

**The Skeptic Zone**  
**Show 307 - 7 Sept 2014**



**Richard Saunders and Maynard**

1  
00:00:07,220 --> 00:00:04,340  
sadi in 10 minutes time mr. investigator

2  
00:00:10,040 --> 00:00:07,230  
show at the entire gallery bed of nails

3  
00:00:12,620 --> 00:00:10,050  
for dividing bit of magic urbanspoon

4  
00:00:21,910 --> 00:00:12,630  
baby birds and mysteries the mystery

5  
00:00:38,000 --> 00:00:25,070  
welcome to the skeptic zone the podcast

6  
00:00:44,569 --> 00:00:40,500  
hello and welcome to the skeptics are in

7  
00:00:47,880 --> 00:00:44,579  
episode number 307 for the sixth of

8  
00:00:51,090 --> 00:00:47,890  
September it's Father's Day your goose

9  
00:00:53,009 --> 00:00:51,100  
that's Maynard and Joe alabaster he

10  
00:00:55,020 --> 00:00:53,019  
would be helping me remembering the

11  
00:00:57,299 --> 00:00:55,030  
month it is at the powerhouse museum

12  
00:00:59,729 --> 00:00:57,309  
where Maynard and I are in the middle of

13  
00:01:01,290 --> 00:00:59,739

a run of the mystery investigators we

14

00:01:02,850 --> 00:01:01,300

have I had never done the show before

15

00:01:04,380 --> 00:01:02,860

thursday night and i've done nine of

16

00:01:05,820 --> 00:01:04,390

them already and twice we've found

17

00:01:08,310 --> 00:01:05,830

people that have found the water twice

18

00:01:09,840 --> 00:01:08,320

dividing richard in a row that's true

19

00:01:11,070 --> 00:01:09,850

isn't that interesting because we did

20

00:01:13,260 --> 00:01:11,080

the water divining would you better now

21

00:01:15,389 --> 00:01:13,270

spoon bending some optical illusions but

22

00:01:17,310 --> 00:01:15,399

you and i have taken some time out here

23

00:01:19,109 --> 00:01:17,320

at the Museum we've run around we've

24

00:01:20,730 --> 00:01:19,119

looked at exhibitions and the other

25

00:01:22,919 --> 00:01:20,740

night we were here performing when they

26

00:01:24,810 --> 00:01:22,929

had their sex night that's right they

27

00:01:26,999 --> 00:01:24,820

were we were working blue here at the

28

00:01:28,950 --> 00:01:27,009

powerhouse museum it was an adult show

29

00:01:30,600 --> 00:01:28,960

talking about reproduction dr. Cole's

30

00:01:31,710 --> 00:01:30,610

talking about his favorite organ which

31

00:01:34,859 --> 00:01:31,720

you'll find out a bit later in the show

32

00:01:36,240 --> 00:01:34,869

it was pretty spooky it was very spooky

33

00:01:38,340 --> 00:01:36,250

and it was at a distance and quite

34

00:01:40,830 --> 00:01:38,350

closing up which means that this week we

35

00:01:42,839 --> 00:01:40,840

have too many nods spooky actions at a

36

00:01:45,630 --> 00:01:42,849

distance we kick off with the powerhouse

37

00:01:46,800 --> 00:01:45,640

spooky actions we have a break which is

38

00:01:48,240 --> 00:01:46,810

our good friends at the Royal

39

00:01:50,279 --> 00:01:48,250

Institution of Australia with their week

40

00:01:52,199 --> 00:01:50,289

in science following that it's it's

41

00:01:54,419 --> 00:01:52,209

Maynard spooky action at a distance part

42

00:01:56,729 --> 00:01:54,429

two where am I this time Richard may not

43

00:01:58,290 --> 00:01:56,739

at the pub oh that's right i had a good

44

00:02:00,449 --> 00:01:58,300

chat to everybody at skeptics at the pub

45

00:02:02,760 --> 00:02:00,459

now everybody remember it's the first

46

00:02:04,199 --> 00:02:02,770

thursday of every month in sydney put it

47

00:02:05,910 --> 00:02:04,209

in your calendar right now first

48

00:02:07,520 --> 00:02:05,920

thursday every month in sydney get along

49

00:02:09,719 --> 00:02:07,530

course we had some great chat about

50

00:02:11,490 --> 00:02:09,729

amphibians i spoke to someone who was

51  
00:02:13,229 --> 00:02:11,500  
tripping balls because they accidentally

52  
00:02:15,660 --> 00:02:13,239  
ate part of a frog you wouldn't want to

53  
00:02:17,610 --> 00:02:15,670  
miss it but you also chat to pub goers

54  
00:02:20,040 --> 00:02:17,620  
enjoy your you're there to you have a

55  
00:02:22,170 --> 00:02:20,050  
chat to Maynard about why we still need

56  
00:02:24,360 --> 00:02:22,180  
skeptics really yeah why this skeptic

57  
00:02:26,010 --> 00:02:24,370  
carrion still needed in the year 2014

58  
00:02:28,920 --> 00:02:26,020  
why we'll can't just have a good lie

59  
00:02:31,170 --> 00:02:28,930  
down on a bed of nails on a bed of nails

60  
00:02:32,790 --> 00:02:31,180  
with people watching that's what we've

61  
00:02:34,890 --> 00:02:32,800  
been doing well listen the three of us

62  
00:02:36,839 --> 00:02:34,900  
why we race out stairs go to the cafe

63  
00:02:38,190 --> 00:02:36,849

and have a nice I'll why don't know

64

00:02:41,339 --> 00:02:38,200

chocolate chip cookie does that sound

65

00:02:43,110 --> 00:02:41,349

all right yeah that's fine may not look

66

00:02:45,420 --> 00:02:43,120

I've lost all interest in this vitamin K

67

00:02:48,510 --> 00:02:45,430

I'm going to find something else well

68

00:03:04,310 --> 00:02:48,520

well we did that I hope you enjoy the

69

00:03:11,860 --> 00:03:09,510

here's my not spooky action at the

70

00:03:14,649 --> 00:03:11,870

distance

71

00:03:17,229 --> 00:03:14,659

I'm sitting with Tilly here in the

72

00:03:19,630 --> 00:03:17,239

exciting Hall of Kung Fu Lego i call it

73

00:03:22,750 --> 00:03:19,640

kung fu Lego because children can build

74

00:03:24,490 --> 00:03:22,760

houses here at the powerhouse out of

75

00:03:25,539 --> 00:03:24,500

Lego type substances and then come

76

00:03:27,280 --> 00:03:25,549

through it down and have a great time

77

00:03:29,440 --> 00:03:27,290

tell you what are you doing y'all are

78

00:03:31,479 --> 00:03:29,450

you doing it what am i doing I'm causing

79

00:03:33,910 --> 00:03:31,489

trouble wherever possible and guiding

80

00:03:36,130 --> 00:03:33,920

people to it as well and what your role

81

00:03:38,050 --> 00:03:36,140

here at the powerhouse I'm the education

82

00:03:40,990 --> 00:03:38,060

manager here at the Museum and I'm also

83

00:03:44,050 --> 00:03:41,000

deeply involved with the ultimos Science

84

00:03:45,309 --> 00:03:44,060

Festival which is happening right now ok

85

00:03:47,380 --> 00:03:45,319

whatever happened to the Chippendale

86

00:03:50,050 --> 00:03:47,390

Science Festival it used to be really

87

00:03:51,759 --> 00:03:50,060

really quite highly regarded but just

88

00:03:52,930 --> 00:03:51,769

disappeared and the Newtown science

89

00:03:54,490 --> 00:03:52,940

festivals right out of the park you

90

00:03:56,140 --> 00:03:54,500

don't do about that at all no we had

91

00:03:58,420 --> 00:03:56,150

them both killed off actually like them

92

00:04:01,210 --> 00:03:58,430

yeah what's been the highlight so far we

93

00:04:03,039 --> 00:04:01,220

are only on Saturday goodness me I would

94

00:04:05,530 --> 00:04:03,049

I mean there's so many it's hard we had

95

00:04:07,990 --> 00:04:05,540

the science of sex on Friday night which

96

00:04:09,699 --> 00:04:08,000

you were at as well of course was it I

97

00:04:11,110 --> 00:04:09,709

thought it was a science of sexting in

98

00:04:12,970 --> 00:04:11,120

which case I thought correct spelling

99

00:04:14,559 --> 00:04:12,980

was the important thing but no dr. Carl

100

00:04:16,719 --> 00:04:14,569

was telling about his favorite organ

101

00:04:19,569 --> 00:04:16,729

which was the uterus the uterus is a

102

00:04:22,089 --> 00:04:19,579

fascinating creature if I may say within

103

00:04:24,190 --> 00:04:22,099

we've been a female it does the most

104

00:04:25,810 --> 00:04:24,200

amazing things it's so adaptable much

105

00:04:27,490 --> 00:04:25,820

like women themselves i'll have you know

106

00:04:30,969 --> 00:04:27,500

that looks like that that's that's good

107

00:04:32,560 --> 00:04:30,979

power power doesn't tell us what they

108

00:04:34,510 --> 00:04:32,570

think to the stuff you could get to get

109

00:04:35,710 --> 00:04:34,520

out on that night that wasn't you

110

00:04:38,560 --> 00:04:35,720

wouldn't normally get out because it was

111

00:04:39,879 --> 00:04:38,570

an adult show it was indeed a lot of the

112

00:04:42,279 --> 00:04:39,889

things happening in the ultimate Science

113

00:04:44,320 --> 00:04:42,289

Festival there we have quite a number of

114

00:04:46,750 --> 00:04:44,330

adults only events as well as family

115

00:04:48,580 --> 00:04:46,760

events so happening right now at the

116

00:04:51,189 --> 00:04:48,590

museum on saturday and sunday is the

117

00:04:53,110 --> 00:04:51,199

family science weekend and that's where

118

00:04:56,140 --> 00:04:53,120

we basically have taken over the whole

119

00:04:59,529 --> 00:04:56,150

museum with hands-on science exhibits

120

00:05:00,969 --> 00:04:59,539

shows like the mystery investigators the

121

00:05:03,820 --> 00:05:00,979

building is full of science

122

00:05:05,500 --> 00:05:03,830

communicators that's right how many

123

00:05:07,659 --> 00:05:05,510

science communicators does it take to

124

00:05:09,700 --> 00:05:07,669

run a science festival turns out all of

125

00:05:11,529 --> 00:05:09,710

them in sydney they're all here it's an

126

00:05:13,480 --> 00:05:11,539

excellent day and peeled and bringing

127

00:05:15,219 --> 00:05:13,490

their kids along and it looked people

128

00:05:16,839 --> 00:05:15,229

been pointing poking and making a lot of

129

00:05:18,969 --> 00:05:16,849

noise that's right dressing up

130

00:05:21,490 --> 00:05:18,979

photographing but what's been the

131

00:05:23,170 --> 00:05:21,500

surprise hit up the mystery

132

00:05:24,660 --> 00:05:23,180

investigators of course I mean not

133

00:05:26,400 --> 00:05:24,670

really a surprise though is a

134

00:05:27,720 --> 00:05:26,410

that the bed of nails since I haven't

135

00:05:30,300 --> 00:05:27,730

done this show before had Richard the

136

00:05:32,490 --> 00:05:30,310

bed of nails and I've done five or six

137

00:05:33,720 --> 00:05:32,500

shows with Richard and twice now someone

138

00:05:35,130 --> 00:05:33,730

has actually found the water in the

139

00:05:37,770 --> 00:05:35,140

water to boiling that should be one in

140

00:05:40,050 --> 00:05:37,780

six and it's been like two in six can I

141

00:05:41,940 --> 00:05:40,060

say I was brought up as a participant in

142

00:05:43,620 --> 00:05:41,950

the water divining and what was a

143

00:05:46,070 --> 00:05:43,630

surprise to me was as I was standing

144

00:05:49,770 --> 00:05:46,080

ready to walk across I was actually

145

00:05:51,570 --> 00:05:49,780

nervous my mind went into oh I hope I

146

00:05:54,150 --> 00:05:51,580

get this right am I gonna get it right I

147

00:05:55,830 --> 00:05:54,160

hope I find the water because at this

148

00:05:59,760 --> 00:05:55,840

stage listener you should google the

149

00:06:01,950 --> 00:05:59,770

ideomotor effect hmm so I found that

150

00:06:03,750 --> 00:06:01,960

quite interesting of my own reaction I

151  
00:06:05,520 --> 00:06:03,760  
didn't expect well how much more we got

152  
00:06:06,570 --> 00:06:05,530  
the festival on here people too late to

153  
00:06:08,040 --> 00:06:06,580  
catch up on other they going to be

154  
00:06:10,080 --> 00:06:08,050  
crying in there because they'd missed

155  
00:06:12,690 --> 00:06:10,090  
this great science festival absolutely

156  
00:06:14,640 --> 00:06:12,700  
not it doesn't end until friday the 12th

157  
00:06:16,740 --> 00:06:14,650  
this friday and there are things on

158  
00:06:18,420 --> 00:06:16,750  
every single day during the day and the

159  
00:06:21,060 --> 00:06:18,430  
night you can come in and have a curated

160  
00:06:23,550 --> 00:06:21,070  
tour here at the powerhouse museum of

161  
00:06:24,840 --> 00:06:23,560  
our new exhibition interface that's

162  
00:06:27,150 --> 00:06:24,850  
happening on monday tuesday wednesday

163  
00:06:29,310 --> 00:06:27,160

and what's going on the interfaces are

164

00:06:31,080 --> 00:06:29,320

the changing face of computer fields

165

00:06:33,150 --> 00:06:31,090

what is it yeah it's looking at that

166

00:06:35,220 --> 00:06:33,160

interface between humans and our

167

00:06:37,860 --> 00:06:35,230

machines and looking at some of the

168

00:06:40,020 --> 00:06:37,870

iconic brands and the innovations that

169

00:06:41,790 --> 00:06:40,030

have happened over the last couple of

170

00:06:43,950 --> 00:06:41,800

hundred years i think i saw an apple

171

00:06:47,400 --> 00:06:43,960

newton in that showcase is that right

172

00:06:48,750 --> 00:06:47,410

yes i had two of them he did you can

173

00:06:51,240 --> 00:06:48,760

come and take a trip down memory lane

174

00:06:52,620 --> 00:06:51,250

that's great and no more time you open

175

00:06:55,500 --> 00:06:52,630

and when can people get here and how can

176

00:06:58,920 --> 00:06:55,510

they check it out online it is from ten

177

00:07:00,750 --> 00:06:58,930

a.m. until 5pm the curator tour itself i

178

00:07:02,400 --> 00:07:00,760

believe is that noon and people can

179

00:07:04,380 --> 00:07:02,410

check out everything that's happening at

180

00:07:06,750 --> 00:07:04,390

the festival at ultimo science festival

181

00:07:09,120 --> 00:07:06,760

com it's one place you won't get in too

182

00:07:11,130 --> 00:07:09,130

much trouble for asking questions that's

183

00:07:14,970 --> 00:07:11,140

right there are no dumb questions only

184

00:07:16,880 --> 00:07:14,980

strange people filled with it this place

185

00:07:23,800 --> 00:07:16,890

is buildable

186

00:07:28,370 --> 00:07:25,910

we're here at the powerhouse museum

187

00:07:30,110 --> 00:07:28,380

demonstrating some science for their sex

188

00:07:32,630 --> 00:07:30,120

and science night what are you here for

189

00:07:34,700 --> 00:07:32,640

you perv ah to learn about sex but

190

00:07:35,900 --> 00:07:34,710

what's your favorite organ I mean dr.

191

00:07:39,170 --> 00:07:35,910

cars can be talking about the uterus

192

00:07:40,790 --> 00:07:39,180

what have you got going oh I think the

193

00:07:42,110 --> 00:07:40,800

uterus is actually quite a good one is

194

00:07:43,400 --> 00:07:42,120

where we all come from yeah it's pretty

195

00:07:45,680 --> 00:07:43,410

hard to beat what's your name sir

196

00:07:47,090 --> 00:07:45,690

Lachlan and you're going to tell us a

197

00:07:49,130 --> 00:07:47,100

story that could be a bit spooky or it

198

00:07:52,700 --> 00:07:49,140

could just be an example of big data in

199

00:07:54,950 --> 00:07:52,710

effect mmm acabei yes listening to one

200

00:07:57,890 --> 00:07:54,960

of your interviews quite some time ago

201  
00:08:01,340 --> 00:07:57,900  
waiting at the station and who got off

202  
00:08:03,680 --> 00:08:01,350  
the train it was you was it definitely

203  
00:08:06,050 --> 00:08:03,690  
me it was definitely you yes absolutely

204  
00:08:07,580 --> 00:08:06,060  
undeniable then I was affecting that

205  
00:08:09,740 --> 00:08:07,590  
Maynard I don't know really what I'm

206  
00:08:12,320 --> 00:08:09,750  
doing on public transport look unless it

207  
00:08:13,850 --> 00:08:12,330  
was your evil twin oh well look he gets

208  
00:08:15,620 --> 00:08:13,860  
around and frankly he's got a better job

209  
00:08:17,030 --> 00:08:15,630  
than I've ever had are you got quite a

210  
00:08:19,010 --> 00:08:17,040  
distinctive face and I mean that in a

211  
00:08:20,480 --> 00:08:19,020  
good way ok I love you knit in the good

212  
00:08:22,160 --> 00:08:20,490  
way there well that's great that's

213  
00:08:23,990 --> 00:08:22,170

amazing now that is the what they call

214

00:08:26,180 --> 00:08:24,000

it the law of large numbers i believe is

215

00:08:29,180 --> 00:08:26,190

what they say is coincidence yes every

216

00:08:31,160 --> 00:08:29,190

day I catch a train so inevitable that

217

00:08:33,350 --> 00:08:31,170

you would at least be on that train at

218

00:08:34,850 --> 00:08:33,360

least once although i really go to win

219

00:08:36,650 --> 00:08:34,860

you'd station you'd normally find me

220

00:08:38,390 --> 00:08:36,660

catching off hopping off somewhere at

221

00:08:41,120 --> 00:08:38,400

central or maybe in the hunter but

222

00:08:43,730 --> 00:08:41,130

really we need so that is statistically

223

00:08:45,770 --> 00:08:43,740

unlikely but not impossible hmm it's

224

00:08:47,150 --> 00:08:45,780

plausible mmm and you are only one of

225

00:08:49,790 --> 00:08:47,160

the three listeners to the show too so

226

00:08:52,010 --> 00:08:49,800

that that's a fairly low number I don't

227

00:08:53,930 --> 00:08:52,020

say that no I I know at least three

228

00:08:55,520 --> 00:08:53,940

people who do listen to it so let me

229

00:08:57,590 --> 00:08:55,530

just double dare you have fun and don't

230

00:08:59,450 --> 00:08:57,600

heckle dr. Karl I'll try not to because

231

00:09:01,580 --> 00:08:59,460

he's come back so I'll cut you all right

232

00:09:08,720 --> 00:09:01,590

yeah that's true that's true I'll avoid

233

00:09:13,200 --> 00:09:10,530

we're here at the powerhouse museum

234

00:09:15,450 --> 00:09:13,210

looking at the Russian space suit it

235

00:09:18,570 --> 00:09:15,460

looks agricultural and very utilitarian

236

00:09:20,460 --> 00:09:18,580

none of this fancy nancy pansy nasa

237

00:09:22,380 --> 00:09:20,470

stuff for those guys may not you know

238

00:09:24,660 --> 00:09:22,390

I'm looking at this this old Russian

239

00:09:27,150 --> 00:09:24,670

space suits real one and it's just

240

00:09:32,040 --> 00:09:27,160

struck me how can something space-aged

241

00:09:33,900 --> 00:09:32,050

look antiquated it's it's it's insane I

242

00:09:36,270 --> 00:09:33,910

mean it really does look like an

243

00:09:38,310 --> 00:09:36,280

old-fashioned space suit but that sounds

244

00:09:39,750 --> 00:09:38,320

like a contradiction yeah but it looked

245

00:09:41,880 --> 00:09:39,760

ittle bit looks looks pretty rugged but

246

00:09:43,710 --> 00:09:41,890

it looks rugged as they have to be you

247

00:09:46,620 --> 00:09:43,720

just always think of the space suit as

248

00:09:48,690 --> 00:09:46,630

being white and like you know clean and

249

00:09:49,890 --> 00:09:48,700

but it probably stinks up a storm once

250

00:09:52,740 --> 00:09:49,900

you've been in one for a couple of hours

251  
00:09:55,020 --> 00:09:52,750  
no doubt well this one it's discolored

252  
00:09:57,240 --> 00:09:55,030  
somewhat but yeah there is a real

253  
00:09:59,070 --> 00:09:57,250  
splashing of Russian it's a real

254  
00:10:00,360 --> 00:09:59,080  
splashing spaceship and it smelled proof

255  
00:10:01,770 --> 00:10:00,370  
glass because I reckon if you got close

256  
00:10:03,630 --> 00:10:01,780  
to that space suit it would smell a

257  
00:10:05,730 --> 00:10:03,640  
vodka and prawns and look at the

258  
00:10:09,000 --> 00:10:05,740  
comparison here we've got a jumpsuit as

259  
00:10:11,970 --> 00:10:09,010  
one by one of the astronauts on the

260  
00:10:14,070 --> 00:10:11,980  
space shuttle and very clean and attract

261  
00:10:16,920 --> 00:10:14,080  
tracksuit pants as worn on the space

262  
00:10:19,980 --> 00:10:16,930  
shuttle too so it's station casual wear

263  
00:10:21,870 --> 00:10:19,990

yeah I mean none of this onesie nonsense

264

00:10:23,730 --> 00:10:21,880

if you're going to be flying around in

265

00:10:26,010 --> 00:10:23,740

space at tens of thousands of kilometers

266

00:10:27,390 --> 00:10:26,020

an hour no no you have to look the part

267

00:10:30,300 --> 00:10:27,400

don't you that looks like something from

268

00:10:34,100 --> 00:10:30,310

space 1999 it also looks like something

269

00:10:36,090 --> 00:10:34,110

you might have worn to a rave in 1999

270

00:10:39,360 --> 00:10:36,100

we're in the part of the powerhouse

271

00:10:41,220 --> 00:10:39,370

museum where it's the idea is to show

272

00:10:42,780 --> 00:10:41,230

you how the disorientation of space can

273

00:10:44,190 --> 00:10:42,790

occur Richard how would you explain what

274

00:10:46,500 --> 00:10:44,200

we're looking at here I can't see any of

275

00:10:48,450 --> 00:10:46,510

the children vomiting yet just wait man

276

00:10:50,370 --> 00:10:48,460

out they will it's a tube you're walking

277

00:10:52,530 --> 00:10:50,380

into a tube and it's made out of like

278

00:10:54,750 --> 00:10:52,540

perspex and on the outside of the tube

279

00:10:56,040 --> 00:10:54,760

there's a rotating room so once you're

280

00:10:58,949 --> 00:10:56,050

in the tube you're looking

281

00:11:00,509 --> 00:10:58,959

the room rotating around you you lose

282

00:11:02,639 --> 00:11:00,519

all sense of what's up and what's down

283

00:11:05,280 --> 00:11:02,649

and you start to fall people start to

284

00:11:06,930 --> 00:11:05,290

lean and fall over let's show we entered

285

00:11:09,630 --> 00:11:06,940

them I think we should walk into it here

286

00:11:14,009 --> 00:11:09,640

they've got a bit of an auditory

287

00:11:17,430 --> 00:11:14,019

commentary going in the background looks

288

00:11:19,500 --> 00:11:17,440

like we're tilting it this way it does

289

00:11:22,319 --> 00:11:19,510

doesn't have it's rather upsetting it

290

00:11:23,910 --> 00:11:22,329

could lead to motion sickness I think I

291

00:11:25,590 --> 00:11:23,920

know where they got I think they got the

292

00:11:27,930 --> 00:11:25,600

ideas from is it I've been to some

293

00:11:29,400 --> 00:11:27,940

parties like this have you yeah I think

294

00:11:32,009 --> 00:11:29,410

they got the idea from this from one of

295

00:11:33,420 --> 00:11:32,019

Frank Sinatra's sixties parties so we

296

00:11:35,280 --> 00:11:33,430

stare at the end of the wall keep

297

00:11:37,170 --> 00:11:35,290

staring and what's happening it's still

298

00:11:42,810 --> 00:11:37,180

and we're moving right mmm but we're not

299

00:11:45,079 --> 00:11:42,820

wit perfectly stationary this is really

300

00:11:48,000 --> 00:11:45,089

trippy I'm kind of enjoying this good

301  
00:12:06,870 --> 00:11:48,010  
can you get one of these for huh yeah

302  
00:12:08,819 --> 00:12:06,880  
it's called a washing machine that's the

303  
00:12:10,530 --> 00:12:08,829  
Apollo 11 moon landing that reminds me

304  
00:12:12,210 --> 00:12:10,540  
we must talk to our arrow engineer

305  
00:12:14,400 --> 00:12:12,220  
friend that we had on a few months back

306  
00:12:16,440 --> 00:12:14,410  
who helped design the the low fuel

307  
00:12:19,319 --> 00:12:16,450  
warning for the Apollo capsule among

308  
00:12:20,850 --> 00:12:19,329  
other things but going into space it's a

309  
00:12:22,920 --> 00:12:20,860  
fairly risky business and when you're

310  
00:12:24,900 --> 00:12:22,930  
there I believe that one of the advice

311  
00:12:26,400 --> 00:12:24,910  
that you as we say have said in previous

312  
00:12:28,410 --> 00:12:26,410  
episodes not a real astronaut until

313  
00:12:30,180 --> 00:12:28,420

you've used the space toilet if you're

314

00:12:31,829 --> 00:12:30,190

on the space station and of course I

315

00:12:33,360 --> 00:12:31,839

mentioned that they would not put brown

316

00:12:35,400 --> 00:12:33,370

eminem's and their em an impact because

317

00:12:37,560 --> 00:12:35,410

with what's going on in space you a

318

00:12:40,139 --> 00:12:37,570

weightless brown M&M may not be a brown

319

00:12:41,730 --> 00:12:40,149

M&M you'd want to be careful either I

320

00:12:43,380 --> 00:12:41,740

think they request the green ones my I

321

00:12:46,170 --> 00:12:43,390

would request we look at this here's a

322

00:12:48,360 --> 00:12:46,180

picture taken on the Apollo 11 mission

323

00:12:51,269 --> 00:12:48,370

it's Buzz Aldrin very it does look so

324

00:12:54,420 --> 00:12:51,279

much like a set gotta say it does but if

325

00:12:56,670 --> 00:12:54,430

you notice in his visor that is Neil

326

00:12:58,230 --> 00:12:56,680

Armstrong and I think if memory serves

327

00:12:59,850 --> 00:12:58,240

that's the only photograph of Neil

328

00:13:01,920 --> 00:12:59,860

Armstrong on the moon that one right

329

00:13:04,620 --> 00:13:01,930

there was he he got the camera he he he

330

00:13:06,150 --> 00:13:04,630

he got the hasselblad yeah great cameras

331

00:13:07,620 --> 00:13:06,160

absolutely and look at the quality of

332

00:13:09,000 --> 00:13:07,630

this photograph it's just it's just

333

00:13:10,830 --> 00:13:09,010

amazing it's

334

00:13:13,440 --> 00:13:10,840

amazing i do believe was to and quarter

335

00:13:15,030 --> 00:13:13,450

square negative and so part of the the

336

00:13:17,220 --> 00:13:15,040

moon landing hoax theories that the

337

00:13:19,230 --> 00:13:17,230

photos are so good and they are so well

338

00:13:20,610 --> 00:13:19,240

composed considering that Neil couldn't

339

00:13:21,600 --> 00:13:20,620

look through the viewfinder he had to

340

00:13:23,160 --> 00:13:21,610

shoot from the hip because it was

341

00:13:27,570 --> 00:13:23,170

attached to him he did a pretty good job

342

00:13:29,940 --> 00:13:27,580

but look no stars mmm whoa no stars and

343

00:13:31,530 --> 00:13:29,950

there are what is the reason that we get

344

00:13:33,540 --> 00:13:31,540

for that it's a reflection of the moon

345

00:13:35,490 --> 00:13:33,550

the sunlight on the moon and that black

346

00:13:36,840 --> 00:13:35,500

sea water reasoning from from memory

347

00:13:39,420 --> 00:13:36,850

partly because it's daylight it's

348

00:13:41,040 --> 00:13:39,430

daytime on the moon and the cameras

349

00:13:44,070 --> 00:13:41,050

weren't there to photograph stars they

350

00:13:46,260 --> 00:13:44,080

were calibrated for photographing the

351  
00:13:47,730 --> 00:13:46,270  
train and people yeah that's just a

352  
00:13:49,800 --> 00:13:47,740  
touch convenient but isn't it really

353  
00:13:58,850 --> 00:13:49,810  
really well next time I go to the moon

354  
00:14:03,000 --> 00:14:00,780  
don't you hate it when people make that

355  
00:14:08,100 --> 00:14:03,010  
noise next to you and the light's still

356  
00:14:16,290 --> 00:14:14,670  
oh look it's it's a rare chance for the

357  
00:14:18,540 --> 00:14:16,300  
powerhouse to work a bit blue tonight

358  
00:14:21,800 --> 00:14:18,550  
isn't it it is indeed we are a family

359  
00:14:24,630 --> 00:14:21,810  
museum and I think this is an adults

360  
00:14:26,190 --> 00:14:24,640  
adults evening so it gives us a chance

361  
00:14:28,980 --> 00:14:26,200  
to bring out some of the things that we

362  
00:14:30,120 --> 00:14:28,990  
wouldn't necessarily talk about or we

363  
00:14:32,340 --> 00:14:30,130

don't have to spend so much time

364

00:14:33,930 --> 00:14:32,350

explaining them and module name so

365

00:14:36,329 --> 00:14:33,940

Matthew Connell what's your position

366

00:14:38,610 --> 00:14:36,339

here I'm senior curator here at the

367

00:14:40,829 --> 00:14:38,620

Museum Wow so all this stuff would this

368

00:14:42,480 --> 00:14:40,839

be in the cupboard marked do not touch

369

00:14:44,910 --> 00:14:42,490

beware of the coyote normally would it

370

00:14:47,100 --> 00:14:44,920

well actually everything's in a cupboard

371

00:14:48,420 --> 00:14:47,110

mark do not do an itouch that's right

372

00:14:50,519 --> 00:14:48,430

and you've all got your gloves on well

373

00:14:52,380 --> 00:14:50,529

let's start with this here yeah well

374

00:14:54,360 --> 00:14:52,390

that's a pretty impressive display

375

00:14:56,670 --> 00:14:54,370

you've got here what's this one down

376

00:14:59,250 --> 00:14:56,680

here now this this clearly doesn't work

377

00:15:01,079 --> 00:14:59,260

this is a defective unit you've got here

378

00:15:02,759 --> 00:15:01,089

there's a small human that's going to

379

00:15:04,170 --> 00:15:02,769

come out from what looks like between

380

00:15:05,340 --> 00:15:04,180

two legs here and clearly this is not

381

00:15:07,829 --> 00:15:05,350

going to this is a broken one that

382

00:15:10,800 --> 00:15:07,839

someone returned this is a teaching it's

383

00:15:13,490 --> 00:15:10,810

a it's called a phantom and it's an

384

00:15:16,800 --> 00:15:13,500

obstetric phantom and it's it's to

385

00:15:18,930 --> 00:15:16,810

demonstrate how babies come from the

386

00:15:22,980 --> 00:15:18,940

uterus and out through the vaginal canal

387

00:15:27,329 --> 00:15:22,990

and I know it looks a bit rudimentary

388

00:15:30,360 --> 00:15:27,339

but but that's what it's for and on they

389

00:15:34,110 --> 00:15:30,370

still have similar things today although

390

00:15:35,910 --> 00:15:34,120

this one has a particular look to it it

391

00:15:38,910 --> 00:15:35,920

does it get shown to anyone before they

392

00:15:40,530 --> 00:15:38,920

decide to have a child at all because it

393

00:15:42,240 --> 00:15:40,540

could be an effective it could be an

394

00:15:44,579 --> 00:15:42,250

effective contraceptive device in some

395

00:15:47,220 --> 00:15:44,589

ways now it's you might want to show it

396

00:15:50,069 --> 00:15:47,230

to apps you know young teens that you

397

00:15:53,579 --> 00:15:50,079

think ought to consider the matter twice

398

00:15:57,540 --> 00:15:53,589

it doesn't make childbirth look inviting

399

00:15:58,889 --> 00:15:57,550

no but but it is instructional and I

400

00:16:00,720 --> 00:15:58,899

mean no offers the opportunity to I

401  
00:16:06,780 --> 00:16:00,730  
guess to demonstrate different types of

402  
00:16:08,639 --> 00:16:06,790  
births breech births and added alike so

403  
00:16:09,960 --> 00:16:08,649  
there what else have you got here that

404  
00:16:12,150 --> 00:16:09,970  
this pretty fascinating I've seen the

405  
00:16:13,319 --> 00:16:12,160  
whole look what's a Tom of Finland thing

406  
00:16:15,120 --> 00:16:13,329  
down the end thing we've got the

407  
00:16:17,130 --> 00:16:15,130  
Canadian Mountie for Tom of Finland with

408  
00:16:19,470 --> 00:16:17,140  
the rather impressive cardboard penis

409  
00:16:21,150 --> 00:16:19,480  
well I have to say I'm

410  
00:16:22,829 --> 00:16:21,160  
I don't know much about Tom of Finland

411  
00:16:26,519 --> 00:16:22,839  
I'd probably have to hand over to my

412  
00:16:28,860 --> 00:16:26,529  
colleague Glennis who who acquired Tom

413  
00:16:31,050 --> 00:16:28,870

of Finland and she can perhaps offer

414

00:16:33,300 --> 00:16:31,060

some explanation yeah I just like to ask

415

00:16:35,759 --> 00:16:33,310

Glenn is where did you get a life-sized

416

00:16:37,379 --> 00:16:35,769

Canadian Mountie with the stiffy or not

417

00:16:38,490 --> 00:16:37,389

stiffy because I believe you can put the

418

00:16:40,530 --> 00:16:38,500

stiff your way for the more

419

00:16:42,240 --> 00:16:40,540

child-friendly shows in the mountain can

420

00:16:45,689 --> 00:16:42,250

just have his undies on that's right

421

00:16:49,199 --> 00:16:45,699

it's by i'm brandon heath care who is a

422

00:16:52,650 --> 00:16:49,209

performance artist who used masking and

423

00:16:56,490 --> 00:16:52,660

character costumes too i guess provoke

424

00:16:58,560 --> 00:16:56,500

at some again lesbian mardi gras and gay

425

00:16:59,879 --> 00:16:58,570

events believe i spoke to him once when

426

00:17:01,680 --> 00:16:59,889

he was marching in the mardi gras with

427

00:17:03,060 --> 00:17:01,690

the with or gingham outfit yeah that's

428

00:17:05,250 --> 00:17:03,070

right we've got gingham in the

429

00:17:06,600 --> 00:17:05,260

collection as well and I guess these

430

00:17:09,120 --> 00:17:06,610

things can't come out very often because

431

00:17:11,909 --> 00:17:09,130

it's a family-friendly museum yeah we

432

00:17:15,630 --> 00:17:11,919

can adapt as we can adapt Tom to take

433

00:17:17,850 --> 00:17:15,640

his penis off so yeah he's available for

434

00:17:19,110 --> 00:17:17,860

different situations and what is that

435

00:17:22,020 --> 00:17:19,120

you've got next to it looks like a

436

00:17:24,090 --> 00:17:22,030

Madonna type outfit I thought why I only

437

00:17:27,600 --> 00:17:24,100

described at the moment what is that and

438

00:17:29,820 --> 00:17:27,610

that's of course it by Madame lash yes

439

00:17:34,860 --> 00:17:29,830

sydney fetish royalty yep that's right

440

00:17:36,450 --> 00:17:34,870

an artist and you can see in the 70s and

441

00:17:39,360 --> 00:17:36,460

80s she had a shop called game booths

442

00:17:41,310 --> 00:17:39,370

and she designed and made fetish outfits

443

00:17:44,310 --> 00:17:41,320

they're hand-painted with scenes from

444

00:17:48,720 --> 00:17:44,320

fetish comics so on the course it is

445

00:17:50,789 --> 00:17:48,730

sweet gwendoline who was a comic by a

446

00:17:54,990 --> 00:17:50,799

guy called John Willie and he did change

447

00:17:58,350 --> 00:17:55,000

his name to Willie okay and Gwendolyn

448

00:18:01,140 --> 00:17:58,360

Sablan she's always tied up and you 69's

449

00:18:03,120 --> 00:18:01,150

the maid who which her so that's the

450

00:18:04,710 --> 00:18:03,130

scene I can see what this stuff doesn't

451  
00:18:05,850 --> 00:18:04,720  
normally come out now tonight because

452  
00:18:07,740 --> 00:18:05,860  
you've got members of the public here

453  
00:18:09,299 --> 00:18:07,750  
one of everything on your bench has

454  
00:18:10,919 --> 00:18:09,309  
received the most interest what have

455  
00:18:16,680 --> 00:18:10,929  
been people talking and asking you about

456  
00:18:18,299 --> 00:18:16,690  
the most um box of bumps back it up the

457  
00:18:19,950 --> 00:18:18,309  
box of bummed yeah but have a look at

458  
00:18:21,510 --> 00:18:19,960  
this cuz I saw something look like

459  
00:18:25,350 --> 00:18:21,520  
chicken Phil it's here and I wonder all

460  
00:18:27,960 --> 00:18:25,360  
right this isn't all right okay what are

461  
00:18:30,510 --> 00:18:27,970  
they silicon bums are those ceramic bums

462  
00:18:33,570 --> 00:18:30,520  
ceramic ceramic done by

463  
00:18:35,130 --> 00:18:33,580

Australian ceramicist Susan hat are they

464

00:18:37,530 --> 00:18:35,140

modeled on someone a little bit small

465

00:18:39,570 --> 00:18:37,540

who do their men's thumbs and you'll

466

00:18:42,540 --> 00:18:39,580

notice that they're multicultural bums

467

00:18:44,250 --> 00:18:42,550

there are true yeah and she was part of

468

00:18:47,070 --> 00:18:44,260

this I feel like listening to some world

469

00:18:51,030 --> 00:18:47,080

music just by looking at them she's out

470

00:18:53,160 --> 00:18:51,040

of the funk movement kind of taking the

471

00:18:54,900 --> 00:18:53,170

seriousness out of art and ceramics and

472

00:18:56,250 --> 00:18:54,910

well being a playful for standing in

473

00:18:57,390 --> 00:18:56,260

front of box of bums I don't think I

474

00:18:58,770 --> 00:18:57,400

could be serious or very long at all

475

00:19:01,590 --> 00:18:58,780

this is great it's like something from

476  
00:19:02,940 --> 00:19:01,600  
are you being served you know when they

477  
00:19:04,440 --> 00:19:02,950  
had the undies that went on the robot

478  
00:19:05,790 --> 00:19:04,450  
things that went back and forth I'm sure

479  
00:19:08,460 --> 00:19:05,800  
I saw something like that on display

480  
00:19:09,840 --> 00:19:08,470  
that's great it's it hard to keep a

481  
00:19:11,400 --> 00:19:09,850  
straight face on a show like this are

482  
00:19:12,960 --> 00:19:11,410  
you trying to be serious too serious you

483  
00:19:14,880 --> 00:19:12,970  
know curator when you're doing this kind

484  
00:19:18,120 --> 00:19:14,890  
of thing you here we have the box of

485  
00:19:23,460 --> 00:19:18,130  
bands figure Perry results right we'll

486  
00:19:23,470 --> 00:19:40,150  
you

487  
00:19:44,270 --> 00:19:42,620  
hey this is Jay novella from the

488  
00:19:46,190 --> 00:19:44,280

skeptics guide to the universe podcast

489

00:19:48,050 --> 00:19:46,200

did you know that there are thousands of

490

00:19:49,760 --> 00:19:48,060

skeptical reports interviews and

491

00:19:52,460 --> 00:19:49,770

investigations going back to nineteen

492

00:19:55,730 --> 00:19:52,470

eighty one free to download just visit w

493

00:19:57,650 --> 00:19:55,740

WC empathic CoA you click the

494

00:19:59,600 --> 00:19:57,660

publications link and enjoy almost every

495

00:20:01,580 --> 00:19:59,610

back issue of the skeptic the journal

496

00:20:03,110 --> 00:20:01,590

from Australian skeptics you can also

497

00:20:05,390 --> 00:20:03,120

subscribe online and get the latest

498

00:20:07,430 --> 00:20:05,400

digital or hard copy of this the world's

499

00:20:11,090 --> 00:20:07,440

second oldest skeptical magazine that's

500

00:20:24,680 --> 00:20:11,100

ww skeptics com a you or just google

501  
00:20:26,810 --> 00:20:24,690  
Australian skeptics welcome to a week in

502  
00:20:29,210 --> 00:20:26,820  
science from are ions bringing you the

503  
00:20:31,040 --> 00:20:29,220  
science you need to know do you ever see

504  
00:20:33,710 --> 00:20:31,050  
your cat or dog staring at something

505  
00:20:35,930 --> 00:20:33,720  
invisible it's pretty creepy but it made

506  
00:20:44,820 --> 00:20:35,940  
me wonder if animals can actually see

507  
00:20:49,480 --> 00:20:47,380  
first let's talk about how we see

508  
00:20:52,030 --> 00:20:49,490  
remember that the color of light is

509  
00:20:54,250 --> 00:20:52,040  
determined by its wavelength we have two

510  
00:20:57,010 --> 00:20:54,260  
types of receptor cells in our eyes to

511  
00:20:58,930 --> 00:20:57,020  
detect this light rod cells which detect

512  
00:21:00,940 --> 00:20:58,940  
how bright the light is and cone cells

513  
00:21:03,400 --> 00:21:00,950

which detects the color of light by

514

00:21:05,500 --> 00:21:03,410

absorbing particular wavelengths human

515

00:21:07,660 --> 00:21:05,510

cone cells can detect red green and blue

516

00:21:09,220 --> 00:21:07,670

wavelengths and these can combine to

517

00:21:12,010 --> 00:21:09,230

give us any color in the visible

518

00:21:14,980 --> 00:21:12,020

spectrum but the visible spectrum only

519

00:21:16,990 --> 00:21:14,990

applies to humans very presumptuous many

520

00:21:18,610 --> 00:21:17,000

animals can see in wavelengths outside

521

00:21:22,270 --> 00:21:18,620

the visible spectrum we're actually

522

00:21:24,220 --> 00:21:22,280

missing out our red light receptors

523

00:21:26,680 --> 00:21:24,230

evolved after primates diverged from

524

00:21:29,080 --> 00:21:26,690

other mammals like cats and dogs meaning

525

00:21:30,970 --> 00:21:29,090

that they can't see Reds but recent

526

00:21:33,430 --> 00:21:30,980

research is revealing that many of these

527

00:21:35,350 --> 00:21:33,440

mammals can see UV light instead which

528

00:21:38,140 --> 00:21:35,360

is invisible to us and our primate

529

00:21:40,060 --> 00:21:38,150

relatives birds get even more again with

530

00:21:43,210 --> 00:21:40,070

an additional cone cell receptor that

531

00:21:45,940 --> 00:21:43,220

allows them to see violet plus lots and

532

00:21:47,890 --> 00:21:45,950

lots of birds seen uv2 kestrels and

533

00:21:50,050 --> 00:21:47,900

hawks for example can detect where

534

00:21:52,210 --> 00:21:50,060

rodents of being because their urine

535

00:21:54,040 --> 00:21:52,220

trails reflect UV light it's like a

536

00:21:57,010 --> 00:21:54,050

glowing map that shows their preys

537

00:21:59,800 --> 00:21:57,020

location from huge distances butterflies

538

00:22:01,960 --> 00:21:59,810

and bees also detect UV allowing them to

539

00:22:04,210 --> 00:22:01,970

see patterns on flowers that look plain

540

00:22:05,800 --> 00:22:04,220

yellow or white to us directing them

541

00:22:08,440 --> 00:22:05,810

straight to the juicy nectar or pollen

542

00:22:10,070 --> 00:22:08,450

and now for fast facts about animal

543

00:22:12,889 --> 00:22:10,080

vision

544

00:22:14,899 --> 00:22:12,899

while cats can't see red they do have

545

00:22:16,730 --> 00:22:14,909

more rod receptors than us meaning

546

00:22:18,159 --> 00:22:16,740

they're more sensitive to light and can

547

00:22:21,289 --> 00:22:18,169

see better than us when it's dark

548

00:22:22,970 --> 00:22:21,299

Viper's pythons and Boas have pits on

549

00:22:25,340 --> 00:22:22,980

their face containing membranes that

550

00:22:27,080 --> 00:22:25,350

detect long infrared wavelengths more

551  
00:22:29,259 --> 00:22:27,090  
commonly known as heat letting them

552  
00:22:32,330 --> 00:22:29,269  
detect warm bodies up to one meter away

553  
00:22:34,909 --> 00:22:32,340  
snow reflects UV light while whiteford

554  
00:22:36,769 --> 00:22:34,919  
doesn't so seeing in the UV is pretty

555  
00:22:38,240 --> 00:22:36,779  
helpful if you have a white polar bear

556  
00:22:40,909 --> 00:22:38,250  
stalking you which would be almost

557  
00:22:43,159 --> 00:22:40,919  
invisible to our eyes and while animals

558  
00:22:45,769 --> 00:22:43,169  
often see a more colorful world it can

559  
00:22:47,990 --> 00:22:45,779  
also be a bit fuzzy whereas humans see

560  
00:22:50,060 --> 00:22:48,000  
incredibly clearly that's it for this

561  
00:22:51,980 --> 00:22:50,070  
week in science for more information on

562  
00:22:55,340 --> 00:22:51,990  
how animals see the world go to the

563  
00:22:57,980 --> 00:22:55,350

Orioles website I a u.s. stud org dot a

564

00:23:00,560 --> 00:22:57,990

you follow us on twitter at arias and

565

00:23:14,760 --> 00:23:00,570

like us on facebook i'm karen groom and

566

00:23:32,750 --> 00:23:27,539

on Maynard com Donna you hey you its

567

00:23:32,760 --> 00:23:36,620

made out here with

568

00:23:36,630 --> 00:23:43,160

hunger come back episode 6

569

00:23:47,000 --> 00:23:45,080

great news theme song we got there Tim

570

00:23:49,580 --> 00:23:47,010

great new theme song very happy with a

571

00:23:51,530 --> 00:23:49,590

new theme song bunga bunga Island is the

572

00:23:54,950 --> 00:23:51,540

place where we decide who stays who goes

573

00:23:57,680 --> 00:23:54,960

what's hot what's hotter what's yellow I

574

00:23:59,750 --> 00:23:57,690

mean just really what really is yellow

575

00:24:02,810 --> 00:23:59,760

empirically will answer all these

576

00:24:10,480 --> 00:24:02,820

questions and yours right here on bunga

577

00:24:13,840 --> 00:24:10,490

bunga here's may not spooky action at

578

00:24:16,330 --> 00:24:13,850

the distance

579

00:24:17,710 --> 00:24:16,340

but a lot of people wander through life

580

00:24:20,110 --> 00:24:17,720

and they want to know what's the point

581

00:24:22,299 --> 00:24:20,120

why am I doing this show really be here

582

00:24:23,770 --> 00:24:22,309

why should not just be under the blanket

583

00:24:24,820 --> 00:24:23,780

at home asleep well that's kind of what

584

00:24:26,440 --> 00:24:24,830

I'm going to be asking the bunch of

585

00:24:28,870 --> 00:24:26,450

people here at skeptics at the pub at

586

00:24:30,850 --> 00:24:28,880

Sydney skeptic to the pub we've got lots

587

00:24:33,010 --> 00:24:30,860

of people here tonight we've got Joe

588

00:24:34,750 --> 00:24:33,020

hello Joe hi hello may not I'm great how

589

00:24:36,760 --> 00:24:34,760

are you oh pretty good i've been asking

590

00:24:38,500 --> 00:24:36,770

people pretty much is what's the point

591

00:24:40,270 --> 00:24:38,510

of being a skeptic now why continue to

592

00:24:44,289 --> 00:24:40,280

be a skeptic why is there still a need

593

00:24:45,789 --> 00:24:44,299

to be one because frankly and with my

594

00:24:47,200 --> 00:24:45,799

greatest apologies to reach it here

595

00:24:50,529 --> 00:24:47,210

because you might have to put a beep in

596

00:24:51,700 --> 00:24:50,539

that's a lot of out there there is no

597

00:24:53,470 --> 00:24:51,710

you're making people making stuff up

598

00:24:56,020 --> 00:24:53,480

still you think people are still making

599

00:24:58,600 --> 00:24:56,030

stuff up Joe then they can stop up and

600

00:25:00,430 --> 00:24:58,610

they're believing it sometimes yes okay

601  
00:25:03,760 --> 00:25:00,440  
and what's the one you you fight

602  
00:25:05,919 --> 00:25:03,770  
personally you think the big way my big

603  
00:25:09,279 --> 00:25:05,929  
one does tend to be the anti-vaccination

604  
00:25:10,480 --> 00:25:09,289  
movement I'll say a bit I I tend to get

605  
00:25:13,000 --> 00:25:10,490  
pulled into anything health-related

606  
00:25:16,539 --> 00:25:13,010  
that's where I really get frustrated and

607  
00:25:19,240 --> 00:25:16,549  
a bit passionate yes Peter over here mr.

608  
00:25:21,010 --> 00:25:19,250  
ratbag now why should we continue to be

609  
00:25:23,560 --> 00:25:21,020  
skeptics when we could be doing

610  
00:25:26,350 --> 00:25:23,570  
something else involving a pool and

611  
00:25:28,000 --> 00:25:26,360  
drinks well I think I can still hit the

612  
00:25:30,549 --> 00:25:28,010  
pool and drinks in around the skepticism

613  
00:25:33,310 --> 00:25:30,559

Isaac good good point sir the saddest

614

00:25:35,380 --> 00:25:33,320

book I've ever read in my life is dads

615

00:25:37,510 --> 00:25:35,390

and fallacies by martin gardner it was

616

00:25:40,060 --> 00:25:37,520

published in nineteen fifty two parts of

617

00:25:41,830 --> 00:25:40,070

catch-22 are pretty sad that why this is

618

00:25:43,810 --> 00:25:41,840

sad which published in nineteen fifty

619

00:25:46,799 --> 00:25:43,820

two and you read it that reads like

620

00:25:49,060 --> 00:25:46,809

today almost nothing in it as going away

621

00:25:51,669 --> 00:25:49,070

and so I don't think well they'll ever

622

00:25:54,190 --> 00:25:51,679

be a time when skepticism runs out of

623

00:25:55,390 --> 00:25:54,200

things to do I think they're back then

624

00:25:56,919 --> 00:25:55,400

you might have had a bit of more of the

625

00:25:59,440 --> 00:25:56,929

phrenology where the bumps on the head

626

00:26:01,720 --> 00:25:59,450

you might add more that then a lot of

627

00:26:04,779 --> 00:26:01,730

the stuff in that book is about religion

628

00:26:06,460 --> 00:26:04,789

about met health that medical things

629

00:26:08,680 --> 00:26:06,470

some of that stuff tear has been around

630

00:26:11,620 --> 00:26:08,690

forever I just never goes away is there

631

00:26:12,760 --> 00:26:11,630

any new sort of whew that's that's comin

632

00:26:14,350 --> 00:26:12,770

lately that you're gone well there's a

633

00:26:17,380 --> 00:26:14,360

new one or you reckon you've seen it all

634

00:26:19,919 --> 00:26:17,390

oh I think that there's the blue people

635

00:26:21,269 --> 00:26:19,929

are enormously imaginative and creative

636

00:26:23,419 --> 00:26:21,279

I've been something that didn't exist 20

637

00:26:25,710 --> 00:26:23,429

years ago is a cause wind farm syndrome

638

00:26:29,789 --> 00:26:25,720

where people can invent these new

639

00:26:30,930 --> 00:26:29,799

diseases that come along we've never

640

00:26:33,539 --> 00:26:30,940

heard of these things before but

641

00:26:36,330 --> 00:26:33,549

suddenly they're there and there's a

642

00:26:37,649 --> 00:26:36,340

mess of cures for them as well so I mean

643

00:26:39,330 --> 00:26:37,659

and of course they're also other things

644

00:26:41,129 --> 00:26:39,340

which as well as their hundreds of cures

645

00:26:44,999 --> 00:26:41,139

for things are also things which are

646

00:26:48,570 --> 00:26:45,009

cures for everything up I'll just wander

647

00:26:50,369 --> 00:26:48,580

around the table here oh how are you huh

648

00:26:52,710 --> 00:26:50,379

look why do you think we should still

649

00:26:55,409 --> 00:26:52,720

still be skeptics here like your group

650

00:26:57,779 --> 00:26:55,419

you're an engineer with a bit of physics

651  
00:27:00,330 --> 00:26:57,789  
action going on there and and you talk

652  
00:27:02,190 --> 00:27:00,340  
about the three-legged stool a lot why

653  
00:27:03,749 --> 00:27:02,200  
should we still be skeptics a favor I

654  
00:27:06,149 --> 00:27:03,759  
think the main reason is that we can

655  
00:27:09,480 --> 00:27:06,159  
have an enjoyable evening out among

656  
00:27:11,399 --> 00:27:09,490  
friends with no delusions see right fair

657  
00:27:13,560 --> 00:27:11,409  
enough everything has to be supported by

658  
00:27:17,070 --> 00:27:13,570  
evidence that's right had at least no

659  
00:27:18,659 --> 00:27:17,080  
delusions about the paranormal what is

660  
00:27:20,340 --> 00:27:18,669  
the thing that you've encountered lately

661  
00:27:22,289 --> 00:27:20,350  
that has been putting we've filled up

662  
00:27:24,749 --> 00:27:22,299  
okay well this one that we looked at

663  
00:27:26,970 --> 00:27:24,759

which was the ability to back

664

00:27:29,220 --> 00:27:26,980

conversations using a very high

665

00:27:31,470 --> 00:27:29,230

resolution camera that can even pick up

666

00:27:33,210 --> 00:27:31,480

the vibrations on a piece of paper yes

667

00:27:34,409 --> 00:27:33,220

now yes this story came out a little

668

00:27:36,720 --> 00:27:34,419

while ago we're looking at a camera

669

00:27:39,570 --> 00:27:36,730

that's going a couple of hundreds of

670

00:27:41,639 --> 00:27:39,580

thousand frames a second isn't it oh yes

671

00:27:42,989 --> 00:27:41,649

or at least twenty thousand frames a

672

00:27:45,389 --> 00:27:42,999

second too if you want to capture all of

673

00:27:47,039 --> 00:27:45,399

the audio spectrum but but even 10,000

674

00:27:49,049 --> 00:27:47,049

frames a second to get you good quality

675

00:27:51,509 --> 00:27:49,059

sound and is this something that's

676  
00:27:53,820 --> 00:27:51,519  
actually doable well unlike most things

677  
00:27:55,710 --> 00:27:53,830  
are skeptics here's a bit yes it's been

678  
00:27:58,169 --> 00:27:55,720  
done by some University people and the

679  
00:28:01,409 --> 00:27:58,179  
physics is all sound and their tests

680  
00:28:03,930 --> 00:28:01,419  
look quite robust okay cool thanks for

681  
00:28:05,609 --> 00:28:03,940  
that okay you're welcome now you're over

682  
00:28:07,470 --> 00:28:05,619  
here in the corner getting stuck into

683  
00:28:09,269 --> 00:28:07,480  
your your pastor there and we do mean

684  
00:28:11,430 --> 00:28:09,279  
that we don't mean in a theological time

685  
00:28:15,299 --> 00:28:11,440  
you mean the kind you eat and why should

686  
00:28:18,480 --> 00:28:15,309  
we still be skeptics um I guess I on

687  
00:28:20,460 --> 00:28:18,490  
from katoomba and so my views are

688  
00:28:22,169 --> 00:28:20,470

heavily influenced by where I live which

689

00:28:23,340 --> 00:28:22,179

means you get pretty cold at night so

690

00:28:26,340 --> 00:28:23,350

does that mean you're more skeptical

691

00:28:29,099 --> 00:28:26,350

during a day or what a man consumed by

692

00:28:30,450 --> 00:28:29,109

the 2780 postcode that we live in has

693

00:28:32,490 --> 00:28:30,460

one of the lowest vaccination

694

00:28:34,920 --> 00:28:32,500

it's in the country our vaccination

695

00:28:36,540 --> 00:28:34,930

rates are about 75 to 80 percent so how

696

00:28:38,730 --> 00:28:36,550

do they stack up against the north coast

697

00:28:40,470 --> 00:28:38,740

ones are also known to be low they're

698

00:28:42,360 --> 00:28:40,480

actually much better than the north

699

00:28:43,500 --> 00:28:42,370

coast we're actually started we in

700

00:28:46,050 --> 00:28:43,510

consumer actually much better than the

701  
00:28:48,660 --> 00:28:46,060  
north coast but compared to the rest of

702  
00:28:49,730 --> 00:28:48,670  
the country it's woeful and I believe we

703  
00:28:53,430 --> 00:28:49,740  
need about ninety-five percent

704  
00:28:55,740 --> 00:28:53,440  
vaccination rate for herd immunity so my

705  
00:28:57,330 --> 00:28:55,750  
community is at risk the children in my

706  
00:28:59,370 --> 00:28:57,340  
community and the elderly particularly

707  
00:29:01,110 --> 00:28:59,380  
or at risk so you get out there in the

708  
00:29:02,910 --> 00:29:01,120  
street and go hey if you had the jab or

709  
00:29:04,380 --> 00:29:02,920  
ever had your kids had the jab have you

710  
00:29:06,420 --> 00:29:04,390  
gone low believe you tried wrong with

711  
00:29:08,370 --> 00:29:06,430  
anybody look I haven't and what we need

712  
00:29:10,620 --> 00:29:08,380  
to do is to have it is to start a

713  
00:29:13,440 --> 00:29:10,630

strategic campaign we need to include

714

00:29:15,720 --> 00:29:13,450

the GPS we need to have public forums we

715

00:29:18,450 --> 00:29:15,730

need to do a Facebook campaign but I

716

00:29:20,940 --> 00:29:18,460

have started I have started expressing

717

00:29:23,670 --> 00:29:20,950

my views on facebook and I didn't used

718

00:29:25,110 --> 00:29:23,680

to do that I used to to keep that to

719

00:29:27,180 --> 00:29:25,120

myself because there was so much

720

00:29:29,460 --> 00:29:27,190

opposition in my own community but I

721

00:29:32,460 --> 00:29:29,470

decided that children dying was probably

722

00:29:35,880 --> 00:29:32,470

more important than keeping friends cook

723

00:29:39,000 --> 00:29:35,890

pot in the womb thank you will try know

724

00:29:40,740 --> 00:29:39,010

who have we got here Claire Claire now

725

00:29:42,540 --> 00:29:40,750

why do you think we should be skeptics

726

00:29:43,740 --> 00:29:42,550

in 2014 what is the need for people to

727

00:29:45,390 --> 00:29:43,750

go around going could you show us

728

00:29:46,620 --> 00:29:45,400

evidence what is the need for that why

729

00:29:48,390 --> 00:29:46,630

do we need to bother people why do we

730

00:29:49,770 --> 00:29:48,400

need to annoy people like that because

731

00:29:52,890 --> 00:29:49,780

there's a lot of baloney that goes

732

00:29:57,600 --> 00:29:52,900

around alone yes salami now what's look

733

00:29:59,850 --> 00:29:57,610

at what to carry on that annoys you well

734

00:30:01,770 --> 00:29:59,860

I'm a teacher and my students always

735

00:30:05,220 --> 00:30:01,780

come up and go do you believe in the

736

00:30:07,110 --> 00:30:05,230

Bible or in evolution and we have a

737

00:30:10,740 --> 00:30:07,120

brilliant lesson absolutely brilliant

738

00:30:14,300 --> 00:30:10,750

lesson about how our brains are really

739

00:30:16,620 --> 00:30:14,310

fitted for storytelling and for you know

740

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

investigating the world in a in a way

741

00:30:21,180 --> 00:30:18,640

that allowed our ancestors to survive

742

00:30:23,100 --> 00:30:21,190

but that's not a modern city environment

743

00:30:27,030 --> 00:30:23,110

we have to be aware of how our brains

744

00:30:29,010 --> 00:30:27,040

work and aware of how our mind can play

745

00:30:30,270 --> 00:30:29,020

tricks on us sometimes or can want to

746

00:30:32,760 --> 00:30:30,280

see something where there isn't

747

00:30:35,130 --> 00:30:32,770

something or can want to have a

748

00:30:37,350 --> 00:30:35,140

particular experience and in a modern

749

00:30:40,920 --> 00:30:37,360

city world we really have to be aware of

750

00:30:41,690 --> 00:30:40,930

how we function as human beings in their

751  
00:30:43,279 --> 00:30:41,700  
world

752  
00:30:45,049 --> 00:30:43,289  
working with primary school kids or high

753  
00:30:47,149 --> 00:30:45,059  
school kids high school kids kids who

754  
00:30:48,710 --> 00:30:47,159  
are troubled who have discipline

755  
00:30:52,039 --> 00:30:48,720  
problems behavior problems their kids

756  
00:30:55,850 --> 00:30:52,049  
who are on the real edge the the

757  
00:30:57,919 --> 00:30:55,860  
coalface so there's no BS because they

758  
00:31:01,730 --> 00:30:57,929  
are better at BS than you are so you

759  
00:31:03,889 --> 00:31:01,740  
have to does this make them more

760  
00:31:05,389 --> 00:31:03,899  
predisposed to believing whoo or less

761  
00:31:07,789 --> 00:31:05,399  
because they've got a bit more of a

762  
00:31:11,990 --> 00:31:07,799  
gritty by both sides of life sort of

763  
00:31:15,860 --> 00:31:12,000

aspect both they're more exposed because

764

00:31:17,810 --> 00:31:15,870

they're they want anything and they

765

00:31:20,840 --> 00:31:17,820

don't have anything and so anything that

766

00:31:22,909 --> 00:31:20,850

sounds good they want to grab on to but

767

00:31:25,220 --> 00:31:22,919

also their their BS meter is highly

768

00:31:27,860 --> 00:31:25,230

attuned so they you just point out to

769

00:31:29,149 --> 00:31:27,870

them slightly one aspect of something

770

00:31:31,700 --> 00:31:29,159

that doesn't make sense and there and

771

00:31:33,649 --> 00:31:31,710

they understand it and what what's your

772

00:31:35,149 --> 00:31:33,659

favorite subject to teach to is a one

773

00:31:36,409 --> 00:31:35,159

aspect of science that you like getting

774

00:31:38,120 --> 00:31:36,419

over to the kids or was it more a

775

00:31:39,919 --> 00:31:38,130

philosophical critical thinking thing

776

00:31:42,919 --> 00:31:39,929

you're trying to push well my original

777

00:31:44,299 --> 00:31:42,929

training is in the fine arts I don't

778

00:31:49,789 --> 00:31:44,309

have science training I have science

779

00:31:53,690 --> 00:31:49,799

interest and I started out being at art

780

00:31:55,909 --> 00:31:53,700

teacher who then went out and did

781

00:31:57,320 --> 00:31:55,919

science talks and things about dinosaurs

782

00:32:01,940 --> 00:31:57,330

and so on and then I got this job at the

783

00:32:03,259 --> 00:32:01,950

school and my predilection for being

784

00:32:07,159 --> 00:32:03,269

very excited about something I'm

785

00:32:11,180 --> 00:32:07,169

interested in then you know makes it a

786

00:32:12,950 --> 00:32:11,190

good thing in my school because me I put

787

00:32:15,500 --> 00:32:12,960

over a sense of excitement and interest

788

00:32:17,450 --> 00:32:15,510

in whatever it is that I'm doing so the

789

00:32:18,259 --> 00:32:17,460

key to pick up on that well look well I

790

00:32:21,379 --> 00:32:18,269

think we're gonna talk to you again

791

00:32:25,340 --> 00:32:21,389

because you got lots of stories yeah

792

00:32:26,990 --> 00:32:25,350

okay thank you well I've just learned a

793

00:32:29,210 --> 00:32:27,000

lot of things I didn't know we've got

794

00:32:31,279 --> 00:32:29,220

someone here who has been at University

795

00:32:33,080 --> 00:32:31,289

for longer than the day I was there we

796

00:32:36,139 --> 00:32:33,090

have someone who has slippered frogs and

797

00:32:37,820 --> 00:32:36,149

has been tripping balls from frogs dr.

798

00:32:39,320 --> 00:32:37,830

jody royal ever got the name correct

799

00:32:41,149 --> 00:32:39,330

borrelli yeah I don't have that

800

00:32:42,799 --> 00:32:41,159

introduction before though that's a good

801  
00:32:43,909 --> 00:32:42,809  
one but those things are true you have

802  
00:32:45,139 --> 00:32:43,919  
like you've had well there's such a

803  
00:32:47,509 --> 00:32:45,149  
great frog I got to keep it here my

804  
00:32:49,100 --> 00:32:47,519  
sleeping bag I have I didn't want to

805  
00:32:50,090 --> 00:32:49,110  
lose it so I had to sort of keep it in

806  
00:32:51,379 --> 00:32:50,100  
the sleeping bag next to me in the

807  
00:32:52,940 --> 00:32:51,389  
plastic bag to make sure it didn't get

808  
00:32:54,420 --> 00:32:52,950  
away that's great as I which is much

809  
00:32:56,980 --> 00:32:54,430  
better than kissing a frog as you

810  
00:32:58,930 --> 00:32:56,990  
well I'm happy to do both frogs are

811  
00:33:00,550 --> 00:32:58,940  
amazing what you've done by proxy now

812  
00:33:02,080 --> 00:33:00,560  
it's a story about you eating lollies

813  
00:33:04,030 --> 00:33:02,090

and tripping and having audio

814

00:33:06,220 --> 00:33:04,040

hallucinations cuz that's somewhere I

815

00:33:08,440 --> 00:33:06,230

want to go well that was back in the day

816

00:33:11,050 --> 00:33:08,450

and I definitely don't recommend it we

817

00:33:13,000 --> 00:33:11,060

were measuring a bunch of frogs and I

818

00:33:15,100 --> 00:33:13,010

was also eating Molly's at the same time

819

00:33:17,230 --> 00:33:15,110

and then it was audible that would not

820

00:33:18,370 --> 00:33:17,240

been a good thing to do but two or three

821

00:33:19,930 --> 00:33:18,380

o'clock in the morning you've got to

822

00:33:23,020 --> 00:33:19,940

have something to keep you awake until i

823

00:33:24,430 --> 00:33:23,030

was eating sugar and and then for about

824

00:33:27,340 --> 00:33:24,440

another 10 hours later I could hear

825

00:33:29,320 --> 00:33:27,350

frogs everywhere so i'm i'm not sure but

826

00:33:32,200 --> 00:33:29,330

like there was just frogs calling

827

00:33:33,850 --> 00:33:32,210

everywhere and one of my friends later

828

00:33:35,350 --> 00:33:33,860

told me that apparently auditory

829

00:33:37,930 --> 00:33:35,360

hallucinations are more common than

830

00:33:40,000 --> 00:33:37,940

visual like i don't know about this and

831

00:33:41,920 --> 00:33:40,010

yes because people are you know suppose

832

00:33:43,660 --> 00:33:41,930

lick toes and have all sorts of trip and

833

00:33:45,040 --> 00:33:43,670

the reason that you would have a weird

834

00:33:46,480 --> 00:33:45,050

reaction from licking a toad is not

835

00:33:48,250 --> 00:33:46,490

necessarily because of a hallucinogenic

836

00:33:50,440 --> 00:33:48,260

property but because of anything can

837

00:33:51,640 --> 00:33:50,450

live on them as it right I'd say it's

838

00:33:53,440 --> 00:33:51,650

much more likely to do with the things

839

00:33:55,990 --> 00:33:53,450

they're secreting from their skin so

840

00:33:57,070 --> 00:33:56,000

frogs are basically agar plates and and

841

00:33:58,180 --> 00:33:57,080

they're these sort of wet things that

842

00:34:00,010 --> 00:33:58,190

hop around the ground that should be

843

00:34:02,740 --> 00:34:00,020

infected by everything but they have all

844

00:34:04,420 --> 00:34:02,750

these amazing chemicals peptides things

845

00:34:06,940 --> 00:34:04,430

on their skin to stop them from getting

846

00:34:08,650 --> 00:34:06,950

infected so they have sunscreens they

847

00:34:11,290 --> 00:34:08,660

have antibacterials they have things are

848

00:34:13,750 --> 00:34:11,300

being looked in for HIV cancer research

849

00:34:15,669 --> 00:34:13,760

they're amazing um and so some of these

850

00:34:18,520 --> 00:34:15,679

things may also have potentially

851  
00:34:20,890 --> 00:34:18,530  
hallucinogenic effects Wow look and JD

852  
00:34:22,090 --> 00:34:20,900  
one thing I got I wonder what excited

853  
00:34:23,770 --> 00:34:22,100  
you about frogs you been to Vietnam

854  
00:34:25,419 --> 00:34:23,780  
you've been to Asia really interested in

855  
00:34:28,090 --> 00:34:25,429  
frog conservation and amphibian

856  
00:34:30,520 --> 00:34:28,100  
conservation why amphibians I mean the

857  
00:34:32,080 --> 00:34:30,530  
honey badgers pretty exciting the honey

858  
00:34:34,330 --> 00:34:32,090  
badger is maybe if I got into the honey

859  
00:34:36,250 --> 00:34:34,340  
badger before the frogs but I guess it

860  
00:34:38,770 --> 00:34:36,260  
was a combination of things eyeballs and

861  
00:34:41,440 --> 00:34:38,780  
toe pads like frogs amphibians they're

862  
00:34:43,600 --> 00:34:41,450  
just amazing first off and secondly

863  
00:34:45,820 --> 00:34:43,610

they're in so much trouble so they're

864

00:34:47,530 --> 00:34:45,830

these amazing creatures that basically

865

00:34:49,000 --> 00:34:47,540

can't do anyone anyone harm they don't

866

00:34:51,220 --> 00:34:49,010

bite they don't do anything and they're

867

00:34:53,020 --> 00:34:51,230

literally you know becoming extinct in

868

00:34:54,610 --> 00:34:53,030

front of our eyes so one third of all

869

00:34:58,780 --> 00:34:54,620

and phibian certain of the extinction

870

00:35:01,930 --> 00:34:58,790

it's terrifying and so I decided I guess

871

00:35:04,450 --> 00:35:01,940

to dedicate my life my research to try

872

00:35:05,860 --> 00:35:04,460

and promote their conservation try and

873

00:35:08,150 --> 00:35:05,870

find as much information about them as

874

00:35:09,950 --> 00:35:08,160

possible discover the amazing new speed

875

00:35:11,660 --> 00:35:09,960

cease and just amazing species of

876

00:35:13,430 --> 00:35:11,670

amphibian out there tell other people

877

00:35:15,440 --> 00:35:13,440

how often they are and then try and work

878

00:35:17,000 --> 00:35:15,450

towards their conservation and skeptics

879

00:35:19,039 --> 00:35:17,010

earn listeners she's not mucking about

880

00:35:21,500 --> 00:35:19,049

how many species have you discovered

881

00:35:23,299 --> 00:35:21,510

personally so far I've described or

882

00:35:25,420 --> 00:35:23,309

discovered and described 14 new species

883

00:35:28,400 --> 00:35:25,430

of frog most of them from Vietnam

884

00:35:30,380 --> 00:35:28,410

amongst them the vampire flying frog hey

885

00:35:32,390 --> 00:35:30,390

and what did you do today listener hey I

886

00:35:34,279 --> 00:35:32,400

think I've had a vampire flying frog I'm

887

00:35:36,799 --> 00:35:34,289

thinking two things big teeth blood

888

00:35:39,710 --> 00:35:36,809

sucking and just going like all hell

889

00:35:42,740 --> 00:35:39,720

through the air ah turn that down a

890

00:35:45,680 --> 00:35:42,750

little bit a break for you well a brick

891

00:35:47,660 --> 00:35:45,690

red frog with big hands and webbing on

892

00:35:49,579 --> 00:35:47,670

the hands and feet that it uses to glide

893

00:35:51,950 --> 00:35:49,589

from the tree so it's adapted for life

894

00:35:53,510 --> 00:35:51,960

in the trees about five centimeters big

895

00:35:55,789 --> 00:35:53,520

sit comfortably on the palm of your hand

896

00:35:58,190 --> 00:35:55,799

totally friendly no problems there but

897

00:36:00,799 --> 00:35:58,200

the tadpoles which are found in really

898

00:36:03,140 --> 00:36:00,809

small holes in trees that are filled

899

00:36:06,140 --> 00:36:03,150

with water have curved black fangs

900

00:36:08,870 --> 00:36:06,150

sticking out of their mouths okay why

901  
00:36:10,940 --> 00:36:08,880  
you said you said you sent the photos of

902  
00:36:13,069 --> 00:36:10,950  
these tadpoles to a tadpole expert one

903  
00:36:16,099 --> 00:36:13,079  
of only two in the world and he replied

904  
00:36:17,510 --> 00:36:16,109  
to you in all caps now 76 year old guys

905  
00:36:19,190 --> 00:36:17,520  
can do that just by leaning on the wrong

906  
00:36:21,799 --> 00:36:19,200  
key sometimes but he was really excited

907  
00:36:23,420 --> 00:36:21,809  
that's great he was really excited and

908  
00:36:26,710 --> 00:36:23,430  
together we published a paper it was

909  
00:36:29,660 --> 00:36:26,720  
with a strangest tadpole in the world so

910  
00:36:31,279 --> 00:36:29,670  
the reason it's not for blood sucking

911  
00:36:32,809 --> 00:36:31,289  
which makes a much cooler story I've got

912  
00:36:34,880 --> 00:36:32,819  
to admit but it actually makes frogs way

913  
00:36:36,500 --> 00:36:34,890

more friendly so there's no food in the

914

00:36:38,390 --> 00:36:36,510

tree holes that the tadpoles live in

915

00:36:41,000 --> 00:36:38,400

there's packed full of tadpoles nothing

916

00:36:43,660 --> 00:36:41,010

to eat the mother vampire flying frog

917

00:36:45,950 --> 00:36:43,670

comes back and feeds her babies

918

00:36:47,299 --> 00:36:45,960

unfertilized eggs and they're really

919

00:36:49,010 --> 00:36:47,309

hard to get hold off if you've got a

920

00:36:51,950 --> 00:36:49,020

silly little bit cloak mouth but most

921

00:36:54,440 --> 00:36:51,960

had poles have so the tadpoles have over

922

00:36:56,750 --> 00:36:54,450

time developed fangs to hook the egg and

923

00:36:59,900 --> 00:36:56,760

suck it down their big mouth and so that

924

00:37:01,460 --> 00:36:59,910

the mums feeding a babies let's talk

925

00:37:03,289 --> 00:37:01,470

evolution here this is where we get our

926  
00:37:05,089 --> 00:37:03,299  
chance to bag on Europe Europe

927  
00:37:06,410 --> 00:37:05,099  
apparently has crap frogs Southeast

928  
00:37:08,599 --> 00:37:06,420  
Asia's where it's at not too much

929  
00:37:10,099 --> 00:37:08,609  
Australia but Southeast Asia just wipes

930  
00:37:12,740 --> 00:37:10,109  
the floor with European frogs because

931  
00:37:14,809 --> 00:37:12,750  
they're rubbish I wouldn't go so far

932  
00:37:18,220 --> 00:37:14,819  
from you you you inferred that in your

933  
00:37:20,200 --> 00:37:18,230  
lecture you said European stuffs rubbish

934  
00:37:22,750 --> 00:37:20,210  
I think you're putting words into my

935  
00:37:24,760 --> 00:37:22,760  
mouth I did I did show you the frog from

936  
00:37:26,440 --> 00:37:24,770  
Europe that carries its eggs around on

937  
00:37:29,170 --> 00:37:26,450  
its back that is I thought ordinary I

938  
00:37:32,140 --> 00:37:29,180

booed that frog midwife oh it's pretty

939

00:37:33,520 --> 00:37:32,150

cool it's okay but color-wise actually

940

00:37:36,220 --> 00:37:33,530

Central America is probably where the

941

00:37:38,470 --> 00:37:36,230

colors at I love Southeast Asian throats

942

00:37:40,540 --> 00:37:38,480

but Central America has these frogs that

943

00:37:42,550 --> 00:37:40,550

hop around during the day no poison dart

944

00:37:44,650 --> 00:37:42,560

frogs that are red and blue and Koreans

945

00:37:46,450 --> 00:37:44,660

stripy and it's insane to me even

946

00:37:49,240 --> 00:37:46,460

without humans why don't birds eat them

947

00:37:50,560 --> 00:37:49,250

because seed them well that's the point

948

00:37:51,820 --> 00:37:50,570

the only ones that hop around in the day

949

00:37:53,140 --> 00:37:51,830

and a brightly colored it because

950

00:37:56,200 --> 00:37:53,150

they're actually poisonous so they you

951  
00:37:57,670 --> 00:37:56,210  
don't care the frogs are advertising

952  
00:37:59,800 --> 00:37:57,680  
that they poisonous by their bright

953  
00:38:02,380 --> 00:37:59,810  
colors so they're like strutting around

954  
00:38:04,090 --> 00:38:02,390  
proud gun check me out definitely but

955  
00:38:06,070 --> 00:38:04,100  
there are some frogs that see that and

956  
00:38:07,390 --> 00:38:06,080  
then evolution happens and and they

957  
00:38:08,770 --> 00:38:07,400  
actually start to look like and

958  
00:38:10,840 --> 00:38:08,780  
salamanders as well they look like

959  
00:38:12,670 --> 00:38:10,850  
they're poisonous counterparts and the

960  
00:38:14,109 --> 00:38:12,680  
Predators think oh look at you you're

961  
00:38:15,970 --> 00:38:14,119  
you know brightly colored as well I

962  
00:38:17,920 --> 00:38:15,980  
won't eat you but actually they're just

963  
00:38:19,599 --> 00:38:17,930

mimicking the poisonous one and getting

964

00:38:21,460 --> 00:38:19,609

away with it without having to invest in

965

00:38:23,890 --> 00:38:21,470

all those chemicals in their skin that's

966

00:38:26,050 --> 00:38:23,900

so cool and so why are European frogs

967

00:38:28,300 --> 00:38:26,060

not as very doors as colorful just

968

00:38:31,540 --> 00:38:28,310

because the landscape often temperate

969

00:38:32,710 --> 00:38:31,550

areas so the the cooler flatter areas in

970

00:38:36,160 --> 00:38:32,720

particular don't have as much diversity

971

00:38:38,380 --> 00:38:36,170

the tropics is where in 15 diversity is

972

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

is generally at and especially really

973

00:38:42,340 --> 00:38:40,730

topographically diverse areas so really

974

00:38:44,290 --> 00:38:42,350

mountainous areas like the areas in

975

00:38:45,940 --> 00:38:44,300

Vietnam that i work at you get the

976

00:38:47,320 --> 00:38:45,950

amphibians that are just adapted to the

977

00:38:49,030 --> 00:38:47,330

cool wet climates on the top of one

978

00:38:51,280 --> 00:38:49,040

mountain peak so they're essentially on

979

00:38:52,810 --> 00:38:51,290

Islands surrounded by habitat that they

980

00:38:54,250 --> 00:38:52,820

can't live in and these are the ones

981

00:38:56,500 --> 00:38:54,260

that also likely to be affected by

982

00:38:58,720 --> 00:38:56,510

climate change in a big way and did

983

00:39:00,250 --> 00:38:58,730

Australia not get a greater range of

984

00:39:01,810 --> 00:39:00,260

frogs because the land bridge was cut

985

00:39:03,490 --> 00:39:01,820

before the frogs come across is that the

986

00:39:05,109 --> 00:39:03,500

reason why we have got the range that's

987

00:39:07,359 --> 00:39:05,119

that's a lot to do with it yet so

988

00:39:08,800 --> 00:39:07,369

salamanders originated in diversified in

989

00:39:11,410 --> 00:39:08,810

the north and we didn't we didn't get

990

00:39:13,780 --> 00:39:11,420

them down we did get one true frog one

991

00:39:15,250 --> 00:39:13,790

European kind of frog or on it that came

992

00:39:17,380 --> 00:39:15,260

down to a land bridge from Papua New

993

00:39:19,510 --> 00:39:17,390

Guinea so we have one true frog in

994

00:39:21,640 --> 00:39:19,520

Australia but the other frogs we got

995

00:39:24,730 --> 00:39:21,650

here a long time ago and they adapted to

996

00:39:26,470 --> 00:39:24,740

amazing diversity like see nowhere else

997

00:39:28,390 --> 00:39:26,480

like tree frogs in Australia the high

998

00:39:30,220 --> 00:39:28,400

lids normally they're tree frogs in

999

00:39:31,150 --> 00:39:30,230

Australia their tree frogs their frogs

1000

00:39:33,220 --> 00:39:31,160

are very underground

1001

00:39:35,080 --> 00:39:33,230

for years they just their ground frogs

1002

00:39:37,180 --> 00:39:35,090

they've just adapted to everything look

1003

00:39:39,460 --> 00:39:37,190

I bet let's give a shout out to the

1004

00:39:41,260 --> 00:39:39,470

frogs of ash island near Newcastle we've

1005

00:39:42,550 --> 00:39:41,270

got the golden frog of a Shaolin do you

1006

00:39:44,770 --> 00:39:42,560

know that one at all the green and

1007

00:39:46,630 --> 00:39:44,780

golden bell frogs yeah that'd be it i do

1008

00:39:48,610 --> 00:39:46,640

that's a rather famous frog in australia

1009

00:39:50,530 --> 00:39:48,620

especially sydney ya know is it very

1010

00:39:52,270 --> 00:39:50,540

endangered that one it is endangered

1011

00:39:55,240 --> 00:39:52,280

it's a funny frog because it actually

1012

00:39:57,940 --> 00:39:55,250

should be a weed it really likes like

1013

00:39:59,590 --> 00:39:57,950

newly established paste places polluted

1014

00:40:01,690 --> 00:39:59,600

sort of ponds that are really ephemeral

1015

00:40:03,220 --> 00:40:01,700

oily temporary and it can move like one

1016

00:40:04,390 --> 00:40:03,230

or two kilometres in a night so by all

1017

00:40:06,520 --> 00:40:04,400

accounts you think this prob would be

1018

00:40:08,020 --> 00:40:06,530

everywhere but unfortunately it's not

1019

00:40:09,460 --> 00:40:08,030

it's declined from at least in a ninety

1020

00:40:11,620 --> 00:40:09,470

percent of the places that used to occur

1021

00:40:13,510 --> 00:40:11,630

and the famous place it was was homebush

1022

00:40:15,310 --> 00:40:13,520

and it loves loves the brick pit it

1023

00:40:17,380 --> 00:40:15,320

loves these really weird places that no

1024

00:40:20,050 --> 00:40:17,390

other frogs would but a problem is a lot

1025

00:40:21,970 --> 00:40:20,060

of the frog places that we now build a

1026

00:40:23,470 --> 00:40:21,980

lot of the permanent permanent water

1027

00:40:25,450 --> 00:40:23,480

bodies they don't like permanent water

1028

00:40:27,070 --> 00:40:25,460

bodies so actually when people build

1029

00:40:28,870 --> 00:40:27,080

frog pond in their backyard they're

1030

00:40:31,810 --> 00:40:28,880

building habitats for only certain kinds

1031

00:40:33,640 --> 00:40:31,820

of frogs like the stripe marsh frog or

1032

00:40:35,260 --> 00:40:33,650

things like that so we're actually not

1033

00:40:36,820 --> 00:40:35,270

creating habitat for all of the frogs

1034

00:40:37,780 --> 00:40:36,830

that do live in the area this is

1035

00:40:39,400 --> 00:40:37,790

something you mentioned in your very

1036

00:40:41,500 --> 00:40:39,410

interesting talk you said that we seem

1037

00:40:43,840 --> 00:40:41,510

to love certain and we want to protect

1038

00:40:45,160 --> 00:40:43,850

certain kinds of charismatic frog now

1039

00:40:46,780 --> 00:40:45,170

what would that be would that be ones

1040

00:40:48,850 --> 00:40:46,790

that are only colorful or make a great

1041

00:40:51,400 --> 00:40:48,860

noise is that why we as humans we only

1042

00:40:53,380 --> 00:40:51,410

like that kind of frog yeah I think I

1043

00:40:55,060 --> 00:40:53,390

think unusual unlike the gastric

1044

00:40:57,880 --> 00:40:55,070

brooding frog and the babies and it's

1045

00:40:59,890 --> 00:40:57,890

stomach that's pretty amazing um yeah

1046

00:41:01,540 --> 00:40:59,900

the beautiful things tend to get the the

1047

00:41:03,160 --> 00:41:01,550

rewards a little brown frogs a lot of

1048

00:41:04,720 --> 00:41:03,170

the things that I study a leaflet of

1049

00:41:06,100 --> 00:41:04,730

frogs and there you know about two

1050

00:41:07,030 --> 00:41:06,110

centimeters big they're brown they're

1051

00:41:09,400 --> 00:41:07,040

kind of all looked the same and they

1052

00:41:10,930 --> 00:41:09,410

sound like insects most probably we're

1053

00:41:12,760 --> 00:41:10,940

not going to put a lot of money into the

1054

00:41:15,940 --> 00:41:12,770

conservation of those frogs as much as I

1055

00:41:18,510 --> 00:41:15,950

might love them but for amazing flying

1056

00:41:21,400 --> 00:41:18,520

frogs beautiful tree frogs salamanders

1057

00:41:23,380 --> 00:41:21,410

hopefully you know we would put the

1058

00:41:24,970 --> 00:41:23,390

effort in for them at least although

1059

00:41:26,620 --> 00:41:24,980

often they're also under threat from the

1060

00:41:28,450 --> 00:41:26,630

pet trade because they are so beautiful

1061

00:41:29,710 --> 00:41:28,460

I'm a huge fan of the axolotl the

1062

00:41:31,270 --> 00:41:29,720

Mexican walking fish does it actually

1063

00:41:33,520 --> 00:41:31,280

count or because it's sort of in between

1064

00:41:35,500 --> 00:41:33,530

it's not a really I'm phibian it is an

1065

00:41:37,540 --> 00:41:35,510

amphibian it's a salamander but it's

1066

00:41:40,240 --> 00:41:37,550

actually a Peter morphix salamander

1067

00:41:42,340 --> 00:41:40,250

which means it stays in its larval stage

1068

00:41:44,300 --> 00:41:42,350

and still breeds like it's a weird thing

1069

00:41:45,230 --> 00:41:44,310

it's basically a tadpole that breeds

1070

00:41:47,150 --> 00:41:45,240

but you know what's interesting about

1071

00:41:49,190 --> 00:41:47,160

that as common is it isn't a pet trade

1072

00:41:51,650 --> 00:41:49,200

it's actually almost extinct in its

1073

00:41:52,910 --> 00:41:51,660

native habitat in Mexico because people

1074

00:41:54,800 --> 00:41:52,920

have lifted it from there or the

1075

00:41:56,450 --> 00:41:54,810

habitats been stuffed up it's basically

1076

00:41:59,240 --> 00:41:56,460

in Mexico City so the habitat is is

1077

00:42:00,590 --> 00:41:59,250

pretty much pretty much gone and so what

1078

00:42:02,900 --> 00:42:00,600

we have is this weird kind of captive

1079

00:42:04,400 --> 00:42:02,910

animal that's you know but it's bred to

1080

00:42:06,140 --> 00:42:04,410

be in captivity but the actual native

1081

00:42:08,630 --> 00:42:06,150

animal is in a heck of a lot of trouble

1082

00:42:10,700 --> 00:42:08,640

yeah um you've actually eaten frog too

1083

00:42:12,380 --> 00:42:10,710

because you you get pretty hungry and

1084

00:42:13,490 --> 00:42:12,390

what's it taste like and I guess you

1085

00:42:15,710 --> 00:42:13,500

wouldn't recommend we all do this

1086

00:42:17,860 --> 00:42:15,720

because a cane toad you don't eat them

1087

00:42:21,830 --> 00:42:17,870

you're really picking parts of the talk

1088

00:42:25,040 --> 00:42:21,840

yes yes I I have a full the confirmation

1089

00:42:26,570 --> 00:42:25,050

bias I think yes i have i was a

1090

00:42:28,370 --> 00:42:26,580

vegetarian when i first moved to asia

1091

00:42:30,500 --> 00:42:28,380

and that didn't last too long out of

1092

00:42:32,350 --> 00:42:30,510

almost have asian in the forest i have

1093

00:42:34,340 --> 00:42:32,360

eaten frog it tastes like chicken

1094

00:42:35,570 --> 00:42:34,350

probably I mean that's what everyone

1095

00:42:37,430 --> 00:42:35,580

says everything pretty much taste like

1096

00:42:38,990 --> 00:42:37,440

that's not the normal kind of animal

1097

00:42:41,330 --> 00:42:39,000

that we eat but it's a really important

1098

00:42:42,500 --> 00:42:41,340

source of protein for a lot of southeast

1099

00:42:44,270 --> 00:42:42,510

asian a lot of countries around the

1100

00:42:45,980 --> 00:42:44,280

world and in a lot of places it's quite

1101  
00:42:47,840 --> 00:42:45,990  
sustainable because frogs can braid into

1102  
00:42:50,180 --> 00:42:47,850  
large numbers so rice paddy frogs and

1103  
00:42:52,310 --> 00:42:50,190  
things but it becomes too wet where

1104  
00:42:53,510 --> 00:42:52,320  
they're being harvested from patches of

1105  
00:42:55,130 --> 00:42:53,520  
forests and things that we start

1106  
00:42:56,360 --> 00:42:55,140  
worrying about whether the frogs are

1107  
00:42:58,370 --> 00:42:56,370  
only a small area are really being

1108  
00:42:59,720 --> 00:42:58,380  
affected because you were talking about

1109  
00:43:01,610 --> 00:42:59,730  
conservation if we were interested in

1110  
00:43:02,810 --> 00:43:01,620  
conservation of amphibians in Australia

1111  
00:43:04,010 --> 00:43:02,820  
and elsewhere in the world where should

1112  
00:43:06,980 --> 00:43:04,020  
we go to have a look and learn about

1113  
00:43:08,570 --> 00:43:06,990

this and maybe get up some cash well of

1114

00:43:11,290 --> 00:43:08,580

course I'm biased so I would say the

1115

00:43:13,460 --> 00:43:11,300

Australian Museum Research Institute oh

1116

00:43:15,620 --> 00:43:13,470

yeah my mother was the what's a web

1117

00:43:17,030 --> 00:43:15,630

address for that oh I've had a personal

1118

00:43:18,740 --> 00:43:17,040

website dress but you can just Google

1119

00:43:22,280 --> 00:43:18,750

and Phoebe ins and the Australian Museum

1120

00:43:23,900 --> 00:43:22,290

or you can google me Jody Rowley and

1121

00:43:25,610 --> 00:43:23,910

you'll find my website and you can see

1122

00:43:29,090 --> 00:43:25,620

lots of cool photos of frogs and where

1123

00:43:31,190 --> 00:43:29,100

are you off to next Vietnam of course ok

1124

00:43:32,930 --> 00:43:31,200

you said that look I had no sorry this

1125

00:43:35,120 --> 00:43:32,940

is things in your talk I really picked

1126  
00:43:36,980 --> 00:43:35,130  
up on canopy frogs now these are frogs

1127  
00:43:38,630 --> 00:43:36,990  
that live what 40 feet in the air for

1128  
00:43:40,100 --> 00:43:38,640  
all of their life how're we ever going

1129  
00:43:42,620 --> 00:43:40,110  
to find them because you won't go up

1130  
00:43:44,600 --> 00:43:42,630  
there and I don't blame you usually oh

1131  
00:43:45,860 --> 00:43:44,610  
well actually this is not entirely true

1132  
00:43:47,420 --> 00:43:45,870  
i'm not sure but i was gonna say that

1133  
00:43:48,950 --> 00:43:47,430  
most frogs would have to come to the

1134  
00:43:51,950 --> 00:43:48,960  
ground at some stage but then not be

1135  
00:43:53,780 --> 00:43:51,960  
true um we wouldn't know the thing is if

1136  
00:43:55,040 --> 00:43:53,790  
they're calling we might get really

1137  
00:43:56,740 --> 00:43:55,050  
creative and we might get up there and

1138  
00:43:58,870 --> 00:43:56,750

actually i've had local guys work

1139

00:44:00,970 --> 00:43:58,880

with me in the area that have gone

1140

00:44:03,010 --> 00:44:00,980

climbing up trees looking for things I'm

1141

00:44:04,090 --> 00:44:03,020

a wuss when it comes to Heights I'm not

1142

00:44:06,760 --> 00:44:04,100

the person that you would traditionally

1143

00:44:08,980 --> 00:44:06,770

think of climbing mountains in Vietnam I

1144

00:44:10,960 --> 00:44:08,990

have some really amazing students and

1145

00:44:12,520 --> 00:44:10,970

colleagues that will tell me which way

1146

00:44:16,180 --> 00:44:12,530

to walk when we're scaling waterfalls

1147

00:44:17,650 --> 00:44:16,190

and I start freaking out your only child

1148

00:44:18,910 --> 00:44:17,660

and your mum would be a bit upset if she

1149

00:44:21,970 --> 00:44:18,920

knew what you were doing in those

1150

00:44:23,650 --> 00:44:21,980

rainforest tie up but she never said not

1151

00:44:25,390 --> 00:44:23,660

to go and that's why i named a frog

1152

00:44:28,000 --> 00:44:25,400

after her she did not want her only

1153

00:44:29,980 --> 00:44:28,010

child moving to Cambodia and working for

1154

00:44:33,640 --> 00:44:29,990

months in remote areas with you know

1155

00:44:35,920 --> 00:44:33,650

like 14 guys in the forest but um she

1156

00:44:38,020 --> 00:44:35,930

supported me I didn't found frogs and it

1157

00:44:40,120 --> 00:44:38,030

helped out water I've got my daughter

1158

00:44:42,010 --> 00:44:40,130

named a fraud after me what's your son

1159

00:44:43,600 --> 00:44:42,020

done he's a lawyer yeah some people

1160

00:44:45,610 --> 00:44:43,610

might take offense at having a frog

1161

00:44:47,110 --> 00:44:45,620

named often but not my mum she's got the

1162

00:44:48,760 --> 00:44:47,120

Helens flying frog in the back of a

1163

00:44:51,400 --> 00:44:48,770

phone we were in the local paper when it

1164

00:44:54,520 --> 00:44:51,410

was described that's the pinnacle of mum

1165

00:44:56,020 --> 00:44:54,530

hood right so look get a look at the

1166

00:44:57,760 --> 00:44:56,030

museum and look because you do have some

1167

00:44:59,800 --> 00:44:57,770

wonderful photos of frogs and what is

1168

00:45:01,660 --> 00:44:59,810

the best looking frog I know it's a

1169

00:45:05,920 --> 00:45:01,670

tough question you have to say your mum

1170

00:45:07,600 --> 00:45:05,930

strong but you know I'd say some of the

1171

00:45:09,610 --> 00:45:07,610

tiny little green frogs which don't have

1172

00:45:13,200 --> 00:45:09,620

common names there in the genus Chris

1173

00:45:16,270 --> 00:45:13,210

cyclists from Southeast Asia which have

1174

00:45:18,250 --> 00:45:16,280

transparent skin turquoise bone and one

1175

00:45:19,480 --> 00:45:18,260

ream blood they're amazing and the

1176

00:45:21,730 --> 00:45:19,490

Bloods green because they have more cop

1177

00:45:25,120 --> 00:45:21,740

in the Nile haha it's called delivered

1178

00:45:27,370 --> 00:45:25,130

and it's a bile pigment I think I'm not

1179

00:45:28,780 --> 00:45:27,380

entirely sure why that some animals have

1180

00:45:30,400 --> 00:45:28,790

this there are a few lizards and things

1181

00:45:32,350 --> 00:45:30,410

like that but it's it's pretty bizarre

1182

00:45:34,270 --> 00:45:32,360

to have green blood thank you for a

1183

00:45:36,490 --> 00:45:34,280

fascinating talk tonight and never let

1184

00:45:39,160 --> 00:45:36,500

anyone I know you tell you listener the

1185

00:46:00,310 --> 00:45:39,170

frogs are amphibians are dull never

1186

00:46:04,730 --> 00:46:02,660

astronomy cast who takes a fact space

1187

00:46:06,440 --> 00:46:04,740

journey through the cosmos as it offers

1188

00:46:09,110 --> 00:46:06,450

listeners weekly discussions on

1189

00:46:12,050 --> 00:46:09,120

astronomical topics ranging from planets

1190

00:46:14,330 --> 00:46:12,060

to cosmology hosted by Fraser Cain of

1191

00:46:15,350 --> 00:46:14,340

Universe Today and myself dr. Pamela

1192

00:46:18,020 --> 00:46:15,360

gave southern illinois university

1193

00:46:19,880 --> 00:46:18,030

edwardsville this show brings the

1194

00:46:22,310 --> 00:46:19,890

questions of an avid astronomy lover

1195

00:46:24,410 --> 00:46:22,320

directly to an astronomer together

1196

00:46:25,940 --> 00:46:24,420

Fraser and I explore what is known and

1197

00:46:28,700 --> 00:46:25,950

being discovered about the universe

1198

00:46:30,800 --> 00:46:28,710

around us join us each week as we take a

1199

00:46:46,450 --> 00:46:30,810

fast space journey through the cosmos at

1200

00:46:50,540 --> 00:46:48,440

well thank you for listening to the

1201  
00:46:52,040 --> 00:46:50,550  
skeptical zone that was a mixed bag of an

1202  
00:46:53,330 --> 00:46:52,050  
episode main on that's what we like we

1203  
00:46:55,640 --> 00:46:53,340  
like a variety it's like the variety

1204  
00:46:57,830 --> 00:46:55,650  
show it's like a more common wise comedy

1205  
00:46:59,870 --> 00:46:57,840  
show with science it's exactly like that

1206  
00:47:01,550 --> 00:46:59,880  
and for those of you under 30 google

1207  
00:47:03,380 --> 00:47:01,560  
more common wise and if you're really

1208  
00:47:05,480 --> 00:47:03,390  
special try little and large they were

1209  
00:47:07,609 --> 00:47:05,490  
another comic duo I remember them oh

1210  
00:47:10,700 --> 00:47:07,619  
yeah I remember those Joe thanks for

1211  
00:47:13,430 --> 00:47:10,710  
being here too well watch Maynard and I

1212  
00:47:14,630 --> 00:47:13,440  
make complete geese or geese of

1213  
00:47:15,740 --> 00:47:14,640

ourselves during the mystery

1214

00:47:18,140 --> 00:47:15,750

investigators show you think of the

1215

00:47:21,020 --> 00:47:18,150

mystery investigators show very goose

1216

00:47:22,340 --> 00:47:21,030

like I recommend it very goose like me

1217

00:47:24,650 --> 00:47:22,350

now that's the highest compliment we've

1218

00:47:26,240 --> 00:47:24,660

had I think in this white lab coat I do

1219

00:47:28,510 --> 00:47:26,250

look like a lot like someone from the

1220

00:47:30,710 --> 00:47:28,520

ponds Institute and I quite like that

1221

00:47:32,990 --> 00:47:30,720

well thank you very much again for being

1222

00:47:34,490 --> 00:47:33,000

here it's a great time with her to the

1223

00:47:36,050 --> 00:47:34,500

powerhouse museum thank you to the

1224

00:47:38,270 --> 00:47:36,060

powerhouse museum for having the mystery

1225

00:47:39,980 --> 00:47:38,280

investigators we've reached a lot of

1226

00:47:41,270 --> 00:47:39,990

people a lot of audience a lot of kids

1227

00:47:42,890 --> 00:47:41,280

lot of adults we've had a really great

1228

00:47:44,359 --> 00:47:42,900

time water divining all the rest of it

1229

00:47:45,770 --> 00:47:44,369

and I want to thank the powers museum I

1230

00:47:48,410 --> 00:47:45,780

broke a few things while I was here but

1231

00:47:51,050 --> 00:47:48,420

they were very nice to me that's good to

1232

00:47:53,030 --> 00:47:51,060

hear and until next week this is Maynard

1233

00:48:00,410 --> 00:47:53,040

Joe and Richard signing off from Sydney

1234

00:48:03,710 --> 00:48:00,420

Australia who Roble you've been

1235

00:48:08,240 --> 00:48:03,720

listening to the skeptic zone visit our

1236

00:48:10,700 --> 00:48:08,250

website at [www.skepticzoneTV.com](http://www.skepticzoneTV.com) for

1237

00:48:12,420 --> 00:48:10,710

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