



**Launceston
Skeptics**

**The Skeptic Zone
Show 131 - 22 April 2011**

1
00:00:25,029 --> 00:00:09,190
welcome to the skeptic zone the podcast

2
00:00:29,189 --> 00:00:27,269
yes it's the skeptic zone episode number

3
00:00:31,429 --> 00:00:29,199
131

4
00:00:35,430 --> 00:00:31,439
for the 22nd of april

5
00:00:37,430 --> 00:00:35,440
2011. richard saunders here with you

6
00:00:40,069 --> 00:00:37,440
visiting my good friend jim wilshere on

7
00:00:42,709 --> 00:00:40,079
his uh lovely farm

8
00:00:44,310 --> 00:00:42,719
at a place called talmalmo right in the

9
00:00:46,709 --> 00:00:44,320
southern bit of new south wales

10
00:00:48,630 --> 00:00:46,719
alongside the murray river

11
00:00:50,229 --> 00:00:48,640
beautiful gorgeous to be down here for a

12
00:00:52,869 --> 00:00:50,239
few days to help jim

13
00:00:54,549 --> 00:00:52,879

celebrate his birthday

14

00:00:55,910 --> 00:00:54,559

i'm sitting here just outside his

15

00:00:58,229 --> 00:00:55,920

farmhouse

16

00:00:59,830 --> 00:00:58,239

surrounded by beautiful lush green

17

00:01:01,349 --> 00:00:59,840

countryside you can hear the odd

18

00:01:05,109 --> 00:01:01,359

cockatoo and

19

00:01:08,469 --> 00:01:05,119

there's cattle over there past the fence

20

00:01:11,510 --> 00:01:08,479

wonderful idyllic spot for a few days

21

00:01:14,789 --> 00:01:11,520

coming up on this week's skeptic zone

22

00:01:17,830 --> 00:01:14,799

i speak to david tyler from the

23

00:01:20,550 --> 00:01:17,840

launceston skeptics in tasmania about

24

00:01:23,429 --> 00:01:20,560

their adventures visiting a mind body

25

00:01:25,429 --> 00:01:23,439

wallet mind body spirit mind body soul

26

00:01:27,670 --> 00:01:25,439

festival in launceston

27

00:01:29,510 --> 00:01:27,680

as skeptics in other words they turned

28

00:01:32,950 --> 00:01:29,520

up there had their own table

29

00:01:35,109 --> 00:01:32,960

and were giving up skeptical advice

30

00:01:37,749 --> 00:01:35,119

into the heart of darkness you might say

31

00:01:40,149 --> 00:01:37,759

that interview coming up soon

32

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

following that we hear from australian

33

00:01:44,230 --> 00:01:42,320

skeptics editor and chief executive

34

00:01:47,590 --> 00:01:44,240

officer tim mendem

35

00:01:49,990 --> 00:01:47,600

a recent bit he recorded for abc radio

36

00:01:51,429 --> 00:01:50,000

all about universities in australia

37

00:01:52,230 --> 00:01:51,439

giving out

38

00:01:56,389 --> 00:01:52,240

well

39

00:01:59,429 --> 00:01:56,399

strange degrees in very strange courses

40

00:02:01,990 --> 00:01:59,439

wu university you might call it

41

00:02:03,429 --> 00:02:02,000

after that we have dr rachie with dr

42

00:02:05,749 --> 00:02:03,439

raichi reports

43

00:02:08,150 --> 00:02:05,759

talking about the use of sciency

44

00:02:10,869 --> 00:02:08,160

sounding words in advertising would you

45

00:02:12,949 --> 00:02:10,879

like some quantum with that and to wrap

46

00:02:15,430 --> 00:02:12,959

up the show we have maynard with his

47

00:02:17,190 --> 00:02:15,440

spooky action at a distance

48

00:02:20,229 --> 00:02:17,200

now maynard is going to visit mike

49

00:02:23,110 --> 00:02:20,239

dawson who has a room a house

50

00:02:24,710 --> 00:02:23,120

in fact a whole house full of uh

51

00:02:28,790 --> 00:02:24,720

dinosaurs

52

00:02:30,150 --> 00:02:28,800

and the last little bit of the show is a

53

00:02:31,589 --> 00:02:30,160

brief interview with a good friend of

54

00:02:35,030 --> 00:02:31,599

ours david barwick

55

00:02:36,550 --> 00:02:35,040

who bought me yet another power balance

56

00:02:42,070 --> 00:02:36,560

band

57

00:02:44,949 --> 00:02:42,080

now before we really get into the show a

58

00:02:46,869 --> 00:02:44,959

few little other points i have decided

59

00:02:48,710 --> 00:02:46,879

well i've been encouraged and asked and

60

00:02:49,509 --> 00:02:48,720

we received a donation to the skeptic

61

00:02:50,390 --> 00:02:49,519

zone

62

00:02:51,509 --> 00:02:50,400

to go

63

00:02:54,550 --> 00:02:51,519

vegan

64

00:02:56,070 --> 00:02:54,560

for two days i'm happy to do it why not

65

00:02:58,790 --> 00:02:56,080

what fun

66

00:03:00,550 --> 00:02:58,800

lovely uh pumpkin soup

67

00:03:02,550 --> 00:03:00,560

vegetables

68

00:03:05,589 --> 00:03:02,560

oh i can think of some great vegan food

69

00:03:08,149 --> 00:03:05,599

i can get stuck into just for two days

70

00:03:11,110 --> 00:03:08,159

not a problem and that's thanks to

71

00:03:12,470 --> 00:03:11,120

on twitter flex a vegan

72

00:03:15,509 --> 00:03:12,480

but i don't think i'll be doing it

73

00:03:17,589 --> 00:03:15,519

forever couple of days why not good fun

74

00:03:20,550 --> 00:03:17,599

and hey if you want to go vegan for a

75

00:03:23,430 --> 00:03:20,560

couple of days what's the harm in that

76

00:03:26,470 --> 00:03:23,440

put that cow back

77

00:03:30,789 --> 00:03:28,869

oh jim happy birthday by the way

78

00:03:32,869 --> 00:03:30,799

thank you

79

00:03:35,350 --> 00:03:32,879

jim standing over there at the entry to

80

00:03:37,270 --> 00:03:35,360

his house with minnie the dog

81

00:03:40,149 --> 00:03:37,280

minnie the dog the cattle dog the

82

00:03:42,070 --> 00:03:40,159

intelligent cattle dog

83

00:03:44,949 --> 00:03:42,080

now i'd like to thank listener seth

84

00:03:47,750 --> 00:03:44,959

wolfson who sent me a copy of his book

85

00:03:48,630 --> 00:03:47,760

all about forensic sculpting this is the

86

00:03:50,229 --> 00:03:48,640

sort of

87

00:03:52,630 --> 00:03:50,239

things you see on tv where they get a

88

00:03:54,550 --> 00:03:52,640

skull and they s carefully put little

89

00:03:56,470 --> 00:03:54,560

little bits of

90

00:03:58,470 --> 00:03:56,480

modelling clay on it and build up the

91

00:04:01,030 --> 00:03:58,480

face again for the police to have a look

92

00:04:03,350 --> 00:04:01,040

at what a fascinating area of

93

00:04:07,830 --> 00:04:03,360

endeavour and you can check out seth's

94

00:04:11,190 --> 00:04:09,910

thanks seth what an interesting book

95

00:04:13,910 --> 00:04:11,200

you've sent me

96

00:04:16,710 --> 00:04:13,920

and now we have a very important message

97

00:04:19,030 --> 00:04:16,720

that dr rachie has asked me to to bring

98

00:04:22,310 --> 00:04:19,040

to you before we get into the show

99

00:04:23,830 --> 00:04:22,320

on the 20th of april 2011 a draft report

100

00:04:24,790 --> 00:04:23,840

was posted from the australian

101
00:04:28,150 --> 00:04:24,800
government

102
00:04:29,909 --> 00:04:28,160
saying that homeopathy is unethical and

103
00:04:31,670 --> 00:04:29,919
without efficacy

104
00:04:34,230 --> 00:04:31,680
according to the report their findings

105
00:04:36,950 --> 00:04:34,240
have come about owing to recent claims

106
00:04:39,909 --> 00:04:36,960
that homeopathy is a substitute for

107
00:04:42,790 --> 00:04:39,919
vaccination homeopathy itself is under

108
00:04:45,030 --> 00:04:42,800
fire having been implicated in two

109
00:04:47,189 --> 00:04:45,040
recent deaths in australia

110
00:04:50,390 --> 00:04:47,199
also the finding of the uk science and

111
00:04:54,390 --> 00:04:50,400
technology committee that no taxpayer

112
00:04:55,749 --> 00:04:54,400
money should be spent on this quackery

113
00:04:57,830 --> 00:04:55,759

now this is the first time the

114

00:05:01,110 --> 00:04:57,840

australian government has made such a

115

00:05:03,030 --> 00:05:01,120

strong statement about homeopathy and we

116

00:05:05,430 --> 00:05:03,040

at the skeptic zone welcome this

117

00:05:07,670 --> 00:05:05,440

development you can find out more about

118

00:05:10,230 --> 00:05:07,680

this story by visiting the skeptics owns

119

00:05:11,590 --> 00:05:10,240

blog which is dr raichi's blog the

120

00:05:13,990 --> 00:05:11,600

skeptic book

121

00:05:17,230 --> 00:05:14,000

also with the newsletter that comes out

122

00:05:18,790 --> 00:05:17,240

with this episode if you subscribe

123

00:05:22,230 --> 00:05:18,800

www.skepticzone.tv

124

00:05:24,629 --> 00:05:22,240

there's a link to the recent story

125

00:05:27,189 --> 00:05:24,639

that i appeared in on today tonight the

126
00:05:29,670 --> 00:05:27,199
tv show about homeopathy now i played

127
00:05:32,950 --> 00:05:29,680
the audio on last week's show well i've

128
00:05:34,230 --> 00:05:32,960
put the video online now for you to see

129
00:05:36,469 --> 00:05:34,240
all right

130
00:05:39,029 --> 00:05:36,479
as i sit back here and enjoy the

131
00:05:41,350 --> 00:05:39,039
drifting clouds over the hills and

132
00:05:42,950 --> 00:05:41,360
the screech of the cockatoos behind my

133
00:05:45,270 --> 00:05:42,960
shoulder

134
00:05:46,550 --> 00:05:45,280
the wind and the birds

135
00:05:47,510 --> 00:05:46,560
i'll let you

136
00:06:08,550 --> 00:05:47,520
enjoy

137
00:06:14,230 --> 00:06:10,870
and joining me now from launceston in

138
00:06:16,629 --> 00:06:14,240

beautiful tasmania it's david tyler hi

139

00:06:19,430 --> 00:06:16,639

david hi richard how are you i'm pretty

140

00:06:21,990 --> 00:06:19,440

well and i'm very interested to hear

141

00:06:24,550 --> 00:06:22,000

more about your adventures going to the

142

00:06:27,110 --> 00:06:24,560

body and soul festival

143

00:06:28,950 --> 00:06:27,120

as not a skeptic in disguise not just

144

00:06:32,070 --> 00:06:28,960

having a look around but actually being

145

00:06:34,150 --> 00:06:32,080

there and representing the skeptical

146

00:06:35,350 --> 00:06:34,160

movement how how was that how did that

147

00:06:37,749 --> 00:06:35,360

pan out

148

00:06:39,590 --> 00:06:37,759

well it panned out very well we were and

149

00:06:41,510 --> 00:06:39,600

quite frankly richard we we didn't

150

00:06:44,230 --> 00:06:41,520

really think we'd pull this off

151
00:06:46,230 --> 00:06:44,240
it came from a discussion we had at one

152
00:06:47,990 --> 00:06:46,240
of our skeptics in the pub meetings and

153
00:06:49,189 --> 00:06:48,000
someone said why don't we go along to it

154
00:06:51,029 --> 00:06:49,199
and we said

155
00:06:53,189 --> 00:06:51,039
we won't be allowed to go

156
00:06:54,390 --> 00:06:53,199
we thought well we should ask and we

157
00:06:56,070 --> 00:06:54,400
went along and had a meeting with the

158
00:06:58,710 --> 00:06:56,080
organizers and

159
00:07:00,629 --> 00:06:58,720
and sure enough we got ourselves a booth

160
00:07:02,070 --> 00:07:00,639
and a way we went from there

161
00:07:03,670 --> 00:07:02,080
that must have been an interesting

162
00:07:06,550 --> 00:07:03,680
meeting what was the organizer's

163
00:07:09,510 --> 00:07:06,560

reaction to your uh request

164

00:07:11,589 --> 00:07:09,520

we had gone along there pre-prepared

165

00:07:13,749 --> 00:07:11,599

with a with a little manifesto and a

166

00:07:15,589 --> 00:07:13,759

code of conduct if you like because we

167

00:07:16,710 --> 00:07:15,599

wanted to make sure that if we did go to

168

00:07:19,270 --> 00:07:16,720

this thing

169

00:07:21,189 --> 00:07:19,280

we were not in any sense a trojan horse

170

00:07:23,270 --> 00:07:21,199

we wanted to go we wanted to go in good

171

00:07:25,430 --> 00:07:23,280

faith up front

172

00:07:27,589 --> 00:07:25,440

true to ourselves and not in any way

173

00:07:29,430 --> 00:07:27,599

hiding what we were about so we had this

174

00:07:32,150 --> 00:07:29,440

manifesto and and the lady who the

175

00:07:33,670 --> 00:07:32,160

organizing lady was was really rather

176

00:07:35,830 --> 00:07:33,680

good about it and uh

177

00:07:37,830 --> 00:07:35,840

she was quite you know surprising she

178

00:07:40,230 --> 00:07:37,840

she took the view that um

179

00:07:43,029 --> 00:07:40,240

it was okay to have an alternative um

180

00:07:45,110 --> 00:07:43,039

viewpoint expressed there and if anybody

181

00:07:46,710 --> 00:07:45,120

any of the other stall holders were

182

00:07:48,469 --> 00:07:46,720

threatened by that well that was their

183

00:07:50,469 --> 00:07:48,479

problem so that was a that was a perfect

184

00:07:52,390 --> 00:07:50,479

approach from our point of view that

185

00:07:55,029 --> 00:07:52,400

that's good that's uh well quite an

186

00:07:57,510 --> 00:07:55,039

open-minded if i couldn't use that term

187

00:07:58,950 --> 00:07:57,520

approach from the organizers down there

188

00:08:00,629 --> 00:07:58,960

it is it you know it's over the years

189

00:08:03,110 --> 00:08:00,639

it's occurred to us here up here in

190

00:08:04,869 --> 00:08:03,120

sydney because there are two um mind

191

00:08:08,070 --> 00:08:04,879

body spirit or mind body wallet

192

00:08:10,869 --> 00:08:08,080

festivals a year here they go for about

193

00:08:12,150 --> 00:08:10,879

four days and it would be very

194

00:08:14,150 --> 00:08:12,160

we always think it would be very

195

00:08:16,390 --> 00:08:14,160

difficult for us to have some

196

00:08:18,629 --> 00:08:16,400

representatives there over the the the

197

00:08:20,790 --> 00:08:18,639

course of the whole festival but the one

198

00:08:23,029 --> 00:08:20,800

in tasmania the one in launceston i

199

00:08:25,110 --> 00:08:23,039

gather didn't go for so long

200

00:08:26,710 --> 00:08:25,120

i went for three days well that's that's

201
00:08:28,469 --> 00:08:26,720
a bit longer than i thought yeah yeah

202
00:08:30,869 --> 00:08:28,479
three three day three four days and we

203
00:08:33,909 --> 00:08:30,879
had only had eight or nine members

204
00:08:35,589 --> 00:08:33,919
and um and we drew up rosters we decided

205
00:08:36,870 --> 00:08:35,599
that we really ought to have at least

206
00:08:39,029 --> 00:08:36,880
two people

207
00:08:40,790 --> 00:08:39,039
present on the stall at any one time

208
00:08:42,870 --> 00:08:40,800
just just in case i mean quite frankly

209
00:08:44,870 --> 00:08:42,880
we were we went through all these horror

210
00:08:46,630 --> 00:08:44,880
scenarios in our minds once we realized

211
00:08:49,190 --> 00:08:46,640
this was going to happen yeah you know

212
00:08:51,910 --> 00:08:49,200
what what if what if someone confronts

213
00:08:53,990 --> 00:08:51,920

us and and gets angry

214

00:08:54,949 --> 00:08:54,000

what if someone comes up and says oh

215

00:08:56,389 --> 00:08:54,959

look

216

00:08:59,190 --> 00:08:56,399

you know can you tell us about stall

217

00:09:01,430 --> 00:08:59,200

number 37 is that a scam we had to think

218

00:09:03,829 --> 00:09:01,440

we had to think all those things through

219

00:09:05,670 --> 00:09:03,839

and and and have approaches that were

220

00:09:08,470 --> 00:09:05,680

that we thought were reasonable but

221

00:09:10,389 --> 00:09:08,480

still were true to our own values

222

00:09:12,470 --> 00:09:10,399

so we had we had our two people and we

223

00:09:13,990 --> 00:09:12,480

look we had a ball it was it was really

224

00:09:14,870 --> 00:09:14,000

good and we met some really interesting

225

00:09:17,590 --> 00:09:14,880

people

226

00:09:19,670 --> 00:09:17,600

in fact believe it or not there are

227

00:09:22,389 --> 00:09:19,680

a couple of people who actually came to

228

00:09:24,389 --> 00:09:22,399

the festival to talk to us oh really to

229

00:09:26,070 --> 00:09:24,399

talk to the skeptics so

230

00:09:27,350 --> 00:09:26,080

that that was a that was a bit unusual

231

00:09:28,949 --> 00:09:27,360

but we got to know some of the other

232

00:09:30,790 --> 00:09:28,959

stall holders and and and there were

233

00:09:33,910 --> 00:09:30,800

some interesting characters they really

234

00:09:36,550 --> 00:09:33,920

always are that that's very true did did

235

00:09:38,630 --> 00:09:36,560

the situation arise where someone

236

00:09:40,550 --> 00:09:38,640

was indignant that you were there or a

237

00:09:43,190 --> 00:09:40,560

member of the public said to you what

238

00:09:44,870 --> 00:09:43,200

about those those stan 37 what do you

239

00:09:47,269 --> 00:09:44,880

think of those people

240

00:09:48,389 --> 00:09:47,279

not not overtly in fact we were quite

241

00:09:49,269 --> 00:09:48,399

surprised we

242

00:09:52,949 --> 00:09:49,279

we

243

00:09:55,750 --> 00:09:52,959

walked past look down their noses and at

244

00:09:57,430 --> 00:09:55,760

us but the thing we feared more than

245

00:09:58,710 --> 00:09:57,440

anything was not hostility but

246

00:10:00,790 --> 00:09:58,720

indifference

247

00:10:02,070 --> 00:10:00,800

and and we didn't really get any

248

00:10:03,509 --> 00:10:02,080

hostility we've got some people who

249

00:10:05,269 --> 00:10:03,519

wanted to have spirited arguments with

250

00:10:08,150 --> 00:10:05,279

us and that was that was fine spirited

251
00:10:11,509 --> 00:10:08,160
discussions yeah but there was no no one

252
00:10:13,350 --> 00:10:11,519
abused us um i suspect that the ones who

253
00:10:15,910 --> 00:10:13,360
were weren't that pleased about our

254
00:10:18,870 --> 00:10:15,920
presence probably just stayed away

255
00:10:20,949 --> 00:10:18,880
but we we had to decide also richard

256
00:10:22,790 --> 00:10:20,959
what what we wanted to achieve from this

257
00:10:25,110 --> 00:10:22,800
it's not just a case of turning up you

258
00:10:26,389 --> 00:10:25,120
have to have a plan so we thought okay

259
00:10:28,870 --> 00:10:26,399
what do we want to achieve and we

260
00:10:31,430 --> 00:10:28,880
decided that really it was about

261
00:10:32,790 --> 00:10:31,440
encouraging people to think a little bit

262
00:10:35,750 --> 00:10:32,800
before particularly before they spend

263
00:10:39,110 --> 00:10:35,760

their money on things so to that end

264

00:10:41,509 --> 00:10:39,120

we produced a series of of little cards

265

00:10:42,310 --> 00:10:41,519

that we call think a thinker's guide to

266

00:10:43,509 --> 00:10:42,320

you know

267

00:10:45,990 --> 00:10:43,519

i think the thinkers guide to

268

00:10:48,069 --> 00:10:46,000

reflexology to homeopathy psychic

269

00:10:50,389 --> 00:10:48,079

reading and so on so we produced a bunch

270

00:10:52,069 --> 00:10:50,399

of those and we thought that's simple

271

00:10:54,150 --> 00:10:52,079

little things that someone might read

272

00:10:56,069 --> 00:10:54,160

you could read it in 30 seconds yeah

273

00:10:57,590 --> 00:10:56,079

rather the people

274

00:11:00,630 --> 00:10:57,600

in that sort of market are not going to

275

00:11:02,230 --> 00:11:00,640

want to read five or six pages of

276

00:11:03,509 --> 00:11:02,240

stuff about homeopathy they want a

277

00:11:04,870 --> 00:11:03,519

little bite-sized thing and then and

278

00:11:06,790 --> 00:11:04,880

then they can look for more stuff if

279

00:11:08,550 --> 00:11:06,800

they want to yes absolutely i think

280

00:11:09,910 --> 00:11:08,560

that's the the best approach because if

281

00:11:11,269 --> 00:11:09,920

you're going to engage somebody's

282

00:11:12,949 --> 00:11:11,279

interest the last thing you want to do

283

00:11:15,110 --> 00:11:12,959

is give them a little booklet which they

284

00:11:17,350 --> 00:11:15,120

can't possibly absorb or read or

285

00:11:19,670 --> 00:11:17,360

understand in a short time if they're

286

00:11:21,269 --> 00:11:19,680

just sort of casually walking past

287

00:11:22,870 --> 00:11:21,279

now i um

288

00:11:24,069 --> 00:11:22,880

i've found these things to be so

289

00:11:25,990 --> 00:11:24,079

interesting over the years and i've

290

00:11:28,389 --> 00:11:26,000

always encouraged my listeners and

291

00:11:30,310 --> 00:11:28,399

skeptics i've met and other people to go

292

00:11:32,389 --> 00:11:30,320

along at least to go along to one of

293

00:11:35,350 --> 00:11:32,399

these mind body spirit mind body wallet

294

00:11:37,350 --> 00:11:35,360

type body and soul festivals

295

00:11:39,590 --> 00:11:37,360

because i always think it's a

296

00:11:42,550 --> 00:11:39,600

valuable learning opportunity for your

297

00:11:45,190 --> 00:11:42,560

average skeptic to understand what's

298

00:11:46,470 --> 00:11:45,200

going on out there in well i don't know

299

00:11:48,550 --> 00:11:46,480

if you'd call it the real world but

300

00:11:50,150 --> 00:11:48,560

that's that area

301
00:11:51,829 --> 00:11:50,160
had you been to one of these things

302
00:11:53,910 --> 00:11:51,839
before yourself

303
00:11:56,230 --> 00:11:53,920
oh yes i had richard and but but i have

304
00:11:58,389 --> 00:11:56,240
to say looking at it from the inside as

305
00:12:00,790 --> 00:11:58,399
it were gave an entirely different

306
00:12:02,949 --> 00:12:00,800
perspective and and when you're sitting

307
00:12:05,030 --> 00:12:02,959
there for hours on end watching things

308
00:12:07,509 --> 00:12:05,040
and talking to people you really do get

309
00:12:10,069 --> 00:12:07,519
it you see it from a different viewpoint

310
00:12:12,069 --> 00:12:10,079
and particularly we we had some interest

311
00:12:14,069 --> 00:12:12,079
from some of the other stall holders who

312
00:12:16,949 --> 00:12:14,079
would come and talk to us and it was

313
00:12:19,509 --> 00:12:16,959

almost as if it was almost as if we were

314

00:12:21,269 --> 00:12:19,519

kind of accepted as part of the the

315

00:12:23,430 --> 00:12:21,279

carnival if you like

316

00:12:26,790 --> 00:12:23,440

and and and we were kind of suddenly we

317

00:12:29,430 --> 00:12:26,800

were insiders instead of being outsiders

318

00:12:31,110 --> 00:12:29,440

and and in fact a couple of the couple

319

00:12:33,750 --> 00:12:31,120

of people actually confided in us there

320

00:12:36,710 --> 00:12:33,760

was a there was a tarot reader who a

321

00:12:38,790 --> 00:12:36,720

lady who who told us that um i'll appear

322

00:12:41,030 --> 00:12:38,800

there's no there's no magic in this this

323

00:12:42,710 --> 00:12:41,040

is i'm just a counsellor you know the

324

00:12:45,110 --> 00:12:42,720

cards don't mean anything but i help

325

00:12:48,069 --> 00:12:45,120

people and i talk to them

326

00:12:49,750 --> 00:12:48,079

which of course is is fine if

327

00:12:52,150 --> 00:12:49,760

people aren't having serious problems

328

00:12:54,949 --> 00:12:52,160

where a trained counselor could perhaps

329

00:12:57,190 --> 00:12:54,959

do something more worthwhile for them

330

00:12:59,990 --> 00:12:57,200

and there was a there was a guy one of

331

00:13:02,310 --> 00:13:00,000

the other psychic readers who who

332

00:13:05,190 --> 00:13:02,320

he took a bit of a shine to us and i'll

333

00:13:07,509 --> 00:13:05,200

call him marvin yeah and and marvin

334

00:13:09,910 --> 00:13:07,519

marvin spoke to us at length or several

335

00:13:11,750 --> 00:13:09,920

times during the over the three days and

336

00:13:13,910 --> 00:13:11,760

he told some he was a real sort of a

337

00:13:16,629 --> 00:13:13,920

carney fella you couldn't help like him

338

00:13:18,470 --> 00:13:16,639

but i like him he's that sort of a guy

339

00:13:20,949 --> 00:13:18,480

and he was he would tell us you know

340

00:13:22,870 --> 00:13:20,959

anecdotes about his experiences and

341

00:13:25,190 --> 00:13:22,880

and one in particular which if you've

342

00:13:27,750 --> 00:13:25,200

got time for me to relate um

343

00:13:30,150 --> 00:13:27,760

he he spoke about about the time when he

344

00:13:32,550 --> 00:13:30,160

um he was doing a reading for a quite an

345

00:13:34,310 --> 00:13:32,560

elderly lady and he didn't really have

346

00:13:36,069 --> 00:13:34,320

any idea he said i had no idea what to

347

00:13:38,470 --> 00:13:36,079

say to her and but i happen to have

348

00:13:40,150 --> 00:13:38,480

noticed outside the the building in the

349

00:13:41,670 --> 00:13:40,160

in the street there was an old austin

350

00:13:44,470 --> 00:13:41,680

car parked

351
00:13:46,550 --> 00:13:44,480
and so for no other reason than that he

352
00:13:48,550 --> 00:13:46,560
said to her oh you know what what's this

353
00:13:50,870 --> 00:13:48,560
what's happened to austin

354
00:13:51,990 --> 00:13:50,880
and the lady who reacted with great

355
00:13:53,590 --> 00:13:52,000
surprise

356
00:13:55,670 --> 00:13:53,600
and it turned out that and she and then

357
00:13:57,189 --> 00:13:55,680
she said oh we buried him yesterday oh

358
00:13:59,509 --> 00:13:57,199
no

359
00:14:02,150 --> 00:13:59,519
it turned out that she had misheard him

360
00:14:03,110 --> 00:14:02,160
and and it was oscar oh her husband

361
00:14:05,670 --> 00:14:03,120
oscar

362
00:14:07,829 --> 00:14:05,680
not not austin and of course it was just

363
00:14:09,590 --> 00:14:07,839

one of those lucky hits oh wow that that

364

00:14:10,389 --> 00:14:09,600

these people have from time to time and

365

00:14:11,590 --> 00:14:10,399

um

366

00:14:13,269 --> 00:14:11,600

yeah so

367

00:14:14,870 --> 00:14:13,279

those sort of things and i'm sure they

368

00:14:16,790 --> 00:14:14,880

wouldn't have confided in us like that

369

00:14:18,470 --> 00:14:16,800

if we'd have just been skeptics going up

370

00:14:19,269 --> 00:14:18,480

to you know have it have a chat with

371

00:14:21,350 --> 00:14:19,279

them

372

00:14:23,030 --> 00:14:21,360

so we're kind of accepted on the inside

373

00:14:25,030 --> 00:14:23,040

a bit yeah it reminds me of a funny

374

00:14:27,350 --> 00:14:25,040

situation where um

375

00:14:30,870 --> 00:14:27,360

oh a number of years ago i was at one of

376

00:14:33,509 --> 00:14:30,880

these things here in sydney and i i i

377

00:14:35,829 --> 00:14:33,519

struck up a conversation with a woman

378

00:14:37,189 --> 00:14:35,839

who uh claimed to have uh witchcraft

379

00:14:38,069 --> 00:14:37,199

powers

380

00:14:42,629 --> 00:14:38,079

and i

381

00:14:43,910 --> 00:14:42,639

said in a low voice you know

382

00:14:46,230 --> 00:14:43,920

you've got to you've got to admit

383

00:14:47,829 --> 00:14:46,240

there's a lot of crazy people here

384

00:14:49,269 --> 00:14:47,839

to see what her reaction was and she

385

00:14:51,269 --> 00:14:49,279

looked at me and she said

386

00:14:53,030 --> 00:14:51,279

yeah yeah there are a lot of really

387

00:14:55,590 --> 00:14:53,040

crazy people here so i thought that was

388

00:14:57,670 --> 00:14:55,600

quite funny to get that

389

00:15:00,710 --> 00:14:57,680

to get someone like that confiding in me

390

00:15:03,269 --> 00:15:00,720

at at that time and that person who will

391

00:15:05,670 --> 00:15:03,279

will call oh i don't know glenda for a

392

00:15:07,509 --> 00:15:05,680

lack of a better word uh initially said

393

00:15:09,910 --> 00:15:07,519

that she would gladly take this

394

00:15:12,870 --> 00:15:09,920

skeptic's 100 000 challenge because she

395

00:15:14,949 --> 00:15:12,880

could do her her claim anywhere and

396

00:15:17,030 --> 00:15:14,959

eventually she backed down so

397

00:15:19,110 --> 00:15:17,040

but there you go did you have marvin

398

00:15:19,910 --> 00:15:19,120

marvin wants to come and have us test

399

00:15:22,470 --> 00:15:19,920

him

400

00:15:24,069 --> 00:15:22,480

um we haven't really advanced that yet

401
00:15:25,990 --> 00:15:24,079
we'll have to work out some way of doing

402
00:15:27,670 --> 00:15:26,000
that but he's he's he seems to be

403
00:15:29,110 --> 00:15:27,680
fixated on the idea that he can tell

404
00:15:31,030 --> 00:15:29,120
whether someone has moved into a new

405
00:15:32,870 --> 00:15:31,040
house or bought a new house or something

406
00:15:33,829 --> 00:15:32,880
that seems to be that seems to be his

407
00:15:36,310 --> 00:15:33,839
shtick

408
00:15:37,990 --> 00:15:36,320
um i'm not sure why maybe he's had a bit

409
00:15:39,750 --> 00:15:38,000
of success along those lines well it

410
00:15:41,670 --> 00:15:39,760
would hardly surprise me if he had a bit

411
00:15:43,670 --> 00:15:41,680
of a success along those lines it's a

412
00:15:45,269 --> 00:15:43,680
classic the moving the house the new

413
00:15:47,110 --> 00:15:45,279

house you're thinking about it you just

414

00:15:49,430 --> 00:15:47,120

have you did a year ago you will next

415

00:15:50,949 --> 00:15:49,440

year haven't moved house i bet you will

416

00:15:52,949 --> 00:15:50,959

that sort of thing you know you can't

417

00:15:55,269 --> 00:15:52,959

you can't lose can you prevent something

418

00:15:56,230 --> 00:15:55,279

but one of the best things that happened

419

00:15:57,910 --> 00:15:56,240

um

420

00:16:00,629 --> 00:15:57,920

and it was you know it's only a fairly

421

00:16:03,110 --> 00:16:00,639

small thing but but big in its way

422

00:16:05,430 --> 00:16:03,120

a young mother came to our

423

00:16:07,110 --> 00:16:05,440

stall and and was having a chat with us

424

00:16:08,790 --> 00:16:07,120

and she read a couple of the thinker's

425

00:16:10,949 --> 00:16:08,800

guide to cards

426
00:16:13,990 --> 00:16:10,959
and before she'd come to our store she

427
00:16:17,829 --> 00:16:14,000
had bought a homeopathic

428
00:16:20,069 --> 00:16:17,839
a whooping cough vaccination wow

429
00:16:21,590 --> 00:16:20,079
what she intended to give to her child

430
00:16:22,389 --> 00:16:21,600
or children wow

431
00:16:26,949 --> 00:16:22,399
and

432
00:16:28,949 --> 00:16:26,959
having a chat with us she actually went

433
00:16:30,710 --> 00:16:28,959
back and got her money back

434
00:16:32,470 --> 00:16:30,720
that's quite a win

435
00:16:34,949 --> 00:16:32,480
yeah i thought that was i think that was

436
00:16:36,870 --> 00:16:34,959
really really good that is that is quite

437
00:16:38,870 --> 00:16:36,880
a a winner it's a win for the child

438
00:16:40,870 --> 00:16:38,880

certainly

439

00:16:42,949 --> 00:16:40,880

and there were quite a few there were

440

00:16:45,030 --> 00:16:42,959

sort of other skeptics although not in

441

00:16:47,030 --> 00:16:45,040

the formal senses we might understand

442

00:16:49,430 --> 00:16:47,040

them there are some of the husbands who

443

00:16:51,269 --> 00:16:49,440

are sort of brought along by their wives

444

00:16:53,189 --> 00:16:51,279

we're glad to see us and glad to have a

445

00:16:54,949 --> 00:16:53,199

chat with us

446

00:16:56,150 --> 00:16:54,959

did you have a much of an opportunity

447

00:16:59,269 --> 00:16:56,160

when you were there

448

00:17:01,990 --> 00:16:59,279

uh to leave the stall and and wander

449

00:17:04,069 --> 00:17:02,000

around to see all the fun

450

00:17:06,309 --> 00:17:04,079

yes we did we did have time to do that

451
00:17:09,029 --> 00:17:06,319
and and i spoke with a number of people

452
00:17:11,270 --> 00:17:09,039
and i spoke with a very interesting

453
00:17:15,189 --> 00:17:11,280
lady who who was glad to tell us that

454
00:17:18,150 --> 00:17:15,199
she was 73 or in her 70s and she was um

455
00:17:20,150 --> 00:17:18,160
into reflexology and and i have

456
00:17:22,069 --> 00:17:20,160
absolutely no doubt richard of her

457
00:17:25,270 --> 00:17:22,079
sincerity she

458
00:17:26,069 --> 00:17:25,280
totally believed in what she was doing

459
00:17:28,309 --> 00:17:26,079
but

460
00:17:30,150 --> 00:17:28,319
a short discussion with her

461
00:17:32,630 --> 00:17:30,160
you you it became obvious that she

462
00:17:35,510 --> 00:17:32,640
didn't really have much of a clue about

463
00:17:37,350 --> 00:17:35,520

science or even anatomy but she she had

464

00:17:39,510 --> 00:17:37,360

lots of people who who said the doctors

465

00:17:41,909 --> 00:17:39,520

couldn't cure me but you did and

466

00:17:43,750 --> 00:17:41,919

and she was very she was very sincere

467

00:17:45,909 --> 00:17:43,760

well i mean

468

00:17:46,870 --> 00:17:45,919

this again reflects my own experience

469

00:17:49,830 --> 00:17:46,880

the

470

00:17:51,669 --> 00:17:49,840

lack of general or basic scientific

471

00:17:53,029 --> 00:17:51,679

knowledge of these people well no i

472

00:17:55,590 --> 00:17:53,039

don't want to be too blank about it but

473

00:17:56,710 --> 00:17:55,600

many of these people certainly

474

00:17:58,549 --> 00:17:56,720

which makes

475

00:18:00,230 --> 00:17:58,559

having a conversation with them or a

476

00:18:03,270 --> 00:18:00,240

constructive argument with them very

477

00:18:05,110 --> 00:18:03,280

limiting because often you can't get to

478

00:18:07,750 --> 00:18:05,120

really to first base because you're not

479

00:18:10,710 --> 00:18:07,760

speaking the same language as it were

480

00:18:11,630 --> 00:18:10,720

that's right and and you they will often

481

00:18:14,390 --> 00:18:11,640

cite

482

00:18:15,669 --> 00:18:14,400

pseudo-scientific proof and then and in

483

00:18:16,870 --> 00:18:15,679

the next breath say well you know

484

00:18:18,470 --> 00:18:16,880

science doesn't know what it's talking

485

00:18:20,390 --> 00:18:18,480

about so

486

00:18:23,750 --> 00:18:20,400

you know you get that sort of thing our

487

00:18:26,549 --> 00:18:23,760

stall was not very far from um an

488

00:18:28,870 --> 00:18:26,559

applied kinesiology outfit oh yeah which

489

00:18:31,590 --> 00:18:28,880

had about three or four massage tables

490

00:18:34,630 --> 00:18:31,600

and they were doing their thing and

491

00:18:36,470 --> 00:18:34,640

you know watching that for hours on end

492

00:18:39,190 --> 00:18:36,480

you really you

493

00:18:40,549 --> 00:18:39,200

you're just struck by how absurd the

494

00:18:44,310 --> 00:18:40,559

whole thing is

495

00:18:46,950 --> 00:18:44,320

and it looks like nothing more than

496

00:18:49,430 --> 00:18:46,960

uh you know banishing evil spirits with

497

00:18:51,750 --> 00:18:49,440

hand waving it's just astonishing when

498

00:18:54,470 --> 00:18:51,760

you actually get to see it

499

00:18:56,710 --> 00:18:54,480

for uh for some length of time oh it is

500

00:18:58,789 --> 00:18:56,720

yes it's it's um

501
00:19:00,470 --> 00:18:58,799
i must agree it struck me the first time

502
00:19:03,510 --> 00:19:00,480
i saw that and somebody was standing

503
00:19:06,070 --> 00:19:03,520
behind someone and almost doing a sort

504
00:19:08,549 --> 00:19:06,080
of a strange hula dance but waving their

505
00:19:10,470 --> 00:19:08,559
hands at the same time and then wringing

506
00:19:13,669 --> 00:19:10,480
their hands as if to to

507
00:19:16,310 --> 00:19:13,679
vanish the or vanquish the evil energies

508
00:19:17,990 --> 00:19:16,320
um and i'm i can't i can't imagine what

509
00:19:20,150 --> 00:19:18,000
it must be like to see that hour after

510
00:19:21,830 --> 00:19:20,160
an hour after well that's right and and

511
00:19:23,510 --> 00:19:21,840
i didn't realize that they did the foot

512
00:19:25,110 --> 00:19:23,520
movements you you mentioned a sort of a

513
00:19:27,029 --> 00:19:25,120

little dance they do these ones were

514

00:19:28,390 --> 00:19:27,039

doing yeah these were doing a you know

515

00:19:30,150 --> 00:19:28,400

they'd stand there with their feet sort

516

00:19:31,590 --> 00:19:30,160

of a normal width apart and then they'd

517

00:19:33,750 --> 00:19:31,600

bring their feet together and then back

518

00:19:36,950 --> 00:19:33,760

out again so that was obviously part of

519

00:19:38,630 --> 00:19:36,960

this ritual that this particular crowd

520

00:19:40,310 --> 00:19:38,640

were were undertaking

521

00:19:43,270 --> 00:19:40,320

but they were treating little children

522

00:19:44,230 --> 00:19:43,280

or there was one baby there at one stage

523

00:19:46,789 --> 00:19:44,240

and

524

00:19:48,150 --> 00:19:46,799

you know you you just wonder

525

00:19:49,669 --> 00:19:48,160

wow yeah

526

00:19:51,750 --> 00:19:49,679

it is it's difficult

527

00:19:54,230 --> 00:19:51,760

i agree it is difficult and but again

528

00:19:56,230 --> 00:19:54,240

it's no reason for skeptics not to go to

529

00:19:59,190 --> 00:19:56,240

these things because you know

530

00:20:01,430 --> 00:19:59,200

people on our side of the the argument

531

00:20:03,510 --> 00:20:01,440

really do need to see what is going on

532

00:20:04,310 --> 00:20:03,520

out there and why people are going to

533

00:20:07,750 --> 00:20:04,320

these

534

00:20:11,190 --> 00:20:07,760

stands and parting with good money for

535

00:20:14,870 --> 00:20:11,200

unproven and sometimes dangerous claims

536

00:20:16,710 --> 00:20:14,880

now do you think uh is this experience

537

00:20:18,630 --> 00:20:16,720

put you off or encouraged you to do it

538

00:20:21,990 --> 00:20:18,640

again next year i would love to do it

539

00:20:25,830 --> 00:20:22,000

again um in fact we were offered um a

540

00:20:27,350 --> 00:20:25,840

chance to to do a present a little like

541

00:20:29,669 --> 00:20:27,360

a seminar if you like they had these

542

00:20:31,830 --> 00:20:29,679

rolling seminar type things happening on

543

00:20:33,190 --> 00:20:31,840

the stage but we frankly we weren't just

544

00:20:35,510 --> 00:20:33,200

weren't equipped to do that at this

545

00:20:38,470 --> 00:20:35,520

stage because we're a bit like the the

546

00:20:40,310 --> 00:20:38,480

dog that chases the car and catches it

547

00:20:42,390 --> 00:20:40,320

you know now what are we going to do

548

00:20:44,549 --> 00:20:42,400

so we had to quit we had no logos we had

549

00:20:46,149 --> 00:20:44,559

no banners we had nothing we had no yeah

550

00:20:49,190 --> 00:20:46,159

and of course there's no rule no one

551
00:20:51,350 --> 00:20:49,200
you'd ask you know how did you do it um

552
00:20:52,789 --> 00:20:51,360
because it's a fairly new ground as far

553
00:20:55,270 --> 00:20:52,799
as i'm aware

554
00:20:57,750 --> 00:20:55,280
so we had to we had to scramble to get

555
00:21:00,230 --> 00:20:57,760
those sort of basic things done but but

556
00:21:01,510 --> 00:21:00,240
next year if we're invited back and i i

557
00:21:03,830 --> 00:21:01,520
hope we will be

558
00:21:05,590 --> 00:21:03,840
um we'd like to to do something well we

559
00:21:07,830 --> 00:21:05,600
might actually set up things like some

560
00:21:10,310 --> 00:21:07,840
our own free cold readings

561
00:21:11,830 --> 00:21:10,320
um we might even have someone make us a

562
00:21:13,590 --> 00:21:11,840
sceptometer or something where you grab

563
00:21:16,549 --> 00:21:13,600

the handles and it gives you a reading

564

00:21:18,149 --> 00:21:16,559

of your credulity perhaps i i don't know

565

00:21:20,230 --> 00:21:18,159

we'll think of something you might

566

00:21:22,710 --> 00:21:20,240

consider doing uh one of my favorites

567

00:21:25,510 --> 00:21:22,720

which is the applied kinesiology balance

568

00:21:27,750 --> 00:21:25,520

body balance tricks yes in fact that's

569

00:21:29,350 --> 00:21:27,760

that's very much on the cards um with

570

00:21:31,270 --> 00:21:29,360

that that's a good one to do and that's

571

00:21:32,950 --> 00:21:31,280

uh that's one that can be done

572

00:21:34,789 --> 00:21:32,960

in that sort of format fairly in a

573

00:21:36,950 --> 00:21:34,799

fairly straightforward manner absolutely

574

00:21:38,549 --> 00:21:36,960

absolutely and you could give away um

575

00:21:41,990 --> 00:21:38,559

one of our favorite things which is the

576

00:21:44,710 --> 00:21:42,000

placebo band from skepticbros.com

577

00:21:46,149 --> 00:21:44,720

yes yes indeed we'll we'll do that there

578

00:21:48,310 --> 00:21:46,159

there are a number of things we can do

579

00:21:50,630 --> 00:21:48,320

to really we learned a lot from from

580

00:21:52,630 --> 00:21:50,640

this first experience so we can

581

00:21:54,390 --> 00:21:52,640

hopefully enhance it next year so that's

582

00:21:56,070 --> 00:21:54,400

coming up in mid-march next year or

583

00:21:58,149 --> 00:21:56,080

there's more is it more frequent down

584

00:21:59,990 --> 00:21:58,159

there i i think it's only once a year

585

00:22:01,669 --> 00:22:00,000

i'm pretty sure it's once a year and i

586

00:22:03,350 --> 00:22:01,679

assume it'll be about the same time of

587

00:22:05,029 --> 00:22:03,360

year next year so we'll we'll have to

588

00:22:07,029 --> 00:22:05,039

get get in touch with the organizer and

589

00:22:07,750 --> 00:22:07,039

say look we'd love to come back again

590

00:22:13,029 --> 00:22:07,760

and

591

00:22:14,230 --> 00:22:13,039

out a lot of cards

592

00:22:15,909 --> 00:22:14,240

we we had a

593

00:22:18,310 --> 00:22:15,919

at a meeting that followed that we had

594

00:22:20,710 --> 00:22:18,320

some interesting new people turn up

595

00:22:22,470 --> 00:22:20,720

including some ghost hunters oh really

596

00:22:24,470 --> 00:22:22,480

oh yeah and they and they told us all

597

00:22:27,110 --> 00:22:24,480

about their they've got their you know

598

00:22:29,430 --> 00:22:27,120

machines that read the electromagnetic

599

00:22:31,669 --> 00:22:29,440

radiation and they had cameras and voice

600

00:22:33,110 --> 00:22:31,679

recorders and all of that sort of thing

601
00:22:34,310 --> 00:22:33,120
and there are a couple of ladies there

602
00:22:35,830 --> 00:22:34,320
was one lady

603
00:22:37,270 --> 00:22:35,840
and i think they came along really just

604
00:22:38,950 --> 00:22:37,280
to give us a bit of a

605
00:22:40,549 --> 00:22:38,960
give us a bit of curry

606
00:22:42,230 --> 00:22:40,559
because they were one of them in

607
00:22:43,669 --> 00:22:42,240
particular was talking about the magic

608
00:22:45,990 --> 00:22:43,679
of crystals

609
00:22:48,390 --> 00:22:46,000
and we were saying well okay tell us

610
00:22:50,950 --> 00:22:48,400
about that and we kind of in a gentle

611
00:22:52,710 --> 00:22:50,960
way suggested that perhaps crystals

612
00:22:54,789 --> 00:22:52,720
weren't all that magic though some of

613
00:22:56,870 --> 00:22:54,799

them are very lovely and then she said

614

00:22:59,830 --> 00:22:56,880

something like oh yeah well if they're

615

00:23:01,590 --> 00:22:59,840

not magic what about quartz watches no

616

00:23:05,029 --> 00:23:01,600

no she did

617

00:23:07,350 --> 00:23:05,039

and that kind of took us back because

618

00:23:08,549 --> 00:23:07,360

as one of our members said afterwards of

619

00:23:10,310 --> 00:23:08,559

all the things

620

00:23:12,549 --> 00:23:10,320

she could have could have presented as

621

00:23:15,430 --> 00:23:12,559

one of the mysteries of the world

622

00:23:17,270 --> 00:23:15,440

i could be wrong but i don't know that

623

00:23:18,630 --> 00:23:17,280

science is that baffled by how quartz

624

00:23:19,909 --> 00:23:18,640

watches work

625

00:23:21,510 --> 00:23:19,919

you know she could have talked about

626

00:23:23,669 --> 00:23:21,520

dark energy and how do you know that's

627

00:23:26,470 --> 00:23:23,679

not spirits and things but no it was

628

00:23:27,350 --> 00:23:26,480

quartz watches that were a big mystery

629

00:23:29,110 --> 00:23:27,360

so

630

00:23:32,549 --> 00:23:29,120

interesting there you go she hasn't she

631

00:23:35,909 --> 00:23:32,559

hasn't been back oh dear

632

00:23:38,630 --> 00:23:35,919

now i'm i'm delighted that uh there is

633

00:23:40,470 --> 00:23:38,640

good solid activism down in uh

634

00:23:41,990 --> 00:23:40,480

launceston in the beautiful state of

635

00:23:45,029 --> 00:23:42,000

tasmania

636

00:23:46,470 --> 00:23:45,039

do you uh have a handy website people

637

00:23:48,789 --> 00:23:46,480

can visit

638

00:23:50,789 --> 00:23:48,799

well we do if you just google launceston

639

00:23:51,669 --> 00:23:50,799

skeptics you'll find us

640

00:23:56,310 --> 00:23:51,679

and

641

00:23:58,630 --> 00:23:56,320

likes to join us in the royal oak hotel

642

00:24:00,950 --> 00:23:58,640

uh first and third thursday evenings at

643

00:24:03,350 --> 00:24:00,960

5 30. they're welcome to come along and

644

00:24:04,390 --> 00:24:03,360

say hello first and third said twice a

645

00:24:08,710 --> 00:24:04,400

month

646

00:24:10,070 --> 00:24:08,720

we have one formal we have one sort of a

647

00:24:12,710 --> 00:24:10,080

structured meeting where we might have

648

00:24:14,390 --> 00:24:12,720

someone speaking on something and one

649

00:24:16,070 --> 00:24:14,400

the next one's just a

650

00:24:17,750 --> 00:24:16,080

you know skeptics in the pub and we all

651

00:24:19,350 --> 00:24:17,760

just shoot the breeze that's fantastic

652

00:24:20,950 --> 00:24:19,360

so everybody down in that neck of the

653

00:24:22,230 --> 00:24:20,960

woods or if you

654

00:24:25,990 --> 00:24:22,240

care to have a look

655

00:24:27,830 --> 00:24:26,000

google launceston skeptics tasmania and

656

00:24:29,430 --> 00:24:27,840

take it from there well david thank you

657

00:24:32,470 --> 00:24:29,440

so much for chatting to me and our

658

00:24:34,549 --> 00:24:32,480

audience about your adventures uh i do

659

00:24:37,510 --> 00:24:34,559

take my hat off to you going in into the

660

00:25:03,190 --> 00:24:37,520

lion's den but having a good time

661

00:25:03,200 --> 00:25:16,149

tv

662

00:25:20,070 --> 00:25:17,990

australian skeptics has been around for

663

00:25:22,149 --> 00:25:20,080

more than 30 years and over that time

664

00:25:24,630 --> 00:25:22,159

we've investigated many different forms

665

00:25:26,230 --> 00:25:24,640

of pseudoscience in the paranormal

666

00:25:28,390 --> 00:25:26,240

everything from flying saucers and

667

00:25:30,630 --> 00:25:28,400

astrologers to the more serious and

668

00:25:32,870 --> 00:25:30,640

sometimes life-threatening subjects like

669

00:25:34,390 --> 00:25:32,880

cults and pseudo-medicine

670

00:25:36,549 --> 00:25:34,400

many of these investigations have

671

00:25:38,710 --> 00:25:36,559

involved shall we say eccentric

672

00:25:40,390 --> 00:25:38,720

individuals but let's be frank there are

673

00:25:42,789 --> 00:25:40,400

a lot of very strange people out there

674

00:25:44,149 --> 00:25:42,799

with equally strange beliefs

675

00:25:46,310 --> 00:25:44,159

but these sorts of beliefs aren't

676

00:25:48,070 --> 00:25:46,320

restricted to eccentrics

677

00:25:51,110 --> 00:25:48,080

we've found that such beliefs are shared

678

00:25:53,750 --> 00:25:51,120

by many in supposedly responsible and

679

00:25:55,110 --> 00:25:53,760

reputable organizations i've met one

680

00:25:57,909 --> 00:25:55,120

federal politician and government

681

00:25:59,029 --> 00:25:57,919

minister who believed in ghosts and of

682

00:26:01,269 --> 00:25:59,039

course there have been some in

683

00:26:04,549 --> 00:26:01,279

parliament and i do mean more than one

684

00:26:06,310 --> 00:26:04,559

who believe in young earth creationism

685

00:26:08,630 --> 00:26:06,320

throughout our existence we've adhered

686

00:26:11,029 --> 00:26:08,640

religiously if i can use that word to

687

00:26:13,110 --> 00:26:11,039

the scientific method we believe that

688

00:26:15,750 --> 00:26:13,120

evidence on both sides of the coin

689

00:26:19,590 --> 00:26:15,760

should be provable and repeatable

690

00:26:20,950 --> 00:26:19,600

pseudoscience by definition is not

691

00:26:22,390 --> 00:26:20,960

so you can imagine how disappointed

692

00:26:23,590 --> 00:26:22,400

we've been to see some australian

693

00:26:25,350 --> 00:26:23,600

universities

694

00:26:27,510 --> 00:26:25,360

teaching highly dubious subjects

695

00:26:29,430 --> 00:26:27,520

particularly in medicine without any

696

00:26:31,029 --> 00:26:29,440

evidence to support them

697

00:26:33,190 --> 00:26:31,039

i'm not talking about discussing such

698

00:26:34,310 --> 00:26:33,200

subjects in history or philosophy

699

00:26:36,230 --> 00:26:34,320

courses

700

00:26:39,269 --> 00:26:36,240

that would be justifiable if taught in

701
00:26:41,029 --> 00:26:39,279
an academic sense i'm also not talking

702
00:26:42,630 --> 00:26:41,039
about researching the science if any

703
00:26:44,630 --> 00:26:42,640
behind these subjects

704
00:26:47,269 --> 00:26:44,640
that's something we would encourage as

705
00:26:49,110 --> 00:26:47,279
it fits in with our basic premise

706
00:26:51,430 --> 00:26:49,120
what i am talking about is teaching them

707
00:26:53,029 --> 00:26:51,440
as legitimate areas of training

708
00:26:55,590 --> 00:26:53,039
with the result that students come out

709
00:26:57,110 --> 00:26:55,600
the other end as practitioners

710
00:26:59,990 --> 00:26:57,120
the topics that concern australian

711
00:27:02,070 --> 00:27:00,000
skeptics include chiropractic homeopathy

712
00:27:03,750 --> 00:27:02,080
and acupuncture for treatments beyond

713
00:27:05,510 --> 00:27:03,760

analgesic effects

714

00:27:07,750 --> 00:27:05,520

which regularly appear in university

715

00:27:09,430 --> 00:27:07,760

calendars at one time or another there

716

00:27:11,990 --> 00:27:09,440

have also been cases of individual

717

00:27:14,149 --> 00:27:12,000

academics or even faculties promoting

718

00:27:17,269 --> 00:27:14,159

young earth creationism psychic powers

719

00:27:19,750 --> 00:27:17,279

spiritualism auras tarot cards astrology

720

00:27:22,149 --> 00:27:19,760

etc etc which have appeared either in

721

00:27:23,909 --> 00:27:22,159

formal university courses or in special

722

00:27:25,909 --> 00:27:23,919

education services provided on

723

00:27:27,750 --> 00:27:25,919

university campuses

724

00:27:29,510 --> 00:27:27,760

we asked the university's umbrella group

725

00:27:31,029 --> 00:27:29,520

the former Australian vice chancellors

726
00:27:32,149 --> 00:27:31,039
committee and now called universities

727
00:27:33,669 --> 00:27:32,159
australia

728
00:27:35,909 --> 00:27:33,679
if it had an official position on the

729
00:27:38,230 --> 00:27:35,919
bona fides of courses offered at

730
00:27:39,510 --> 00:27:38,240
australian tertiary institutions the

731
00:27:42,310 --> 00:27:39,520
answer was no

732
00:27:43,990 --> 00:27:42,320
it was up to the individual institutions

733
00:27:45,590 --> 00:27:44,000
they said that if any courses were of

734
00:27:49,430 --> 00:27:45,600
concern we should contact the

735
00:27:51,269 --> 00:27:49,440
institutions in question so we did

736
00:27:53,029 --> 00:27:51,279
australian skeptics approached 11

737
00:27:55,029 --> 00:27:53,039
universities and one institute of

738
00:27:57,190 --> 00:27:55,039

technology and asked about their

739

00:27:59,269 --> 00:27:57,200

specific diploma degree and postgraduate

740

00:28:00,950 --> 00:27:59,279

courses that they were offering

741

00:28:02,950 --> 00:28:00,960

we mentioned some of the more outlandish

742

00:28:05,590 --> 00:28:02,960

claims that have been made for these

743

00:28:07,909 --> 00:28:05,600

sciences like chiropractic can cure

744

00:28:09,669 --> 00:28:07,919

learning difficulties and asthma

745

00:28:12,230 --> 00:28:09,679

that acupuncture can treat aids and

746

00:28:14,470 --> 00:28:12,240

palsy that naturopathy is rooted in

747

00:28:16,630 --> 00:28:14,480

mysticism and spirituality

748

00:28:18,789 --> 00:28:16,640

that component courses in kinesiology

749

00:28:20,870 --> 00:28:18,799

and aromatherapy were offered and

750

00:28:22,950 --> 00:28:20,880

especially that homeopathy

751
00:28:25,750 --> 00:28:22,960
which featured in many courses has no

752
00:28:26,950 --> 00:28:25,760
basis in science at all beyond a placebo

753
00:28:28,630 --> 00:28:26,960
effect

754
00:28:30,230 --> 00:28:28,640
we said we were especially concerned

755
00:28:32,870 --> 00:28:30,240
that these subjects were being offered

756
00:28:35,029 --> 00:28:32,880
under the imprimatur of the university a

757
00:28:36,389 --> 00:28:35,039
place of higher learning and

758
00:28:38,230 --> 00:28:36,399
that there was no resulting from the

759
00:28:40,950 --> 00:28:38,240
fact that anyone looking at such a

760
00:28:43,669 --> 00:28:40,960
situation would naturally presume these

761
00:28:46,149 --> 00:28:43,679
subjects had been proven to be true

762
00:28:47,990 --> 00:28:46,159
when the truth is far from that

763
00:28:49,750 --> 00:28:48,000

naturally we expected all the

764

00:28:51,430 --> 00:28:49,760

universities to rise to the challenge

765

00:28:54,149 --> 00:28:51,440

and come back to us with either

766

00:28:56,230 --> 00:28:54,159

passionate defenses or the subjects or

767

00:28:57,990 --> 00:28:56,240

wishful thinking a mere culprit and

768

00:28:59,590 --> 00:28:58,000

we'll remove it from our course list

769

00:29:01,350 --> 00:28:59,600

forthwith

770

00:29:03,029 --> 00:29:01,360

no such luck

771

00:29:06,470 --> 00:29:03,039

we heard back from four institutions

772

00:29:08,950 --> 00:29:06,480

rmit murdoch uts and charleston

773

00:29:10,950 --> 00:29:08,960

sydney union edith cohen university both

774

00:29:13,510 --> 00:29:10,960

promised to get back to us but neither

775

00:29:15,190 --> 00:29:13,520

did macquarie uni got back to us only

776

00:29:16,389 --> 00:29:15,200

recently two months after we'd

777

00:29:18,149 --> 00:29:16,399

approached them

778

00:29:20,470 --> 00:29:18,159

only the dean of the faculty of science

779

00:29:22,230 --> 00:29:20,480

at charles sturt responded at length and

780

00:29:23,750 --> 00:29:22,240

engaged in further correspondence we

781

00:29:25,430 --> 00:29:23,760

thank him for that

782

00:29:26,789 --> 00:29:25,440

the rest of the responses were largely

783

00:29:28,230 --> 00:29:26,799

perfunctory

784

00:29:29,110 --> 00:29:28,240

basically saying we know what we're

785

00:29:30,549 --> 00:29:29,120

doing

786

00:29:32,070 --> 00:29:30,559

and that the courses meet the current

787

00:29:33,269 --> 00:29:32,080

standards

788

00:29:35,110 --> 00:29:33,279

for instance

789

00:29:38,470 --> 00:29:35,120

murdoch university's chiropractic

790

00:29:41,350 --> 00:29:38,480

program meets the demanding standards of

791

00:29:43,830 --> 00:29:41,360

the council on chiropractic education

792

00:29:46,310 --> 00:29:43,840

murdoch uni cited the chiropractic board

793

00:29:49,110 --> 00:29:46,320

of australia as a new national body

794

00:29:50,870 --> 00:29:49,120

overseeing professional regulation

795

00:29:52,950 --> 00:29:50,880

the university of newcastle which didn't

796

00:29:54,549 --> 00:29:52,960

bother to get back to us has published a

797

00:29:57,190 --> 00:29:54,559

statement on his website

798

00:29:59,830 --> 00:29:57,200

quote these therapies have been selected

799

00:30:01,590 --> 00:29:59,840

because of burgeoning community interest

800

00:30:02,950 --> 00:30:01,600

and usage of these complementary

801
00:30:05,669 --> 00:30:02,960
therapies

802
00:30:07,909 --> 00:30:05,679
i think that means market forces

803
00:30:10,149 --> 00:30:07,919
one response in defense of running such

804
00:30:12,630 --> 00:30:10,159
courses suggested that the students were

805
00:30:14,470 --> 00:30:12,640
sincere in their beliefs

806
00:30:15,590 --> 00:30:14,480
creationists are sincere in their

807
00:30:17,990 --> 00:30:15,600
beliefs

808
00:30:19,190 --> 00:30:18,000
ufo proponents are sincere in their

809
00:30:22,389 --> 00:30:19,200
beliefs

810
00:30:24,549 --> 00:30:22,399
all eccentric individuals in this world

811
00:30:26,389 --> 00:30:24,559
are sincere in their beliefs

812
00:30:28,710 --> 00:30:26,399
anyway despite the protestations of

813
00:30:30,789 --> 00:30:28,720

those who bothered to reply it is still

814

00:30:33,190 --> 00:30:30,799

evident that under the imprimatur of

815

00:30:36,470 --> 00:30:33,200

universities and their reputation for

816

00:30:38,470 --> 00:30:36,480

academic privity and accuracy the public

817

00:30:40,870 --> 00:30:38,480

students and no doubt many academics

818

00:30:42,310 --> 00:30:40,880

would regard these areas of activity as

819

00:30:43,750 --> 00:30:42,320

having been endorsed by such

820

00:30:45,430 --> 00:30:43,760

institutions

821

00:30:47,430 --> 00:30:45,440

no matter how much the subject is

822

00:30:49,990 --> 00:30:47,440

encased in references to research and

823

00:30:53,029 --> 00:30:50,000

evidence the view is that these areas

824

00:30:55,269 --> 00:30:53,039

have been given the seal of approval

825

00:30:57,510 --> 00:30:55,279

and in many instances that is exactly

826
00:30:59,830 --> 00:30:57,520
what has happened the fact that several

827
00:31:01,750 --> 00:30:59,840
universities have set up clinics in

828
00:31:04,149 --> 00:31:01,760
acupuncture chiropractic chinese

829
00:31:06,149 --> 00:31:04,159
medicine and naturopathy to treat

830
00:31:08,230 --> 00:31:06,159
students staff and the public

831
00:31:10,870 --> 00:31:08,240
is indication enough that this is not a

832
00:31:11,990 --> 00:31:10,880
moot point but a statement that yes they

833
00:31:15,110 --> 00:31:12,000
are proven

834
00:31:17,430 --> 00:31:15,120
despite the fact that they are not

835
00:31:19,190 --> 00:31:17,440
do geology courses teach dowsing

836
00:31:20,549 --> 00:31:19,200
the paleontology courses teach

837
00:31:23,669 --> 00:31:20,559
creationism

838
00:31:25,909 --> 00:31:23,679

do astronomy causes teach astrology

839

00:31:27,430 --> 00:31:25,919

so why teach homeopathy in medical

840

00:31:29,750 --> 00:31:27,440

courses

841

00:31:31,669 --> 00:31:29,760

universities need to seriously justify

842

00:31:33,990 --> 00:31:31,679

the inclusion of such courses not on the

843

00:31:36,470 --> 00:31:34,000

basis of deference to some internal

844

00:31:38,230 --> 00:31:36,480

industry standards bodies but by

845

00:31:39,350 --> 00:31:38,240

applying a little critical thinking for

846

00:31:41,029 --> 00:31:39,360

themselves

847

00:31:43,669 --> 00:31:41,039

and really seeing if any of these

848

00:31:45,590 --> 00:31:43,679

practices are evidence-based

849

00:31:47,830 --> 00:31:45,600

just like they do with anomalous claims

850

00:31:49,590 --> 00:31:47,840

in physics or chemistry or archaeology

851
00:31:51,990 --> 00:31:49,600
or any other science

852
00:31:53,430 --> 00:31:52,000
if something seems out of the ordinary

853
00:31:55,830 --> 00:31:53,440
and a lot of the claims made by

854
00:31:57,909 --> 00:31:55,840
practitioners are out of the ordinary

855
00:31:59,509 --> 00:31:57,919
then universities must investigate

856
00:32:00,870 --> 00:31:59,519
before they offer their stamp of

857
00:32:02,710 --> 00:32:00,880
approval

858
00:32:05,110 --> 00:32:02,720
by and large we feel the response to our

859
00:32:06,789 --> 00:32:05,120
enquiries has been pathetic and worrying

860
00:32:08,630 --> 00:32:06,799
to say the least

861
00:32:11,029 --> 00:32:08,640
finally it's interesting to note that a

862
00:32:14,070 --> 00:32:11,039
case has been put to have rmit's

863
00:32:16,389 --> 00:32:14,080

chiropractic pediatric clinic closed

864

00:32:18,710 --> 00:32:16,399

because it is quote teaching

865

00:32:21,269 --> 00:32:18,720

inappropriate and potentially dangerous

866

00:32:24,230 --> 00:32:21,279

techniques that target pregnant women

867

00:32:26,789 --> 00:32:24,240

babies infants and children

868

00:32:28,789 --> 00:32:26,799

loretta marin who has investigated many

869

00:32:30,789 --> 00:32:28,799

dubious medical treatments

870

00:32:32,950 --> 00:32:30,799

has done a major report criticizing

871

00:32:35,029 --> 00:32:32,960

chiropractic's claims

872

00:32:37,350 --> 00:32:35,039

statements from many leading scientists

873

00:32:38,710 --> 00:32:37,360

and experts both local and overseas back

874

00:32:41,190 --> 00:32:38,720

her up

875

00:32:43,830 --> 00:32:41,200

she wants the clinic closed until

876

00:32:46,310 --> 00:32:43,840

such time as evidence can be produced

877

00:32:48,310 --> 00:32:46,320

that these treatments support the claims

878

00:32:50,149 --> 00:32:48,320

made by the course lecturers

879

00:32:58,470 --> 00:32:50,159

produce the evidence

880

00:33:02,950 --> 00:33:00,710

did you know jeff wag participated in an

881

00:33:04,710 --> 00:33:02,960

alien psychic challenge did you know

882

00:33:06,310 --> 00:33:04,720

that george robb is an interstellar

883

00:33:07,990 --> 00:33:06,320

singing sensation

884

00:33:09,909 --> 00:33:08,000

for these and other stories you won't

885

00:33:11,590 --> 00:33:09,919

hear on the skeptic zone go to the

886

00:33:15,029 --> 00:33:11,600

bowling brook babbler that's

887

00:33:19,750 --> 00:33:16,789

if you have any doubts just remember

888

00:33:21,750 --> 00:33:19,760

this the sgu couldn't debunk any of our

889

00:33:24,070 --> 00:33:21,760

stories even when we offer them five

890

00:33:27,509 --> 00:33:24,080

dollars so read the bowling book babbler

891

00:33:32,470 --> 00:33:27,519

for the unbelievable truth that's www

892

00:33:39,750 --> 00:33:32,480

dot b o l i n g b r o o k

893

00:33:47,269 --> 00:33:42,710

now it's time for dr rachie reports with

894

00:33:50,789 --> 00:33:49,430

hello listeners and welcome to dr reggie

895

00:33:52,549 --> 00:33:50,799

reports

896

00:33:54,950 --> 00:33:52,559

an easy way to make products sound

897

00:33:57,590 --> 00:33:54,960

high-tech and scientific is to associate

898

00:33:59,509 --> 00:33:57,600

them with words that sound sciencey i

899

00:34:01,350 --> 00:33:59,519

call this name out of a hat science

900

00:34:03,190 --> 00:34:01,360

because the results make about as much

901
00:34:05,190 --> 00:34:03,200
sense as randomly pulling scientific

902
00:34:06,470 --> 00:34:05,200
terms out of a hat and sprinkling them

903
00:34:08,710 --> 00:34:06,480
on a page

904
00:34:10,869 --> 00:34:08,720
one industry particularly guilty of such

905
00:34:12,069 --> 00:34:10,879
crimes against science is the cosmetics

906
00:34:14,149 --> 00:34:12,079
caper

907
00:34:16,629 --> 00:34:14,159
indeed choice magazine made an example

908
00:34:20,389 --> 00:34:16,639
of l'oreal el vive for exactly this

909
00:34:22,470 --> 00:34:20,399
behaviour at the 2009 shonkee awards the

910
00:34:24,790 --> 00:34:22,480
consumer watchdog was quick to remind us

911
00:34:28,230 --> 00:34:24,800
however that l'oreal are by no means

912
00:34:29,990 --> 00:34:28,240
alone in blinding us with dodgy science

913
00:34:32,149 --> 00:34:30,000

they noted terms such as clinically

914

00:34:34,470 --> 00:34:32,159

proven dermo clinical trials and in

915

00:34:36,230 --> 00:34:34,480

vitro testing are littered throughout

916

00:34:38,310 --> 00:34:36,240

cosmetics advertising

917

00:34:40,629 --> 00:34:38,320

and to highlight their disdain choice

918

00:34:43,510 --> 00:34:40,639

made a hilarious parody video for a

919

00:34:45,270 --> 00:34:43,520

product they called pro faecal b

920

00:34:47,589 --> 00:34:45,280

if you watch the video online and you

921

00:34:49,909 --> 00:34:47,599

can find the links in my blog post watch

922

00:34:51,750 --> 00:34:49,919

it to the very end where choice really

923

00:34:53,030 --> 00:34:51,760

tells us what they think of cosmetics

924

00:34:54,710 --> 00:34:53,040

companies

925

00:34:56,950 --> 00:34:54,720

but the hijacking of scientific

926
00:34:59,670 --> 00:34:56,960
terminology and technology is certainly

927
00:35:01,670 --> 00:34:59,680
not confined to cosmetics products

928
00:35:04,069 --> 00:35:01,680
every second product advertised on

929
00:35:06,630 --> 00:35:04,079
television these days seems to claim to

930
00:35:09,349 --> 00:35:06,640
be scientifically tested or validated

931
00:35:11,190 --> 00:35:09,359
often in a clinical trial the results in

932
00:35:12,150 --> 00:35:11,200
such fine print that you can hardly read

933
00:35:13,910 --> 00:35:12,160
them

934
00:35:15,589 --> 00:35:13,920
and marketing people know that dusting

935
00:35:18,470 --> 00:35:15,599
your product with a light sprinkling of

936
00:35:20,470 --> 00:35:18,480
quantum or clinically tested can be a

937
00:35:22,950 --> 00:35:20,480
lucrative exercise

938
00:35:25,589 --> 00:35:22,960

and hey if it sounds sciencey and it

939

00:35:28,470 --> 00:35:25,599

looks technical then it must work right

940

00:35:30,550 --> 00:35:28,480

who needs that pesky scientific evidence

941

00:35:32,550 --> 00:35:30,560

so hair testing is a very good example

942

00:35:34,630 --> 00:35:32,560

of this it's actually a legitimate

943

00:35:36,950 --> 00:35:34,640

scientific technique and it's used in

944

00:35:39,990 --> 00:35:36,960

drug testing in sport and also for the

945

00:35:42,230 --> 00:35:40,000

detection of heavy metals in poisoning

946

00:35:43,990 --> 00:35:42,240

the concept is straightforward blood

947

00:35:46,230 --> 00:35:44,000

supply from around the hair follicle

948

00:35:47,910 --> 00:35:46,240

provides nutrients and other extraneous

949

00:35:50,550 --> 00:35:47,920

material to the hair

950

00:35:52,310 --> 00:35:50,560

including any ingested drugs medications

951
00:35:54,310 --> 00:35:52,320
and heavy metals and then these are

952
00:35:56,230 --> 00:35:54,320
absorbed into the hair shaft and carried

953
00:35:58,310 --> 00:35:56,240
along with growth

954
00:36:00,310 --> 00:35:58,320
now through a complex process of enzyme

955
00:36:01,910 --> 00:36:00,320
or acid digestion to break the chemical

956
00:36:03,589 --> 00:36:01,920
bonds between the hair

957
00:36:05,589 --> 00:36:03,599
and various high-end detection

958
00:36:07,030 --> 00:36:05,599
techniques such as mass spectrometry and

959
00:36:08,470 --> 00:36:07,040
hplc

960
00:36:10,150 --> 00:36:08,480
the substances of interest can be

961
00:36:12,390 --> 00:36:10,160
sensitively measured

962
00:36:14,310 --> 00:36:12,400
but as you might expect hair testing in

963
00:36:16,310 --> 00:36:14,320

alternative medicine doesn't bother with

964

00:36:18,710 --> 00:36:16,320

all the fiddly science steps described

965

00:36:20,390 --> 00:36:18,720

above and by the way i've only described

966

00:36:22,310 --> 00:36:20,400

just a few

967

00:36:24,230 --> 00:36:22,320

rather you just need a machine with some

968

00:36:26,790 --> 00:36:24,240

flickering dials some flashing lights

969

00:36:28,870 --> 00:36:26,800

and a sprinkling of quantum

970

00:36:30,630 --> 00:36:28,880

now as it happens i first came across

971

00:36:33,510 --> 00:36:30,640

one of these machines at a well-being

972

00:36:35,430 --> 00:36:33,520

festival where it was promoted as quote

973

00:36:37,030 --> 00:36:35,440

the affordable way to find out what is

974

00:36:39,430 --> 00:36:37,040

making you sick

975

00:36:40,470 --> 00:36:39,440

for 195 dollars which is apparently

976
00:36:42,230 --> 00:36:40,480
affordable

977
00:36:44,550 --> 00:36:42,240
a small lock of hair was placed in an

978
00:36:46,630 --> 00:36:44,560
empty beaker lights flashed dials

979
00:36:48,790 --> 00:36:46,640
flickered and a list of food allergies

980
00:36:50,870 --> 00:36:48,800
appeared on a printer

981
00:36:52,790 --> 00:36:50,880
now apparently if i avoided these foods

982
00:36:55,750 --> 00:36:52,800
i could cure a wide range of ills

983
00:36:57,829 --> 00:36:55,760
including such things as eczema asthma

984
00:36:59,990 --> 00:36:57,839
irritable bowel syndrome headaches

985
00:37:02,230 --> 00:37:00,000
premenstrual tension flatulence fatigue

986
00:37:04,550 --> 00:37:02,240
and the list goes on

987
00:37:06,310 --> 00:37:04,560
and when it came to sensitivity this

988
00:37:08,550 --> 00:37:06,320

machine must have been using an awful

989

00:37:10,710 --> 00:37:08,560

lot of quantum because according to the

990

00:37:12,790 --> 00:37:10,720

pamphlet i was given it could tell if i

991

00:37:13,910 --> 00:37:12,800

was allergic to coca-cola or the diet

992

00:37:16,230 --> 00:37:13,920

variety

993

00:37:18,710 --> 00:37:16,240

and even differentiate between allergies

994

00:37:20,710 --> 00:37:18,720

across different brands of chocolate

995

00:37:23,030 --> 00:37:20,720

so being slightly skeptical about these

996

00:37:25,589 --> 00:37:23,040

claims my colleague decided to put the

997

00:37:27,910 --> 00:37:25,599

technology to the test by sending via

998

00:37:30,390 --> 00:37:27,920

mail order two pieces of hair from the

999

00:37:31,910 --> 00:37:30,400

same person but identified as from

1000

00:37:34,230 --> 00:37:31,920

different people

1001
00:37:36,230 --> 00:37:34,240
the results came back as predicted the

1002
00:37:37,990 --> 00:37:36,240
profiles of the two people's allergies

1003
00:37:40,310 --> 00:37:38,000
were totally different

1004
00:37:42,550 --> 00:37:40,320
except for one interesting thing

1005
00:37:43,990 --> 00:37:42,560
apparently both persons were allergic to

1006
00:37:45,910 --> 00:37:44,000
carrots

1007
00:37:48,470 --> 00:37:45,920
so obviously this is not a rigorous

1008
00:37:50,550 --> 00:37:48,480
scientific test but such divergent

1009
00:37:52,710 --> 00:37:50,560
preliminary results do not instill me

1010
00:37:55,829 --> 00:37:52,720
with confidence about the accuracy of

1011
00:37:57,910 --> 00:37:55,839
this machine or indeed that my 195

1012
00:37:59,670 --> 00:37:57,920
dollars was well spent

1013
00:38:01,750 --> 00:37:59,680

perhaps a better name for this quantum

1014

00:38:03,589 --> 00:38:01,760

machine would be a random allergy

1015

00:38:05,270 --> 00:38:03,599

generating machine

1016

00:38:07,190 --> 00:38:05,280

now i don't pretend to understand

1017

00:38:09,030 --> 00:38:07,200

quantum mechanics and according to

1018

00:38:10,950 --> 00:38:09,040

physicist richard feynman who has been

1019

00:38:12,630 --> 00:38:10,960

credited with saying quote

1020

00:38:14,950 --> 00:38:12,640

it is safe to say that no one

1021

00:38:16,630 --> 00:38:14,960

understands quantum mechanics apparently

1022

00:38:17,910 --> 00:38:16,640

i'm not alone

1023

00:38:19,670 --> 00:38:17,920

now beyond understanding that the

1024

00:38:21,990 --> 00:38:19,680

discipline deals with the world of atoms

1025

00:38:24,150 --> 00:38:22,000

and subatomic particles i'm as clueless

1026

00:38:25,910 --> 00:38:24,160

as the next bloke but i do know one

1027

00:38:27,190 --> 00:38:25,920

thing i know what's not quantum

1028

00:38:29,430 --> 00:38:27,200

mechanics

1029

00:38:32,069 --> 00:38:29,440

it seems the people with the 195 dollars

1030

00:38:33,670 --> 00:38:32,079

a pop magic hair testing quantum machine

1031

00:38:36,230 --> 00:38:33,680

might need to step up for their nobel

1032

00:38:38,069 --> 00:38:36,240

prize in physics or they're just trying

1033

00:38:39,349 --> 00:38:38,079

to blind us with science

1034

00:38:41,510 --> 00:38:39,359

you decide

1035

00:38:43,589 --> 00:38:41,520

this week's dr richie reports has also

1036

00:38:46,230 --> 00:38:43,599

been published as a blog as part of the

1037

00:38:47,430 --> 00:38:46,240

fairfax newspapers blogs called national

1038

00:38:50,150 --> 00:38:47,440

times

1039

00:38:51,829 --> 00:38:50,160

you can find it through the age wa today

1040

00:38:53,829 --> 00:38:51,839

the brisbane times and the sydney

1041

00:38:56,310 --> 00:38:53,839

morning herald if you search for the

1042

00:38:58,630 --> 00:38:56,320

national times and skeptic science i'm a

1043

00:39:00,630 --> 00:38:58,640

guest blogger for this week and if you

1044

00:39:02,870 --> 00:39:00,640

have some time please head over so you

1045

00:39:05,190 --> 00:39:02,880

can increase my page hits and also if

1046

00:39:07,349 --> 00:39:05,200

you feel like it leave me a comment

1047

00:39:11,270 --> 00:39:07,359

and until next time this has been dr

1048

00:39:16,310 --> 00:39:13,510

dr rachel dunlop is one of australia's

1049

00:39:18,230 --> 00:39:16,320

foremost media commentators in matters

1050

00:39:19,190 --> 00:39:18,240

concerning so-called alternative

1051
00:39:21,670 --> 00:39:19,200
medicine

1052
00:39:23,990 --> 00:39:21,680
she has appeared on national radio and

1053
00:39:26,310 --> 00:39:24,000
national television dr raichi is

1054
00:39:27,670 --> 00:39:26,320
available for interviews and you can

1055
00:39:29,710 --> 00:39:27,680
contact her

1056
00:39:37,829 --> 00:39:29,720
at rachel

1057
00:39:42,069 --> 00:39:40,829
hi i'm a skeptic and i'm

1058
00:39:44,390 --> 00:39:42,079
bigfoot uh

1059
00:39:46,790 --> 00:39:44,400
yeah i'm pretty sure you're not you shut

1060
00:39:49,510 --> 00:39:46,800
up y'all i'm bigfoot and i'm running

1061
00:39:51,829 --> 00:39:49,520
wild all over the u.s

1062
00:39:53,589 --> 00:39:51,839
well you're not very well documented

1063
00:39:56,550 --> 00:39:53,599

says you

1064

00:39:59,349 --> 00:39:56,560

i left tracks possum innards all over

1065

00:40:02,069 --> 00:39:59,359

the place well my name's blake smith and

1066

00:40:05,430 --> 00:40:02,079

along with my co-hosts benjamin radford

1067

00:40:07,270 --> 00:40:05,440

and dr karen stolzno we take a skeptical

1068

00:40:09,750 --> 00:40:07,280

look at the evidence for all kinds of

1069

00:40:11,510 --> 00:40:09,760

monsters on our show monster talk

1070

00:40:14,390 --> 00:40:11,520

other monsters

1071

00:40:16,870 --> 00:40:14,400

like who well our show's pretty new but

1072

00:40:19,750 --> 00:40:16,880

we plan to take a look at lake monsters

1073

00:40:23,670 --> 00:40:19,760

sea monsters mothman the chupacabra the

1074

00:40:26,550 --> 00:40:23,680

yeti orang pendak ghosts

1075

00:40:28,069 --> 00:40:26,560

goblins zombies demons and we might even

1076

00:40:30,310 --> 00:40:28,079

check out the monster that lurks under

1077

00:40:32,950 --> 00:40:30,320

your bed or in your closet hey

1078

00:40:35,349 --> 00:40:32,960

you didn't say my name in that list

1079

00:40:36,870 --> 00:40:35,359

honestly we've already done two episodes

1080

00:40:39,910 --> 00:40:36,880

on bigfoot but the topic does keep

1081

00:40:41,829 --> 00:40:39,920

coming up hey i know where there's a big

1082

00:40:44,069 --> 00:40:41,839

old monster

1083

00:40:46,230 --> 00:40:44,079

where in my pants

1084

00:40:48,069 --> 00:40:46,240

don't go there instead go to

1085

00:40:49,750 --> 00:40:48,079

monstertalk.org

1086

00:40:53,190 --> 00:40:49,760

or look up monster talk on your favorite

1087

00:40:59,750 --> 00:40:53,200

podcast aggregator you mean itunes shut

1088

00:41:08,069 --> 00:41:03,910

here's maynard's spooky action

1089

00:41:11,910 --> 00:41:09,910

well have we got something for you today

1090

00:41:13,750 --> 00:41:11,920

i tell you we've got mike dawson here

1091

00:41:15,589 --> 00:41:13,760

i'm in a room that i'll just let you

1092

00:41:17,430 --> 00:41:15,599

describe it mike i mean i've seen so

1093

00:41:20,230 --> 00:41:17,440

i've been in some unusual rooms and this

1094

00:41:21,910 --> 00:41:20,240

is uh one of the most unusual what is

1095

00:41:23,109 --> 00:41:21,920

this room full of

1096

00:41:25,349 --> 00:41:23,119

it's supposed to be a dining room but

1097

00:41:27,750 --> 00:41:25,359

it's absolutely full of casts of uh

1098

00:41:29,750 --> 00:41:27,760

museum quality dinosaur bits

1099

00:41:31,990 --> 00:41:29,760

mainly skulls

1100

00:41:33,109 --> 00:41:32,000

and skulls from all sorts of periods

1101

00:41:34,710 --> 00:41:33,119

okay i'm just going to pick one at

1102

00:41:36,150 --> 00:41:34,720

random i'll just tap it so the listener

1103

00:41:37,270 --> 00:41:36,160

can hear

1104

00:41:39,030 --> 00:41:37,280

and

1105

00:41:41,030 --> 00:41:39,040

that's the teeth i was flicking then

1106

00:41:43,270 --> 00:41:41,040

what is that describe the size and what

1107

00:41:45,430 --> 00:41:43,280

animal it was that's a fighter saw which

1108

00:41:47,670 --> 00:41:45,440

was a version of a crocodile it wasn't a

1109

00:41:49,190 --> 00:41:47,680

crocodile but similar to a crocodile

1110

00:41:52,870 --> 00:41:49,200

from the uh that would be triassic

1111

00:41:55,190 --> 00:41:52,880

period so that's 250 million year old

1112

00:41:56,630 --> 00:41:55,200

it's from america that one and these are

1113

00:41:58,630 --> 00:41:56,640

casts of

1114

00:41:59,589 --> 00:41:58,640

diggings that just to explain how you

1115

00:42:02,470 --> 00:41:59,599

got it

1116

00:42:04,069 --> 00:42:02,480

well i got that from a museum they're um

1117

00:42:05,829 --> 00:42:04,079

normally uh

1118

00:42:07,349 --> 00:42:05,839

excavated on a dig site and then they're

1119

00:42:08,710 --> 00:42:07,359

reconstructed put together and then

1120

00:42:10,150 --> 00:42:08,720

they'll do a cast of them which is

1121

00:42:12,230 --> 00:42:10,160

normally what you see in a museum it's

1122

00:42:14,390 --> 00:42:12,240

not the original it's normally a cast

1123

00:42:16,870 --> 00:42:14,400

and i swap with museums for other casts

1124

00:42:17,990 --> 00:42:16,880

i've got or buy them or

1125

00:42:20,390 --> 00:42:18,000

you know

1126
00:42:22,550 --> 00:42:20,400
accumulate them in whatever way i can

1127
00:42:25,829 --> 00:42:22,560
and that's a cast of uh

1128
00:42:27,910 --> 00:42:25,839
of a phytosaur so how many people

1129
00:42:28,870 --> 00:42:27,920
do you run into on the internet and

1130
00:42:30,710 --> 00:42:28,880
around

1131
00:42:33,589 --> 00:42:30,720
the place anywhere that are really into

1132
00:42:36,470 --> 00:42:33,599
paleontology bone casts it's quite a few

1133
00:42:37,589 --> 00:42:36,480
really quite a few and what with all the

1134
00:42:40,309 --> 00:42:37,599
collectors we talk to there's a

1135
00:42:42,230 --> 00:42:40,319
fascination and intense interest

1136
00:42:44,390 --> 00:42:42,240
what fascinates you about

1137
00:42:46,550 --> 00:42:44,400
dinosaur skulls just a little kid that

1138
00:42:48,790 --> 00:42:46,560

never grew up i was writing to dinosaurs

1139

00:42:50,069 --> 00:42:48,800

and i was little then i discovered women

1140

00:42:51,990 --> 00:42:50,079

and thought there's no future in that

1141

00:42:53,510 --> 00:42:52,000

and i've gone back to my first love now

1142

00:42:56,150 --> 00:42:53,520

do you remember what the first time you

1143

00:42:57,589 --> 00:42:56,160

saw a dinosaur on the television or or

1144

00:42:59,349 --> 00:42:57,599

in print do you remember what it was we

1145

00:43:00,710 --> 00:42:59,359

went hey that's cool

1146

00:43:02,470 --> 00:43:00,720

lipton tea

1147

00:43:04,950 --> 00:43:02,480

had collector's cards

1148

00:43:06,790 --> 00:43:04,960

and there was a silver triceratops

1149

00:43:08,390 --> 00:43:06,800

and i thought how long's this been going

1150

00:43:09,990 --> 00:43:08,400

on i've got to know more about a silver

1151
00:43:11,750 --> 00:43:10,000
tricera i could even say that i call the

1152
00:43:13,670 --> 00:43:11,760
tricera pots

1153
00:43:15,190 --> 00:43:13,680
and uh i just got hooked and then i

1154
00:43:16,390 --> 00:43:15,200
discovered t-rex so that was it good

1155
00:43:19,349 --> 00:43:16,400
night nice

1156
00:43:21,109 --> 00:43:19,359
now we've got a t-rex skull here on our

1157
00:43:22,950 --> 00:43:21,119
right is that correct that's right yep

1158
00:43:24,630 --> 00:43:22,960
now what would be the age of that and

1159
00:43:26,230 --> 00:43:24,640
where about would that have come from

1160
00:43:29,030 --> 00:43:26,240
that's uh the one that barnum brown

1161
00:43:30,309 --> 00:43:29,040
found in 1907 that's north america in

1162
00:43:32,470 --> 00:43:30,319
montana

1163
00:43:35,349 --> 00:43:32,480

and um it's not a big one that there's

1164

00:43:37,109 --> 00:43:35,359

two types there's grace isle and um

1165

00:43:39,109 --> 00:43:37,119

robust that's a gray soil version so

1166

00:43:41,349 --> 00:43:39,119

that is possibly a male the males were

1167

00:43:42,550 --> 00:43:41,359

smaller than the females

1168

00:43:44,309 --> 00:43:42,560

so that's from the american museum in

1169

00:43:45,030 --> 00:43:44,319

natural history that one

1170

00:43:47,990 --> 00:43:45,040

and

1171

00:43:49,349 --> 00:43:48,000

it it's um look what's its size i mean

1172

00:43:51,670 --> 00:43:49,359

describe oh look this is what it sounds

1173

00:43:53,589 --> 00:43:51,680

like when you tap it

1174

00:43:54,790 --> 00:43:53,599

so it's a fairly sizable solid thing

1175

00:43:56,630 --> 00:43:54,800

what is this what's the size and

1176
00:43:58,950 --> 00:43:56,640
dimensions of that the skull is about

1177
00:44:01,349 --> 00:43:58,960
five foot long the animal

1178
00:44:03,270 --> 00:44:01,359
i should talk in metric the animal was

1179
00:44:04,390 --> 00:44:03,280
14 meters long

1180
00:44:05,510 --> 00:44:04,400
was

1181
00:44:07,510 --> 00:44:05,520
up to

1182
00:44:09,190 --> 00:44:07,520
seven to eight ton

1183
00:44:12,069 --> 00:44:09,200
there is most recent one i never noticed

1184
00:44:14,710 --> 00:44:12,079
about is called sill um it was 30 bigger

1185
00:44:16,710 --> 00:44:14,720
than this one wow so it's a and it just

1186
00:44:19,589 --> 00:44:16,720
dominates the room you've got here there

1187
00:44:20,950 --> 00:44:19,599
are so many things and in the case just

1188
00:44:22,870 --> 00:44:20,960

to make it just a little bit extra

1189

00:44:24,870 --> 00:44:22,880

creepy in case the dinosaur

1190

00:44:28,069 --> 00:44:24,880

jaws weren't scary enough for you we've

1191

00:44:29,589 --> 00:44:28,079

got a selection of hominid skulls now so

1192

00:44:31,190 --> 00:44:29,599

yeah so they're not the actual skull

1193

00:44:32,550 --> 00:44:31,200

that was around at the time they've been

1194

00:44:34,309 --> 00:44:32,560

uh oh you want material is it just a

1195

00:44:35,829 --> 00:44:34,319

resin what do they use for them most of

1196

00:44:37,510 --> 00:44:35,839

the threads and some it's plaster i've

1197

00:44:39,349 --> 00:44:37,520

copied some in plaster in fact i've done

1198

00:44:41,430 --> 00:44:39,359

some in reason too but the majority of

1199

00:44:43,510 --> 00:44:41,440

the stuff in this resin

1200

00:44:45,190 --> 00:44:43,520

it's a harder wearing plaster you know

1201
00:44:47,349 --> 00:44:45,200
you drop it at smashers with the resin

1202
00:44:48,470 --> 00:44:47,359
that doesn't it's easier to handle it's

1203
00:44:50,550 --> 00:44:48,480
lighter too

1204
00:44:52,230 --> 00:44:50,560
it looks it's an interesting obsession

1205
00:44:54,150 --> 00:44:52,240
and i'm just wondering

1206
00:44:56,069 --> 00:44:54,160
to me looking at them from an outside

1207
00:44:58,230 --> 00:44:56,079
not a collector great collection of

1208
00:45:00,150 --> 00:44:58,240
skulls but i'm just wondering which

1209
00:45:02,309 --> 00:45:00,160
would be your favorite and why like i

1210
00:45:04,550 --> 00:45:02,319
like the one on the bottom right there

1211
00:45:07,109 --> 00:45:04,560
because it's got that spooky

1212
00:45:08,550 --> 00:45:07,119
cavity look in the orbit of the eyes but

1213
00:45:10,390 --> 00:45:08,560

uh what's your favorite from this

1214

00:45:12,470 --> 00:45:10,400

selection here and why because to the

1215

00:45:14,630 --> 00:45:12,480

outside they look fairly similar so yeah

1216

00:45:16,470 --> 00:45:14,640

what makes one stand out for you i'd say

1217

00:45:19,030 --> 00:45:16,480

uh this collection here possibly the

1218

00:45:21,829 --> 00:45:19,040

black skull the second on the left there

1219

00:45:24,550 --> 00:45:21,839

it looks very primitive but it's got the

1220

00:45:28,069 --> 00:45:24,560

the classic low forehead that's it's not

1221

00:45:29,670 --> 00:45:28,079

far removed from mate very old that's um

1222

00:45:31,910 --> 00:45:29,680

australopithecus

1223

00:45:33,750 --> 00:45:31,920

the one next to the little tom child

1224

00:45:34,870 --> 00:45:33,760

part of the skull is eroded away and you

1225

00:45:36,950 --> 00:45:34,880

can see the

1226

00:45:39,270 --> 00:45:36,960

shape of the brain where

1227

00:45:41,030 --> 00:45:39,280

clay has filled the brain case and

1228

00:45:42,790 --> 00:45:41,040

hardened and then the bone is rotted

1229

00:45:44,550 --> 00:45:42,800

away and it's left the impression of the

1230

00:45:46,150 --> 00:45:44,560

brain i like that one

1231

00:45:48,150 --> 00:45:46,160

and the thing to remember for you to

1232

00:45:50,790 --> 00:45:48,160

make a cast of all these that's means

1233

00:45:52,950 --> 00:45:50,800

that all these creatures have had to die

1234

00:45:54,550 --> 00:45:52,960

in the correct circumstances to cause a

1235

00:45:55,990 --> 00:45:54,560

fossil which would be

1236

00:45:58,309 --> 00:45:56,000

it's pretty rare it's pretty rare for an

1237

00:46:01,109 --> 00:45:58,319

animal to fossil fossilize conditions

1238

00:46:02,790 --> 00:46:01,119

got to be right it's got to be um

1239

00:46:05,190 --> 00:46:02,800

preferably not scavenged by other

1240

00:46:06,790 --> 00:46:05,200

animals and then covered fairly quickly

1241

00:46:08,390 --> 00:46:06,800

with the flood water

1242

00:46:09,510 --> 00:46:08,400

normally or sand

1243

00:46:10,550 --> 00:46:09,520

and then the conditions have got to be

1244

00:46:12,950 --> 00:46:10,560

right for

1245

00:46:14,790 --> 00:46:12,960

minerals to seep into the bones the

1246

00:46:17,270 --> 00:46:14,800

actual bone is still there but the

1247

00:46:19,670 --> 00:46:17,280

little gaps in between the bone

1248

00:46:22,230 --> 00:46:19,680

are filled with um minerals flooded in

1249

00:46:23,829 --> 00:46:22,240

by by flood water so you got that's why

1250

00:46:25,430 --> 00:46:23,839

they're so heavy you've got the minerals

1251

00:46:27,589 --> 00:46:25,440

filling the little gaps in the bone but

1252

00:46:30,309 --> 00:46:27,599

the actual bone's still there

1253

00:46:32,550 --> 00:46:30,319

and i thought the t-rex the theme uh i

1254

00:46:34,069 --> 00:46:32,560

thought the male t-rex skull was a big

1255

00:46:35,030 --> 00:46:34,079

thing but then we go into your dining

1256

00:46:38,790 --> 00:46:35,040

room and

1257

00:46:40,309 --> 00:46:38,800

get under the house um what is this here

1258

00:46:42,950 --> 00:46:40,319

look you thought the noise the other one

1259

00:46:45,109 --> 00:46:42,960

made was big listen to this

1260

00:46:46,630 --> 00:46:45,119

that's a biggie what what am i staring

1261

00:46:48,150 --> 00:46:46,640

into the barrel of there's even a tongue

1262

00:46:50,870 --> 00:46:48,160

in this one

1263

00:46:52,390 --> 00:46:50,880

this is a reconstruction of t-rex the

1264

00:46:53,589 --> 00:46:52,400

head of a t-rex that's how it would have

1265

00:46:55,349 --> 00:46:53,599

looked in life

1266

00:46:56,790 --> 00:46:55,359

has anyone successfully worked out what

1267

00:46:58,390 --> 00:46:56,800

they might have sounded like by

1268

00:46:59,349 --> 00:46:58,400

recreating their their bone throat

1269

00:47:01,670 --> 00:46:59,359

structure

1270

00:47:03,589 --> 00:47:01,680

not really um every move you see with a

1271

00:47:04,630 --> 00:47:03,599

dinosaur with a t-rex in it they're

1272

00:47:06,069 --> 00:47:04,640

roaring and i don't think they would

1273

00:47:07,750 --> 00:47:06,079

have roared like that because to scare

1274

00:47:09,349 --> 00:47:07,760

the prey away when you're all loans

1275

00:47:10,470 --> 00:47:09,359

don't get around roaring when they're

1276

00:47:11,270 --> 00:47:10,480

hunting

1277

00:47:13,910 --> 00:47:11,280

so

1278

00:47:15,430 --> 00:47:13,920

um they would have wrought i guess but i

1279

00:47:18,150 --> 00:47:15,440

can't certain nobody knows what they

1280

00:47:21,030 --> 00:47:18,160

sounded like yeah and this is just

1281

00:47:23,349 --> 00:47:21,040

amazing uh how long have you been a

1282

00:47:24,950 --> 00:47:23,359

clicker you mentioned as a kid but this

1283

00:47:27,510 --> 00:47:24,960

this is something that takes a lot of

1284

00:47:29,990 --> 00:47:27,520

time this is something that takes um

1285

00:47:31,270 --> 00:47:30,000

almost a obsessive compulsor

1286

00:47:34,390 --> 00:47:31,280

sort of thing to be able to do because

1287

00:47:35,910 --> 00:47:34,400

you is it when you're making the resin

1288

00:47:37,829 --> 00:47:35,920

skulls there in your studio do you just

1289

00:47:40,230 --> 00:47:37,839

get in the zone and notice that oh six

1290

00:47:41,510 --> 00:47:40,240

hours have gone very much so i've been

1291

00:47:44,230 --> 00:47:41,520

playing around with it for about 20

1292

00:47:45,910 --> 00:47:44,240

years but you get obsessed with it the i

1293

00:47:47,030 --> 00:47:45,920

read some of the other days somebody

1294

00:47:48,470 --> 00:47:47,040

pointed out that if you have a

1295

00:47:50,790 --> 00:47:48,480

collection and parts of the collection

1296

00:47:52,790 --> 00:47:50,800

are in the bedroom you're obsessive what

1297

00:47:54,550 --> 00:47:52,800

parts would you put in the bedroom is it

1298

00:47:56,550 --> 00:47:54,560

bits that you've got to get to or

1299

00:47:58,230 --> 00:47:56,560

they're your favorite bits i mean is is

1300

00:47:59,270 --> 00:47:58,240

that how it works if the bits are in the

1301
00:48:00,470 --> 00:47:59,280
bedroom does that mean it's something

1302
00:48:02,550 --> 00:48:00,480
you've got to work on or is that one

1303
00:48:03,910 --> 00:48:02,560
that you can't let out your site that's

1304
00:48:05,510 --> 00:48:03,920
just convenience where you store them

1305
00:48:07,030 --> 00:48:05,520
i've got stuff stored in every room it's

1306
00:48:08,790 --> 00:48:07,040
just where there's a hole you can put

1307
00:48:10,950 --> 00:48:08,800
something in

1308
00:48:13,349 --> 00:48:10,960
and what is the process like to work on

1309
00:48:15,910 --> 00:48:13,359
them with the resin um it's

1310
00:48:17,589 --> 00:48:15,920
it's part sculptor part

1311
00:48:19,589 --> 00:48:17,599
archaeologist part

1312
00:48:21,589 --> 00:48:19,599
paleontologist it's you know part

1313
00:48:23,750 --> 00:48:21,599

psychiatrist

1314

00:48:25,030 --> 00:48:23,760

you will call it uh paleo tech uh paleo

1315

00:48:26,470 --> 00:48:25,040

technology uh

1316

00:48:28,390 --> 00:48:26,480

i'd be i wouldn't be classed as a

1317

00:48:29,510 --> 00:48:28,400

paleontologist so the class is a paleo

1318

00:48:31,190 --> 00:48:29,520

technician

1319

00:48:33,829 --> 00:48:31,200

where you're reconstructing missing bits

1320

00:48:35,990 --> 00:48:33,839

filling in bits that are missing and uh

1321

00:48:37,670 --> 00:48:36,000

a little bit of sculpturing you did more

1322

00:48:39,829 --> 00:48:37,680

sculpturing with the plaster than you do

1323

00:48:41,829 --> 00:48:39,839

with the the resin you can't sculpt the

1324

00:48:43,670 --> 00:48:41,839

version all that much so resin is mainly

1325

00:48:45,829 --> 00:48:43,680

used for a straight copy once you've got

1326

00:48:48,150 --> 00:48:45,839

a mold but with plaster you do i do a

1327

00:48:49,510 --> 00:48:48,160

bit of sculpt to work well hang on a

1328

00:48:53,109 --> 00:48:49,520

minute what we got over here this is

1329

00:48:56,470 --> 00:48:53,119

like it looks like the bottom half of a

1330

00:48:57,910 --> 00:48:56,480

giant denuded kangaroo complete with the

1331

00:49:00,230 --> 00:48:57,920

hip joints

1332

00:49:01,510 --> 00:49:00,240

this is the the hanger i better tap it

1333

00:49:04,549 --> 00:49:01,520

for the audience so can can't tap it it

1334

00:49:08,230 --> 00:49:06,230

so again fairly solid what have we got

1335

00:49:10,630 --> 00:49:08,240

here this is the hips and the legs uh

1336

00:49:12,950 --> 00:49:10,640

the basic skeleton of a

1337

00:49:15,589 --> 00:49:12,960

albertosaurus or gorgosaurus it was

1338

00:49:17,430 --> 00:49:15,599

ancestor to trx if you imagine t-rex was

1339

00:49:19,430 --> 00:49:17,440

a line this was the leopard

1340

00:49:23,030 --> 00:49:19,440

and this is just the base of the

1341

00:49:28,069 --> 00:49:25,589

is in this room okay now we i'm walking

1342

00:49:29,589 --> 00:49:28,079

through the frame that's how big it is

1343

00:49:33,510 --> 00:49:29,599

and here we have

1344

00:49:35,910 --> 00:49:33,520

a room jam packed with again more

1345

00:49:38,150 --> 00:49:35,920

dinosaur skulls including

1346

00:49:41,190 --> 00:49:38,160

well smaller than the other one

1347

00:49:43,430 --> 00:49:41,200

but that dinosaur is half laughing half

1348

00:49:45,190 --> 00:49:43,440

mocking me mike what's the story

1349

00:49:47,510 --> 00:49:45,200

that's a brachiosaurus and they do knock

1350

00:49:49,109 --> 00:49:47,520

they do uh mock you

1351
00:49:50,470 --> 00:49:49,119
um because there's nothing in the head

1352
00:49:53,910 --> 00:49:50,480
as you can see that's a skull of a

1353
00:49:56,069 --> 00:49:53,920
brachiosaurus up cast that in plaster

1354
00:49:59,270 --> 00:49:56,079
that's the skull of the gorgo sauce

1355
00:50:01,990 --> 00:49:59,280
that's in the hallway and those

1356
00:50:04,230 --> 00:50:02,000
um vertebrae sections there are the the

1357
00:50:06,870 --> 00:50:04,240
rest of it and there's leg bones and

1358
00:50:08,630 --> 00:50:06,880
stuff somewhere else arm bones wow

1359
00:50:11,190 --> 00:50:08,640
the whole skeleton's here wow those

1360
00:50:13,510 --> 00:50:11,200
boxes are full of specimens up there now

1361
00:50:14,549 --> 00:50:13,520
the room is very busy in the bone

1362
00:50:17,030 --> 00:50:14,559
department

1363
00:50:19,109 --> 00:50:17,040

now i was thinking with this earlier

1364

00:50:22,470 --> 00:50:19,119

this would be great to share with the

1365

00:50:24,470 --> 00:50:22,480

public in some way somewhere

1366

00:50:26,549 --> 00:50:24,480

is there any office from anywhere to to

1367

00:50:27,990 --> 00:50:26,559

put some of this on show even as in

1368

00:50:29,990 --> 00:50:28,000

temporary basis

1369

00:50:31,430 --> 00:50:30,000

i had a couple of uh

1370

00:50:33,430 --> 00:50:31,440

things planned and both of them fell

1371

00:50:34,870 --> 00:50:33,440

through so i'm in a situation where i'm

1372

00:50:37,190 --> 00:50:34,880

looking for someone to host this and

1373

00:50:38,630 --> 00:50:37,200

i'll share the gate with them um it is a

1374

00:50:39,750 --> 00:50:38,640

good collection and every kid on the

1375

00:50:41,589 --> 00:50:39,760

block is going to want to see it but

1376

00:50:44,870 --> 00:50:41,599

i've got to get some of where we can

1377

00:50:47,270 --> 00:50:44,880

exhibit it so if anyone's interested

1378

00:50:49,670 --> 00:50:47,280

contact me and we'll talk yeah look mike

1379

00:50:51,510 --> 00:50:49,680

dawson's got a whole stack of very

1380

00:50:53,589 --> 00:50:51,520

interesting dinosaur bones that are

1381

00:50:56,150 --> 00:50:53,599

large and will look great if you've got

1382

00:50:57,750 --> 00:50:56,160

a museum or an exhibition space that

1383

00:50:59,910 --> 00:50:57,760

would be good for them um

1384

00:51:01,829 --> 00:50:59,920

get in contact us with us here we'll put

1385

00:51:04,230 --> 00:51:01,839

you in contact with mike and maybe you

1386

00:51:06,230 --> 00:51:04,240

can cut a deal because like i mean

1387

00:51:08,790 --> 00:51:06,240

it's filling his house

1388

00:51:10,630 --> 00:51:08,800

and it looks great i mean thing is

1389

00:51:12,390 --> 00:51:10,640

when you do get kids over here do they

1390

00:51:13,990 --> 00:51:12,400

the kids have a habit of pulling things

1391

00:51:15,750 --> 00:51:14,000

off and breaking them you ever had a bit

1392

00:51:17,190 --> 00:51:15,760

of a tooth pulled off by an aggressive

1393

00:51:18,630 --> 00:51:17,200

kid

1394

00:51:20,150 --> 00:51:18,640

they have the habit of sticking their

1395

00:51:21,829 --> 00:51:20,160

head in there and feel those teeth

1396

00:51:23,750 --> 00:51:21,839

they're going to hurt themselves that's

1397

00:51:25,510 --> 00:51:23,760

what worries me yeah even though the jaw

1398

00:51:26,950 --> 00:51:25,520

doesn't move the kid could put his head

1399

00:51:28,309 --> 00:51:26,960

in there and do it so yeah so you have

1400

00:51:29,910 --> 00:51:28,319

to put a bit of a barrier around this

1401

00:51:31,589 --> 00:51:29,920

one there but it's funny yeah even

1402

00:51:33,750 --> 00:51:31,599

though they're not dead they can still

1403

00:51:35,510 --> 00:51:33,760

hurt you

1404

00:51:37,829 --> 00:51:35,520

even though they're long dead they can

1405

00:51:38,870 --> 00:51:37,839

still do some damage very much so

1406

00:51:40,390 --> 00:51:38,880

imagine what they would have been like

1407

00:51:41,510 --> 00:51:40,400

when they were hunting you

1408

00:51:43,030 --> 00:51:41,520

yeah well

1409

00:51:44,470 --> 00:51:43,040

no it wouldn't have been fun

1410

00:51:46,470 --> 00:51:44,480

this thing would have chased you down at

1411

00:51:48,470 --> 00:51:46,480

40 k's an hour you would not run away

1412

00:51:49,670 --> 00:51:48,480

from it but it's good things that humans

1413

00:51:50,390 --> 00:51:49,680

didn't share the planet with them at the

1414

00:51:51,510 --> 00:51:50,400
time

1415

00:51:53,430 --> 00:51:51,520
i don't know

1416

00:51:54,630 --> 00:51:53,440
i would like to be back there yeah look

1417

00:51:56,470 --> 00:51:54,640
i mean a lot of people would like to

1418

00:51:57,670 --> 00:51:56,480
know what they like but

1419

00:51:58,870 --> 00:51:57,680
now

1420

00:52:00,390 --> 00:51:58,880
do you think you could have got away

1421

00:52:02,150 --> 00:52:00,400
from them by hiding or doing something

1422

00:52:03,510 --> 00:52:02,160
tricky that a big brain could do or you

1423

00:52:05,349 --> 00:52:03,520
reckon once that they'd found you there

1424

00:52:07,109 --> 00:52:05,359
was no way out

1425

00:52:08,950 --> 00:52:07,119
look i saw jurassic park they can open

1426

00:52:10,230 --> 00:52:08,960

doors

1427

00:52:11,270 --> 00:52:10,240

yeah well

1428

00:52:12,950 --> 00:52:11,280

don't believe everything you're seeing

1429

00:52:14,309 --> 00:52:12,960

jurassic park they also said in jurassic

1430

00:52:16,230 --> 00:52:14,319

park if you stood still they couldn't

1431

00:52:18,470 --> 00:52:16,240

see you these things had the eyes of an

1432

00:52:20,950 --> 00:52:18,480

eagle they had excellent vision

1433

00:52:22,790 --> 00:52:20,960

they their nose the turbinals in the

1434

00:52:25,190 --> 00:52:22,800

nose curl though wrapped around so they

1435

00:52:27,190 --> 00:52:25,200

had extra surface area in the nasal

1436

00:52:29,990 --> 00:52:27,200

cavity so they'd smell you out they they

1437

00:52:32,870 --> 00:52:30,000

led their life by their nose uh their

1438

00:52:33,990 --> 00:52:32,880

excellent sense of smell great vision

1439

00:52:35,750 --> 00:52:34,000

they um

1440

00:52:37,910 --> 00:52:35,760

they were very amazing animals these

1441

00:52:38,950 --> 00:52:37,920

t-rexes and uh no you wouldn't get away

1442

00:52:41,109 --> 00:52:38,960

from it

1443

00:52:42,950 --> 00:52:41,119

and after all it took a massive asteroid

1444

00:52:45,589 --> 00:52:42,960

strike to get rid of them didn't it very

1445

00:52:47,030 --> 00:52:45,599

much so yeah the kt event yeah they

1446

00:52:48,870 --> 00:52:47,040

figure that's what uh wiped everything

1447

00:52:50,950 --> 00:52:48,880

out all the big stuff

1448

00:52:52,390 --> 00:52:50,960

and but after the kt event we've got

1449

00:52:54,390 --> 00:52:52,400

something that's from our very own

1450

00:52:56,549 --> 00:52:54,400

continent here please describe what this

1451

00:52:58,069 --> 00:52:56,559

one is to me it looks like um well

1452

00:52:59,430 --> 00:52:58,079

what's what's the distant relative of

1453

00:53:00,950 --> 00:52:59,440

that we have now

1454

00:53:03,750 --> 00:53:00,960

well let's say i have to do the tapping

1455

00:53:05,750 --> 00:53:03,760

thing that's how we get things on

1456

00:53:07,910 --> 00:53:05,760

so it's a bit smaller but

1457

00:53:09,829 --> 00:53:07,920

that's um that's an

1458

00:53:12,549 --> 00:53:09,839

ancestor to the monitor lizards or

1459

00:53:15,270 --> 00:53:12,559

goannas that's called megalania prisca

1460

00:53:17,589 --> 00:53:15,280

lived in australia up till about 6 000

1461

00:53:19,510 --> 00:53:17,599

years ago very recent it was an ambush

1462

00:53:21,829 --> 00:53:19,520

hunter it's like a big um

1463

00:53:23,589 --> 00:53:21,839

komodo dragon it was an ambush killer

1464

00:53:25,750 --> 00:53:23,599

would just lay near a waterfall bought a

1465

00:53:27,589 --> 00:53:25,760

hole wait for a diproton or something to

1466

00:53:29,910 --> 00:53:27,599

come up to have a drink and just grab

1467

00:53:31,670 --> 00:53:29,920

them and lacerate the legs

1468

00:53:33,430 --> 00:53:31,680

and they wouldn't get focused at dietary

1469

00:53:34,790 --> 00:53:33,440

shock and loss of blood

1470

00:53:37,109 --> 00:53:34,800

and that's what our alligators get up to

1471

00:53:39,109 --> 00:53:37,119

these days too pretty much yeah yeah

1472

00:53:41,829 --> 00:53:39,119

it's like a like a komodo dragon would

1473

00:53:43,829 --> 00:53:41,839

have lived a similar life it was

1474

00:53:45,430 --> 00:53:43,839

up to seven meters long

1475

00:53:47,190 --> 00:53:45,440

wow and

1476
00:53:49,270 --> 00:53:47,200
you've said there's so much on your

1477
00:53:50,630 --> 00:53:49,280
to-do list what is the very next thing

1478
00:53:52,710 --> 00:53:50,640
is there something here that's yet to be

1479
00:53:55,030 --> 00:53:52,720
uh be processed i'm working on this

1480
00:53:56,150 --> 00:53:55,040
triceratops skull out here

1481
00:53:57,270 --> 00:53:56,160
we're just going out into the kitchen

1482
00:53:59,109 --> 00:53:57,280
that gives y'all now we're going through

1483
00:54:00,630 --> 00:53:59,119
the kitchen into the backyard folks to

1484
00:54:01,990 --> 00:54:00,640
have a look at

1485
00:54:03,750 --> 00:54:02,000
it looks like

1486
00:54:05,670 --> 00:54:03,760
something yeah look even i know that's a

1487
00:54:07,990 --> 00:54:05,680
triceratops which

1488
00:54:09,670 --> 00:54:08,000

if it's triceratops triceratops this is

1489

00:54:11,270 --> 00:54:09,680

my knife frilled triceratops it's got no

1490

00:54:13,670 --> 00:54:11,280

frill on it i'm gonna have to construct

1491

00:54:15,349 --> 00:54:13,680

a frill to put this on display but the

1492

00:54:16,790 --> 00:54:15,359

the skull is too good not to do anything

1493

00:54:19,030 --> 00:54:16,800

with so

1494

00:54:20,549 --> 00:54:19,040

um i'll build up a

1495

00:54:22,630 --> 00:54:20,559

frill for the skull

1496

00:54:24,950 --> 00:54:22,640

now is the triceratops a meat eater or

1497

00:54:26,870 --> 00:54:24,960

was it vegetarian no it was a vegetarian

1498

00:54:28,870 --> 00:54:26,880

it was a herbivore

1499

00:54:29,829 --> 00:54:28,880

a herbivore so it doesn't get the big

1500

00:54:31,349 --> 00:54:29,839

teeth like

1501

00:54:32,950 --> 00:54:31,359

so unfortunately it doesn't get big

1502

00:54:35,030 --> 00:54:32,960

scary teeth doesn't get the big skirt

1503

00:54:38,309 --> 00:54:35,040

teeth we've got the big scary horns

1504

00:54:39,990 --> 00:54:38,319

it's like a big rhinoceros

1505

00:54:41,510 --> 00:54:40,000

that's amazing well thanks for sharing

1506

00:54:42,870 --> 00:54:41,520

this collection with us and your

1507

00:54:45,109 --> 00:54:42,880

obsession too because i mean it's great

1508

00:54:46,470 --> 00:54:45,119

to see people that have a passion for

1509

00:54:48,549 --> 00:54:46,480

something that you've just never

1510

00:54:50,470 --> 00:54:48,559

encountered before and i hope like some

1511

00:54:51,990 --> 00:54:50,480

i hope someone does pick up

1512

00:54:54,069 --> 00:54:52,000

the chance to exhibit this somewhere

1513

00:54:55,190 --> 00:54:54,079

because it's great i mean and you

1514

00:54:57,030 --> 00:54:55,200

haven't got enough room in your house

1515

00:54:58,790 --> 00:54:57,040

for this stuff mike rapidly running out

1516

00:55:14,390 --> 00:54:58,800

of room even though

1517

00:55:19,430 --> 00:55:16,390

this is eugenie scott national center

1518

00:55:23,430 --> 00:55:19,440

for science education you can find us at

1519

00:55:27,430 --> 00:55:25,190

come see us if you want to know anything

1520

00:55:29,990 --> 00:55:27,440

about the creationism and evolution

1521

00:55:31,910 --> 00:55:30,000

conflict in the united states or

1522

00:55:33,829 --> 00:55:31,920

moors the pity internationally these

1523

00:55:37,030 --> 00:55:33,839

days we are clearing house for

1524

00:55:38,950 --> 00:55:37,040

information on this vexing but certainly

1525

00:55:51,349 --> 00:55:38,960

very interesting problem

1526

00:55:54,789 --> 00:55:53,190

well we don't see much of them anymore

1527

00:55:57,349 --> 00:55:54,799

but they're still about it's the old

1528

00:55:59,270 --> 00:55:57,359

power balance wristbands and all their

1529

00:56:00,950 --> 00:55:59,280

imitations and ilk

1530

00:56:03,670 --> 00:56:00,960

but a good friend of the skeptic zone

1531

00:56:05,990 --> 00:56:03,680

david bowick hi david hello

1532

00:56:07,430 --> 00:56:06,000

it has brought this to my attention uh

1533

00:56:09,990 --> 00:56:07,440

which i have right in front of me it's

1534

00:56:10,950 --> 00:56:10,000

called a mystic band

1535

00:56:13,270 --> 00:56:10,960

it looks

1536

00:56:15,990 --> 00:56:13,280

almost identical to a power balance band

1537

00:56:17,670 --> 00:56:16,000

except the hologram is a yin and yang

1538

00:56:20,069 --> 00:56:17,680

sign which is a very nice looking

1539

00:56:21,750 --> 00:56:20,079

hologram i must say and you've picked

1540

00:56:25,030 --> 00:56:21,760

this up and it says it right on the

1541

00:56:26,789 --> 00:56:25,040

packet there for only three dollars yes

1542

00:56:28,309 --> 00:56:26,799

that's that's that's

1543

00:56:29,430 --> 00:56:28,319

i'm staggered i'm staggered that

1544

00:56:30,950 --> 00:56:29,440

somebody would

1545

00:56:32,789 --> 00:56:30,960

bother importing them and selling them

1546

00:56:33,990 --> 00:56:32,799

so cheaply but it is from the reject

1547

00:56:35,589 --> 00:56:34,000

shop and you were just shopping there

1548

00:56:37,349 --> 00:56:35,599

and happened to spot it yes and i

1549

00:56:39,349 --> 00:56:37,359

thought you might be interested in it i

1550

00:56:41,030 --> 00:56:39,359

absolutely am but the interesting thing

1551
00:56:42,309 --> 00:56:41,040
about this packaging david i must say

1552
00:56:44,390 --> 00:56:42,319
apart from the fact that it's pretty

1553
00:56:47,750 --> 00:56:44,400
boring packaging

1554
00:56:49,990 --> 00:56:47,760
um it makes no claims absolutely no

1555
00:56:52,309 --> 00:56:50,000
preposterous claims nothing in fact it

1556
00:56:53,349 --> 00:56:52,319
says mystic band three dollars a reject

1557
00:56:55,349 --> 00:56:53,359
shop

1558
00:56:58,390 --> 00:56:55,359
imported by so-and-so and so-and-so made

1559
00:57:00,309 --> 00:56:58,400
in china that's it no no strength claim

1560
00:57:02,950 --> 00:57:00,319
no balance claim

1561
00:57:03,670 --> 00:57:02,960
an honest placebo band can you believe

1562
00:57:06,630 --> 00:57:03,680
it

1563
00:57:08,069 --> 00:57:06,640

yeah no i didn't so

1564

00:57:09,349 --> 00:57:08,079

i told you about it

1565

00:57:11,270 --> 00:57:09,359

and you've been

1566

00:57:12,870 --> 00:57:11,280

discussing with me just earlier that

1567

00:57:15,430 --> 00:57:12,880

you've noticed some people you know

1568

00:57:17,270 --> 00:57:15,440

wearing the so-called real thing and be

1569

00:57:18,870 --> 00:57:17,280

trying to persuade them maybe that's not

1570

00:57:20,870 --> 00:57:18,880

the best thing to have on

1571

00:57:21,670 --> 00:57:20,880

project managers at work who should know

1572

00:57:24,710 --> 00:57:21,680

better

1573

00:57:27,430 --> 00:57:24,720

point because a lot of people were

1574

00:57:28,950 --> 00:57:27,440

hoodwinked by it and you can't find them

1575

00:57:30,950 --> 00:57:28,960

around anymore because the government

1576
00:57:32,710 --> 00:57:30,960
took action

1577
00:57:34,950 --> 00:57:32,720
but i'm pleased to see that somewhere

1578
00:57:36,950 --> 00:57:34,960
like the reject shop is selling them at

1579
00:57:39,349 --> 00:57:36,960
such a

1580
00:57:42,230 --> 00:57:39,359
small price hopefully people will buy

1581
00:57:43,990 --> 00:57:42,240
this one without any claims of miracles

1582
00:57:45,910 --> 00:57:44,000
and undercut the people out there who

1583
00:57:48,470 --> 00:57:45,920
are selling them for 60 or 70 dollars a

1584
00:57:49,990 --> 00:57:48,480
pop but i'm glad that you're out there

1585
00:57:51,510 --> 00:57:50,000
we've got our eyes and ears out

1586
00:58:12,870 --> 00:57:51,520
everywhere on the skeptic zone so thank

1587
00:58:15,589 --> 00:58:14,710
thank you for listening to the skeptic

1588
00:58:17,750 --> 00:58:15,599

zone

1589

00:58:19,109 --> 00:58:17,760

well i'm still here sitting outside jim

1590

00:58:21,190 --> 00:58:19,119

wilshire's house in the beautiful

1591

00:58:23,430 --> 00:58:21,200

countryside of

1592

00:58:24,789 --> 00:58:23,440

southern new south wales just near the

1593

00:58:26,549 --> 00:58:24,799

murray river

1594

00:58:28,630 --> 00:58:26,559

cockatoos are still screeching in the

1595

00:58:31,349 --> 00:58:28,640

background the birds are singing

1596

00:58:33,670 --> 00:58:31,359

and there's some uh chickens oh

1597

00:58:36,710 --> 00:58:33,680

behind me in a chicken run

1598

00:58:39,030 --> 00:58:36,720

it's all very pleasant

1599

00:58:41,750 --> 00:58:39,040

and i note that inside the house jim has

1600

00:58:45,030 --> 00:58:41,760

started a nice fire so i might go in

1601

00:58:47,990 --> 00:58:45,040

sit back have a nice cup of coffee

1602

00:58:50,950 --> 00:58:48,000

until next time this is richard saunders

1603

00:58:53,190 --> 00:58:50,960

signing off from beautiful talmelmo

1604

00:58:59,270 --> 00:58:53,200

alongside the murray river

1605

00:59:02,470 --> 00:59:00,950

you've been listening to the skeptic

1606

00:59:07,270 --> 00:59:02,480

zone