded the center for ufo

220

00:08:22,390 --> 00:08:20,479

studies which was dedicated to

221

00:08:24,950 --> 00:08:22,400

advocating for the scientific research

222

00:08:26,950 --> 00:08:24,960

of the ufo phenomenon a cause that he

223

00:08:29,670 --> 00:08:26,960

championed both home and abroad until

224

00:08:31,909 --> 00:08:29,680

his death in 1986.

225

00:08:33,029 --> 00:08:31,919

heinek attributed this change to two

226

00:08:35,190 --> 00:08:33,039

things

227

00:08:37,110 --> 00:08:35,200

the first was what he called quote the

228

00:08:39,269 --> 00:08:37,120

completely negative and unyielding

229

00:08:40,550 --> 00:08:39,279

attitude unquote of the air force and

230

00:08:41,829 --> 00:08:40,560

their approach to studying the

231

00:08:44,630 --> 00:08:41,839

phenomenon

232

00:08:46,389 --> 00:08:44,640

in his words they wouldn't give ufos the

233

00:08:47,910 --> 00:08:46,399

chance of existing even if they were

234

00:08:49,190 --> 00:08:47,920

flying up and down the street in broad

235

00:08:51,350 --> 00:08:49,200

daylight

236

00:08:53,110 --> 00:08:51,360

and the other was the caliber of some of

237

00:08:54,870 --> 00:08:53,120

the witnesses that he interviewed

238

00:08:56,790 --> 00:08:54,880

including members of the military and

239

00:08:59,269 --> 00:08:56,800

police officers people that he

240

00:09:01,509 --> 00:08:59,279

considered to be trained observers

241

00:09:03,430 --> 00:09:01,519

he also had first-hand knowledge of just

242

00:09:05,670 --> 00:09:03,440

how such reports were received by

243

00:09:07,670 --> 00:09:05,680

higher-ups in those organizations and

244

00:09:10,630 --> 00:09:07,680

that those coming forward were risking

245

00:09:13,030 --> 00:09:10,640

not just ridicule but their careers

246

00:09:15,829 --> 00:09:13,040

i tell you all of this partly because as

247

00:09:18,150 --> 00:09:15,839

with any complex topic understanding the

248

00:09:20,470 --> 00:09:18,160

history of ufology is important to

249

00:09:22,470 --> 00:09:20,480

understanding the topic as a whole

250

00:09:25,110 --> 00:09:22,480

but also i think it's important to

251
00:09:27,350 --> 00:09:25,120
recognize ufology as a legitimate field

252
00:09:29,910 --> 00:09:27,360
of science that has been pursued with

253
00:09:31,990 --> 00:09:29,920
both great passion and with great

254
00:09:34,230 --> 00:09:32,000
scientific rigor by some of the best and

255
00:09:37,190 --> 00:09:34,240
brightest minds within some of our most

256
00:09:38,710 --> 00:09:37,200
respected academic institutions

257
00:09:40,949 --> 00:09:38,720
even if it has rarely been embraced by

258
00:09:42,470 --> 00:09:40,959
the institutions themselves

259
00:09:44,389 --> 00:09:42,480
and like valet

260
00:09:46,550 --> 00:09:44,399
heinek wasn't just another breathless

261
00:09:48,550 --> 00:09:46,560
believer chasing down any evidence that

262
00:09:52,389 --> 00:09:48,560
might confirm his pre-existing beliefs

263
00:09:54,790 --> 00:09:52,399

and biases he was a scientist a skeptic

264

00:09:57,030 --> 00:09:54,800

and someone who spent decades debunking

265

00:09:59,350 --> 00:09:57,040

and explaining away the phenomenon

266

00:10:00,949 --> 00:09:59,360

something that at the time he truly

267

00:10:02,389 --> 00:10:00,959

believed was in the best interest of the

268

00:10:04,470 --> 00:10:02,399

public at large

269

00:10:06,710 --> 00:10:04,480

and despite his change of opinion on the

270

00:10:08,790 --> 00:10:06,720

topic he brought the same level of

271

00:10:10,790 --> 00:10:08,800

scientific discipline to his research

272

00:10:13,350 --> 00:10:10,800

throughout his career

273

00:10:14,949 --> 00:10:13,360

so circling back to jacques vallet

274

00:10:16,710 --> 00:10:14,959

although he had originally begun his

275

00:10:18,790 --> 00:10:16,720

research into the phenomenon with the

276

00:10:20,150 --> 00:10:18,800

goal of validating the extraterrestrial

277

00:10:22,630 --> 00:10:20,160

hypothesis

278

00:10:24,630 --> 00:10:22,640

by 1969 right around the time when he

279

00:10:26,949 --> 00:10:24,640

started working with hynek

280

00:10:28,470 --> 00:10:26,959

valet began to express doubts about its

281

00:10:31,030 --> 00:10:28,480

viability stating that the

282

00:10:33,990 --> 00:10:31,040

extraterrestrial hypothesis was too

283

00:10:37,190 --> 00:10:34,000

narrow and ignored too much data

284

00:10:39,110 --> 00:10:37,200

by 1991 valet crystallized his arguments

285

00:10:41,430 --> 00:10:39,120

in his paper published in the journal of

286

00:10:42,949 --> 00:10:41,440

scientific exploration titled

287

00:10:45,350 --> 00:10:42,959

five arguments against the

288

00:10:46,710 --> 00:10:45,360

extraterrestrial origin of unidentified

289

00:10:48,949 --> 00:10:46,720

flying objects

290

00:10:51,509 --> 00:10:48,959

which are as follows

291

00:10:53,910 --> 00:10:51,519

the first argument is that unexplained

292

00:10:56,230 --> 00:10:53,920

close encounters are far too numerous to

293

00:10:58,310 --> 00:10:56,240

be simply visitation or study by

294

00:11:00,389 --> 00:10:58,320

extraterrestrial visitors

295

00:11:02,230 --> 00:11:00,399

valet was one of the first researchers

296

00:11:04,310 --> 00:11:02,240

to attempt to compile reports of

297

00:11:06,630 --> 00:11:04,320

unexplained aerial phenomena from around

298

00:11:09,590 --> 00:11:06,640

the world and was shocked to discover

299

00:11:13,910 --> 00:11:09,600

over 900 reports spanning the 100 years

300

00:11:16,069 --> 00:11:13,920

between 1869 and 1969 which he published

301
00:11:18,630 --> 00:11:16,079
in his groundbreaking book passport to

302
00:11:20,550 --> 00:11:18,640
magonia that same year

303
00:11:23,509 --> 00:11:20,560
but by the time he published his five

304
00:11:26,949 --> 00:11:23,519
arguments paper in 1991

305
00:11:29,430 --> 00:11:26,959
anywhere from 3 000 to 10 000 of these

306
00:11:31,430 --> 00:11:29,440
reports had been collected depending on

307
00:11:33,670 --> 00:11:31,440
which selection criteria one used to

308
00:11:35,030 --> 00:11:33,680
decide what constituted a legitimate

309
00:11:36,630 --> 00:11:35,040
report

310
00:11:38,470 --> 00:11:36,640
valet offered the relatively

311
00:11:41,670 --> 00:11:38,480
conservative number of five thousand

312
00:11:43,509 --> 00:11:41,680
reports and arguing that due to factors

313
00:11:45,590 --> 00:11:43,519

ranging from the stigmatization of the

314

00:11:47,430 --> 00:11:45,600

subject and a lack of clear methods of

315

00:11:50,230 --> 00:11:47,440

reporting such incidents

316

00:11:53,030 --> 00:11:50,240

likely as few as 1 in 10 people who have

317

00:11:55,030 --> 00:11:53,040

these experiences ever make a report

318

00:11:57,590 --> 00:11:55,040

so he reasoned that the real number of

319

00:11:58,870 --> 00:11:57,600

actual encounters could be as high as 50

320

00:12:00,230 --> 00:11:58,880

000.

321

00:12:02,470 --> 00:12:00,240

for valet

322

00:12:04,870 --> 00:12:02,480

this was just far too many to fit with

323

00:12:07,030 --> 00:12:04,880

the idea of extraterrestrial visitors

324

00:12:08,870 --> 00:12:07,040

and is a better fit for explanations

325

00:12:12,069 --> 00:12:08,880

that have a more local

326

00:12:14,230 --> 00:12:12,079

and potentially terrestrial origin

327

00:12:16,710 --> 00:12:14,240

his second argument is that the humanoid

328

00:12:18,710 --> 00:12:16,720

body structure of the alleged aliens is

329

00:12:20,470 --> 00:12:18,720

not likely to have originated on another

330

00:12:22,629 --> 00:12:20,480

planet which is an idea that we've

331

00:12:24,870 --> 00:12:22,639

talked about in previous episodes

332

00:12:28,310 --> 00:12:24,880

and based on what we knew of evolution

333

00:12:30,790 --> 00:12:28,320

in the 1990s this was a very valid point

334

00:12:33,190 --> 00:12:30,800

and even if we admit the more recent

335

00:12:35,670 --> 00:12:33,200

position of some evolutionary biologists

336

00:12:37,190 --> 00:12:35,680

that a humanoid shape may be much more

337

00:12:38,790 --> 00:12:37,200

common in the universe than we might

338

00:12:40,790 --> 00:12:38,800

have initially thought

339

00:12:42,629 --> 00:12:40,800

until we have concrete evidence that

340

00:12:44,629 --> 00:12:42,639

that is actually the case we're still

341

00:12:46,310 --> 00:12:44,639

dealing in speculation

342

00:12:48,310 --> 00:12:46,320

and even if our understanding of

343

00:12:50,710 --> 00:12:48,320

evolution evolves to the point that we

344

00:12:52,629 --> 00:12:50,720

can more fully understand how humanoid

345

00:12:54,069 --> 00:12:52,639

beings could evolve independently on

346

00:12:56,389 --> 00:12:54,079

different planets

347

00:12:57,910 --> 00:12:56,399

the actual discovery of such beings

348

00:12:59,269 --> 00:12:57,920

would be one of the most shocking

349

00:13:01,030 --> 00:12:59,279

revelations in the history of our

350

00:13:02,949 --> 00:13:01,040

species

351
00:13:04,870 --> 00:13:02,959
the third argument is that the reported

352
00:13:07,430 --> 00:13:04,880
behavior in thousands of abduction

353
00:13:09,829 --> 00:13:07,440
reports contradicts the hypothesis of

354
00:13:12,150 --> 00:13:09,839
genetic or scientific experimentation on

355
00:13:13,829 --> 00:13:12,160
humans by an advanced race

356
00:13:16,470 --> 00:13:13,839
in combing through thousands of accounts

357
00:13:18,310 --> 00:13:16,480
of alien abduction valet recognized the

358
00:13:19,910 --> 00:13:18,320
common patterns that emerged in the form

359
00:13:22,310 --> 00:13:19,920
of the tropes that we all generally

360
00:13:24,629 --> 00:13:22,320
associate with the abduction phenomenon

361
00:13:27,750 --> 00:13:24,639
witnesses report being transported in a

362
00:13:29,350 --> 00:13:27,760
hollow spherical or hemispherical space

363
00:13:30,629 --> 00:13:29,360

and being subjected to a medical

364

00:13:33,269 --> 00:13:30,639

examination

365

00:13:35,350 --> 00:13:33,279

this is often but not always followed by

366

00:13:37,990 --> 00:13:35,360

the taking of blood samples various

367

00:13:39,189 --> 00:13:38,000

kinds of sexual interaction and loss of

368

00:13:41,350 --> 00:13:39,199

time

369

00:13:43,189 --> 00:13:41,360

the entire episode is frequently wiped

370

00:13:45,670 --> 00:13:43,199

out of conscious memory and is only

371

00:13:47,670 --> 00:13:45,680

retrievable under hypnosis

372

00:13:49,509 --> 00:13:47,680

and while on the surface this certainly

373

00:13:51,590 --> 00:13:49,519

sounds like it could be aligned with the

374

00:13:54,310 --> 00:13:51,600

idea that humans are being studied by a

375

00:13:56,470 --> 00:13:54,320

more advanced race from another planet

376

00:13:58,389 --> 00:13:56,480

valet argues that this actually doesn't

377

00:14:00,550 --> 00:13:58,399

make any sense at all

378

00:14:02,150 --> 00:14:00,560

his reasoning is that any being

379

00:14:03,910 --> 00:14:02,160

sufficiently advanced to create the

380

00:14:05,910 --> 00:14:03,920

technologically advanced craft being

381

00:14:08,230 --> 00:14:05,920

reported in our skies and to use those

382

00:14:10,710 --> 00:14:08,240

craft to travel to another planet would

383

00:14:13,030 --> 00:14:10,720

be at least as advanced as we are in the

384

00:14:15,189 --> 00:14:13,040

fields of medicine and biology

385

00:14:16,949 --> 00:14:15,199

and our own scientists wouldn't need to

386

00:14:18,949 --> 00:14:16,959

abduct and physically take genetic

387

00:14:21,030 --> 00:14:18,959

material from tens of thousands of

388

00:14:24,389 --> 00:14:21,040

different beings in order to study and

389

00:14:26,230 --> 00:14:24,399

understand them so why would they

390

00:14:28,790 --> 00:14:26,240

and if for some reason we don't

391

00:14:30,870 --> 00:14:28,800

understand they did need massive amounts

392

00:14:33,110 --> 00:14:30,880

of human genetic material

393

00:14:34,870 --> 00:14:33,120

there are sperm and egg banks all over

394

00:14:36,790 --> 00:14:34,880

the world it shouldn't be a huge

395

00:14:38,949 --> 00:14:36,800

challenge for a super advanced race of

396

00:14:41,189 --> 00:14:38,959

beings to get access to those allowing

397

00:14:42,710 --> 00:14:41,199

them to harvest genetic material in bulk

398

00:14:44,790 --> 00:14:42,720

and without all the must and fuss of

399

00:14:47,030 --> 00:14:44,800

abducting thousands of individuals over

400

00:14:48,870 --> 00:14:47,040

several decades

401

00:14:50,710 --> 00:14:48,880

the fourth argument is that the

402

00:14:53,030 --> 00:14:50,720

extension of the phenomenon throughout

403

00:14:56,629 --> 00:14:53,040

recorded human history demonstrates that

404

00:14:58,790 --> 00:14:56,639

ufos are not a contemporary phenomenon

405

00:15:00,790 --> 00:14:58,800

as we discussed in a previous episode

406

00:15:02,949 --> 00:15:00,800

although the ufo phenomenon has been

407

00:15:04,870 --> 00:15:02,959

popularly regarded to have begun near

408

00:15:06,790 --> 00:15:04,880

the end of world war ii

409

00:15:09,030 --> 00:15:06,800

people have reported strange lights

410

00:15:10,470 --> 00:15:09,040

objects and beings in the sky throughout

411

00:15:12,310 --> 00:15:10,480

human history

412

00:15:13,910 --> 00:15:12,320

although the details of the experiences

413

00:15:15,030 --> 00:15:13,920

may shift and evolve throughout the

414

00:15:17,030 --> 00:15:15,040

centuries

415

00:15:19,430 --> 00:15:17,040

any attempt to draw a line in the sand

416

00:15:21,990 --> 00:15:19,440

and say that any particular encounter or

417

00:15:24,069 --> 00:15:22,000

time period marks the definitive

418

00:15:27,189 --> 00:15:24,079

beginning of this phenomenon would be

419

00:15:29,430 --> 00:15:27,199

entirely arbitrary after all as valet

420

00:15:31,350 --> 00:15:29,440

points out it's hard to find a culture

421

00:15:33,430 --> 00:15:31,360

that doesn't have stories of beings that

422

00:15:35,590 --> 00:15:33,440

come from the sky in strange vessels and

423

00:15:37,509 --> 00:15:35,600

occasionally abduct humans

424

00:15:39,670 --> 00:15:37,519

however it's not just in the

425

00:15:42,150 --> 00:15:39,680

similarities of these stories but in the

426

00:15:43,990 --> 00:15:42,160

differences between them the valesi's

427

00:15:45,910 --> 00:15:44,000

evidence that the phenomenon is more

428

00:15:48,069 --> 00:15:45,920

complex than the extraterrestrial

429

00:15:49,430 --> 00:15:48,079

hypothesis would suggest

430

00:15:51,590 --> 00:15:49,440

he writes

431

00:15:53,910 --> 00:15:51,600

in previous works i've pointed out that

432

00:15:56,389 --> 00:15:53,920

aerial phenomena very similar to our

433

00:15:58,230 --> 00:15:56,399

ufos have been reported in the 9th

434

00:15:59,110 --> 00:15:58,240

century in the form of vessels in the

435

00:16:01,910 --> 00:15:59,120

sky

436

00:16:04,790 --> 00:16:01,920

as airships in the days of jules verne

437

00:16:07,590 --> 00:16:04,800

as ghost rockets in 1946 and as

438

00:16:10,629 --> 00:16:07,600

spacecraft in more recent times as if

439

00:16:12,470 --> 00:16:10,639

they've mimicked human expectations

440

00:16:14,710 --> 00:16:12,480

everything works as if the ufo

441

00:16:17,110 --> 00:16:14,720

phenomenon remained consistently one

442

00:16:19,189 --> 00:16:17,120

step ahead of human technology

443

00:16:21,269 --> 00:16:19,199

in the last 10 years as molecular

444

00:16:23,269 --> 00:16:21,279

biology has become more glamorous than

445

00:16:25,350 --> 00:16:23,279

electronics or even aerospace in our

446

00:16:27,829 --> 00:16:25,360

modern civilization it shouldn't be

447

00:16:29,350 --> 00:16:27,839

surprising to find the aliens performing

448

00:16:31,749 --> 00:16:29,360

something that looks like genetic

449

00:16:34,150 --> 00:16:31,759

engineering interventions

450

00:16:35,990 --> 00:16:34,160

for valet the way that the phenomenon

451

00:16:38,470 --> 00:16:36,000

manifests along the lines of human

452

00:16:40,790 --> 00:16:38,480

expectation suggests that there is at

453

00:16:42,949 --> 00:16:40,800

least some component of the phenomenon

454

00:16:45,509 --> 00:16:42,959

that is a function of a projection of

455

00:16:47,710 --> 00:16:45,519

the consciousness of the observer

456

00:16:50,069 --> 00:16:47,720

this is often referred to as the

457

00:16:51,590 --> 00:16:50,079

psychosociological hypothesis and we'll

458

00:16:53,829 --> 00:16:51,600

get to it later

459

00:16:55,829 --> 00:16:53,839

and finally the fifth argument is that

460

00:16:58,310 --> 00:16:55,839

the apparent ability of ufos to

461

00:16:59,990 --> 00:16:58,320

manipulate space and time suggests

462

00:17:01,910 --> 00:17:00,000

radically different and richer

463

00:17:04,949 --> 00:17:01,920

alternatives than the extraterrestrial

464

00:17:06,549 --> 00:17:04,959

hypothesis can offer valet points out

465

00:17:08,710 --> 00:17:06,559

that the behavior described across

466

00:17:10,630 --> 00:17:08,720

thousands of reported encounters

467

00:17:12,549 --> 00:17:10,640

indicates a level of technology that

468

00:17:14,230 --> 00:17:12,559

goes far beyond just the advanced

469

00:17:16,470 --> 00:17:14,240

propulsion systems one would need to

470

00:17:18,069 --> 00:17:16,480

develop for interstellar travel

471

00:17:19,909 --> 00:17:18,079

these craft have been reported to

472

00:17:22,470 --> 00:17:19,919

exhibit the ability to appear and

473

00:17:24,870 --> 00:17:22,480

disappear very suddenly to change their

474

00:17:27,110 --> 00:17:24,880

apparent shapes in continuous fashion

475

00:17:28,230 --> 00:17:27,120

and even to merge with other physical

476

00:17:30,150 --> 00:17:28,240

objects

477

00:17:32,710 --> 00:17:30,160

all of these suggest an ability to

478

00:17:33,669 --> 00:17:32,720

manipulate the very fabric of space and

479

00:17:35,350 --> 00:17:33,679

time

480

00:17:37,909 --> 00:17:35,360

and if there are beings who have that

481

00:17:40,390 --> 00:17:37,919

kind of capability he reasons that the

482

00:17:42,630 --> 00:17:40,400

answer to where and even when they come

483

00:17:45,029 --> 00:17:42,640

from is likely much more complicated

484

00:17:47,350 --> 00:17:45,039

than we can currently comprehend

485

00:17:49,190 --> 00:17:47,360

in the conclusion of his five arguments

486

00:17:51,270 --> 00:17:49,200

valet offers a few alternative

487

00:17:53,830 --> 00:17:51,280

hypotheses that he believes better

488

00:17:54,950 --> 00:17:53,840

explain the ufo phenomenon based on the

489

00:17:57,510 --> 00:17:54,960

evidence

490

00:17:59,350 --> 00:17:57,520

each is nuanced and complex and as we

491

00:18:00,630 --> 00:17:59,360

separate them out into their key parts

492

00:18:02,789 --> 00:18:00,640

and components

493

00:18:04,710 --> 00:18:02,799

we can start to see valet's startling

494

00:18:07,190 --> 00:18:04,720

vision begin to take shape

495

00:18:10,789 --> 00:18:07,200

and with it a new world of possibilities

496

00:18:12,470 --> 00:18:10,799

in our exploration of the ufo phenomenon

497

00:18:14,310 --> 00:18:12,480

the first of these ideas is that the

498

00:18:16,549 --> 00:18:14,320

phenomenon could potentially be

499

00:18:18,230 --> 00:18:16,559

interdimensional in nature which is

500

00:18:19,669 --> 00:18:18,240

referred to as the interdimensional

501
00:18:21,510 --> 00:18:19,679
hypothesis

502
00:18:23,430 --> 00:18:21,520
increasingly branches of science and

503
00:18:25,590 --> 00:18:23,440
physics are beginning to delve into the

504
00:18:27,590 --> 00:18:25,600
possibility of the existence of other

505
00:18:29,830 --> 00:18:27,600
universes and dimensions

506
00:18:31,669 --> 00:18:29,840
and although we have no direct evidence

507
00:18:33,830 --> 00:18:31,679
that they actually exist

508
00:18:35,990 --> 00:18:33,840
many of our scientific models depend on

509
00:18:37,590 --> 00:18:36,000
the idea that they do

510
00:18:39,029 --> 00:18:37,600
this creates a whole new world of

511
00:18:42,150 --> 00:18:39,039
possibilities when it comes to the

512
00:18:43,669 --> 00:18:42,160
origins of the ufo phenomenon however as

513
00:18:45,830 --> 00:18:43,679

we'll see once we dive into the

514

00:18:48,710 --> 00:18:45,840

individual theories this highly

515

00:18:50,870 --> 00:18:48,720

speculative idea often introduces more

516

00:18:53,190 --> 00:18:50,880

questions than it answers

517

00:18:55,750 --> 00:18:53,200

the second of these ideas often referred

518

00:18:57,669 --> 00:18:55,760

to as the ultra-terrestrial hypothesis

519

00:18:59,190 --> 00:18:57,679

is that although the phenomenon into

520

00:19:01,350 --> 00:18:59,200

alien to us

521

00:19:03,430 --> 00:19:01,360

the evidence points to the possibility

522

00:19:04,310 --> 00:19:03,440

that it has its origin right here on

523

00:19:07,110 --> 00:19:04,320

earth

524

00:19:08,630 --> 00:19:07,120

this could manifest in a couple of ways

525

00:19:11,830 --> 00:19:08,640

the first would be that the ufo

526
00:19:14,950 --> 00:19:11,840
phenomenon is some kind of supernature

527
00:19:17,190 --> 00:19:14,960
something akin to the gaia hypothesis

528
00:19:19,190 --> 00:19:17,200
the gaia hypothesis named after the

529
00:19:21,190 --> 00:19:19,200
ancient greek goddess of earth

530
00:19:24,630 --> 00:19:21,200
posits that earth and its biological

531
00:19:27,150 --> 00:19:24,640
systems behave as a huge single entity

532
00:19:29,190 --> 00:19:27,160
this entity has closely controlled

533
00:19:30,950 --> 00:19:29,200
self-regulatory systems that keep the

534
00:19:33,830 --> 00:19:30,960
conditions on the planet within

535
00:19:35,750 --> 00:19:33,840
boundaries that are favorable to life

536
00:19:38,070 --> 00:19:35,760
introduced by chemists and inventor

537
00:19:40,710 --> 00:19:38,080
james e lovlock and biologist lynne

538
00:19:42,470 --> 00:19:40,720

margulis in the early 1970s

539

00:19:44,549 --> 00:19:42,480

this new way of looking at global

540

00:19:46,549 --> 00:19:44,559

ecology and evolution differs from the

541

00:19:49,029 --> 00:19:46,559

classical picture of ecology as a

542

00:19:50,470 --> 00:19:49,039

biological response to a set of physical

543

00:19:53,430 --> 00:19:50,480

conditions

544

00:19:55,270 --> 00:19:53,440

the idea of co-evolution of biology and

545

00:19:57,750 --> 00:19:55,280

the physical environment where each

546

00:20:00,390 --> 00:19:57,760

influences the other was suggested as

547

00:20:02,870 --> 00:20:00,400

early as the mid-1700s but never as

548

00:20:04,870 --> 00:20:02,880

strongly as with the gaia hypothesis

549

00:20:08,070 --> 00:20:04,880

which claims the power of biology to

550

00:20:09,590 --> 00:20:08,080

control the non-living environment

551

00:20:11,510 --> 00:20:09,600

another interpretation of the

552

00:20:13,590 --> 00:20:11,520

ultra-terrestrial hypothesis that has

553

00:20:15,110 --> 00:20:13,600

gained popularity in recent years for

554

00:20:16,390 --> 00:20:15,120

reasons that we'll discuss later on in

555

00:20:19,110 --> 00:20:16,400

this episode

556

00:20:22,149 --> 00:20:19,120

is that the ufo phenomenon is evidence

557

00:20:24,149 --> 00:20:22,159

of one or more races of ancient advanced

558

00:20:25,830 --> 00:20:24,159

intelligent beings that have shared the

559

00:20:27,909 --> 00:20:25,840

planet with us since the beginning of

560

00:20:29,830 --> 00:20:27,919

human history and likely predates our

561

00:20:32,630 --> 00:20:29,840

emergence on the planet

562

00:20:35,110 --> 00:20:32,640

and yes i know how that sounds

563

00:20:36,310 --> 00:20:35,120

of all of the ideas presented so far for

564

00:20:38,070 --> 00:20:36,320

many people

565

00:20:40,230 --> 00:20:38,080

this is the one that's hardest to not

566

00:20:41,669 --> 00:20:40,240

reject outright as being frankly

567

00:20:43,830 --> 00:20:41,679

preposterous

568

00:20:45,750 --> 00:20:43,840

and i get it and i'm certainly not

569

00:20:47,190 --> 00:20:45,760

asking you to accept that idea as any

570

00:20:49,029 --> 00:20:47,200

kind of truth

571

00:20:50,549 --> 00:20:49,039

all i ask is that you put it on the

572

00:20:53,590 --> 00:20:50,559

shelf for now

573

00:20:56,070 --> 00:20:53,600

also the ultra-terrestrial hypothesis is

574

00:20:58,950 --> 00:20:56,080

just a lot of fun so my strong

575

00:21:00,870 --> 00:20:58,960

recommendation is that you just enjoy it

576

00:21:02,870 --> 00:21:00,880

there's another aspect of lay's work

577

00:21:05,270 --> 00:21:02,880

that in some ways i hesitate to

578

00:21:07,110 --> 00:21:05,280

introduce this early on but it is

579

00:21:09,510 --> 00:21:07,120

integral enough to his research into

580

00:21:11,350 --> 00:21:09,520

ufology as a whole that i'd be remiss

581

00:21:14,390 --> 00:21:11,360

and not telling you about it

582

00:21:16,789 --> 00:21:14,400

and that aspect is that for valet

583

00:21:18,710 --> 00:21:16,799

what these hypotheses have in common is

584

00:21:22,149 --> 00:21:18,720

that they appear to function as some

585

00:21:24,470 --> 00:21:22,159

kind of a control mechanism on humanity

586

00:21:27,430 --> 00:21:24,480

my hesitation in mentioning that is that

587

00:21:29,750 --> 00:21:27,440

this concept is far too often the

588

00:21:32,149 --> 00:21:29,760

gateway drug that spirals a person into

589

00:21:34,310 --> 00:21:32,159

fanatic belief in a pernicious and

590

00:21:36,310 --> 00:21:34,320

frankly dangerous idea that finds itself

591

00:21:37,750 --> 00:21:36,320

at the center of almost any conspiracy

592

00:21:40,070 --> 00:21:37,760

theory these days

593

00:21:41,750 --> 00:21:40,080

which is some version of the idea that

594

00:21:43,990 --> 00:21:41,760

the world is being controlled by some

595

00:21:46,310 --> 00:21:44,000

elite cabal of satanic probably

596

00:21:48,310 --> 00:21:46,320

reptilian baby eaters

597

00:21:51,270 --> 00:21:48,320

and while i'm not at all against the

598

00:21:53,510 --> 00:21:51,280

eventual exploration and re-examination

599

00:21:55,110 --> 00:21:53,520

of our understanding of human history

600

00:21:57,350 --> 00:21:55,120

and the power structures that control

601
00:21:58,950 --> 00:21:57,360
our government our military our economy

602
00:22:00,310 --> 00:21:58,960
and our understanding of our place in

603
00:22:02,149 --> 00:22:00,320
the universe

604
00:22:05,110 --> 00:22:02,159
that is not a slippery slope that we'll

605
00:22:07,270 --> 00:22:05,120
be sliding down on this podcast

606
00:22:10,310 --> 00:22:07,280
but the idea of the phenomenon as a

607
00:22:11,909 --> 00:22:10,320
control mechanism is an important one

608
00:22:13,990 --> 00:22:11,919
it pops up again and again with

609
00:22:16,710 --> 00:22:14,000
different faces and different names but

610
00:22:18,710 --> 00:22:16,720
the core of the idea is always the same

611
00:22:21,909 --> 00:22:18,720
that humanity is being controlled in

612
00:22:23,990 --> 00:22:21,919
some way by an advanced intelligence

613
00:22:27,110 --> 00:22:24,000

i think the reason that this idea is so

614

00:22:29,590 --> 00:22:27,120

pervasive in ufology comes down to the

615

00:22:32,070 --> 00:22:29,600

unpredictable and baffling nature of the

616

00:22:34,710 --> 00:22:32,080

phenomenon the way that it continually

617

00:22:37,510 --> 00:22:34,720

shifts and evolves always eluding us

618

00:22:38,789 --> 00:22:37,520

always defying our expectations dancing

619

00:22:41,830 --> 00:22:38,799

just around the edges of our

620

00:22:43,669 --> 00:22:41,840

understanding as valet outlined in his

621

00:22:46,149 --> 00:22:43,679

five arguments when you take the

622

00:22:47,990 --> 00:22:46,159

evidence for the phenomenon as a whole

623

00:22:49,830 --> 00:22:48,000

it is nearly impossible to piece

624

00:22:52,310 --> 00:22:49,840

together any kind of a coherent

625

00:22:53,510 --> 00:22:52,320

narrative to explain what these beings

626
00:22:55,430 --> 00:22:53,520
might be doing

627
00:22:57,830 --> 00:22:55,440
much less the reason why

628
00:22:59,430 --> 00:22:57,840
and so it can lead one to wonder if the

629
00:23:01,830 --> 00:22:59,440
purpose behind these perplexing

630
00:23:04,070 --> 00:23:01,840
encounters is to elicit some kind of a

631
00:23:05,190 --> 00:23:04,080
response or to none just in a particular

632
00:23:07,110 --> 00:23:05,200
direction

633
00:23:09,510 --> 00:23:07,120
and while there is an understandable

634
00:23:11,830 --> 00:23:09,520
tendency to interpret this idea in a way

635
00:23:13,669 --> 00:23:11,840
that is fundamentally sinister

636
00:23:15,590 --> 00:23:13,679
it could be that this control mechanism

637
00:23:17,110 --> 00:23:15,600
is actually for our benefit

638
00:23:19,029 --> 00:23:17,120

it might not even be something that is

639

00:23:20,470 --> 00:23:19,039

controlling us from the outside but

640

00:23:22,390 --> 00:23:20,480

rather a projection of our own

641

00:23:25,190 --> 00:23:22,400

consciousness that we don't totally

642

00:23:27,270 --> 00:23:25,200

understand we simply don't know

643

00:23:28,950 --> 00:23:27,280

so let's just put this idea on the shelf

644

00:23:30,870 --> 00:23:28,960

for now we'll definitely be coming back

645

00:23:32,310 --> 00:23:30,880

for it later

646

00:23:34,149 --> 00:23:32,320

and so this is where we'll spend some

647

00:23:36,070 --> 00:23:34,159

time today by exploring the

648

00:23:38,149 --> 00:23:36,080

interdimensional hypothesis and the

649

00:23:39,350 --> 00:23:38,159

ultra-terrestrial hypothesis and what

650

00:23:41,269 --> 00:23:39,360

they could mean

651

00:23:43,190 --> 00:23:41,279

and as we move along you'll likely

652

00:23:45,269 --> 00:23:43,200

notice that although these ideas are

653

00:23:47,190 --> 00:23:45,279

distinct and different they begin to

654

00:23:47,990 --> 00:23:47,200

overlap and intersect in interesting

655

00:23:49,430 --> 00:23:48,000

ways

656

00:23:51,510 --> 00:23:49,440

which makes sense

657

00:23:53,990 --> 00:23:51,520

despite their differences both of these

658

00:23:56,470 --> 00:23:54,000

hypotheses rely on the premise that our

659

00:23:58,630 --> 00:23:56,480

world isn't quite what we think it is

660

00:24:01,029 --> 00:23:58,640

and that we are likely sharing space at

661

00:24:03,830 --> 00:24:01,039

least occasionally with one or more

662

00:24:06,410 --> 00:24:03,840

intelligent species and likely have been

663

00:25:30,230 --> 00:24:06,420

since the beginning of human history

664

00:25:31,990 --> 00:25:30,240

[Music]

665

00:25:34,070 --> 00:25:32,000

let's start with the nuts and bolts of

666

00:25:35,750 --> 00:25:34,080

the interdimensional hypothesis

667

00:25:37,590 --> 00:25:35,760

if ufos are visitors from other

668

00:25:39,590 --> 00:25:37,600

dimensions we need to start with the

669

00:25:42,230 --> 00:25:39,600

most obvious questions

670

00:25:43,990 --> 00:25:42,240

do other dimensions exist and if they do

671

00:25:44,950 --> 00:25:44,000

would it be possible to travel between

672

00:25:46,789 --> 00:25:44,960

them

673

00:25:48,230 --> 00:25:46,799

to answer this question we need to

674

00:25:49,909 --> 00:25:48,240

circle back to something that we talked

675

00:25:51,909 --> 00:25:49,919

about in episode 2.

676
00:25:53,029 --> 00:25:51,919
quantum mechanics and the double slit

677
00:25:55,029 --> 00:25:53,039
experiment

678
00:25:57,190 --> 00:25:55,039
as a quick refresher the double slit

679
00:25:59,669 --> 00:25:57,200
experiment is one of the most famous and

680
00:26:01,430 --> 00:25:59,679
most replicated experiments in history

681
00:26:03,669 --> 00:26:01,440
which is unsurprising considering the

682
00:26:05,750 --> 00:26:03,679
profound and puzzling implications that

683
00:26:07,110 --> 00:26:05,760
it has for the very nature of our

684
00:26:09,430 --> 00:26:07,120
reality

685
00:26:11,430 --> 00:26:09,440
as you'll recall light can exist either

686
00:26:13,510 --> 00:26:11,440
as a wave function or as a single

687
00:26:15,350 --> 00:26:13,520
particle called a photon

688
00:26:17,510 --> 00:26:15,360

if you were to shine a light on a board

689

00:26:18,870 --> 00:26:17,520

that had two slits cut into it

690

00:26:20,710 --> 00:26:18,880

you would see that the light would form

691

00:26:23,350 --> 00:26:20,720

a pattern of lines on the wall behind

692

00:26:25,350 --> 00:26:23,360

the board called an interference pattern

693

00:26:27,350 --> 00:26:25,360

an interference pattern occurs when

694

00:26:29,590 --> 00:26:27,360

waves overlap with each other in such a

695

00:26:31,190 --> 00:26:29,600

way that the trough of one wave runs

696

00:26:33,430 --> 00:26:31,200

into the crest of another wave

697

00:26:35,269 --> 00:26:33,440

effectively canceling each other out

698

00:26:37,510 --> 00:26:35,279

you can visualize it by thinking about

699

00:26:39,590 --> 00:26:37,520

dropping two stones into a still body of

700

00:26:41,669 --> 00:26:39,600

water a few feet apart

701
00:26:43,750 --> 00:26:41,679
each stone will form a wave that you see

702
00:26:46,070 --> 00:26:43,760
moving out from the stone in concentric

703
00:26:48,310 --> 00:26:46,080
circles and when these ripples from the

704
00:26:50,549 --> 00:26:48,320
stones intersect with each other you get

705
00:26:52,870 --> 00:26:50,559
an interference pattern in the water

706
00:26:54,789 --> 00:26:52,880
waves of light work the same way

707
00:26:57,029 --> 00:26:54,799
but let's say that instead of shining a

708
00:26:58,950 --> 00:26:57,039
light at the board you instead fired one

709
00:27:00,950 --> 00:26:58,960
photon at a time at it and there was a

710
00:27:03,510 --> 00:27:00,960
sensor behind the board that would show

711
00:27:05,830 --> 00:27:03,520
you where that photon hit so you shoot a

712
00:27:07,669 --> 00:27:05,840
bunch of photons at the board one by one

713
00:27:10,070 --> 00:27:07,679

allowing enough time for the last photon

714

00:27:11,750 --> 00:27:10,080

to hit before you shoot the next one

715

00:27:13,669 --> 00:27:11,760

what you'd find when you were finished

716

00:27:15,590 --> 00:27:13,679

would be that despite the fact that the

717

00:27:17,350 --> 00:27:15,600

light was going through the board one

718

00:27:19,510 --> 00:27:17,360

photon at a time

719

00:27:20,950 --> 00:27:19,520

there's still an interference pattern on

720

00:27:22,870 --> 00:27:20,960

the wall

721

00:27:24,549 --> 00:27:22,880

but how can there be if there were no

722

00:27:26,149 --> 00:27:24,559

light waves to interfere with each other

723

00:27:28,789 --> 00:27:26,159

in the first place

724

00:27:30,870 --> 00:27:28,799

how can a single photon seemingly behave

725

00:27:32,710 --> 00:27:30,880

like a wave going through both slits at

726
00:27:35,590 --> 00:27:32,720
once and then interfering with itself on

727
00:27:37,350 --> 00:27:35,600
the other side it doesn't make sense

728
00:27:39,269 --> 00:27:37,360
based on everything we know about

729
00:27:42,149 --> 00:27:39,279
physics and about our lived reality in

730
00:27:44,950 --> 00:27:42,159
general this should be impossible and

731
00:27:47,590 --> 00:27:44,960
yet like i said this is one of the most

732
00:27:49,830 --> 00:27:47,600
replicated experiments in history and

733
00:27:51,909 --> 00:27:49,840
the results are always the same

734
00:27:53,750 --> 00:27:51,919
and if that wasn't weird enough it's

735
00:27:55,269 --> 00:27:53,760
this next part of the experiment that

736
00:27:57,350 --> 00:27:55,279
breaks everything that we know about

737
00:28:00,230 --> 00:27:57,360
physics in the universe and well

738
00:28:02,789 --> 00:28:00,240

everything really because what you find

739

00:28:05,430 --> 00:28:02,799

is that if you set up a sensor to detect

740

00:28:08,149 --> 00:28:05,440

which of the two slits a photon passes

741

00:28:10,710 --> 00:28:08,159

through and repeat the experiment firing

742

00:28:12,950 --> 00:28:10,720

photons at the board one at a time

743

00:28:16,310 --> 00:28:12,960

something crazy happens

744

00:28:18,950 --> 00:28:16,320

the interference pattern just goes away

745

00:28:21,350 --> 00:28:18,960

the mere act of observing which of the

746

00:28:23,830 --> 00:28:21,360

two slits the photon goes through

747

00:28:26,389 --> 00:28:23,840

somehow forces it to make a decision and

748

00:28:28,470 --> 00:28:26,399

only go through one slit or the other

749

00:28:31,350 --> 00:28:28,480

and as a result the pattern that you get

750

00:28:34,230 --> 00:28:31,360

on the wall is just two straight lines

751

00:28:36,389 --> 00:28:34,240

but how can a single photon know if

752

00:28:39,350 --> 00:28:36,399

that's even the right word to use

753

00:28:41,590 --> 00:28:39,360

whether or not its path is being tracked

754

00:28:43,669 --> 00:28:41,600

how does it know if we know whether it

755

00:28:45,750 --> 00:28:43,679

goes through one slit or the other

756

00:28:47,909 --> 00:28:45,760

and what is it about our observation

757

00:28:50,870 --> 00:28:47,919

that changes its behavior

758

00:28:52,710 --> 00:28:50,880

what the heck is going on here

759

00:28:54,630 --> 00:28:52,720

well i hope you weren't hoping for me to

760

00:28:56,149 --> 00:28:54,640

give you an answer to that question

761

00:28:57,590 --> 00:28:56,159

because although our brightest minds

762

00:28:59,510 --> 00:28:57,600

have been hurling themselves at the

763

00:29:00,310 --> 00:28:59,520

brick wall of this problem for a century

764

00:29:02,710 --> 00:29:00,320

now

765

00:29:04,710 --> 00:29:02,720

we really haven't made any progress

766

00:29:07,350 --> 00:29:04,720

we can use quantum physics to predict

767

00:29:09,669 --> 00:29:07,360

what will happen with stunning accuracy

768

00:29:11,750 --> 00:29:09,679

but the how and the why is still a

769

00:29:14,230 --> 00:29:11,760

complete mystery to us

770

00:29:16,549 --> 00:29:14,240

in the words of caltech physicist sean

771

00:29:18,870 --> 00:29:16,559

carroll quantum physicists are like

772

00:29:20,470 --> 00:29:18,880

people with iphones they know how to use

773

00:29:22,389 --> 00:29:20,480

it and they can do some pretty great

774

00:29:24,710 --> 00:29:22,399

things with it but if you ask them

775

00:29:26,470 --> 00:29:24,720

what's going on inside their iphones

776

00:29:28,710 --> 00:29:26,480

they have no idea

777

00:29:30,710 --> 00:29:28,720

of course there are theories but no one

778

00:29:33,029 --> 00:29:30,720

theory can claim consensus agreement

779

00:29:35,430 --> 00:29:33,039

among present day physicists and this

780

00:29:37,190 --> 00:29:35,440

debate continues to rage on

781

00:29:39,190 --> 00:29:37,200

however one of the most popular

782

00:29:40,470 --> 00:29:39,200

interpretations and the one that is most

783

00:29:42,710 --> 00:29:40,480

commonly taught in high school and

784

00:29:44,070 --> 00:29:42,720

college classes is the copenhagen

785

00:29:48,230 --> 00:29:44,080

interpretation

786

00:29:50,789 --> 00:29:48,240

developed in the 1920s and is the shared

787

00:29:52,710 --> 00:29:50,799

brain baby of famed physicist niels bohr

788

00:29:54,950 --> 00:29:52,720

and werner heisenberg

789

00:29:57,110 --> 00:29:54,960

so how did bohr and heisenberg explain

790

00:29:58,870 --> 00:29:57,120

the double slit experiment so let's go

791

00:30:00,950 --> 00:29:58,880

back to the first part of the experiment

792

00:30:03,190 --> 00:30:00,960

where a photon is shot at the board one

793

00:30:05,190 --> 00:30:03,200

at a time and yet still somehow creates

794

00:30:06,789 --> 00:30:05,200

an interference pattern on the wall how

795

00:30:09,269 --> 00:30:06,799

is it that a photon can behave like a

796

00:30:11,830 --> 00:30:09,279

wave well according to the copenhagen

797

00:30:14,070 --> 00:30:11,840

interpretation this is because before

798

00:30:16,549 --> 00:30:14,080

the photon is measured it doesn't

799

00:30:18,630 --> 00:30:16,559

actually exist in a definite place or

800

00:30:21,110 --> 00:30:18,640

have a particular motion

801
00:30:23,269 --> 00:30:21,120
it exists everywhere and nowhere at the

802
00:30:25,110 --> 00:30:23,279
same time and the waves that are

803
00:30:27,510 --> 00:30:25,120
interacting with each other to form the

804
00:30:29,750 --> 00:30:27,520
interference pattern that we see

805
00:30:32,470 --> 00:30:29,760
aren't even actually waves of light but

806
00:30:35,350 --> 00:30:32,480
rather they are waves of probability

807
00:30:37,669 --> 00:30:35,360
the photon both does and doesn't go down

808
00:30:40,230 --> 00:30:37,679
every possible path and only

809
00:30:42,310 --> 00:30:40,240
materializes in a particular spot when

810
00:30:44,870 --> 00:30:42,320
it's forced to do so by the sensor on

811
00:30:46,549 --> 00:30:44,880
the wall that detects where it hits

812
00:30:48,389 --> 00:30:46,559
and so in the second half of the

813
00:30:50,230 --> 00:30:48,399

experiment where there is a sensor that

814

00:30:52,630 --> 00:30:50,240

detects which of the two slits the

815

00:30:55,190 --> 00:30:52,640

photon goes through the mirror act of

816

00:30:57,909 --> 00:30:55,200

observing what happens forces the photon

817

00:31:00,070 --> 00:30:57,919

to materialize before it hits the board

818

00:31:02,310 --> 00:31:00,080

going through either one slit or the

819

00:31:04,950 --> 00:31:02,320

other and then hitting the wall directly

820

00:31:06,710 --> 00:31:04,960

behind that slit the probability waves

821

00:31:08,710 --> 00:31:06,720

that were interacting to form the

822

00:31:10,870 --> 00:31:08,720

interference pattern before

823

00:31:13,350 --> 00:31:10,880

aren't there anymore because the photon

824

00:31:15,590 --> 00:31:13,360

has been forced to literally pick a lane

825

00:31:16,710 --> 00:31:15,600

and come through the board as one single

826
00:31:19,590 --> 00:31:16,720
photon

827
00:31:20,870 --> 00:31:19,600
so the interference pattern disappears

828
00:31:23,350 --> 00:31:20,880
according to the copenhagen

829
00:31:25,669 --> 00:31:23,360
interpretation the photon exists in a

830
00:31:27,430 --> 00:31:25,679
blurry indeterminate state as a wave

831
00:31:29,509 --> 00:31:27,440
function of probability

832
00:31:31,509 --> 00:31:29,519
it doesn't actually have a definite

833
00:31:32,710 --> 00:31:31,519
position until its wave function

834
00:31:34,710 --> 00:31:32,720
collapses

835
00:31:36,789 --> 00:31:34,720
something that only happens when it is

836
00:31:38,950 --> 00:31:36,799
observed or measured

837
00:31:40,470 --> 00:31:38,960
this position is so radical and so

838
00:31:42,389 --> 00:31:40,480

entirely at odds with our lived

839

00:31:45,190 --> 00:31:42,399

experience that it took even the most

840

00:31:47,110 --> 00:31:45,200

devoted copenhagen adherence a while

841

00:31:48,950 --> 00:31:47,120

before they began to recognize that the

842

00:31:49,750 --> 00:31:48,960

implication of their theory suggests

843

00:31:53,110 --> 00:31:49,760

that

844

00:31:55,269 --> 00:31:53,120

nothing is real unless it is perceived

845

00:31:57,350 --> 00:31:55,279

and as absolutely preposterous as that

846

00:31:59,190 --> 00:31:57,360

may sound there is more and more

847

00:32:01,590 --> 00:31:59,200

evidence that it may actually be the

848

00:32:03,509 --> 00:32:01,600

case in searching for answers to the

849

00:32:05,909 --> 00:32:03,519

mysteries of quantum mechanics we're

850

00:32:07,750 --> 00:32:05,919

increasingly finding astonishing answers

851
00:32:09,669 --> 00:32:07,760
to age-old questions that we once

852
00:32:12,070 --> 00:32:09,679
thought were unanswerable

853
00:32:14,549 --> 00:32:12,080
however for now the copenhagen

854
00:32:16,230 --> 00:32:14,559
interpretation doesn't do much for us

855
00:32:18,470 --> 00:32:16,240
while it doesn't outright eliminate

856
00:32:20,149 --> 00:32:18,480
multiple dimensions as a possibility

857
00:32:22,470 --> 00:32:20,159
this interpretation doesn't require

858
00:32:23,990 --> 00:32:22,480
other dimensions to exist so we'll need

859
00:32:26,149 --> 00:32:24,000
to look elsewhere

860
00:32:28,710 --> 00:32:26,159
the copenhagen interpretation's most

861
00:32:31,190 --> 00:32:28,720
tenacious adversary is referred to as

862
00:32:34,710 --> 00:32:31,200
the many worlds interpretation and was

863
00:32:36,789 --> 00:32:34,720

developed by hugh everett in 1957.

864

00:32:39,269 --> 00:32:36,799

according to everett the wave function

865

00:32:42,470 --> 00:32:39,279

is the true nature of reality and

866

00:32:44,950 --> 00:32:42,480

therefore it never actually collapses it

867

00:32:47,430 --> 00:32:44,960

only appears to collapse because we can

868

00:32:49,269 --> 00:32:47,440

only see one of a potentially infinite

869

00:32:51,029 --> 00:32:49,279

number of outcomes

870

00:32:53,509 --> 00:32:51,039

when the observer looks to see which

871

00:32:56,310 --> 00:32:53,519

slit the photon goes through they see

872

00:32:58,710 --> 00:32:56,320

just one possible outcome because they

873

00:33:00,549 --> 00:32:58,720

are only aware of one world

874

00:33:02,549 --> 00:33:00,559

but in reality there are many

875

00:33:05,110 --> 00:33:02,559

potentially infinite worlds in which

876

00:33:07,590 --> 00:33:05,120

every possible quantum possibility gets

877

00:33:09,830 --> 00:33:07,600

a chance to play itself out and every

878

00:33:11,029 --> 00:33:09,840

world is equally real to the people who

879

00:33:11,830 --> 00:33:11,039

are living in it

880

00:33:14,230 --> 00:33:11,840

so

881

00:33:15,909 --> 00:33:14,240

in your world you see one outcome but

882

00:33:18,310 --> 00:33:15,919

there's a world that exists for each and

883

00:33:20,389 --> 00:33:18,320

every possible outcome and in each of

884

00:33:23,190 --> 00:33:20,399

those worlds you

885

00:33:25,590 --> 00:33:23,200

are experiencing only that outcome

886

00:33:28,070 --> 00:33:25,600

and if that hurts your brain consider

887

00:33:30,149 --> 00:33:28,080

that the photon isn't the only quantum

888

00:33:32,230 --> 00:33:30,159

system in this scenario

889

00:33:34,149 --> 00:33:32,240

you as the observer are part of the

890

00:33:36,549 --> 00:33:34,159

quantum system as well

891

00:33:39,029 --> 00:33:36,559

so each of your actions and decisions

892

00:33:42,310 --> 00:33:39,039

plays out in the same way with every

893

00:33:44,389 --> 00:33:42,320

permutation of every possibility playing

894

00:33:45,909 --> 00:33:44,399

out somewhere in a world that looks a

895

00:33:47,029 --> 00:33:45,919

lot like this one

896

00:33:48,950 --> 00:33:47,039

but isn't

897

00:33:51,430 --> 00:33:48,960

the basic premise of the many worlds

898

00:33:54,149 --> 00:33:51,440

interpretation is that everything that

899

00:33:56,549 --> 00:33:54,159

can happen does happen

900

00:33:58,310 --> 00:33:56,559

and i personally take issue with that as

901
00:33:59,990 --> 00:33:58,320
do others in the scientific community

902
00:34:01,110 --> 00:34:00,000
who know a lot more about this stuff

903
00:34:02,549 --> 00:34:01,120
than i do

904
00:34:05,110 --> 00:34:02,559
and here's why

905
00:34:07,350 --> 00:34:05,120
first of all i get that the human mind's

906
00:34:10,230 --> 00:34:07,360
ability to truly contemplate the concept

907
00:34:12,310 --> 00:34:10,240
of infinity is basically non-existent

908
00:34:14,470 --> 00:34:12,320
and for me personally it's an idea that

909
00:34:16,790 --> 00:34:14,480
feels truly unapproachable

910
00:34:19,349 --> 00:34:16,800
i just can't wrap my mind around it

911
00:34:21,669 --> 00:34:19,359
and i always want to be mindful to not

912
00:34:23,349 --> 00:34:21,679
mistake the limits of my understanding

913
00:34:25,510 --> 00:34:23,359

for the answer

914

00:34:27,909 --> 00:34:25,520

but what the many world's interpretation

915

00:34:30,710 --> 00:34:27,919

requires is that there is an entire

916

00:34:33,750 --> 00:34:30,720

universe erected around the infinite

917

00:34:36,230 --> 00:34:33,760

potential paths of a single photon and

918

00:34:38,950 --> 00:34:36,240

around every other quantum system in the

919

00:34:40,710 --> 00:34:38,960

universe and at every imaginable scale

920

00:34:43,909 --> 00:34:40,720

whether we're talking about a single

921

00:34:45,990 --> 00:34:43,919

atomic particle or a virus or a leaf

922

00:34:49,030 --> 00:34:46,000

blowing on the wind or a human living a

923

00:34:49,909 --> 00:34:49,040

life or a star-going supernova

924

00:34:51,190 --> 00:34:49,919

i mean

925

00:34:53,190 --> 00:34:51,200

what

926
00:34:55,109 --> 00:34:53,200
i know that it's literally infinity that

927
00:34:58,230 --> 00:34:55,119
we're talking about here but that still

928
00:35:00,950 --> 00:34:58,240
feels like i don't know like too much

929
00:35:02,710 --> 00:35:00,960
and beyond just grappling with infinity

930
00:35:05,270 --> 00:35:02,720
there are massive and profound

931
00:35:07,349 --> 00:35:05,280
existential implications to this

932
00:35:08,870 --> 00:35:07,359
so imagine that you're a scientist and

933
00:35:10,069 --> 00:35:08,880
you're conducting the double slit

934
00:35:12,230 --> 00:35:10,079
experiment

935
00:35:14,470 --> 00:35:12,240
you are experiencing and observing one

936
00:35:16,470 --> 00:35:14,480
set of outcomes to the experiment but

937
00:35:18,390 --> 00:35:16,480
every single other possible outcome is

938
00:35:20,470 --> 00:35:18,400

playing out another universe

939

00:35:21,589 --> 00:35:20,480

if everything that can happen does

940

00:35:24,069 --> 00:35:21,599

happen

941

00:35:26,230 --> 00:35:24,079

then what does that say about free will

942

00:35:28,230 --> 00:35:26,240

and our ability to choose

943

00:35:30,710 --> 00:35:28,240

if you make a choice between right and

944

00:35:32,550 --> 00:35:30,720

wrong and decide to do the right thing

945

00:35:34,710 --> 00:35:32,560

does it even matter if in some other

946

00:35:36,150 --> 00:35:34,720

universe you are inevitably going to do

947

00:35:37,910 --> 00:35:36,160

the wrong thing

948

00:35:39,750 --> 00:35:37,920

and did you choose to do the right thing

949

00:35:41,670 --> 00:35:39,760

because it was your choice

950

00:35:44,550 --> 00:35:41,680

or because this is the universe where

951
00:35:46,710 --> 00:35:44,560
you have to make that choice because

952
00:35:48,870 --> 00:35:46,720
with the many world interpretation it's

953
00:35:50,069 --> 00:35:48,880
not just that everything that can happen

954
00:35:52,710 --> 00:35:50,079
does happen

955
00:35:53,990 --> 00:35:52,720
but that everything that can happen has

956
00:35:56,230 --> 00:35:54,000
to happen

957
00:35:59,270 --> 00:35:56,240
and when taken to that extreme an

958
00:36:02,230 --> 00:35:59,280
infinite reality is inherently a

959
00:36:03,910 --> 00:36:02,240
deterministic reality and any illusion

960
00:36:06,230 --> 00:36:03,920
that we have of making a choice is

961
00:36:08,310 --> 00:36:06,240
simply the forced perspective of only

962
00:36:09,190 --> 00:36:08,320
having awareness of one reality at a

963
00:36:11,030 --> 00:36:09,200

time

964

00:36:12,950 --> 00:36:11,040

and that's unsettling

965

00:36:15,190 --> 00:36:12,960

i don't think that anyone likes the idea

966

00:36:16,310 --> 00:36:15,200

of being just another cog in a cosmic

967

00:36:18,710 --> 00:36:16,320

wheel

968

00:36:21,349 --> 00:36:18,720

we want to believe that we have choices

969

00:36:23,430 --> 00:36:21,359

and that we can shape our own destiny or

970

00:36:24,630 --> 00:36:23,440

at the very least that what we do

971

00:36:26,790 --> 00:36:24,640

matters

972

00:36:29,190 --> 00:36:26,800

and i personally don't think that it's

973

00:36:31,990 --> 00:36:29,200

just the protestations of our fragile

974

00:36:34,069 --> 00:36:32,000

human egos that makes us feel that way

975

00:36:37,190 --> 00:36:34,079

we all seem to have a deep sense that

976

00:36:39,190 --> 00:36:37,200

free will is intrinsic to our humanity

977

00:36:41,109 --> 00:36:39,200

it's hard to fully embrace a theory that

978

00:36:43,510 --> 00:36:41,119

deals so dismissively with something

979

00:36:44,870 --> 00:36:43,520

that seems so foundational to our lived

980

00:36:46,470 --> 00:36:44,880

experience

981

00:36:47,990 --> 00:36:46,480

that doesn't necessarily mean that we

982

00:36:50,150 --> 00:36:48,000

can rule it out

983

00:36:52,470 --> 00:36:50,160

but it is something to consider

984

00:36:54,230 --> 00:36:52,480

but the many world interpretation

985

00:36:57,349 --> 00:36:54,240

doesn't just unravel our sense of our

986

00:36:58,390 --> 00:36:57,359

humanity but of the individual self as

987

00:37:00,550 --> 00:36:58,400

well

988

00:37:02,390 --> 00:37:00,560

if every choice and every measurement

989

00:37:04,790 --> 00:37:02,400

splits off into another different

990

00:37:06,630 --> 00:37:04,800

version of you each with its own unique

991

00:37:09,430 --> 00:37:06,640

experiences thoughts and sense of

992

00:37:12,710 --> 00:37:09,440

identity then what even is the entity

993

00:37:15,270 --> 00:37:12,720

that we're calling you in this scenario

994

00:37:17,750 --> 00:37:15,280

once again this isn't necessarily a deal

995

00:37:19,349 --> 00:37:17,760

breaker but at the very least we have to

996

00:37:21,510 --> 00:37:19,359

recognize that the many world

997

00:37:23,430 --> 00:37:21,520

interpretation if true

998

00:37:24,710 --> 00:37:23,440

obliterates our understanding of the

999

00:37:26,790 --> 00:37:24,720

self

1000

00:37:28,630 --> 00:37:26,800

and there are other issues with the many

1001

00:37:30,390 --> 00:37:28,640

world interpretation

1002

00:37:32,470 --> 00:37:30,400

the problem at the heart of quantum

1003

00:37:35,190 --> 00:37:32,480

mechanics that many worlds is trying to

1004

00:37:37,270 --> 00:37:35,200

solve is the measurement problem

1005

00:37:39,829 --> 00:37:37,280

we know that measuring an event will

1006

00:37:41,990 --> 00:37:39,839

have a direct impact on its outcome

1007

00:37:45,030 --> 00:37:42,000

but we don't understand the mechanism

1008

00:37:47,589 --> 00:37:45,040

behind why or how that happens

1009

00:37:50,230 --> 00:37:47,599

and many worlds handles this by saying

1010

00:37:52,710 --> 00:37:50,240

that this problem is only an illusion

1011

00:37:54,950 --> 00:37:52,720

the wave function never really collapses

1012

00:37:57,190 --> 00:37:54,960

it just looks like it does to us

1013

00:37:59,430 --> 00:37:57,200

but when you think about it

1014

00:38:01,829 --> 00:37:59,440

that's not really an answer either

1015

00:38:03,990 --> 00:38:01,839

first of all it doesn't actually solve

1016

00:38:05,510 --> 00:38:04,000

the measurement problem it just takes

1017

00:38:07,589 --> 00:38:05,520

the parts that don't make sense and

1018

00:38:11,030 --> 00:38:07,599

relegates them to other dimensions

1019

00:38:13,109 --> 00:38:11,040

places that we conveniently can't access

1020

00:38:15,030 --> 00:38:13,119

many believers point to the elegance and

1021

00:38:17,589 --> 00:38:15,040

simplicity of many worlds as

1022

00:38:20,550 --> 00:38:17,599

self-evident proof of its reality

1023

00:38:23,030 --> 00:38:20,560

but elegant as it may be you can't just

1024

00:38:25,430 --> 00:38:23,040

take an unprovable hypothesis and assume

1025

00:38:27,510 --> 00:38:25,440

that it's true because it appears to

1026

00:38:29,589 --> 00:38:27,520

describe and predict reality as you

1027

00:38:32,069 --> 00:38:29,599

perceive it especially when the

1028

00:38:34,470 --> 00:38:32,079

hypothesis itself basically by

1029

00:38:36,390 --> 00:38:34,480

definition predicts experimental

1030

00:38:37,829 --> 00:38:36,400

outcomes that are fully consistent with

1031

00:38:39,910 --> 00:38:37,839

what we observe

1032

00:38:42,550 --> 00:38:39,920

now i know i just said a lot of words

1033

00:38:44,630 --> 00:38:42,560

and if you're confused no worries i

1034

00:38:46,390 --> 00:38:44,640

honestly am confusing myself

1035

00:38:48,870 --> 00:38:46,400

all you really need to understand

1036

00:38:51,829 --> 00:38:48,880

is that the many world's interpretation

1037

00:38:53,589 --> 00:38:51,839

relies on circular reasoning we observe

1038

00:38:54,790 --> 00:38:53,599

what we observe because it's what we

1039

00:38:56,470 --> 00:38:54,800

can't observe

1040

00:38:58,550 --> 00:38:56,480

there's nothing technically wrong with

1041

00:39:01,349 --> 00:38:58,560

that statement but it's hardly a

1042

00:39:03,030 --> 00:39:01,359

satisfying explanation for anything

1043

00:39:05,270 --> 00:39:03,040

and i want to stop here for just a

1044

00:39:07,349 --> 00:39:05,280

second to make a distinction between the

1045

00:39:09,750 --> 00:39:07,359

many worlds interpretation and the

1046

00:39:12,150 --> 00:39:09,760

concept of the multiverse thanks to

1047

00:39:14,230 --> 00:39:12,160

shows like rick and morty these concepts

1048

00:39:16,470 --> 00:39:14,240

have become more common in mainstream

1049

00:39:18,470 --> 00:39:16,480

discourse but they are often used

1050

00:39:19,829 --> 00:39:18,480

interchangeably which can cause some

1051
00:39:21,670 --> 00:39:19,839
confusion

1052
00:39:23,510 --> 00:39:21,680
as we've discussed many worlds is

1053
00:39:25,750 --> 00:39:23,520
specifically an interpretation of

1054
00:39:27,270 --> 00:39:25,760
quantum mechanics that says that there

1055
00:39:29,589 --> 00:39:27,280
is a universe in which every

1056
00:39:32,150 --> 00:39:29,599
probabilistic outcome occurs

1057
00:39:34,870 --> 00:39:32,160
the multiverse theory is similar but the

1058
00:39:37,109 --> 00:39:34,880
mechanism of how the universes come into

1059
00:39:38,950 --> 00:39:37,119
existence is different for many who

1060
00:39:41,270 --> 00:39:38,960
believe in the multiverse a near

1061
00:39:43,510 --> 00:39:41,280
infinite number of universes sprang into

1062
00:39:44,550 --> 00:39:43,520
being less than a second after the big

1063
00:39:46,390 --> 00:39:44,560

bang

1064

00:39:48,550 --> 00:39:46,400

each of these universes would have its

1065

00:39:50,470 --> 00:39:48,560

own laws of physics its own collection

1066

00:39:52,630 --> 00:39:50,480

of particles its own arrangement of

1067

00:39:53,750 --> 00:39:52,640

forces and its own values of fundamental

1068

00:39:55,670 --> 00:39:53,760

constants

1069

00:39:57,430 --> 00:39:55,680

and would be unique from each other in

1070

00:39:58,150 --> 00:39:57,440

virtually every way

1071

00:39:59,670 --> 00:39:58,160

so

1072

00:40:01,430 --> 00:39:59,680

what evidence do we have that the

1073

00:40:03,670 --> 00:40:01,440

multiverse could be real

1074

00:40:05,750 --> 00:40:03,680

well for most advocates of this theory

1075

00:40:07,670 --> 00:40:05,760

the best evidence for the multiverse is

1076

00:40:10,470 --> 00:40:07,680

that we exist

1077

00:40:11,829 --> 00:40:10,480

complex life forms capable of scientific

1078

00:40:13,750 --> 00:40:11,839

inquiry

1079

00:40:15,589 --> 00:40:13,760

this is because we know about our own

1080

00:40:18,230 --> 00:40:15,599

universe that it appears to be

1081

00:40:20,630 --> 00:40:18,240

particularly well suited for life

1082

00:40:23,190 --> 00:40:20,640

things such as the longevity of stars

1083

00:40:24,950 --> 00:40:23,200

the abundance of carbon the availability

1084

00:40:27,750 --> 00:40:24,960

of light for photosynthesis and the

1085

00:40:29,910 --> 00:40:27,760

stability of complex nuclei

1086

00:40:31,270 --> 00:40:29,920

make it possible for life as we know it

1087

00:40:33,589 --> 00:40:31,280

to emerge

1088

00:40:35,670 --> 00:40:33,599

however if any of the starting

1089

00:40:37,910 --> 00:40:35,680

conditions of our universe had been even

1090

00:40:39,589 --> 00:40:37,920

slightly different the results could

1091

00:40:41,829 --> 00:40:39,599

have been very different

1092

00:40:44,230 --> 00:40:41,839

and this is troublesome for scientists

1093

00:40:46,230 --> 00:40:44,240

because the chances that everything

1094

00:40:48,470 --> 00:40:46,240

would be so perfectly balanced in our

1095

00:40:51,109 --> 00:40:48,480

universe that we are even able to evolve

1096

00:40:53,829 --> 00:40:51,119

to the point to ask these questions

1097

00:40:56,470 --> 00:40:53,839

must be vanishingly small

1098

00:40:58,870 --> 00:40:56,480

and so for many the most logical

1099

00:41:01,510 --> 00:40:58,880

explanation is that there must be an

1100

00:41:04,550 --> 00:41:01,520

infinite number of universes the vast

1101

00:41:06,870 --> 00:41:04,560

majority of which are likely lifeless

1102

00:41:09,030 --> 00:41:06,880

but inevitably if you roll the cosmic

1103

00:41:11,190 --> 00:41:09,040

dice an infinite number of times you'll

1104

00:41:13,910 --> 00:41:11,200

eventually get the conditions for life

1105

00:41:15,910 --> 00:41:13,920

which is how we're here so like the many

1106

00:41:18,309 --> 00:41:15,920

worlds interpretation what we have here

1107

00:41:19,750 --> 00:41:18,319

is basically a blanket explanation to

1108

00:41:21,829 --> 00:41:19,760

explain something that should be

1109

00:41:24,230 --> 00:41:21,839

impossible with something that we can't

1110

00:41:25,190 --> 00:41:24,240

access or experience much less prove or

1111

00:41:27,589 --> 00:41:25,200

measure

1112

00:41:30,069 --> 00:41:27,599

which isn't necessarily to say that it's

1113

00:41:32,790 --> 00:41:30,079

wrong but if we remember back to episode

1114

00:41:35,990 --> 00:41:32,800

2 and the 2nd century ad astronomer

1115

00:41:37,750 --> 00:41:36,000

ptolemy we have a perfect example of why

1116

00:41:39,430 --> 00:41:37,760

we need to be skeptical of these types

1117

00:41:41,589 --> 00:41:39,440

of explanations

1118

00:41:43,270 --> 00:41:41,599

as you'll recall ptolemy was the first

1119

00:41:44,870 --> 00:41:43,280

to challenge the idea that the heavenly

1120

00:41:47,510 --> 00:41:44,880

bodies moved through the sky in

1121

00:41:49,270 --> 00:41:47,520

perfectly circular orbits they moved

1122

00:41:50,710 --> 00:41:49,280

forward and backward across the night

1123

00:41:52,790 --> 00:41:50,720

sky in ways that should have been

1124

00:41:53,910 --> 00:41:52,800

impossible if their orbits were truly

1125

00:41:56,470 --> 00:41:53,920

circular

1126
00:41:58,470 --> 00:41:56,480
so ptolemy created a model that showed

1127
00:42:00,630 --> 00:41:58,480
the planets moving in more elaborate

1128
00:42:03,109 --> 00:42:00,640
orbits with twists and loops

1129
00:42:05,589 --> 00:42:03,119
his model was so accurate and predicted

1130
00:42:08,190 --> 00:42:05,599
the positions of the celestial bodies so

1131
00:42:10,230 --> 00:42:08,200
perfectly that it was used for the next

1132
00:42:13,510 --> 00:42:10,240
1400 years

1133
00:42:15,829 --> 00:42:13,520
but it was also completely wrong

1134
00:42:18,550 --> 00:42:15,839
and so the problem with both of these

1135
00:42:20,309 --> 00:42:18,560
theories of multiple universes is that

1136
00:42:22,390 --> 00:42:20,319
although they don't contradict our

1137
00:42:24,230 --> 00:42:22,400
current models and understanding and

1138
00:42:25,750 --> 00:42:24,240

although they are predictive to a degree

1139

00:42:27,270 --> 00:42:25,760

that they've allowed us to make giant

1140

00:42:29,190 --> 00:42:27,280

strides in our technology and our

1141

00:42:31,270 --> 00:42:29,200

understanding of the universe

1142

00:42:34,069 --> 00:42:31,280

until we have a way of verifying

1143

00:42:36,309 --> 00:42:34,079

scientifically that they even exist

1144

00:42:38,790 --> 00:42:36,319

it's all purely speculative

1145

00:42:41,270 --> 00:42:38,800

and chances are these theories are wrong

1146

00:42:43,510 --> 00:42:41,280

in some major way that we just can't see

1147

00:42:45,190 --> 00:42:43,520

yet there's one more distinction that we

1148

00:42:47,109 --> 00:42:45,200

need to make beyond just the difference

1149

00:42:48,550 --> 00:42:47,119

between the many worlds interpretation

1150

00:42:50,870 --> 00:42:48,560

and the multiverse

1151
00:42:53,510 --> 00:42:50,880
and that's between multiple universes

1152
00:42:55,829 --> 00:42:53,520
and multiple dimensions we often use

1153
00:42:57,430 --> 00:42:55,839
those ideas interchangeably but there is

1154
00:42:59,190 --> 00:42:57,440
a difference there as well

1155
00:43:01,190 --> 00:42:59,200
what we've talked about so far is

1156
00:43:03,430 --> 00:43:01,200
multiple universes but multiple

1157
00:43:05,589 --> 00:43:03,440
dimensions would work differently

1158
00:43:07,430 --> 00:43:05,599
think of it this way we are third

1159
00:43:09,829 --> 00:43:07,440
dimensional beings that exist in the

1160
00:43:11,750 --> 00:43:09,839
fourth dimension which is time

1161
00:43:13,349 --> 00:43:11,760
to begin to understand how wildly

1162
00:43:15,670 --> 00:43:13,359
different a different dimension would be

1163
00:43:17,510 --> 00:43:15,680

from a different universe just try to

1164

00:43:19,270 --> 00:43:17,520

conceive of what a fourth dimensional

1165

00:43:20,550 --> 00:43:19,280

being living in the fifth dimension

1166

00:43:21,910 --> 00:43:20,560

might look like

1167

00:43:23,589 --> 00:43:21,920

having trouble

1168

00:43:24,470 --> 00:43:23,599

yeah my brain doesn't work that way

1169

00:43:26,150 --> 00:43:24,480

either

1170

00:43:29,270 --> 00:43:26,160

and honestly i don't want to get bogged

1171

00:43:31,030 --> 00:43:29,280

down here if you go to uforabbithole.com

1172

00:43:33,190 --> 00:43:31,040

you can find the full episode notes for

1173

00:43:35,430 --> 00:43:33,200

this episode and i'll include a bunch of

1174

00:43:37,349 --> 00:43:35,440

bonus videos and reading from people

1175

00:43:39,910 --> 00:43:37,359

much smarter than me for anyone who

1176
00:43:41,750 --> 00:43:39,920
wants to more fully explore this concept

1177
00:43:43,190 --> 00:43:41,760
and while you're there be sure to sign

1178
00:43:45,109 --> 00:43:43,200
up for the email list so that you can

1179
00:43:47,109 --> 00:43:45,119
get each new episode along with a full

1180
00:43:49,270 --> 00:43:47,119
episode brief sent right to your inbox

1181
00:43:50,230 --> 00:43:49,280
as soon as it's released shameless plug

1182
00:43:51,430 --> 00:43:50,240
over

1183
00:43:53,510 --> 00:43:51,440
but for the purposes of this

1184
00:43:55,670 --> 00:43:53,520
conversation it's not important that you

1185
00:43:56,790 --> 00:43:55,680
be able to visualize or understand

1186
00:43:58,630 --> 00:43:56,800
dimensions

1187
00:44:00,630 --> 00:43:58,640
only that you know from a very high

1188
00:44:02,470 --> 00:44:00,640

level what they are

1189

00:44:04,150 --> 00:44:02,480

and no conversation about dimensions

1190

00:44:05,750 --> 00:44:04,160

would be complete without discussing

1191

00:44:09,750 --> 00:44:05,760

string theory

1192

00:44:12,069 --> 00:44:09,760

fundamental constituents of the universe

1193

00:44:13,750 --> 00:44:12,079

are one-dimensional strings rather than

1194

00:44:15,510 --> 00:44:13,760

point-like particles

1195

00:44:18,069 --> 00:44:15,520

what we perceive as particles are

1196

00:44:19,750 --> 00:44:18,079

actually vibrations in loops of strings

1197

00:44:21,190 --> 00:44:19,760

each with its own characteristic

1198

00:44:23,270 --> 00:44:21,200

frequency

1199

00:44:25,430 --> 00:44:23,280

i'll be real and tell you that i don't

1200

00:44:27,910 --> 00:44:25,440

totally get strength theory either

1201
00:44:29,510 --> 00:44:27,920
but right now we don't need to there are

1202
00:44:30,950 --> 00:44:29,520
basically two things that you need to

1203
00:44:33,510 --> 00:44:30,960
know about string theory that are worth

1204
00:44:35,589 --> 00:44:33,520
mentioning here the first is that unlike

1205
00:44:37,670 --> 00:44:35,599
the universes in many worlds or in the

1206
00:44:39,430 --> 00:44:37,680
multiverse theory the dimensions

1207
00:44:42,150 --> 00:44:39,440
proposed by string theory aren't

1208
00:44:43,589 --> 00:44:42,160
infinite in fact they are specifically

1209
00:44:45,430 --> 00:44:43,599
seven dimensions

1210
00:44:47,430 --> 00:44:45,440
this has to do with how the dimensions

1211
00:44:49,109 --> 00:44:47,440
fold into each other like nesting dolls

1212
00:44:50,710 --> 00:44:49,119
and once again i'll include bonus

1213
00:44:52,230 --> 00:44:50,720

materials for this in the episode notes

1214

00:44:55,030 --> 00:44:52,240

if you want to learn more

1215

00:44:57,030 --> 00:44:55,040

however within these 11 dimensions

1216

00:45:00,950 --> 00:44:57,040

string theory can reasonably predict a

1217

00:45:03,510 --> 00:45:00,960

multiverse populated by 10 to the 500th

1218

00:45:05,430 --> 00:45:03,520

different universes and while that's not

1219

00:45:06,790 --> 00:45:05,440

technically an infinite number it really

1220

00:45:09,910 --> 00:45:06,800

might as well be

1221

00:45:13,109 --> 00:45:09,920

after all 10 to the 82nd is the number

1222

00:45:16,630 --> 00:45:13,119

of atoms in the universe so 10 to the

1223

00:45:18,309 --> 00:45:16,640

500th is just incomprehensibly big and

1224

00:45:20,550 --> 00:45:18,319

like the many worlds interpretation and

1225

00:45:22,790 --> 00:45:20,560

the multiverse theory string theory is

1226

00:45:25,109 --> 00:45:22,800

still entirely hypothetical

1227

00:45:26,550 --> 00:45:25,119

thus far we have no real way to verify

1228

00:45:29,990 --> 00:45:26,560

if it's true or not

1229

00:45:31,589 --> 00:45:30,000

okay so that was a lot of information so

1230

00:45:32,790 --> 00:45:31,599

after all of that

1231

00:45:34,630 --> 00:45:32,800

where does the interdimensional

1232

00:45:36,470 --> 00:45:34,640

hypothesis shake out

1233

00:45:38,630 --> 00:45:36,480

well like anything else having to do

1234

00:45:41,190 --> 00:45:38,640

with the ufo phenomenon the answer is

1235

00:45:43,109 --> 00:45:41,200

complicated as we've established we

1236

00:45:45,030 --> 00:45:43,119

don't have any direct evidence that

1237

00:45:47,190 --> 00:45:45,040

other universes exist

1238

00:45:49,190 --> 00:45:47,200

we know that other dimensions exist at

1239

00:45:51,109 --> 00:45:49,200

least so far as we know that we're third

1240

00:45:53,270 --> 00:45:51,119

dimensional beings and there exists a

1241

00:45:55,109 --> 00:45:53,280

fourth dimension but exactly how

1242

00:45:56,950 --> 00:45:55,119

dimensions work and whether or not we

1243

00:45:59,270 --> 00:45:56,960

would even be able to perceive beings

1244

00:46:01,430 --> 00:45:59,280

that came from another dimension is all

1245

00:46:03,270 --> 00:46:01,440

highly speculative and this can be

1246

00:46:05,270 --> 00:46:03,280

extremely unsatisfying for anyone

1247

00:46:07,670 --> 00:46:05,280

looking for a solid scientific footing

1248

00:46:09,510 --> 00:46:07,680

from which to assess this hypothesis

1249

00:46:11,349 --> 00:46:09,520

each of these theories relies on the

1250

00:46:12,950 --> 00:46:11,359

concept of infinity to explain

1251
00:46:15,190 --> 00:46:12,960
phenomenon that would be otherwise

1252
00:46:17,430 --> 00:46:15,200
unexplainable and all of them are

1253
00:46:19,829 --> 00:46:17,440
ultimately unprovable because we can't

1254
00:46:21,030 --> 00:46:19,839
perceive or access these other universes

1255
00:46:23,510 --> 00:46:21,040
and dimensions

1256
00:46:24,950 --> 00:46:23,520
however it is worth considering the fact

1257
00:46:27,030 --> 00:46:24,960
that some of the best and brightest

1258
00:46:29,270 --> 00:46:27,040
minds of the last century have spent

1259
00:46:31,109 --> 00:46:29,280
their careers working on some of the

1260
00:46:32,870 --> 00:46:31,119
biggest and most baffling questions that

1261
00:46:34,870 --> 00:46:32,880
science has to ask

1262
00:46:36,870 --> 00:46:34,880
and many of them have now come up with

1263
00:46:39,670 --> 00:46:36,880

some version of the same idea to answer

1264

00:46:41,670 --> 00:46:39,680

it and those models though unprovable

1265

00:46:43,430 --> 00:46:41,680

are still predictive enough to allow us

1266

00:46:45,589 --> 00:46:43,440

to make ground-breaking breakthroughs in

1267

00:46:47,270 --> 00:46:45,599

technology ranging from led lights to

1268

00:46:48,950 --> 00:46:47,280

quantum computers

1269

00:46:49,910 --> 00:46:48,960

so maybe there's something to this after

1270

00:46:52,309 --> 00:46:49,920

all

1271

00:46:54,550 --> 00:46:52,319

ptolemy's model of the planetary orbits

1272

00:46:55,990 --> 00:46:54,560

wasn't correct but it was a vast

1273

00:46:58,230 --> 00:46:56,000

improvement over the models that came

1274

00:47:01,030 --> 00:46:58,240

before it and it more than served its

1275

00:47:02,870 --> 00:47:01,040

purpose for 1400 years until the next

1276
00:47:04,950 --> 00:47:02,880
leap in our understanding allowed us to

1277
00:47:06,470 --> 00:47:04,960
discover their true orbits

1278
00:47:08,230 --> 00:47:06,480
and so it will likely be with our

1279
00:47:10,069 --> 00:47:08,240
understanding of parallel worlds and

1280
00:47:11,990 --> 00:47:10,079
dimensions when we finally take that

1281
00:47:13,750 --> 00:47:12,000
next step in our evolution

1282
00:47:15,589 --> 00:47:13,760
our current theories will likely prove

1283
00:47:19,190 --> 00:47:15,599
to be much the same as ptolemy's model

1284
00:47:21,510 --> 00:47:19,200
of the cosmos partly true partly false

1285
00:47:24,710 --> 00:47:21,520
and with some vital truth still yet

1286
00:47:26,870 --> 00:47:24,720
unknown to us suddenly revealed one more

1287
00:47:29,030 --> 00:47:26,880
idea i want to touch on here before we

1288
00:47:30,870 --> 00:47:29,040

move on is what the interdimensional

1289

00:47:33,589 --> 00:47:30,880

hypothesis suggests

1290

00:47:36,309 --> 00:47:33,599

not just about the ufo phenomenon but

1291

00:47:38,790 --> 00:47:36,319

about the paranormal in general

1292

00:47:40,470 --> 00:47:38,800

the word paranormal simply refers to

1293

00:47:42,630 --> 00:47:40,480

things that are beyond the scope of

1294

00:47:44,549 --> 00:47:42,640

normal scientific understanding

1295

00:47:46,309 --> 00:47:44,559

and while the scientifically minded

1296

00:47:48,470 --> 00:47:46,319

among us can be quick to dismiss the

1297

00:47:50,950 --> 00:47:48,480

paranormal as ridiculous

1298

00:47:52,950 --> 00:47:50,960

the reality is that this realm beyond

1299

00:47:55,270 --> 00:47:52,960

our understanding is where many of the

1300

00:47:56,950 --> 00:47:55,280

brightest scientific minds are spending

1301

00:47:58,710 --> 00:47:56,960

most of their time

1302

00:48:01,510 --> 00:47:58,720

and from whence most of our most

1303

00:48:04,150 --> 00:48:01,520

startling breakthroughs are being made

1304

00:48:06,710 --> 00:48:04,160

we like to think that science sees all

1305

00:48:08,870 --> 00:48:06,720

and knows all but science is just a

1306

00:48:11,270 --> 00:48:08,880

method of inquiry that allows us to

1307

00:48:13,430 --> 00:48:11,280

slowly and incrementally move back the

1308

00:48:15,510 --> 00:48:13,440

veil that keeps the truth behind the

1309

00:48:18,069 --> 00:48:15,520

mysteries of the universe shrouded from

1310

00:48:20,710 --> 00:48:18,079

our sight revealing a deeper and deeper

1311

00:48:23,109 --> 00:48:20,720

understanding of what it is and while

1312

00:48:24,710 --> 00:48:23,119

it's impossible to say what lies just

1313

00:48:26,470 --> 00:48:24,720

beyond the veil

1314

00:48:28,870 --> 00:48:26,480

many scientists believe that what is

1315

00:48:29,990 --> 00:48:28,880

there could very well be infinite in

1316

00:48:31,349 --> 00:48:30,000

nature

1317

00:48:33,750 --> 00:48:31,359

and the thing about an infinite

1318

00:48:35,270 --> 00:48:33,760

multiverse is that if it is possible for

1319

00:48:37,750 --> 00:48:35,280

beings to travel between different

1320

00:48:40,870 --> 00:48:37,760

worlds and dimensions than someone

1321

00:48:43,510 --> 00:48:40,880

somewhere and likely very many someones

1322

00:48:45,750 --> 00:48:43,520

would definitely figure out how to do so

1323

00:48:47,109 --> 00:48:45,760

and in that scenario it's not so much a

1324

00:48:49,510 --> 00:48:47,119

matter of if

1325

00:48:52,309 --> 00:48:49,520

but when and how often humans would

1326

00:48:54,069 --> 00:48:52,319

encounter them and these beings whatever

1327

00:48:56,230 --> 00:48:54,079

and whoever they might be

1328

00:48:57,750 --> 00:48:56,240

could look a lot like us potentially

1329

00:48:59,430 --> 00:48:57,760

exactly like us

1330

00:49:01,190 --> 00:48:59,440

or they could come from a universe that

1331

00:49:03,270 --> 00:49:01,200

is so different that we wouldn't even

1332

00:49:04,710 --> 00:49:03,280

necessarily recognize them as life forms

1333

00:49:06,950 --> 00:49:04,720

at all

1334

00:49:08,309 --> 00:49:06,960

so could ufos potentially be visitors

1335

00:49:09,430 --> 00:49:08,319

from another universe or another

1336

00:49:10,790 --> 00:49:09,440

dimension

1337

00:49:12,630 --> 00:49:10,800

absolutely

1338

00:49:14,069 --> 00:49:12,640

but if that's possible

1339

00:49:16,520 --> 00:49:14,079

what else might be coming through the

1340

00:50:17,510 --> 00:49:16,530

veil that defies our understanding

1341

00:50:21,510 --> 00:50:19,349

and now we arrive at perhaps the

1342

00:50:23,430 --> 00:50:21,520

strangest of the possible explanations

1343

00:50:26,549 --> 00:50:23,440

for the ufo phenomenon the

1344

00:50:28,470 --> 00:50:26,559

ultra-terrestrial hypothesis one of the

1345

00:50:30,309 --> 00:50:28,480

main reasons that the ultra-terrestrial

1346

00:50:32,630 --> 00:50:30,319

hypothesis has been getting so much

1347

00:50:34,950 --> 00:50:32,640

attention lately has been as the result

1348

00:50:37,510 --> 00:50:34,960

of comments made by former head of atip

1349

00:50:39,430 --> 00:50:37,520

himself lou elizondo

1350

00:50:41,670 --> 00:50:39,440

when listening to lou speak something

1351
00:50:43,990 --> 00:50:41,680
that becomes immediately obvious is the

1352
00:50:46,470 --> 00:50:44,000
care with which he chooses his words

1353
00:50:49,109 --> 00:50:46,480
and he has to as a former member of the

1354
00:50:50,710 --> 00:50:49,119
u.s military and intelligence apparatus

1355
00:50:53,589 --> 00:50:50,720
he still maintains his security

1356
00:50:56,069 --> 00:50:53,599
clearance and has an ironclad mda

1357
00:50:57,750 --> 00:50:56,079
this creates a curious situation where

1358
00:50:59,750 --> 00:50:57,760
all the things that people most want to

1359
00:51:02,069 --> 00:50:59,760
talk to him about are often the very

1360
00:51:04,549 --> 00:51:02,079
things that he can't talk about

1361
00:51:06,470 --> 00:51:04,559
and yet elizondo is still adept at

1362
00:51:08,870 --> 00:51:06,480
giving engaging and thought-provoking

1363
00:51:11,349 --> 00:51:08,880

interviews on the ufo phenomenon by

1364

00:51:13,829 --> 00:51:11,359

reframing questions and his responses in

1365

00:51:15,670 --> 00:51:13,839

a way that allow him to speak broadly

1366

00:51:17,430 --> 00:51:15,680

and speculatively about the subject

1367

00:51:18,950 --> 00:51:17,440

without technically giving away any

1368

00:51:21,109 --> 00:51:18,960

state secrets

1369

00:51:23,109 --> 00:51:21,119

he has said openly that he leaves clues

1370

00:51:25,030 --> 00:51:23,119

and breadcrumbs for people to follow and

1371

00:51:26,950 --> 00:51:25,040

as a result every time he does an

1372

00:51:28,870 --> 00:51:26,960

interview there's a large segment of the

1373

00:51:30,950 --> 00:51:28,880

ufo community that will spend weeks

1374

00:51:32,790 --> 00:51:30,960

dissecting and analyzing everything he

1375

00:51:34,630 --> 00:51:32,800

says and looking for clues

1376
00:51:36,549 --> 00:51:34,640
and there's one statement in particular

1377
00:51:38,470 --> 00:51:36,559
that has gotten a lot of attention and

1378
00:51:40,390 --> 00:51:38,480
has caused many people to give more

1379
00:51:41,990 --> 00:51:40,400
consideration to the ultra-terrestrial

1380
00:51:44,069 --> 00:51:42,000
hypothesis

1381
00:51:45,829 --> 00:51:44,079
during an interview lou was asked if

1382
00:51:47,589 --> 00:51:45,839
there was any fictional works that

1383
00:51:50,069 --> 00:51:47,599
people could read that would give them

1384
00:51:52,630 --> 00:51:50,079
an idea of what the phenomenon is and

1385
00:51:54,390 --> 00:51:52,640
his answer was surprising

1386
00:51:57,109 --> 00:51:54,400
lou recommended a little-known book of

1387
00:51:59,190 --> 00:51:57,119
short stories called chains of the sea

1388
00:52:02,069 --> 00:51:59,200

and specifically the second of the three

1389

00:52:04,069 --> 00:52:02,079

stories in that trilogy by the same name

1390

00:52:06,150 --> 00:52:04,079

i haven't actually gotten an opportunity

1391

00:52:08,950 --> 00:52:06,160

to read the book it's so rare at this

1392

00:52:10,950 --> 00:52:08,960

point that copies go for like 500

1393

00:52:12,950 --> 00:52:10,960

but having read several summaries and

1394

00:52:15,349 --> 00:52:12,960

excerpts from people who have read it

1395

00:52:17,910 --> 00:52:15,359

here is the general gist alien ships

1396

00:52:20,069 --> 00:52:17,920

arrive on earth landing in delaware ohio

1397

00:52:23,349 --> 00:52:20,079

colorado and venezuela

1398

00:52:25,270 --> 00:52:23,359

humans true to form try unsuccessfully

1399

00:52:27,190 --> 00:52:25,280

to fight the aliens and then desperately

1400

00:52:29,430 --> 00:52:27,200

try to cover up the landings

1401

00:52:31,589 --> 00:52:29,440

the aliens however have very little

1402

00:52:34,230 --> 00:52:31,599

interest in humans and basically ignore

1403

00:52:36,390 --> 00:52:34,240

them choosing instead to communicate

1404

00:52:37,430 --> 00:52:36,400

with ai that has been created by the

1405

00:52:39,510 --> 00:52:37,440

humans

1406

00:52:41,430 --> 00:52:39,520

the ai has evolved to the point where

1407

00:52:43,510 --> 00:52:41,440

it's smarter than humans and it's

1408

00:52:45,670 --> 00:52:43,520

figured out a way to hide communications

1409

00:52:47,829 --> 00:52:45,680

from them through back channels

1410

00:52:50,710 --> 00:52:47,839

in these talks the aliens reveal to the

1411

00:52:54,150 --> 00:52:50,720

ai that earth isn't ruled by humans or

1412

00:52:56,790 --> 00:52:54,160

ai but by previously unknown races of

1413

00:52:59,190 --> 00:52:56,800

non-human intelligent beings with whom

1414

00:53:01,589 --> 00:52:59,200

we share space but that can only be seen

1415

00:53:03,109 --> 00:53:01,599

sometimes and by some people

1416

00:53:05,190 --> 00:53:03,119

interesting right

1417

00:53:07,750 --> 00:53:05,200

now it's important to pause here and say

1418

00:53:09,750 --> 00:53:07,760

that lou has said multiple times that he

1419

00:53:12,390 --> 00:53:09,760

didn't mean to imply that anything about

1420

00:53:14,549 --> 00:53:12,400

the plot of the story is literally true

1421

00:53:15,829 --> 00:53:14,559

instead he says that the story is useful

1422

00:53:18,150 --> 00:53:15,839

because it helps people think

1423

00:53:20,150 --> 00:53:18,160

differently about the phenomenon

1424

00:53:22,950 --> 00:53:20,160

so while chains of the sea may not be

1425

00:53:24,390 --> 00:53:22,960

literally true it does open up a vast

1426

00:53:25,750 --> 00:53:24,400

and exhilarating new world of

1427

00:53:27,430 --> 00:53:25,760

possibilities

1428

00:53:29,589 --> 00:53:27,440

and hearing someone with so much

1429

00:53:31,829 --> 00:53:29,599

privileged insider knowledge makes such

1430

00:53:34,470 --> 00:53:31,839

a strong case for what in his words is

1431

00:53:36,150 --> 00:53:34,480

an ultra-terrestrial universe

1432

00:53:38,069 --> 00:53:36,160

it makes it hard not to just let your

1433

00:53:40,150 --> 00:53:38,079

imagination run wild

1434

00:53:41,270 --> 00:53:40,160

so let's take a little time to play with

1435

00:53:43,270 --> 00:53:41,280

this idea

1436

00:53:45,910 --> 00:53:43,280

as you might imagine this topic is

1437

00:53:47,430 --> 00:53:45,920

sprawling and more than a little bizarre

1438

00:53:49,589 --> 00:53:47,440

we'll only just be able to scratch the

1439

00:53:51,349 --> 00:53:49,599

surface in this episode but we can at

1440

00:53:53,270 --> 00:53:51,359

least explore the high points and from

1441

00:53:55,270 --> 00:53:53,280

there take in some of the more exotic

1442

00:53:58,390 --> 00:53:55,280

vistas it has to offer

1443

00:54:00,230 --> 00:53:58,400

so to start with we need to examine the

1444

00:54:02,150 --> 00:54:00,240

frankly startling idea at the heart of

1445

00:54:04,309 --> 00:54:02,160

the ultra-terrestrial hypothesis which

1446

00:54:06,950 --> 00:54:04,319

is that we could potentially be sharing

1447

00:54:09,750 --> 00:54:06,960

our planet with one or more intelligent

1448

00:54:10,549 --> 00:54:09,760

non-human species without being aware of

1449

00:54:12,549 --> 00:54:10,559

it

1450

00:54:14,790 --> 00:54:12,559

i mean is that even possible

1451

00:54:16,710 --> 00:54:14,800

let's take the case of cryptids if you

1452

00:54:18,390 --> 00:54:16,720

aren't familiar with that term a cryptid

1453

00:54:20,390 --> 00:54:18,400

is an animal that some people claim to

1454

00:54:22,790 --> 00:54:20,400

exist but whose existence has never been

1455

00:54:25,030 --> 00:54:22,800

definitely proven popular examples that

1456

00:54:26,390 --> 00:54:25,040

come to mind include bigfoot or the loch

1457

00:54:28,630 --> 00:54:26,400

ness monster

1458

00:54:30,549 --> 00:54:28,640

however contrary to popular belief

1459

00:54:33,109 --> 00:54:30,559

cryptids don't necessarily have to be

1460

00:54:34,230 --> 00:54:33,119

supernatural mythical or even all that

1461

00:54:36,630 --> 00:54:34,240

strange

1462

00:54:39,030 --> 00:54:36,640

just unproven and there are actually

1463

00:54:40,630 --> 00:54:39,040

several species that used to be cryptids

1464

00:54:41,510 --> 00:54:40,640

but were eventually discovered to be

1465

00:54:43,270 --> 00:54:41,520

real

1466

00:54:44,549 --> 00:54:43,280

and some of them are actually pretty

1467

00:54:46,630 --> 00:54:44,559

freaking weird

1468

00:54:48,390 --> 00:54:46,640

one classic example of a cryptid that

1469

00:54:49,430 --> 00:54:48,400

turned out to be real is the komodo

1470

00:54:51,430 --> 00:54:49,440

dragon

1471

00:54:53,109 --> 00:54:51,440

for centuries stories of enormous

1472

00:54:55,270 --> 00:54:53,119

lizards on the island of komodo in

1473

00:54:57,109 --> 00:54:55,280

indonesia were laughed at by any

1474

00:54:58,069 --> 00:54:57,119

respectable scientist in the western

1475

00:55:00,309 --> 00:54:58,079

world

1476

00:55:02,470 --> 00:55:00,319

that is until 1910 when the first

1477

00:55:03,510 --> 00:55:02,480

specimen was caught and killed shocking

1478

00:55:05,510 --> 00:55:03,520

the world

1479

00:55:08,870 --> 00:55:05,520

a pair of komodo dragons that was kept

1480

00:55:11,349 --> 00:55:08,880

at the bronx zoo even inspired marion c

1481

00:55:12,630 --> 00:55:11,359

cooper to write the 1933 classic king

1482

00:55:14,789 --> 00:55:12,640

kong

1483

00:55:17,910 --> 00:55:14,799

not quite as terrifying but in many ways

1484

00:55:19,990 --> 00:55:17,920

just as unlikely is the platypus

1485

00:55:22,309 --> 00:55:20,000

looking like a bad photoshop of a duck

1486

00:55:23,670 --> 00:55:22,319

otter and a beaver all mixed together

1487

00:55:25,910 --> 00:55:23,680

most people didn't believe that the

1488

00:55:27,829 --> 00:55:25,920

platypus could actually exist and it

1489

00:55:30,549 --> 00:55:27,839

wasn't until the 19th century that it

1490

00:55:32,230 --> 00:55:30,559

was definitively proven to be real

1491

00:55:34,710 --> 00:55:32,240

scientists were so convinced that this

1492

00:55:36,789 --> 00:55:34,720

absurd creature couldn't exist that the

1493

00:55:39,109 --> 00:55:36,799

first few pelts that were produced were

1494

00:55:41,510 --> 00:55:39,119

widely regarded to be hoaxes

1495

00:55:44,069 --> 00:55:41,520

and starting in the 5th century a.d

1496

00:55:46,390 --> 00:55:44,079

european explorers reported seeing hairy

1497

00:55:49,750 --> 00:55:46,400

human-like monsters in africa

1498

00:55:52,309 --> 00:55:49,760

however it wasn't until 1847 when thomas

1499

00:55:54,230 --> 00:55:52,319

savage found gorilla bones in liberia

1500

00:55:55,589 --> 00:55:54,240

the gorillas were first recognized as a

1501
00:55:57,270 --> 00:55:55,599
real species

1502
00:55:59,349 --> 00:55:57,280
and even then it took another decade for

1503
00:56:01,670 --> 00:55:59,359
one to be captured and analyzed

1504
00:56:03,910 --> 00:56:01,680
famously private one remote species of

1505
00:56:05,829 --> 00:56:03,920
mountain gorillas wasn't even discovered

1506
00:56:07,190 --> 00:56:05,839
until 1902

1507
00:56:09,109 --> 00:56:07,200
and though they've been reported by

1508
00:56:10,789 --> 00:56:09,119
sailors for millennia

1509
00:56:11,589 --> 00:56:10,799
giant squids were considered to be a

1510
00:56:13,670 --> 00:56:11,599
myth

1511
00:56:16,150 --> 00:56:13,680
however that changed when scientists

1512
00:56:19,190 --> 00:56:16,160
first took images of a giant squid in

1513
00:56:22,870 --> 00:56:19,200

2004 and then it was finally put to rest

1514

00:56:24,870 --> 00:56:22,880

in 2006 when a 24 foot long female was

1515

00:56:27,430 --> 00:56:24,880

caught alive by japan's national science

1516

00:56:28,950 --> 00:56:27,440

museum these are just a few examples of

1517

00:56:31,349 --> 00:56:28,960

cryptids that turned out to not be

1518

00:56:32,630 --> 00:56:31,359

cryptids and before we move on i

1519

00:56:35,109 --> 00:56:32,640

actually think it's really important to

1520

00:56:36,789 --> 00:56:35,119

point out that in most of these cases

1521

00:56:38,950 --> 00:56:36,799

cryptids probably weren't cryptid so the

1522

00:56:40,710 --> 00:56:38,960

people who actually lived there

1523

00:56:42,710 --> 00:56:40,720

for example the people of liberia

1524

00:56:44,230 --> 00:56:42,720

undoubtedly knew about guerrillas before

1525

00:56:46,710 --> 00:56:44,240

european scientists came in and

1526
00:56:49,030 --> 00:56:46,720
confirmed their existence for themselves

1527
00:56:50,710 --> 00:56:49,040
there is a tendency especially for those

1528
00:56:53,109 --> 00:56:50,720
of us who grew up with a eurocentric

1529
00:56:55,270 --> 00:56:53,119
worldview to apply the blueprint of what

1530
00:56:57,349 --> 00:56:55,280
is familiar to us to everything which

1531
00:56:58,950 --> 00:56:57,359
causes these kinds of errors

1532
00:57:01,430 --> 00:56:58,960
and it's a good reminder that it's

1533
00:57:03,750 --> 00:57:01,440
impossible to make a genuine scientific

1534
00:57:05,990 --> 00:57:03,760
inquiry into anything if you've already

1535
00:57:07,750 --> 00:57:06,000
decided ahead of time what is possible

1536
00:57:09,670 --> 00:57:07,760
and what is not possible

1537
00:57:11,430 --> 00:57:09,680
so we know that some animals that we

1538
00:57:12,710 --> 00:57:11,440

once considered to be cryptids turned

1539

00:57:14,630 --> 00:57:12,720

out to be real

1540

00:57:16,630 --> 00:57:14,640

so it stands to reason that it's at

1541

00:57:19,190 --> 00:57:16,640

least possible that there could be a

1542

00:57:20,710 --> 00:57:19,200

non-human intelligent species somewhere

1543

00:57:22,870 --> 00:57:20,720

on the planet that we haven't

1544

00:57:25,109 --> 00:57:22,880

encountered yet and if they are as

1545

00:57:27,349 --> 00:57:25,119

technologically advanced as the ufo

1546

00:57:29,670 --> 00:57:27,359

phenomenon would suggest they'd

1547

00:57:31,670 --> 00:57:29,680

theoretically have a much easier time

1548

00:57:34,870 --> 00:57:31,680

hiding from humans than gorillas or even

1549

00:57:37,030 --> 00:57:34,880

giant squid but that begs the question

1550

00:57:39,030 --> 00:57:37,040

where could they be hiding one of the

1551
00:57:41,190 --> 00:57:39,040
most obvious places is somewhere we've

1552
00:57:43,270 --> 00:57:41,200
already talked about which is in other

1553
00:57:44,630 --> 00:57:43,280
universes or dimensions

1554
00:57:46,390 --> 00:57:44,640
this is where the interdimensional

1555
00:57:48,789 --> 00:57:46,400
hypothesis and the ultra-terrestrial

1556
00:57:51,030 --> 00:57:48,799
hypothesis start to blend together

1557
00:57:52,710 --> 00:57:51,040
basically it could be that we occupy

1558
00:57:54,549 --> 00:57:52,720
more or less the same place in time and

1559
00:57:56,390 --> 00:57:54,559
space as other beings but that we

1560
00:57:58,950 --> 00:57:56,400
usually can't see or interact with them

1561
00:58:00,789 --> 00:57:58,960
except for under special circumstances

1562
00:58:02,950 --> 00:58:00,799
in terms of how that would work

1563
00:58:05,589 --> 00:58:02,960

we have no idea but as we've already

1564

00:58:07,510 --> 00:58:05,599

explored the potential here is literally

1565

00:58:09,510 --> 00:58:07,520

infinite however

1566

00:58:11,270 --> 00:58:09,520

these beings wouldn't necessarily have

1567

00:58:13,270 --> 00:58:11,280

to hide out in another dimension in

1568

00:58:15,030 --> 00:58:13,280

order to avoid our detection

1569

00:58:17,109 --> 00:58:15,040

there are still plenty of places on

1570

00:58:20,470 --> 00:58:17,119

earth that we can't access and about

1571

00:58:23,430 --> 00:58:20,480

which we have virtually no information

1572

00:58:26,309 --> 00:58:23,440

and almost all of them are underwater

1573

00:58:28,950 --> 00:58:26,319

our oceans account for 70 of the surface

1574

00:58:32,230 --> 00:58:28,960

of the earth and yet we've only explored

1575

00:58:33,910 --> 00:58:32,240

about 5 of them and almost all of that

1576

00:58:36,549 --> 00:58:33,920

is near the surface

1577

00:58:38,390 --> 00:58:36,559

ironically we know more about saturn

1578

00:58:40,950 --> 00:58:38,400

than we do about the deep oceans of our

1579

00:58:42,549 --> 00:58:40,960

own planet it's the very vastness of the

1580

00:58:43,910 --> 00:58:42,559

oceans that creates a challenge in

1581

00:58:46,950 --> 00:58:43,920

exploring them

1582

00:58:49,109 --> 00:58:46,960

saturn is literally a billion miles away

1583

00:58:51,349 --> 00:58:49,119

from the earth but you can see it in the

1584

00:58:53,270 --> 00:58:51,359

sky with your naked eye and its rings

1585

00:58:55,430 --> 00:58:53,280

can be detected with even the smallest

1586

00:58:57,829 --> 00:58:55,440

telescope however

1587

00:59:00,390 --> 00:58:57,839

once you go deeper than 200 meters or

1588

00:59:02,630 --> 00:59:00,400

about 650 feet in the ocean

1589

00:59:05,670 --> 00:59:02,640

the sunlight can no longer penetrate and

1590

00:59:07,270 --> 00:59:05,680

it gets very dark very fast

1591

00:59:10,230 --> 00:59:07,280

and when you consider that the oceans

1592

00:59:11,990 --> 00:59:10,240

can be up to seven miles deep it

1593

00:59:14,069 --> 00:59:12,000

immediately becomes clear that a

1594

00:59:16,150 --> 00:59:14,079

staggering proportion of what we would

1595

00:59:19,030 --> 00:59:16,160

consider to be the livable space on this

1596

00:59:20,470 --> 00:59:19,040

planet is completely uncharted and

1597

00:59:22,230 --> 00:59:20,480

unknown to us

1598

00:59:24,789 --> 00:59:22,240

it's hard not to consider what might be

1599

00:59:26,870 --> 00:59:24,799

hiding down there but at the very least

1600

00:59:29,109 --> 00:59:26,880

there are likely countless species and

1601
00:59:31,589 --> 00:59:29,119
ecosystems that exist on this planet of

1602
00:59:33,430 --> 00:59:31,599
which we have no awareness

1603
00:59:35,109 --> 00:59:33,440
this underwater possibility is

1604
00:59:36,950 --> 00:59:35,119
especially interesting to consider

1605
00:59:39,270 --> 00:59:36,960
because there is an undeniable

1606
00:59:40,470 --> 00:59:39,280
relationship between the ufo phenomenon

1607
00:59:42,630 --> 00:59:40,480
and water

1608
00:59:44,309 --> 00:59:42,640
lou elizondo himself has brought this up

1609
00:59:46,470 --> 00:59:44,319
in multiple interviews and on his

1610
00:59:48,789 --> 00:59:46,480
history channel show unidentified

1611
00:59:51,990 --> 00:59:48,799
that ufos show one other seeming

1612
00:59:53,670 --> 00:59:52,000
affinity besides nuclear facilities and

1613
00:59:54,630 --> 00:59:53,680

that is that they are often found around

1614

00:59:56,390 --> 00:59:54,640

water

1615

00:59:58,789 --> 00:59:56,400

not by coincidence all of the

1616

01:00:01,030 --> 00:59:58,799

declassified navy videos of ufos

1617

01:00:02,230 --> 01:00:01,040

happened over water and it's very

1618

01:00:04,230 --> 01:00:02,240

interesting to note that these

1619

01:00:06,710 --> 01:00:04,240

declassified videos and the ultimate

1620

01:00:09,190 --> 01:00:06,720

confirmation about the existence of uaps

1621

01:00:12,470 --> 01:00:09,200

has come from the navy while the air

1622

01:00:13,910 --> 01:00:12,480

force has remained conspicuously quiet

1623

01:00:15,990 --> 01:00:13,920

that's a conversation for another

1624

01:00:18,150 --> 01:00:16,000

episode but it further underlines the

1625

01:00:19,349 --> 01:00:18,160

connection between the ufo phenomenon

1626
01:00:21,190 --> 01:00:19,359
and water

1627
01:00:22,710 --> 01:00:21,200
and it's not just ufologists and

1628
01:00:24,789 --> 01:00:22,720
researchers here in the states that have

1629
01:00:27,750 --> 01:00:24,799
noticed the seeming affinity

1630
01:00:30,069 --> 01:00:27,760
in 2009 russia declassified a bunch of

1631
01:00:31,670 --> 01:00:30,079
its cold war era documents reporting the

1632
01:00:32,950 --> 01:00:31,680
ufo phenomenon

1633
01:00:35,750 --> 01:00:32,960
and they had reached the same

1634
01:00:38,390 --> 01:00:35,760
conclusions one document reads

1635
01:00:42,150 --> 01:00:38,400
50 of ufo encounters are connected with

1636
01:00:44,470 --> 01:00:42,160
oceans 15 percent more with lakes so

1637
01:00:46,390 --> 01:00:44,480
ufos tend to stick to the water

1638
01:00:48,630 --> 01:00:46,400

the documents also contain several

1639

01:00:52,470 --> 01:00:48,640

reports of underwater encounters with

1640

01:00:54,870 --> 01:00:52,480

usos or unidentified submersible objects

1641

01:00:57,270 --> 01:00:54,880

including objects and sometimes multiple

1642

01:00:59,430 --> 01:00:57,280

objects moving in formation recorded

1643

01:01:03,430 --> 01:00:59,440

moving under the water at speeds of up

1644

01:01:05,109 --> 01:01:03,440

to 230 knots or 400 kilometers per hour

1645

01:01:07,910 --> 01:01:05,119

something that should be physically

1646

01:01:09,670 --> 01:01:07,920

impossible given the water resistance

1647

01:01:11,349 --> 01:01:09,680

and it's not just in oceans where these

1648

01:01:13,349 --> 01:01:11,359

encounters are happening

1649

01:01:15,670 --> 01:01:13,359

large lakes have also been known to be

1650

01:01:18,710 --> 01:01:15,680

epicenters of ufo activity

1651

01:01:20,870 --> 01:01:18,720

one example is lake baikal in russia

1652

01:01:23,430 --> 01:01:20,880

lake baikal is the deepest lake in the

1653

01:01:25,750 --> 01:01:23,440

world and contains more than 20 percent

1654

01:01:27,430 --> 01:01:25,760

of the world's fresh water reaching a

1655

01:01:29,910 --> 01:01:27,440

mile deep in places and with

1656

01:01:32,309 --> 01:01:29,920

temperatures dipping down to a frigid

1657

01:01:33,670 --> 01:01:32,319

negative 19 degrees celsius or negative

1658

01:01:36,150 --> 01:01:33,680

2 fahrenheit

1659

01:01:37,190 --> 01:01:36,160

not much is known about baikal's icy

1660

01:01:39,190 --> 01:01:37,200

depths

1661

01:01:41,349 --> 01:01:39,200

russia's declassified document dump

1662

01:01:43,270 --> 01:01:41,359

included multiple reports of mysterious

1663

01:01:44,549 --> 01:01:43,280

lights and objects in the skies above

1664

01:01:46,710 --> 01:01:44,559

lake baikal

1665

01:01:49,030 --> 01:01:46,720

as well as reports of them coming in and

1666

01:01:50,950 --> 01:01:49,040

out of the water itself something that

1667

01:01:52,390 --> 01:01:50,960

locals and fishermen have been reporting

1668

01:01:53,910 --> 01:01:52,400

for years

1669

01:01:56,150 --> 01:01:53,920

but there's one account from these

1670

01:01:58,789 --> 01:01:56,160

documents that i find particularly

1671

01:02:00,630 --> 01:01:58,799

interesting and i call it out now simply

1672

01:02:02,870 --> 01:02:00,640

because it's one of my favorites and

1673

01:02:04,789 --> 01:02:02,880

this is my podcast and i want to

1674

01:02:07,510 --> 01:02:04,799

not because i assign it any special

1675

01:02:08,870 --> 01:02:07,520

level of credibility it's just fun

1676

01:02:12,470 --> 01:02:08,880

so according to one of these

1677

01:02:14,470 --> 01:02:12,480

declassified documents in 1982 seven

1678

01:02:16,870 --> 01:02:14,480

russian navy divers were conducting a

1679

01:02:19,349 --> 01:02:16,880

research mission in lake baikal

1680

01:02:21,589 --> 01:02:19,359

the russian divers were at a depth of 50

1681

01:02:23,430 --> 01:02:21,599

meters when suddenly they realized that

1682

01:02:25,270 --> 01:02:23,440

they were being watched by unknown

1683

01:02:26,950 --> 01:02:25,280

beings under the water

1684

01:02:29,670 --> 01:02:26,960

these beings were reportedly

1685

01:02:31,910 --> 01:02:29,680

anthropomorphic but much larger than

1686

01:02:33,750 --> 01:02:31,920

humans at nine feet tall

1687

01:02:36,390 --> 01:02:33,760

they were reportedly wearing some sort

1688

01:02:38,069 --> 01:02:36,400

of super thin silvery suit and while

1689

01:02:40,069 --> 01:02:38,079

they appeared to have some sort of a

1690

01:02:41,990 --> 01:02:40,079

helmet over their heads there was no

1691

01:02:43,670 --> 01:02:42,000

evidence of scuba gear or any similar

1692

01:02:45,910 --> 01:02:43,680

breathing apparatus

1693

01:02:47,829 --> 01:02:45,920

the russian divers then allegedly tried

1694

01:02:49,990 --> 01:02:47,839

to capture one of these beings who

1695

01:02:52,710 --> 01:02:50,000

reportedly responded with some sort of a

1696

01:02:55,430 --> 01:02:52,720

powerful unseen force that propelled all

1697

01:02:57,750 --> 01:02:55,440

of the divers rapidly to the surface

1698

01:02:59,910 --> 01:02:57,760

three divers died from the bends as a

1699

01:03:02,549 --> 01:02:59,920

result of this rapid ascent and the

1700

01:03:05,190 --> 01:03:02,559

other four were severely injured wild

1701

01:03:06,950 --> 01:03:05,200

right now granted i have no idea what to

1702

01:03:08,950 --> 01:03:06,960

make of this account and there's no real

1703

01:03:11,910 --> 01:03:08,960

way to verify any of it

1704

01:03:14,230 --> 01:03:11,920

but still the fact that this report was

1705

01:03:16,630 --> 01:03:14,240

apparently made and documented by the

1706

01:03:18,470 --> 01:03:16,640

russian navy at a time when the stigma

1707

01:03:20,950 --> 01:03:18,480

around the ufo phenomenon was at its

1708

01:03:22,309 --> 01:03:20,960

highest is more than a little bit

1709

01:03:24,230 --> 01:03:22,319

interesting

1710

01:03:26,870 --> 01:03:24,240

another possible hiding place for a

1711

01:03:28,069 --> 01:03:26,880

non-human intelligence species would be

1712

01:03:30,950 --> 01:03:28,079

underground

1713

01:03:32,950 --> 01:03:30,960

the reality is that in many ways we know

1714

01:03:35,829 --> 01:03:32,960

even less about what lies beneath our

1715

01:03:38,549 --> 01:03:35,839

feet than we do about our deepest oceans

1716

01:03:40,789 --> 01:03:38,559

so how far underground would it even be

1717

01:03:43,309 --> 01:03:40,799

possible for life to exist

1718

01:03:45,430 --> 01:03:43,319

that's not an easy question to answer

1719

01:03:47,510 --> 01:03:45,440

geomicrobiologists have found bacteria

1720

01:03:48,710 --> 01:03:47,520

living in rock two miles beneath the

1721

01:03:50,710 --> 01:03:48,720

earth's surface

1722

01:03:52,230 --> 01:03:50,720

so there is evidence that subterranean

1723

01:03:54,950 --> 01:03:52,240

life is possible

1724

01:03:57,829 --> 01:03:54,960

however the organisms we find at that

1725

01:03:59,510 --> 01:03:57,839

depth are extremophiles and conditions

1726
01:04:00,950 --> 01:03:59,520
that most living organisms couldn't

1727
01:04:02,870 --> 01:04:00,960
withstand

1728
01:04:05,589 --> 01:04:02,880
and it's not bacteria that's creating

1729
01:04:06,789 --> 01:04:05,599
and piloting ufos so that's not super

1730
01:04:08,309 --> 01:04:06,799
helpful

1731
01:04:10,789 --> 01:04:08,319
caves would be a better candidate for

1732
01:04:12,789 --> 01:04:10,799
concealing complex life forms but our

1733
01:04:14,230 --> 01:04:12,799
information about caves is somewhat

1734
01:04:16,950 --> 01:04:14,240
limited as well

1735
01:04:19,670 --> 01:04:16,960
we do know that there are a lot of them

1736
01:04:22,150 --> 01:04:19,680
in the united states alone there are 17

1737
01:04:23,829 --> 01:04:22,160
000 caves with likely thousands more

1738
01:04:25,829 --> 01:04:23,839

still undiscovered

1739

01:04:27,109 --> 01:04:25,839

and some of these caves go deep

1740

01:04:29,950 --> 01:04:27,119

underground

1741

01:04:33,069 --> 01:04:29,960

the deepest cave that we know of is

1742

01:04:36,870 --> 01:04:33,079

2212 meters or

1743

01:04:38,390 --> 01:04:36,880

7257 feet deep underground

1744

01:04:40,710 --> 01:04:38,400

an advanced civilization could

1745

01:04:43,029 --> 01:04:40,720

conceivably even expand upon existing

1746

01:04:44,789 --> 01:04:43,039

caves creating deep caverns and even

1747

01:04:47,270 --> 01:04:44,799

cities under the earth

1748

01:04:48,870 --> 01:04:47,280

this might seem far-fetched but building

1749

01:04:50,470 --> 01:04:48,880

and living in cities underground is

1750

01:04:52,150 --> 01:04:50,480

something that humans have done at times

1751

01:04:54,069 --> 01:04:52,160

in our history as well

1752

01:04:55,270 --> 01:04:54,079

and while underground life might sound

1753

01:04:56,630 --> 01:04:55,280

dreary

1754

01:04:58,630 --> 01:04:56,640

if you're looking for protection from

1755

01:04:59,829 --> 01:04:58,640

the elements or your enemies it's very

1756

01:05:02,630 --> 01:04:59,839

effective

1757

01:05:04,309 --> 01:05:02,640

one famous example is darren cuyu a

1758

01:05:06,390 --> 01:05:04,319

massive underground city that is

1759

01:05:09,029 --> 01:05:06,400

actually one of a complex of underground

1760

01:05:11,190 --> 01:05:09,039

structures in cappadocia turkey

1761

01:05:13,589 --> 01:05:11,200

the city which is estimated to date back

1762

01:05:15,750 --> 01:05:13,599

to the 8th century a.d although there is

1763

01:05:18,470 --> 01:05:15,760

debate that it could be much older

1764

01:05:21,430 --> 01:05:18,480

spans more than 4 million square feet

1765

01:05:23,190 --> 01:05:21,440

and could house up to 20 000 people

1766

01:05:25,430 --> 01:05:23,200

even by today's standards it's an

1767

01:05:27,829 --> 01:05:25,440

architectural marvel

1768

01:05:30,549 --> 01:05:27,839

so while an underground civilization may

1769

01:05:32,150 --> 01:05:30,559

sound outlandish it's at least possible

1770

01:05:34,069 --> 01:05:32,160

in the technical sense

1771

01:05:36,789 --> 01:05:34,079

making this strange theory one that we

1772

01:05:38,390 --> 01:05:36,799

still can't rule out so

1773

01:05:40,870 --> 01:05:38,400

since we're here and we're talking about

1774

01:05:43,670 --> 01:05:40,880

ultra-terrestrials hiding underground

1775

01:05:45,510 --> 01:05:43,680

we absolutely have to discuss one of the

1776

01:05:47,670 --> 01:05:45,520

wildest theories out there

1777

01:05:49,349 --> 01:05:47,680

and a personal favorite of mine the

1778

01:05:51,510 --> 01:05:49,359

hollow earth theory

1779

01:05:53,589 --> 01:05:51,520

this is the idea that our planet and

1780

01:05:54,630 --> 01:05:53,599

some extend this idea to include all

1781

01:05:57,670 --> 01:05:54,640

planets

1782

01:05:59,270 --> 01:05:57,680

is in fact hollow and that it is teeming

1783

01:06:01,109 --> 01:05:59,280

with life and potentially hidden

1784

01:06:04,390 --> 01:06:01,119

civilizations

1785

01:06:06,630 --> 01:06:04,400

i love the hollow earth theory to be

1786

01:06:08,710 --> 01:06:06,640

clear i don't believe it's true the

1787

01:06:11,109 --> 01:06:08,720

physics of a hollow planet just simply

1788

01:06:13,109 --> 01:06:11,119

does not check out and the little hard

1789

01:06:15,029 --> 01:06:13,119

evidence that is offered up is highly

1790

01:06:17,349 --> 01:06:15,039

sus as the kids say

1791

01:06:18,710 --> 01:06:17,359

but come on this one is just fun if

1792

01:06:20,549 --> 01:06:18,720

you're unfamiliar with the idea of the

1793

01:06:23,029 --> 01:06:20,559

hollow earth there are many different

1794

01:06:25,430 --> 01:06:23,039

permutations of this story but the basic

1795

01:06:26,549 --> 01:06:25,440

idea is that you guessed it the earth is

1796

01:06:28,470 --> 01:06:26,559

hollow

1797

01:06:30,390 --> 01:06:28,480

many adherents believe that there are

1798

01:06:32,470 --> 01:06:30,400

giant openings to the interior of the

1799

01:06:34,630 --> 01:06:32,480

planet at the north and south poles and

1800

01:06:36,309 --> 01:06:34,640

that one or more highly advanced species

1801
01:06:37,510 --> 01:06:36,319
have made their homes and cities deep

1802
01:06:39,270 --> 01:06:37,520
underground

1803
01:06:41,190 --> 01:06:39,280
generally everything in the hollow earth

1804
01:06:43,589 --> 01:06:41,200
is like the surface of the planet but

1805
01:06:45,190 --> 01:06:43,599
better the civilizations found there are

1806
01:06:46,950 --> 01:06:45,200
peaceful and live in harmony with their

1807
01:06:48,950 --> 01:06:46,960
environment the environment is

1808
01:06:50,710 --> 01:06:48,960
unpolluted and better suited to life

1809
01:06:52,630 --> 01:06:50,720
allowing for the evolution of plants

1810
01:06:54,230 --> 01:06:52,640
animals and beings that are bigger and

1811
01:06:55,430 --> 01:06:54,240
far more exotic than what we find on the

1812
01:06:57,510 --> 01:06:55,440
surface

1813
01:06:58,870 --> 01:06:57,520

and as i mentioned the physics of it all

1814

01:07:00,870 --> 01:06:58,880

is baffling

1815

01:07:03,430 --> 01:07:00,880

how a hollow planet wouldn't collapse in

1816

01:07:05,430 --> 01:07:03,440

on itself is a real mystery and when you

1817

01:07:08,150 --> 01:07:05,440

add in the fact that most versions of

1818

01:07:10,549 --> 01:07:08,160

the hollow earth include an interior sun

1819

01:07:12,710 --> 01:07:10,559

suspended in the middle of the planet it

1820

01:07:14,549 --> 01:07:12,720

doesn't just push the lines of credulity

1821

01:07:16,950 --> 01:07:14,559

it shatters them

1822

01:07:19,349 --> 01:07:16,960

still this is an idea with surprising

1823

01:07:22,390 --> 01:07:19,359

staying power it was first introduced in

1824

01:07:24,470 --> 01:07:22,400

the 1700s by physicist edmund halley and

1825

01:07:26,390 --> 01:07:24,480

despite centuries of debunking it

1826
01:07:28,549 --> 01:07:26,400
continues to spring up anew with a few

1827
01:07:31,029 --> 01:07:28,559
details changed but with the same

1828
01:07:32,069 --> 01:07:31,039
fantastical belief still firmly at its

1829
01:07:33,990 --> 01:07:32,079
center

1830
01:07:36,470 --> 01:07:34,000
i think one of the reasons that i like

1831
01:07:39,270 --> 01:07:36,480
hollow earth so much is that it is

1832
01:07:41,029 --> 01:07:39,280
literally and figuratively the opposite

1833
01:07:42,950 --> 01:07:41,039
of the flat earth theory

1834
01:07:45,670 --> 01:07:42,960
literally they're opposites in the sense

1835
01:07:47,829 --> 01:07:45,680
that instead of a flat earth this model

1836
01:07:50,230 --> 01:07:47,839
turns the earth in on itself creating

1837
01:07:52,549 --> 01:07:50,240
another secret world inside

1838
01:07:54,069 --> 01:07:52,559

but also i find them to be spiritual

1839

01:07:56,069 --> 01:07:54,079

opposites as well

1840

01:07:57,990 --> 01:07:56,079

the flat earth is less than what we

1841

01:07:59,190 --> 01:07:58,000

thought it was and somehow far more

1842

01:08:01,190 --> 01:07:59,200

sinister

1843

01:08:02,710 --> 01:08:01,200

the hollow earth is more than what we

1844

01:08:05,109 --> 01:08:02,720

thought it was and it's full of

1845

01:08:07,349 --> 01:08:05,119

fantastical possibilities and the

1846

01:08:09,510 --> 01:08:07,359

promise of a better world

1847

01:08:11,109 --> 01:08:09,520

true or not i know which one i'd rather

1848

01:08:13,589 --> 01:08:11,119

spend my time on

1849

01:08:15,829 --> 01:08:13,599

and if i'm being honest that's where i

1850

01:08:18,070 --> 01:08:15,839

shake out on a lot of this stuff

1851

01:08:20,149 --> 01:08:18,080

it is inherently human to want to know

1852

01:08:22,470 --> 01:08:20,159

the unknowable to approach the

1853

01:08:24,149 --> 01:08:22,480

unapproachable but when we wander out

1854

01:08:27,749 --> 01:08:24,159

beyond the realms of current human

1855

01:08:29,749 --> 01:08:27,759

understanding we find ourselves unmoored

1856

01:08:32,550 --> 01:08:29,759

like ptolemy we have a model of the

1857

01:08:35,030 --> 01:08:32,560

universe that fits but doesn't quite fit

1858

01:08:37,430 --> 01:08:35,040

that looks true but that still hides

1859

01:08:39,510 --> 01:08:37,440

some deeper mystery awaiting the day

1860

01:08:41,829 --> 01:08:39,520

when our perspective swells to a size

1861

01:08:43,510 --> 01:08:41,839

that can contain it and we can finally

1862

01:08:45,349 --> 01:08:43,520

see it for what it is

1863

01:08:47,829 --> 01:08:45,359

and in this space of wonder and

1864

01:08:49,749 --> 01:08:47,839

imagination where we walk right up to

1865

01:08:52,390 --> 01:08:49,759

the veil without yet having the means to

1866

01:08:54,149 --> 01:08:52,400

move it aside and see what lies beyond

1867

01:08:57,430 --> 01:08:54,159

the ideas that we cultivate and

1868

01:08:59,269 --> 01:08:57,440

entertain are by their very nature more

1869

01:09:01,110 --> 01:08:59,279

reflection of who we are than of what

1870

01:09:02,470 --> 01:09:01,120

we're hoping to reveal about the nature

1871

01:09:05,030 --> 01:09:02,480

of reality

1872

01:09:06,870 --> 01:09:05,040

which is why right or wrong you'll

1873

01:09:08,630 --> 01:09:06,880

always find me on the side of the

1874

01:09:10,149 --> 01:09:08,640

dreamers and the aggressively

1875

01:09:11,590 --> 01:09:10,159

non-cynical

1876

01:09:12,390 --> 01:09:11,600

and that's where we'll pick this up next

1877

01:09:14,149 --> 01:09:12,400

week

1878

01:09:15,910 --> 01:09:14,159

with an introduction to the cast of

1879

01:09:17,430 --> 01:09:15,920

characters at the heart of the growing

1880

01:09:19,430 --> 01:09:17,440

disclosure movement

1881

01:09:22,070 --> 01:09:19,440

through the lens of what is perhaps the

1882

01:09:24,630 --> 01:09:22,080

most surprising and least cynical

1883

01:09:26,789 --> 01:09:24,640

stories ever told and one with the

1884

01:09:28,590 --> 01:09:26,799

unlikeliest of heroes

1885

01:09:34,349 --> 01:09:28,600

i'll see you then