

1
00:00:06,009 --> 00:00:11,910
welcome to the skeptic zone the podcast

2
00:00:09,130 --> 00:00:23,449
from Australia for science and reason

3
00:00:11,910 --> 00:00:23,448
[Music]

4
00:00:25,410 --> 00:00:33,628
yes it's the skeptic zone podcast

5
00:00:28,230 --> 00:00:37,140
episode number 536 for the 27th of

6
00:00:33,628 --> 00:00:40,289
January 2019 richardsaunders coming to

7
00:00:37,140 --> 00:00:45,530
you today from Golden Gate Park in San

8
00:00:40,289 --> 00:00:49,890
Francisco I'm on my way to visit the

9
00:00:45,530 --> 00:00:53,789
wonderful Academy of Sciences Building

10
00:00:49,890 --> 00:00:54,780
Museum exhibition it's been here for

11
00:00:53,789 --> 00:00:58,588
some years now

12
00:00:54,780 --> 00:01:00,679
and it has a staggering array of things

13
00:00:58,588 --> 00:01:04,679
to do things to look at things to

14
00:01:00,679 --> 00:01:06,599
experience and a gift shop a report

15
00:01:04,680 --> 00:01:09,750
about that coming up later on in the

16
00:01:06,599 --> 00:01:14,219
skeptic zone also this week yow ease

17
00:01:09,750 --> 00:01:17,129
oh yes Yowies a report of a Yowie

18
00:01:14,219 --> 00:01:19,078
attacking a truck from Australia in the

19
00:01:17,129 --> 00:01:21,359
state of Queensland and you'll be

20
00:01:19,078 --> 00:01:23,609
reading that report and talking about

21
00:01:21,359 --> 00:01:27,109
these mythical creatures

22
00:01:23,609 --> 00:01:30,060
well maybe their mythical with noted

23
00:01:27,109 --> 00:01:32,659
cryptozoologist Ben Radford and of

24
00:01:30,060 --> 00:01:36,450
course he is one of the co-hosts of the

25
00:01:32,659 --> 00:01:38,460
squaring the strange podcast also

26
00:01:36,450 --> 00:01:41,789
another report from Trish Hann in her

27
00:01:38,459 --> 00:01:46,048
new segment Trish and chips this week

28
00:01:41,789 --> 00:01:49,409
Trish chats to dr. Brad Makai about pill

29

00:01:46,049 --> 00:01:53,520
testing at concerts music events and

30
00:01:49,409 --> 00:01:56,100
this is a big big topic in Australia

31
00:01:53,519 --> 00:01:58,259
because sadly young people seem to be

32
00:01:56,099 --> 00:02:01,888
dying because they're taking drugs at

33
00:01:58,259 --> 00:02:04,739
pop concerts outside music events and so

34
00:02:01,888 --> 00:02:07,138
on now they don't know exactly what's in

35
00:02:04,739 --> 00:02:08,969
the drugs and there's a move to

36
00:02:07,138 --> 00:02:12,939
introduce pill testing at these events

37
00:02:08,969 --> 00:02:15,909
and there's large

38
00:02:12,939 --> 00:02:17,829
lobbie of people who won't have a bar of

39
00:02:15,909 --> 00:02:22,960
it who say we can't introduce pill

40
00:02:17,830 --> 00:02:26,680
testing put kids are dying a very vexed

41
00:02:22,960 --> 00:02:29,099
issue find out more later on with Trish

42
00:02:26,680 --> 00:02:29,099
and chips

43
00:02:29,128 --> 00:02:34,090

what a wonderful Park Golden Gate Park

44

00:02:31,719 --> 00:02:37,449

is in San Francisco it's worth having a

45

00:02:34,090 --> 00:02:40,150

look on the map on Google Maps or map of

46

00:02:37,449 --> 00:02:45,000

your choice it's a huge enormous

47

00:02:40,150 --> 00:02:50,469

wonderful rolling Park here with the

48

00:02:45,000 --> 00:02:53,019

Botanical Gardens and squirrels and you

49

00:02:50,469 --> 00:02:58,229

can do things like rent a Segway and zip

50

00:02:53,019 --> 00:03:01,120

around so I am now approaching the

51

00:02:58,229 --> 00:03:03,988

Academy of Sciences

52

00:03:01,120 --> 00:03:07,780

you know I do that and walk inside and

53

00:03:03,989 --> 00:03:09,950

look for a donut I hope you enjoy the

54

00:03:07,780 --> 00:03:21,800

skeptic zone

55

00:03:09,949 --> 00:03:21,799

[Music]

56

00:03:24,240 --> 00:03:27,319

[Music]

57

00:03:27,659 --> 00:03:33,099

joining me from Albuquerque New Mexico

58
00:03:30,310 --> 00:03:36,539
it's one of the stars of squaring the

59
00:03:33,099 --> 00:03:38,710
strange Ben Radford hello Ben

60
00:03:36,539 --> 00:03:42,009
great to catch up with you know the

61
00:03:38,710 --> 00:03:46,020
reason I'm contacting you is because I

62
00:03:42,009 --> 00:03:48,340
was I was informed of a weird yo ii yo

63
00:03:46,020 --> 00:03:50,860
ii being sort of a bigfoot-type

64
00:03:48,340 --> 00:03:54,219
character story coming out of australia

65
00:03:50,860 --> 00:03:57,120
and this i thought well who could i chat

66
00:03:54,219 --> 00:04:00,009
to who's an expert in cryptozoology ah

67
00:03:57,120 --> 00:04:03,640
Ben Radford and this has been a long

68
00:04:00,009 --> 00:04:06,459
long term interest of yours yes you know

69
00:04:03,639 --> 00:04:10,079
I've always been fascinated by by by the

70
00:04:06,460 --> 00:04:11,920
the more tangible things right and so

71
00:04:10,080 --> 00:04:15,160
I've always been a little less

72
00:04:11,919 --> 00:04:17,048
interested in UFOs and psychics for

73
00:04:15,159 --> 00:04:18,850
example because they're sort of they're

74
00:04:17,048 --> 00:04:20,259
sort of beyond our grasp you know

75
00:04:18,850 --> 00:04:22,300
they're they're not tangible but if

76
00:04:20,259 --> 00:04:24,519
you're looking at you know chupacabras

77
00:04:22,300 --> 00:04:27,790
and Lake Monsters and Bigfoot and Yowies

78
00:04:24,519 --> 00:04:29,529
in theory you could go and grab one and

79
00:04:27,790 --> 00:04:33,850
touch one and pet one if it'll let you I

80
00:04:29,529 --> 00:04:36,189
guess good point good point I mean in in

81
00:04:33,850 --> 00:04:40,050
theory they are quite tangible well if

82
00:04:36,189 --> 00:04:44,379
they existed I tell you what they did

83
00:04:40,050 --> 00:04:47,110
yes advisedly let me for the benefit of

84
00:04:44,379 --> 00:04:50,550
all this and this I'll read a portion of

85
00:04:47,110 --> 00:04:50,550
the story and then we'll come back

86

00:04:53,870 --> 00:05:02,189
published on the 24th of January 2019

87
00:04:57,199 --> 00:05:05,639
written by Robin woth and appearing in

88
00:05:02,189 --> 00:05:10,870
the Korea newspaper Queensland

89
00:05:05,639 --> 00:05:12,800
trucky claims Yowie bashed his bonnet a

90
00:05:10,870 --> 00:05:17,160
[Music]

91
00:05:12,800 --> 00:05:19,500
Queensland Truckee o and Truckee in

92
00:05:17,160 --> 00:05:21,900
Australia means trucker in the United

93
00:05:19,500 --> 00:05:25,079
States we tend to put I e on the end of

94
00:05:21,899 --> 00:05:27,599
many words sometimes he put o and in

95
00:05:25,079 --> 00:05:30,419
this case its ie a Queensland and

96
00:05:27,600 --> 00:05:34,100
Queensland is this state the large state

97
00:05:30,420 --> 00:05:38,819
mostly tropical in the northern part of

98
00:05:34,100 --> 00:05:42,060
eastern Australia hmm a Queensland

99
00:05:38,819 --> 00:05:44,730
Truckee claims he eyeballs a hulking

100
00:05:42,060 --> 00:05:47,819

three meter tall Yowie in broad daylight

101

00:05:44,730 --> 00:05:50,129

before it punched his bonnet and melted

102

00:05:47,819 --> 00:05:53,009

into the bush the delivery driver

103

00:05:50,129 --> 00:05:55,620

identified only as Gary says he was

104

00:05:53,009 --> 00:05:58,349

driving in the bushy gold coast

105

00:05:55,620 --> 00:06:01,110

hinterland on a november morning last

106

00:05:58,350 --> 00:06:05,129

year when he rounded a sharp right bend

107

00:06:01,110 --> 00:06:07,740

at wither in' and had the experience of

108

00:06:05,129 --> 00:06:10,290

his life he slammed on the brakes after

109

00:06:07,740 --> 00:06:12,840

spotting what he thought was a boulder

110

00:06:10,290 --> 00:06:17,879

tumbling down a steep slope onto the

111

00:06:12,839 --> 00:06:21,449

road but then it moved gary says he

112

00:06:17,879 --> 00:06:25,290

watched as the creature unfurled huge

113

00:06:21,449 --> 00:06:28,500

hairy limbs limbs and stood upright

114

00:06:25,290 --> 00:06:33,090

before locking eyes with him through the

115
00:06:28,500 --> 00:06:36,959
trucks windscreen quote it wasn't a rock

116
00:06:33,089 --> 00:06:39,839
at all unquote gary has told yo'ii

117
00:06:36,959 --> 00:06:43,680
hunter Dean Harrison in an interview

118
00:06:39,839 --> 00:06:45,659
shared on social media quote this thing

119
00:06:43,680 --> 00:06:48,629
scared the absolute crap outta me man

120
00:06:45,660 --> 00:06:53,240
quote he said the creature was a

121
00:06:48,629 --> 00:06:55,949
towering beast its naval level

122
00:06:53,240 --> 00:06:59,129
he said the creature was a towering

123
00:06:55,949 --> 00:07:02,219
beast its naval level with the trucks

124
00:06:59,129 --> 00:07:04,439
bonnet 6 foot 1.8 meters off the ground

125
00:07:02,220 --> 00:07:09,930
and he reckons it would have

126
00:07:04,439 --> 00:07:12,420
Wade close to 400 kilos at first the

127
00:07:09,930 --> 00:07:15,590
Yowie with its small head and oversized

128
00:07:12,420 --> 00:07:18,480
body seemed somehow shocked or

129
00:07:15,589 --> 00:07:22,859
embarrassed as it stood in the full

130
00:07:18,480 --> 00:07:23,250
glare of day at 10 a.m. on that November

131
00:07:22,860 --> 00:07:28,139
morning

132
00:07:23,250 --> 00:07:30,029
but then it got mad quote he slept or

133
00:07:28,139 --> 00:07:33,209
punched the center of the bonnet of my

134
00:07:30,029 --> 00:07:36,919
truck it was like I had hit a small car

135
00:07:33,209 --> 00:07:41,489
in quote the truck he said quote he was

136
00:07:36,920 --> 00:07:45,180
so tall he had to reach down to hit the

137
00:07:41,490 --> 00:07:48,780
truck just before he hit the truck he

138
00:07:45,180 --> 00:07:53,009
grunted it wasn't a scream or a cry or a

139
00:07:48,779 --> 00:07:55,649
howl but a loud grunt it was hairy it

140
00:07:53,009 --> 00:07:58,439
had hair probably two inches long all

141
00:07:55,649 --> 00:08:02,159
over its body it had a round face like a

142
00:07:58,439 --> 00:08:04,019
chimpanzee and quote well gary was still

143

00:08:02,160 --> 00:08:06,540
trying to make sense of what he was

144
00:08:04,019 --> 00:08:09,629
seeing the creature turned and vanished

145
00:08:06,540 --> 00:08:14,780
into the bush Gary does not want to be

146
00:08:09,629 --> 00:08:18,360
identified fearing being labeled a loon

147
00:08:14,779 --> 00:08:20,639
mr. Harrison B gary hunter understands

148
00:08:18,360 --> 00:08:23,819
that but he's not bothered by those who

149
00:08:20,639 --> 00:08:27,180
doubt the Yowies existence he's sure

150
00:08:23,819 --> 00:08:28,949
they are out there having tracked scores

151
00:08:27,180 --> 00:08:30,259
of sighting across Australia for the

152
00:08:28,949 --> 00:08:33,538
last 20 years

153
00:08:30,259 --> 00:08:36,349
he says he's even been attacked by a

154
00:08:33,538 --> 00:08:39,750
Yowie not once but twice

155
00:08:36,349 --> 00:08:42,330
but as far as Yowie sightings go gary's

156
00:08:39,750 --> 00:08:46,379
is a good one mr. harrison says quote

157
00:08:42,330 --> 00:08:49,980

this is astounding he had such a clear

158

00:08:46,379 --> 00:08:52,470

view of it amazing unquote he told the

159

00:08:49,980 --> 00:08:54,720

Australian Associated Press adding the

160

00:08:52,470 --> 00:08:58,540

truck driver got such a good look at the

161

00:08:54,720 --> 00:09:03,399

creature that he was able to draw it

162

00:08:58,539 --> 00:09:05,439

and the article goes on there will be a

163

00:09:03,399 --> 00:09:07,389

link in this week's show notes you can

164

00:09:05,440 --> 00:09:10,120

read the rest of this thrilling story

165

00:09:07,389 --> 00:09:13,929

for yourself but I thought I would end

166

00:09:10,120 --> 00:09:17,220

this reading of the story with the final

167

00:09:13,929 --> 00:09:20,529

thought in this report

168

00:09:17,220 --> 00:09:23,950

why have no body's been found meaning

169

00:09:20,529 --> 00:09:27,250

our bodies mr. Harrison believes yaoi

170

00:09:23,950 --> 00:09:29,240

family groups operate as a community and

171

00:09:27,250 --> 00:09:32,350

take care of their dead

172
00:09:29,240 --> 00:09:32,350
[Music]

173
00:09:37,009 --> 00:09:41,939
whether you are been that was the report

174
00:09:39,240 --> 00:09:51,570
coming about out of Australia what did

175
00:09:41,940 --> 00:09:53,910
you make of that was impressive you know

176
00:09:51,570 --> 00:09:57,690
three meters nine feet tall that's

177
00:09:53,909 --> 00:10:01,230
that's about about the the typical size

178
00:09:57,690 --> 00:10:04,589
of the the Bigfoot Yowie that we're

179
00:10:01,230 --> 00:10:07,709
familiar with here but a couple red

180
00:10:04,589 --> 00:10:11,130
flags as well the first one was the

181
00:10:07,708 --> 00:10:15,389
anonymous source private we have a

182
00:10:11,129 --> 00:10:19,070
delivery driver named Gary I'm sure

183
00:10:15,389 --> 00:10:22,199
Gary's nice fella assuming he exists I

184
00:10:19,070 --> 00:10:24,180
have no reason to think that Gary is

185
00:10:22,200 --> 00:10:24,750
anything but an upstanding credible

186
00:10:24,179 --> 00:10:30,838
person

187
00:10:24,750 --> 00:10:32,549
assuming he exists but any time we're

188
00:10:30,839 --> 00:10:34,410
dealing with anonymous sources that's a

189
00:10:32,549 --> 00:10:36,899
big red flag because of course do you

190
00:10:34,409 --> 00:10:38,699
there's an there's a barrier between you

191
00:10:36,899 --> 00:10:41,970
and trying to you know get more

192
00:10:38,700 --> 00:10:45,240
information the second thing that jumped

193
00:10:41,970 --> 00:10:47,670
at me was we also don't know the date we

194
00:10:45,240 --> 00:10:52,169
were told that it was in November

195
00:10:47,669 --> 00:10:53,870
morning last year well okay so that was

196
00:10:52,169 --> 00:10:56,699
that was two months ago

197
00:10:53,870 --> 00:10:59,490
why are we only hearing about it now why

198
00:10:56,700 --> 00:11:03,870
why do we hear about it shortly after

199
00:10:59,490 --> 00:11:05,310
the after the incident so it's a little

200

00:11:03,870 --> 00:11:07,019
it's a little curious that doesn't mean

201
00:11:05,309 --> 00:11:10,828
it didn't happen of course but it just

202
00:11:07,019 --> 00:11:13,350
it's just a little sketchy for me could

203
00:11:10,828 --> 00:11:15,389
it be been and and I'm just sort of

204
00:11:13,350 --> 00:11:17,700
grabbed grasping straws here at the

205
00:11:15,389 --> 00:11:21,480
moment could it be that it's just a nice

206
00:11:17,700 --> 00:11:24,390
funny almost a feel-good story a bit

207
00:11:21,480 --> 00:11:26,190
weird and in Australia it's summertime

208
00:11:24,389 --> 00:11:30,149
which we call the silly season where

209
00:11:26,190 --> 00:11:32,850
news is a bit slow and I wondered why

210
00:11:30,149 --> 00:11:37,828
any any news agency would pick up such a

211
00:11:32,850 --> 00:11:40,769
funny story there is definitely a

212
00:11:37,828 --> 00:11:43,439
tendency in the news media especially to

213
00:11:40,769 --> 00:11:46,240
handle certain of these sort of weird or

214
00:11:43,440 --> 00:11:48,430

extraordinary claims as

215

00:11:46,240 --> 00:11:50,528

sort of a cute feature story you know

216

00:11:48,429 --> 00:11:53,979

it's a it's a human interest it's not

217

00:11:50,528 --> 00:11:55,389

it's not science capital s certainly not

218

00:11:53,980 --> 00:11:57,580

not of Sciences they would like to have

219

00:11:55,389 --> 00:11:59,949

it and I've seen that often and I know

220

00:11:57,580 --> 00:12:01,660

you have as well where journalists they

221

00:11:59,950 --> 00:12:04,270

sort of feel like they're given license

222

00:12:01,659 --> 00:12:06,278

they think well you know I'm not I'm not

223

00:12:04,269 --> 00:12:10,149

saying that yeah we definitely exist

224

00:12:06,278 --> 00:12:13,539

this is it's it's a fun story but to my

225

00:12:10,149 --> 00:12:15,519

mind the the same journalistic integrity

226

00:12:13,539 --> 00:12:17,860

should apply across the board so if

227

00:12:15,519 --> 00:12:19,929

you're if you're going to put this in a

228

00:12:17,860 --> 00:12:22,240

newspaper and you're gonna treat this as

229
00:12:19,929 --> 00:12:23,500
a credible account then it should be

230
00:12:22,240 --> 00:12:25,839
credible it shouldn't that there

231
00:12:23,500 --> 00:12:27,940
shouldn't be one standard for fun

232
00:12:25,839 --> 00:12:29,350
feature stories in other Stanford

233
00:12:27,940 --> 00:12:31,150
science stories especially if we're

234
00:12:29,350 --> 00:12:33,700
talking about something that allegedly

235
00:12:31,149 --> 00:12:37,419
exists and another point that occurred

236
00:12:33,700 --> 00:12:40,300
to me Ben if this is real this is a real

237
00:12:37,419 --> 00:12:42,039
thing happening then the police would

238
00:12:40,299 --> 00:12:44,439
have to be involved because this is a

239
00:12:42,039 --> 00:12:47,500
real danger and a real menace to the

240
00:12:44,440 --> 00:12:49,450
Australian public that's true that's

241
00:12:47,500 --> 00:12:50,919
true I mean this is the thing if you're

242
00:12:49,450 --> 00:12:53,589
gonna take these things seriously then

243
00:12:50,919 --> 00:12:57,120
we need to take them seriously I did

244
00:12:53,589 --> 00:12:59,680
notice that in the in in the news piece

245
00:12:57,120 --> 00:13:02,889
there is no photograph of the alleged

246
00:12:59,679 --> 00:13:06,639
damage to his toes the the front of us

247
00:13:02,889 --> 00:13:10,269
is vehicle there's a sketch which is you

248
00:13:06,639 --> 00:13:12,429
know a decent sketch I guess but it's

249
00:13:10,269 --> 00:13:14,980
curious that we don't actually see any

250
00:13:12,429 --> 00:13:16,719
photographs of the damage done by this

251
00:13:14,980 --> 00:13:18,339
Yowie I would I would think that

252
00:13:16,720 --> 00:13:20,259
probably pretty impressive and of course

253
00:13:18,339 --> 00:13:23,260
we might actually be able to determine

254
00:13:20,259 --> 00:13:27,039
we might be able to get hair samples or

255
00:13:23,259 --> 00:13:29,860
DNA samples or blood or something so the

256
00:13:27,039 --> 00:13:33,490
the fact that it's it's anonymous person

257

00:13:29,860 --> 00:13:36,459
that happened at an unknown date a few

258
00:13:33,490 --> 00:13:40,028
months ago and and is not accompanied by

259
00:13:36,458 --> 00:13:43,569
a photograph but a sketch this is shall

260
00:13:40,028 --> 00:13:46,570
we say sketchy sketchy and dare we say

261
00:13:43,570 --> 00:13:52,120
it's been we are maybe somewhat

262
00:13:46,570 --> 00:13:54,070
skeptical yes yes well I thought I'd

263
00:13:52,120 --> 00:13:56,379
chat to the man who certainly knows and

264
00:13:54,070 --> 00:13:59,370
just before we wrap it up how is

265
00:13:56,379 --> 00:14:01,679
squaring the strange going whoops

266
00:13:59,370 --> 00:14:05,250
right along thank you for asking yeah

267
00:14:01,679 --> 00:14:08,069
we're we're doing well we as you know he

268
00:14:05,250 --> 00:14:10,409
recently went to every two weeks which

269
00:14:08,070 --> 00:14:13,379
allowed the three of us myself and

270
00:14:10,409 --> 00:14:16,709
Pasquale Romero and Celestia to sort of

271
00:14:13,379 --> 00:14:21,299

have a more regular schedule around are

272

00:14:16,710 --> 00:14:23,670

a myriad myriad life duties including

273

00:14:21,299 --> 00:14:26,669

children and work and whatnot but we're

274

00:14:23,669 --> 00:14:28,939

plugging along and have some some fun

275

00:14:26,669 --> 00:14:32,069

episodes in the can coming up as well

276

00:14:28,940 --> 00:14:33,960

fantastic folks it's always good to

277

00:14:32,070 --> 00:14:36,778

listen to squaring the strange and it's

278

00:14:33,960 --> 00:14:38,610

always good to chat with Ben Radford Ben

279

00:14:36,778 --> 00:14:39,720

I look forward to having another talk

280

00:14:38,610 --> 00:14:41,879

with you soon

281

00:14:39,720 --> 00:14:47,190

well as soon as another Australian is

282

00:14:41,879 --> 00:14:50,159

attacked by some mythical creature Ben

283

00:14:47,190 --> 00:14:56,559

Radford thank you very much

284

00:14:50,159 --> 00:14:56,558

[Music]

285

00:14:59,860 --> 00:15:05,360

hey fellow skeptics in Radford here with

286
00:15:03,230 --> 00:15:07,610
Celeste reward your friendly host of

287
00:15:05,360 --> 00:15:09,889
scaring the strange a podcast that looks

288
00:15:07,610 --> 00:15:12,589
at topics ranging from legends panics

289
00:15:09,889 --> 00:15:14,448
and cryptids 3d myths psychology and

290
00:15:12,589 --> 00:15:16,579
folklore breaking things down and

291
00:15:14,448 --> 00:15:18,740
picking things apart as we skeptics do

292
00:15:16,578 --> 00:15:21,318
we bring a few different perspectives on

293
00:15:18,740 --> 00:15:23,419
things cluster for example is a witty

294
00:15:21,318 --> 00:15:25,818
cartoonist and Ben is a brilliant writer

295
00:15:23,419 --> 00:15:27,528
and longtime sceptical investigator we

296
00:15:25,818 --> 00:15:30,019
don't always agree but we have fun

297
00:15:27,528 --> 00:15:32,269
trying and we learn new things join us

298
00:15:30,019 --> 00:15:34,610
for new topics every week or two or

299
00:15:32,269 --> 00:15:37,850
browse our backlog of evergreen episodes

300
00:15:34,610 --> 00:15:39,949
available on iTunes and all your podcast

301
00:15:37,850 --> 00:15:43,360
feeding troughs squaring the strange

302
00:15:39,948 --> 00:15:43,359
take care of strangers

303
00:15:46,110 --> 00:15:49,379
[Music]

304
00:15:53,159 --> 00:16:09,519
hmm let's have some Trish and chips his

305
00:16:02,500 --> 00:16:12,250
Trish Han so I'm here on this lovely hot

306
00:16:09,519 --> 00:16:14,649
summer's day in Australia's festival

307
00:16:12,250 --> 00:16:19,960
season to talk with dr. Brad Makai I'm

308
00:16:14,649 --> 00:16:21,189
melting it's boiling and it's that time

309
00:16:19,960 --> 00:16:23,110
of year for those in the northern

310
00:16:21,190 --> 00:16:25,630
hemisphere where we all reach about 40

311
00:16:23,110 --> 00:16:27,310
degrees and a lot of people choose to

312
00:16:25,629 --> 00:16:29,590
spend their time outside in a field

313
00:16:27,309 --> 00:16:33,969
listening to some questionably good

314

00:16:29,590 --> 00:16:35,470
music there is all sorts of different

315
00:16:33,970 --> 00:16:37,560
music festivals out of the moments

316
00:16:35,470 --> 00:16:40,540
absolutely all across the whole country

317
00:16:37,559 --> 00:16:43,029
New South Wales has is it 3 on just this

318
00:16:40,539 --> 00:16:44,740
weekend 3 this weekend yes yeah we're

319
00:16:43,029 --> 00:16:47,199
worried what's gonna be happening to the

320
00:16:44,740 --> 00:16:50,230
youth of today and they will be

321
00:16:47,200 --> 00:16:52,090
surviving through this heat yeah not

322
00:16:50,230 --> 00:16:54,190
just because the hot day but also if

323
00:16:52,090 --> 00:16:57,629
they've been taking drugs at festivals -

324
00:16:54,190 --> 00:17:01,000
yes so last weekend recently there was a

325
00:16:57,629 --> 00:17:03,129
protest I understand about trying to

326
00:17:01,000 --> 00:17:04,328
encourage government specifically here

327
00:17:03,129 --> 00:17:07,869
in New South Wales but also why the

328
00:17:04,328 --> 00:17:09,549

government to introduce pill testing so

329

00:17:07,869 --> 00:17:11,409

I thought we just talk about what what

330

00:17:09,549 --> 00:17:13,088

is pill testing why do we think it's

331

00:17:11,410 --> 00:17:15,699

necessary is it necessary

332

00:17:13,088 --> 00:17:17,230

etc etc we're not talking about drug

333

00:17:15,699 --> 00:17:19,589

testing obviously drug testing is very

334

00:17:17,230 --> 00:17:21,459

different that sounds very police

335

00:17:19,588 --> 00:17:24,250

orientated this is a different thing

336

00:17:21,459 --> 00:17:26,199

entirely so this is testing what's in a

337

00:17:24,250 --> 00:17:29,140

pill that someone may have bought either

338

00:17:26,199 --> 00:17:32,259

online or at festivals so yeah well be

339

00:17:29,140 --> 00:17:36,220

more well in Australia we've had one

340

00:17:32,259 --> 00:17:39,460

trial so far so last year so 2018 in

341

00:17:36,220 --> 00:17:42,130

April there was one pill testing event

342

00:17:39,460 --> 00:17:44,319

that was able to be done officially in

343
00:17:42,130 --> 00:17:47,050
Canberra at a festival called groove in

344
00:17:44,319 --> 00:17:48,849
the mood and yeah they they had heaps of

345
00:17:47,049 --> 00:17:53,379
people queuing up to have their pills

346
00:17:48,849 --> 00:17:55,689
tested so that's one so far but we've

347
00:17:53,380 --> 00:17:57,700
had pill testing or drug testing for a

348
00:17:55,690 --> 00:17:59,110
long time overseas so even in the

349
00:17:57,700 --> 00:18:02,950
Netherlands that's been available since

350
00:17:59,109 --> 00:18:04,539
the early 90s the technology has changed

351
00:18:02,950 --> 00:18:07,059
quite a little bit quite a bit in that

352
00:18:04,539 --> 00:18:09,549
time yeah so certainly in the first

353
00:18:07,059 --> 00:18:11,769
instance we were using reagent kits yeah

354
00:18:09,549 --> 00:18:13,509
so basically you could put it on filter

355
00:18:11,769 --> 00:18:15,250
paper and then if the filter paper goes

356
00:18:13,509 --> 00:18:16,809
a certain color then you could work out

357
00:18:15,250 --> 00:18:18,970
if it was going to be cocaine that was

358
00:18:16,809 --> 00:18:22,059
in like the the powder that you've got

359
00:18:18,970 --> 00:18:24,100
or if words MDMA or ecstasy or something

360
00:18:22,059 --> 00:18:25,779
else and that's the same kind of thing

361
00:18:24,099 --> 00:18:27,219
that we do say at the border or if the

362
00:18:25,779 --> 00:18:28,750
police stopped you to see what that

363
00:18:27,220 --> 00:18:30,789
thing what they were gonna charge you

364
00:18:28,750 --> 00:18:33,970
with carrying right yeah so it takes

365
00:18:30,789 --> 00:18:36,250
takes a few minutes to do you can order

366
00:18:33,970 --> 00:18:38,970
kits online and do it at home a few so

367
00:18:36,250 --> 00:18:41,619
desire and that's all fine and dandy but

368
00:18:38,970 --> 00:18:43,329
what we've been using around the world

369
00:18:41,619 --> 00:18:46,419
for for quite a few years is a

370
00:18:43,329 --> 00:18:48,939
spectroscopy machine so shining an

371

00:18:46,420 --> 00:18:50,950
infrared light at a small amount of

372
00:18:48,940 --> 00:18:52,900
powder or part of a pill that you've

373
00:18:50,950 --> 00:18:56,620
that you've got a sample from and then

374
00:18:52,900 --> 00:18:58,900
you can get a I'm not a scientist regard

375
00:18:56,619 --> 00:19:01,239
the way that I understand it is very

376
00:18:58,900 --> 00:19:03,130
simple and it's like getting a like a

377
00:19:01,240 --> 00:19:04,930
fingerprint of the chemical that's in

378
00:19:03,130 --> 00:19:06,940
front of you so you can sort of see if

379
00:19:04,930 --> 00:19:09,160
there's a pattern that's equivalent to

380
00:19:06,940 --> 00:19:12,850
having MDMA or if it's just talcum

381
00:19:09,160 --> 00:19:16,269
powder or if it's paint or or I don't

382
00:19:12,849 --> 00:19:19,059
know hydro light electrolyte liquid or

383
00:19:16,269 --> 00:19:22,139
powder that's there so you can you can

384
00:19:19,059 --> 00:19:25,269
find out exactly what that substance is

385
00:19:22,140 --> 00:19:26,410

and then there's also a whole range of

386

00:19:25,269 --> 00:19:29,259

different techniques that are being used

387

00:19:26,410 --> 00:19:30,820

in England particularly and I've been

388

00:19:29,259 --> 00:19:34,329

working with a group called the

389

00:19:30,819 --> 00:19:35,769

loop-the-loop UK was the first version

390

00:19:34,329 --> 00:19:38,199

of that and we've now got the loop

391

00:19:35,769 --> 00:19:40,359

Australia and it's using both

392

00:19:38,200 --> 00:19:42,610

spectroscopy machines so you can find

393

00:19:40,359 --> 00:19:45,219

out that digital signature but then also

394

00:19:42,609 --> 00:19:47,199

using the powder and finding out the

395

00:19:45,220 --> 00:19:49,360

quantity of what's there as well and

396

00:19:47,200 --> 00:19:51,700

there's a lot of debate about whether we

397

00:19:49,359 --> 00:19:53,979

can find out how much MDMA is in a

398

00:19:51,700 --> 00:19:55,120

tablet or not but certainly that that is

399

00:19:53,980 --> 00:19:57,390

a possibility

400
00:19:55,119 --> 00:20:00,459
to do it if you've got some brilliant

401
00:19:57,390 --> 00:20:02,320
chemists available and experts in their

402
00:20:00,460 --> 00:20:04,360
field then you know we can work that out

403
00:20:02,319 --> 00:20:06,849
it takes about 20 minutes to use the

404
00:20:04,359 --> 00:20:09,039
spectroscopy machine and about like 40

405
00:20:06,849 --> 00:20:12,579
minutes or so to figure out the quantity

406
00:20:09,039 --> 00:20:14,359
so the actual milligram can dead a pill

407
00:20:12,579 --> 00:20:16,129
contains of a particular

408
00:20:14,359 --> 00:20:17,689
brilliant so and this is entirely

409
00:20:16,130 --> 00:20:19,220
portable right so you're not having to

410
00:20:17,690 --> 00:20:20,539
send it off to a lab you're not having

411
00:20:19,220 --> 00:20:22,370
to wait for the results and then come

412
00:20:20,539 --> 00:20:24,049
back by motorbike courier you can do it

413
00:20:22,369 --> 00:20:27,079
all in the field at the festival with a

414
00:20:24,049 --> 00:20:29,599
music playing yeah so all of this is

415
00:20:27,079 --> 00:20:31,039
portable I'm the gold standard for

416
00:20:29,599 --> 00:20:32,929
finding out what's in a tablet or in

417
00:20:31,039 --> 00:20:35,299
powder is really sending it off to a

418
00:20:32,930 --> 00:20:38,420
university laboratory and using big

419
00:20:35,299 --> 00:20:40,069
fancy machines that go Bing and that can

420
00:20:38,420 --> 00:20:42,019
take even a few days for all of those

421
00:20:40,069 --> 00:20:44,389
results to come back so we don't have

422
00:20:42,019 --> 00:20:46,069
that portable at the moment I think we

423
00:20:44,390 --> 00:20:48,410
could for about half a million dollars

424
00:20:46,069 --> 00:20:52,609
but we're still working on that one

425
00:20:48,410 --> 00:20:54,259
for the moment and but well it a lot of

426
00:20:52,609 --> 00:20:55,819
people criticize it saying oh well if

427
00:20:54,259 --> 00:20:59,599
you've just got a spectroscopy machine

428

00:20:55,819 --> 00:21:01,039
then what's the use of that well well we

429
00:20:59,599 --> 00:21:03,500
might not have the gold standard that we

430
00:21:01,039 --> 00:21:04,970
can take out to a lab but that we can

431
00:21:03,500 --> 00:21:06,440
take out them to the field from a lab

432
00:21:04,970 --> 00:21:08,210
but at least we can give a bit of an

433
00:21:06,440 --> 00:21:09,769
idea to people who are going to

434
00:21:08,210 --> 00:21:13,490
festivals about what what their pills

435
00:21:09,769 --> 00:21:16,069
contain so and why I'm speaking to maybe

436
00:21:13,490 --> 00:21:18,259
an audience who may not take pills may

437
00:21:16,069 --> 00:21:19,819
not understand kind of what those risks

438
00:21:18,259 --> 00:21:22,900
are we're not talking about necessarily

439
00:21:19,819 --> 00:21:25,309
people taking pure MDMA and then

440
00:21:22,900 --> 00:21:26,750
overdosing necessarily to you know

441
00:21:25,309 --> 00:21:28,490
you're buying drugs at a festival there

442
00:21:26,750 --> 00:21:30,259

could be anything in them right so we're

443

00:21:28,490 --> 00:21:32,599

talking like kind of what things like

444

00:21:30,259 --> 00:21:34,970

fentanyl maybe or other opiates that

445

00:21:32,599 --> 00:21:39,259

kind of stuff or even just understand

446

00:21:34,970 --> 00:21:43,190

the talcum powder what are the risk yeah

447

00:21:39,259 --> 00:21:45,200

so some people will buy pills external

448

00:21:43,190 --> 00:21:47,240

to a festival and so they may have their

449

00:21:45,200 --> 00:21:50,210

regular dealer and they're very happy to

450

00:21:47,240 --> 00:21:52,039

to get their pills from that person what

451

00:21:50,210 --> 00:21:54,740

we find from research is that you're

452

00:21:52,039 --> 00:21:56,990

more likely to get what you're expecting

453

00:21:54,740 --> 00:21:59,269

if you're buying it externally if you

454

00:21:56,990 --> 00:22:02,390

are actually buying it in a festival

455

00:21:59,269 --> 00:22:05,059

when you're passed the sniffer dogs and

456

00:22:02,390 --> 00:22:08,540

past the police and pass the bag chicks

457
00:22:05,059 --> 00:22:10,519
then you do really unlikely to get what

458
00:22:08,539 --> 00:22:12,529
you're paying for so this is a research

459
00:22:10,519 --> 00:22:13,940
that's been done out of the UK finding

460
00:22:12,529 --> 00:22:16,250
that yeah maybe fifty percent of what

461
00:22:13,940 --> 00:22:17,630
you're getting within a festival was

462
00:22:16,250 --> 00:22:18,319
actually what you were what you're

463
00:22:17,630 --> 00:22:19,940
expecting

464
00:22:18,319 --> 00:22:21,619
yeah and the whole thing was like yeah

465
00:22:19,940 --> 00:22:24,769
back in the 90s everyone was saying oh

466
00:22:21,619 --> 00:22:25,219
yeah MDMA was and in small doses and

467
00:22:24,769 --> 00:22:28,308
everyone

468
00:22:25,220 --> 00:22:30,589
a good time and yeah there weren't too

469
00:22:28,308 --> 00:22:33,500
many problems there's still a few deaths

470
00:22:30,589 --> 00:22:35,119
around the 90s I'm sure yeah but yeah

471
00:22:33,500 --> 00:22:37,519
like these days it's really weird like

472
00:22:35,119 --> 00:22:39,918
the amount of of different chemicals

473
00:22:37,519 --> 00:22:42,769
that are on pills has just exponentially

474
00:22:39,919 --> 00:22:44,690
increased so you're really not knowing

475
00:22:42,769 --> 00:22:46,970
what you're getting one of the drugs

476
00:22:44,690 --> 00:22:49,250
that spin around is called in ethyl pent

477
00:22:46,970 --> 00:22:52,009
alone which gives people a bit of a high

478
00:22:49,250 --> 00:22:55,970
for a few hours and makes them feel like

479
00:22:52,009 --> 00:22:58,038
they're on ecstasy but then their wake

480
00:22:55,970 --> 00:23:00,470
for three days and they've got a high

481
00:22:58,038 --> 00:23:02,538
chance of having a psychotic episode as

482
00:23:00,470 --> 00:23:04,100
well so we sometimes do see people

483
00:23:02,538 --> 00:23:07,038
rocking up to the emergency department

484
00:23:04,099 --> 00:23:09,709
going oh my god I can't sleep and the

485

00:23:07,038 --> 00:23:11,599
demons keep on attacking me so yeah so

486
00:23:09,710 --> 00:23:13,519
there that's really not what people are

487
00:23:11,599 --> 00:23:15,709
wanting if they're if they're having

488
00:23:13,519 --> 00:23:18,019
ecstasy and they're wanting a fun time

489
00:23:15,710 --> 00:23:20,259
at a festival normally it would work to

490
00:23:18,019 --> 00:23:23,058
give them a high for two or three hours

491
00:23:20,259 --> 00:23:25,879
but not yeah not for three days of

492
00:23:23,058 --> 00:23:27,678
psychosis and I understand that like in

493
00:23:25,880 --> 00:23:30,620
this festival season we've already had

494
00:23:27,679 --> 00:23:32,269
six deaths here in Australia of young

495
00:23:30,619 --> 00:23:34,099
people who have gone out to have a good

496
00:23:32,269 --> 00:23:37,009
time and the price they paid for that

497
00:23:34,099 --> 00:23:38,779
husband the ultimate price so obviously

498
00:23:37,009 --> 00:23:41,058
what we're talking about here with pill

499
00:23:38,779 --> 00:23:43,190

testing isn't necessarily to say to

500

00:23:41,058 --> 00:23:45,019

people I hate these drugs are safe it's

501

00:23:43,190 --> 00:23:46,880

about harm minimisation right so it's

502

00:23:45,019 --> 00:23:48,079

about making sure that they know what's

503

00:23:46,880 --> 00:23:50,270

in it then they can make an educated

504

00:23:48,079 --> 00:23:52,129

decision rather than just a guess yeah

505

00:23:50,269 --> 00:23:54,679

every country seems to have their own

506

00:23:52,130 --> 00:23:58,130

little debate about it and there's some

507

00:23:54,679 --> 00:23:59,900

local issues that develop and local

508

00:23:58,130 --> 00:24:02,809

language and so for some reason in

509

00:23:59,900 --> 00:24:05,750

Australia safe has become a really dirty

510

00:24:02,808 --> 00:24:09,009

word so over in the UK they were talking

511

00:24:05,750 --> 00:24:12,769

about drugs safety testing so mainly

512

00:24:09,009 --> 00:24:14,179

providing safety for people but then in

513

00:24:12,769 --> 00:24:15,589

Australia the whole language has been

514
00:24:14,179 --> 00:24:17,030
changed and now we're debating it

515
00:24:15,589 --> 00:24:18,980
because people are thinking that we're

516
00:24:17,029 --> 00:24:21,349
going to be checking pills and making

517
00:24:18,980 --> 00:24:24,500
sure that that particular pill is safe

518
00:24:21,349 --> 00:24:27,500
for somebody to take yeah but we're here

519
00:24:24,500 --> 00:24:29,450
across the board with every pill testing

520
00:24:27,500 --> 00:24:32,029
service around the world we don't say

521
00:24:29,450 --> 00:24:34,640
that a pill is safe we're saying okay

522
00:24:32,029 --> 00:24:37,879
well this this these are the ingredients

523
00:24:34,640 --> 00:24:38,919
this is what we expect the dose would be

524
00:24:37,880 --> 00:24:42,609
in this batch

525
00:24:38,919 --> 00:24:44,409
pohl's no drug-taking is safe we can't

526
00:24:42,608 --> 00:24:46,298
say that if you're if you're making

527
00:24:44,409 --> 00:24:47,950
these pills and your grandmother's

528
00:24:46,298 --> 00:24:49,658
garage and that there's going to be any

529
00:24:47,950 --> 00:24:51,009
consistency with the drugs or that it's

530
00:24:49,659 --> 00:24:53,109
gonna be like exactly what you're

531
00:24:51,009 --> 00:24:55,389
thinking it can be we can give an idea

532
00:24:53,108 --> 00:24:57,699
but nobody's ever gonna say yeah this

533
00:24:55,388 --> 00:25:01,028
this drug that's made in a bad backyard

534
00:24:57,700 --> 00:25:02,619
lab is gonna be safe for you and there

535
00:25:01,028 --> 00:25:04,659
seems to be this weird sort of political

536
00:25:02,618 --> 00:25:06,548
divide at the moment with this

537
00:25:04,659 --> 00:25:08,769
discussion is that do you think because

538
00:25:06,548 --> 00:25:10,808
politicians are hesitant to see to be

539
00:25:08,769 --> 00:25:12,038
seen as encouraging drug use and they

540
00:25:10,808 --> 00:25:13,358
think that this will encourage it or do

541
00:25:12,038 --> 00:25:14,829
you think it's more that they don't want

542

00:25:13,358 --> 00:25:18,489
to touch the subject of drugs whatsoever

543
00:25:14,829 --> 00:25:21,339
I think it's multifaceted so one aspect

544
00:25:18,489 --> 00:25:24,429
of it is if somebody did have a pill

545
00:25:21,339 --> 00:25:26,168
checked and and this is what the

546
00:25:24,429 --> 00:25:28,149
politicians are saying if that person

547
00:25:26,169 --> 00:25:32,320
was told that their their pill was safe

548
00:25:28,148 --> 00:25:36,668
which we'd never say and then they ended

549
00:25:32,319 --> 00:25:39,158
up dying from having that pill then they

550
00:25:36,669 --> 00:25:41,019
could be held liable for it so they're

551
00:25:39,159 --> 00:25:42,970
not wanting to have that green light as

552
00:25:41,019 --> 00:25:44,378
they say to drugs but that's basically

553
00:25:42,970 --> 00:25:46,389
because they don't understand the the

554
00:25:44,378 --> 00:25:47,949
purpose of it so other people say well

555
00:25:46,388 --> 00:25:49,538
why should we have pill testing if we're

556
00:25:47,950 --> 00:25:52,989

just gonna tell everybody that their

557

00:25:49,538 --> 00:25:54,460

drugs are not being safe and again like

558

00:25:52,989 --> 00:25:56,919

that's not really what the systems for

559

00:25:54,460 --> 00:25:58,808

yeah and from a skeptical one of you

560

00:25:56,919 --> 00:26:01,299

like this is really about finding

561

00:25:58,808 --> 00:26:03,339

information and knowledge and helping

562

00:26:01,298 --> 00:26:05,019

people to make a decision based on

563

00:26:03,339 --> 00:26:06,548

what's in front of them

564

00:26:05,019 --> 00:26:08,288

yeah so if you've got somebody with a

565

00:26:06,548 --> 00:26:09,970

pill and they have no idea what's what's

566

00:26:08,288 --> 00:26:11,349

in it and they're gonna take it anyway

567

00:26:09,970 --> 00:26:14,409

because that are there at a festival

568

00:26:11,349 --> 00:26:16,778

they've spent \$30 to buy a pill to have

569

00:26:14,409 --> 00:26:18,730

three hours of fun then yeah that

570

00:26:16,778 --> 00:26:20,618

they're about to take it but pill

571
00:26:18,730 --> 00:26:23,349
testing comes in at that time and sort

572
00:26:20,618 --> 00:26:25,148
of goes okay well let's have a look at

573
00:26:23,349 --> 00:26:27,189
it let's see if we can change your mind

574
00:26:25,148 --> 00:26:29,768
let's give you some knowledge yeah an

575
00:26:27,190 --> 00:26:31,629
understanding about what's here and we

576
00:26:29,769 --> 00:26:34,358
find that the vast majority of people

577
00:26:31,628 --> 00:26:37,329
who have their pills tested and it's not

578
00:26:34,358 --> 00:26:39,579
what they're expecting they they don't

579
00:26:37,329 --> 00:26:41,798
take it or they modify their use for it

580
00:26:39,579 --> 00:26:43,509
if we're able to find the quantity of it

581
00:26:41,798 --> 00:26:45,429
as well so if we're finding that a pill

582
00:26:43,509 --> 00:26:48,489
has about four times the dose of what

583
00:26:45,429 --> 00:26:50,550
would be an expected pill of MDMA and

584
00:26:48,489 --> 00:26:53,610
then we can actually say look that

585

00:26:50,549 --> 00:26:56,609

this is this is likely to be quite a

586

00:26:53,609 --> 00:26:59,129

strong kill we don't advise taking it

587

00:26:56,609 --> 00:27:01,229

but hey if you're gonna take it then

588

00:26:59,130 --> 00:27:03,390

don't take the whole freaking thing like

589

00:27:01,230 --> 00:27:05,130

maybe if you broke it into half water

590

00:27:03,390 --> 00:27:07,470

don't make your own independent

591

00:27:05,130 --> 00:27:09,180

estrogens but yeah like it just go

592

00:27:07,470 --> 00:27:10,470

really slowly with it and so that's when

593

00:27:09,180 --> 00:27:12,870

pill Kristin can really make a

594

00:27:10,470 --> 00:27:14,850

difference yes like it and some people

595

00:27:12,869 --> 00:27:16,919

will go into a festival and they'll

596

00:27:14,849 --> 00:27:18,569

double drop or triple drop me yet so

597

00:27:16,920 --> 00:27:20,550

taking two or three pills before they're

598

00:27:18,569 --> 00:27:22,829

even getting through the gates often

599

00:27:20,549 --> 00:27:24,839
people get worried about sniffer dog yes

600
00:27:22,829 --> 00:27:26,720
that are at the at the front entrance

601
00:27:24,839 --> 00:27:29,159
and so they're taking all of their drugs

602
00:27:26,720 --> 00:27:31,140
because they don't want to be found with

603
00:27:29,160 --> 00:27:32,730
them on them so then if you've got a

604
00:27:31,140 --> 00:27:34,560
pill that's four times the dose and

605
00:27:32,730 --> 00:27:37,259
you're taking three of them before

606
00:27:34,559 --> 00:27:39,539
you're going past a dog dog that's

607
00:27:37,259 --> 00:27:41,069
sniffing your ankles yeah then yeah this

608
00:27:39,539 --> 00:27:42,779
is when a lot of people do get into

609
00:27:41,069 --> 00:27:45,059
trouble because they're having too much

610
00:27:42,779 --> 00:27:48,869
too quickly and then ending up in the

611
00:27:45,059 --> 00:27:51,210
medical tent or worse dead yeah and so a

612
00:27:48,869 --> 00:27:53,129
comparison that I quite like to make is

613
00:27:51,210 --> 00:27:54,660

that when you buy when you're a festival

614

00:27:53,130 --> 00:27:56,790

and you go up to the bar and you buy a

615

00:27:54,660 --> 00:27:58,290

bottle of beer everything on the back of

616

00:27:56,789 --> 00:28:00,299

that bottle is listed it tells you not

617

00:27:58,289 --> 00:28:02,430

only the alcohol content but it'll tell

618

00:28:00,299 --> 00:28:03,359

you they'll be gluten free you know I'll

619

00:28:02,430 --> 00:28:04,650

tell you whether that's gluten and

620

00:28:03,359 --> 00:28:06,389

they'll tell you whether there's all

621

00:28:04,650 --> 00:28:08,130

sorts of stuff in there and you can get

622

00:28:06,390 --> 00:28:09,509

you know paleo beers all that kind of

623

00:28:08,130 --> 00:28:11,550

stuff as well so it tells you everything

624

00:28:09,509 --> 00:28:13,440

that's in that bottle of beer same with

625

00:28:11,549 --> 00:28:15,240

cigarettes nowadays compared to the old

626

00:28:13,440 --> 00:28:16,259

days we now know every item it's and

627

00:28:15,240 --> 00:28:18,690

cigarettes and obviously they're still

628
00:28:16,259 --> 00:28:20,609
very harmful but you know about it no

629
00:28:18,690 --> 00:28:23,039
one's ever gonna say cigarettes are safe

630
00:28:20,609 --> 00:28:24,599
they are probably safer than they used

631
00:28:23,039 --> 00:28:26,670
to be say 50 years back but they're

632
00:28:24,599 --> 00:28:28,679
certainly not safe but yet we legitimize

633
00:28:26,670 --> 00:28:30,750
them we taxed them we sell them because

634
00:28:28,680 --> 00:28:32,460
we know what's meant what's in them

635
00:28:30,750 --> 00:28:34,259
they're made in the factories and that

636
00:28:32,460 --> 00:28:35,819
kind of thing right so we're not saying

637
00:28:34,259 --> 00:28:39,119
that at this point we want to

638
00:28:35,819 --> 00:28:40,529
necessarily you know federalize drugs

639
00:28:39,119 --> 00:28:41,699
and make it kind of a thing made by the

640
00:28:40,529 --> 00:28:44,160
government and sold by the government

641
00:28:41,700 --> 00:28:47,250
but people will continue to make and

642
00:28:44,160 --> 00:28:49,650
profit from illicit drugs so harm

643
00:28:47,250 --> 00:28:51,750
reduction is definitely a thing that is

644
00:28:49,650 --> 00:28:54,150
worth doing right and and as skeptics

645
00:28:51,750 --> 00:28:56,220
and as skeptics within medicine we're

646
00:28:54,150 --> 00:28:57,400
both pretty keen on harm reduction mmm

647
00:28:56,220 --> 00:28:59,860
well some of the arguments

648
00:28:57,400 --> 00:29:01,120
so well well drugs are illegal so don't

649
00:28:59,859 --> 00:29:02,979
take them yeah it's your fault so you

650
00:29:01,119 --> 00:29:03,429
know if you die that's your own freaking

651
00:29:02,980 --> 00:29:05,470
you fault

652
00:29:03,430 --> 00:29:08,620
whereas I sort of think well yeah no

653
00:29:05,470 --> 00:29:11,710
edges 18 year olds probably aren't gonna

654
00:29:08,619 --> 00:29:13,779
be well and mature by that time and your

655
00:29:11,710 --> 00:29:16,360
brain keeps on developing until at least

656

00:29:13,779 --> 00:29:19,149
25 yeah for some people a lot more than

657
00:29:16,359 --> 00:29:20,500
that so yeah if you're making a dumb

658
00:29:19,150 --> 00:29:22,840
mistake and taking something that's

659
00:29:20,500 --> 00:29:24,990
illegal when you're 18 I don't think

660
00:29:22,839 --> 00:29:27,639
that you shouldn't have to die like that

661
00:29:24,990 --> 00:29:29,289
but it's also like the from a from a

662
00:29:27,640 --> 00:29:31,390
scientific perspective what makes one

663
00:29:29,289 --> 00:29:33,639
drug illegal and the next the next thing

664
00:29:31,390 --> 00:29:35,680
not that we know that alcohol causes far

665
00:29:33,640 --> 00:29:37,750
more problems than MDMA or even

666
00:29:35,680 --> 00:29:39,970
methamphetamine and society so we have

667
00:29:37,750 --> 00:29:42,039
about 6,000 plus deaths in Australia

668
00:29:39,970 --> 00:29:44,410
every year that have just attributed to

669
00:29:42,039 --> 00:29:46,750
alcohol yeah it's the like after

670
00:29:44,410 --> 00:29:50,230

cigarettes alcohol is the second most

671

00:29:46,750 --> 00:29:52,809

common cause of cancer yeah so like it's

672

00:29:50,230 --> 00:29:54,910

not safe even though it's legal yeah um

673

00:29:52,809 --> 00:29:57,579

so yeah just putting a scientific

674

00:29:54,910 --> 00:29:59,470

glasses on and yeah taking the the

675

00:29:57,579 --> 00:30:00,519

legality out of it I think that we

676

00:29:59,470 --> 00:30:02,470

should be able to provide information

677

00:30:00,519 --> 00:30:04,809

for people and then helping them to

678

00:30:02,470 --> 00:30:05,860

judge whether they're going to be taking

679

00:30:04,809 --> 00:30:07,690

their substance or not

680

00:30:05,859 --> 00:30:09,490

yeah and it's treating people like

681

00:30:07,690 --> 00:30:12,519

adults and giving the responsibility

682

00:30:09,490 --> 00:30:14,079

back to them if someone is told hey this

683

00:30:12,519 --> 00:30:16,680

this drug this pill that you've bought

684

00:30:14,079 --> 00:30:21,519

has got rat poison in it and it's got

685
00:30:16,680 --> 00:30:23,170
don't take it right you tell them what's

686
00:30:21,519 --> 00:30:25,480
in it and that's I think maybe something

687
00:30:23,170 --> 00:30:26,769
which I've read a lot of sort of the

688
00:30:25,480 --> 00:30:28,690
older politicians are saying you know oh

689
00:30:26,769 --> 00:30:30,940
no no one's gonna throw away something

690
00:30:28,690 --> 00:30:32,500
they've paid 30 bucks for if it's gonna

691
00:30:30,940 --> 00:30:34,630
kill them they probably will right

692
00:30:32,500 --> 00:30:36,220
people people don't want to kill their

693
00:30:34,630 --> 00:30:39,430
friends no and they don't want to kill

694
00:30:36,220 --> 00:30:42,009
themselves so we and we know from from

695
00:30:39,430 --> 00:30:43,720
UK studies and yes studies all around

696
00:30:42,009 --> 00:30:45,879
Europe that about two-thirds of people

697
00:30:43,720 --> 00:30:47,019
will like dump their drugs so if they

698
00:30:45,880 --> 00:30:49,600
find out that it's not what they

699
00:30:47,019 --> 00:30:50,879
expected the other third we sort of go

700
00:30:49,599 --> 00:30:52,750
okay what are they going to be doing

701
00:30:50,880 --> 00:30:54,460
sometimes they might find that it's

702
00:30:52,750 --> 00:30:56,079
ketamine rather than MDMA and they'll go

703
00:30:54,460 --> 00:30:59,710
oh well I'll take that then but that's

704
00:30:56,079 --> 00:31:01,179
behind yeah we don't condone I mean but

705
00:30:59,710 --> 00:31:03,250
yeah like at least they'll know what to

706
00:31:01,180 --> 00:31:05,170
expect and maybe not freak out as much

707
00:31:03,250 --> 00:31:06,990
if they have a different reaction could

708
00:31:05,170 --> 00:31:08,429
compared to what they're expecting

709
00:31:06,990 --> 00:31:09,750
it was my colleagues in the emergency

710
00:31:08,429 --> 00:31:11,700
department that when they turn up they

711
00:31:09,750 --> 00:31:13,829
can say this is what I took rather than

712
00:31:11,700 --> 00:31:16,590
it was white and had a smiley face on it

713

00:31:13,829 --> 00:31:18,839
exactly yeah so it helps us as medical

714
00:31:16,589 --> 00:31:20,819
professionals being able to treat people

715
00:31:18,839 --> 00:31:22,799
if we know what they're what they're

716
00:31:20,819 --> 00:31:25,558
having and we know how long this is

717
00:31:22,799 --> 00:31:27,500
expected to last for yeah yeah so but

718
00:31:25,558 --> 00:31:29,730
the the other part of it is is that

719
00:31:27,500 --> 00:31:31,109
there's also this weird feedback

720
00:31:29,730 --> 00:31:33,808
mechanism that we don't often talk about

721
00:31:31,109 --> 00:31:35,669
in the media or in public but if

722
00:31:33,808 --> 00:31:37,769
somebody has bought one pill and they're

723
00:31:35,670 --> 00:31:39,660
planning on buying 20 more from from

724
00:31:37,769 --> 00:31:41,849
their dealer and they find out that it's

725
00:31:39,660 --> 00:31:43,769
poisonous then they can go back to the

726
00:31:41,849 --> 00:31:46,409
dealer and say hey you've sold me a

727
00:31:43,769 --> 00:31:49,470

really dodgy pill yeah and so there's

728

00:31:46,410 --> 00:31:52,380

actually like this weird subversive

729

00:31:49,470 --> 00:31:54,360

quality control that's that's brought it

730

00:31:52,380 --> 00:31:57,030

into the system and we don't really

731

00:31:54,359 --> 00:31:59,428

mention this all that much but actually

732

00:31:57,029 --> 00:32:01,470

like what they've found in markets

733

00:31:59,429 --> 00:32:04,019

around the world is that people like

734

00:32:01,470 --> 00:32:06,179

start to produce more MDMA which is what

735

00:32:04,019 --> 00:32:09,389

people are after and less of the the

736

00:32:06,179 --> 00:32:11,280

more poisonous toxic chemicals that can

737

00:32:09,390 --> 00:32:12,990

be out there so it's a self-regulating

738

00:32:11,279 --> 00:32:14,670

market happening right underneath

739

00:32:12,990 --> 00:32:16,230

people's eyes without them even knowing

740

00:32:14,670 --> 00:32:18,630

it yeah well at the moment it's

741

00:32:16,230 --> 00:32:20,460

unregulated there's no tax on it people

742
00:32:18,630 --> 00:32:22,620
can do whatever they want and there's no

743
00:32:20,460 --> 00:32:25,019
repercussions so if somebody's actually

744
00:32:22,619 --> 00:32:26,699
told this is this is terrible

745
00:32:25,019 --> 00:32:28,950
this is not what you're meant to be

746
00:32:26,700 --> 00:32:30,779
selling then yeah like there's there's

747
00:32:28,950 --> 00:32:34,308
some ability to go back down the line

748
00:32:30,779 --> 00:32:37,139
and yeah help to have less poisonous

749
00:32:34,308 --> 00:32:39,089
toxic pills out there may be more

750
00:32:37,140 --> 00:32:40,500
suitable doses rather than really high

751
00:32:39,089 --> 00:32:42,329
doses which is what we were seeing in

752
00:32:40,500 --> 00:32:43,589
Australia at the moment which yeah and

753
00:32:42,329 --> 00:32:45,990
the thing is as well I guess what this

754
00:32:43,589 --> 00:32:47,759
enables and the organizers of music

755
00:32:45,990 --> 00:32:49,410
festivals to do is to issue warnings if

756
00:32:47,759 --> 00:32:50,970
they get someone coming into them with a

757
00:32:49,410 --> 00:32:52,259
particular pill that's quite distinctive

758
00:32:50,970 --> 00:32:54,390
and they test it and discover it's

759
00:32:52,259 --> 00:32:55,950
something very dangerous they can put

760
00:32:54,390 --> 00:32:57,809
out an alert to everyone at the festival

761
00:32:55,950 --> 00:33:00,029
saying don't buy this this will kill you

762
00:32:57,808 --> 00:33:02,789
and if they've got drug testing pill

763
00:33:00,029 --> 00:33:04,109
testing on-site then the the festival

764
00:33:02,789 --> 00:33:05,639
goers are more likely to take that

765
00:33:04,109 --> 00:33:07,199
advice seriously rather than just

766
00:33:05,640 --> 00:33:09,570
assuming it's scare mongering yeah

767
00:33:07,200 --> 00:33:11,819
exactly so I've talked to people running

768
00:33:09,569 --> 00:33:13,829
festivals over in the UK and they know

769
00:33:11,819 --> 00:33:15,960
that there's some guy who is wearing a

770

00:33:13,829 --> 00:33:17,849
black jacket at the certain part of the

771
00:33:15,960 --> 00:33:20,250
festival and he's producing all of these

772
00:33:17,849 --> 00:33:22,169
like really toxic pill

773
00:33:20,250 --> 00:33:23,430
for everybody you can put up like

774
00:33:22,170 --> 00:33:25,320
billboards you can put it up on the

775
00:33:23,430 --> 00:33:27,779
screens you can put it out on social

776
00:33:25,319 --> 00:33:29,159
media saying these pills that look a

777
00:33:27,779 --> 00:33:32,099
little bit gray and they've got a

778
00:33:29,160 --> 00:33:34,740
picture of a shield on the front of them

779
00:33:32,099 --> 00:33:36,809
then this is not weird if I'm there they

780
00:33:34,740 --> 00:33:38,970
smell the vomit maybe there's something

781
00:33:36,809 --> 00:33:42,240
wrong with them and so you can actually

782
00:33:38,970 --> 00:33:45,600
target your your advertising campaign or

783
00:33:42,240 --> 00:33:47,549
your warning campaign to to that part of

784
00:33:45,599 --> 00:33:48,839

the festival and then hopefully that guy

785

00:33:47,549 --> 00:33:52,019

who's standing there in a black jacket

786

00:33:48,839 --> 00:33:54,480

in the rain is able to go oh ok bye oh

787

00:33:52,019 --> 00:33:56,460

my business is over yes let's let's drop

788

00:33:54,480 --> 00:33:58,019

this now and so we find that people

789

00:33:56,460 --> 00:33:59,910

actually wear this pill testing

790

00:33:58,019 --> 00:34:03,059

available that there's less drug use

791

00:33:59,910 --> 00:34:05,160

because people are taking less toxic

792

00:34:03,059 --> 00:34:07,470

substances and yeah they're actually

793

00:34:05,160 --> 00:34:09,780

modifying their use and decreasing the

794

00:34:07,470 --> 00:34:12,570

amount that they're having it was there

795

00:34:09,780 --> 00:34:14,850

and this is the other part of it every

796

00:34:12,570 --> 00:34:16,830

every delivery of information if you're

797

00:34:14,849 --> 00:34:18,269

having pill testing done it's done by a

798

00:34:16,829 --> 00:34:19,619

health professional who knows what

799
00:34:18,269 --> 00:34:22,259
they're talking about and so we actually

800
00:34:19,619 --> 00:34:24,449
go through people's past history we talk

801
00:34:22,260 --> 00:34:25,710
about whether they've got epilepsy if

802
00:34:24,449 --> 00:34:27,059
they're on the medication what

803
00:34:25,710 --> 00:34:29,340
mitigation they're on are they on

804
00:34:27,059 --> 00:34:30,898
antidepressants that could make them

805
00:34:29,340 --> 00:34:33,510
more likely to have a serotonergic

806
00:34:30,898 --> 00:34:36,210
reaction and overheat and die from

807
00:34:33,510 --> 00:34:37,950
having something like ecstasy so it's

808
00:34:36,210 --> 00:34:39,599
it's a way of delivering that

809
00:34:37,949 --> 00:34:42,869
information that's tailored to that

810
00:34:39,599 --> 00:34:44,279
person and also we find that about 95

811
00:34:42,869 --> 00:34:46,168
percent of people who have that

812
00:34:44,280 --> 00:34:47,280
consultation that's the first time

813
00:34:46,168 --> 00:34:49,079
they've talked with a health

814
00:34:47,280 --> 00:34:51,000
professional about their drug use at all

815
00:34:49,079 --> 00:34:52,648
yeah so most people who don't sort of go

816
00:34:51,000 --> 00:34:55,260
to their family GP and say hey I'm

817
00:34:52,648 --> 00:34:58,019
taking pills on the weekend it's not

818
00:34:55,260 --> 00:35:01,410
often something that I see even as a GP

819
00:34:58,019 --> 00:35:04,679
working in Darlington and Sydney but

820
00:35:01,409 --> 00:35:06,690
yeah it's targeting those those

821
00:35:04,679 --> 00:35:08,089
conversations and enabling people to

822
00:35:06,690 --> 00:35:10,530
have an open and honest conversation

823
00:35:08,090 --> 00:35:11,670
about their drug use swimmy yeah

824
00:35:10,530 --> 00:35:14,220
otherwise they're getting information

825
00:35:11,670 --> 00:35:17,159
from online or from from Jack

826
00:35:14,219 --> 00:35:19,439
who's in here 7 yes well and that's the

827

00:35:17,159 --> 00:35:22,109
thing is it's hard to see a downside to

828
00:35:19,440 --> 00:35:23,639
providing education right it's if you

829
00:35:22,110 --> 00:35:25,890
want to educate the public and have them

830
00:35:23,639 --> 00:35:27,719
make an educated risk they get to take

831
00:35:25,889 --> 00:35:30,119
that risk anyway let's give them

832
00:35:27,719 --> 00:35:32,519
something to actually become skeptics

833
00:35:30,119 --> 00:35:35,920
perhaps even drug skeptics

834
00:35:32,519 --> 00:35:37,570
more knowledge is more power absolutely

835
00:35:35,920 --> 00:35:40,950
well on that night thank you very much

836
00:35:37,570 --> 00:35:40,950
dr. Brad Makai thank you

837
00:35:45,400 --> 00:35:48,479
[Music]

838
00:35:53,679 --> 00:35:56,899
[Applause]

839
00:36:00,630 --> 00:36:05,820
i Richard Oh hi Trish hi would you like

840
00:36:05,159 --> 00:36:07,259
a coffee

841
00:36:05,820 --> 00:36:09,539

yeah thanks what are you working on I'm

842

00:36:07,260 --> 00:36:11,840

trying to come up with a new promo to

843

00:36:09,539 --> 00:36:15,300

play on the sceptic zone who's it for

844

00:36:11,840 --> 00:36:17,820

good thinking society in the UK you know

845

00:36:15,300 --> 00:36:19,440

the oh yeah I know them the guys who

846

00:36:17,820 --> 00:36:21,570

recently chased the homeopaths out of

847

00:36:19,440 --> 00:36:23,490

the UK public health system oh did they

848

00:36:21,570 --> 00:36:24,690

yeah they campaigned and lobbied

849

00:36:23,489 --> 00:36:27,839

government for a while and now you

850

00:36:24,690 --> 00:36:29,159

cannot get homeopathy on the NHS so they

851

00:36:27,840 --> 00:36:31,170

can now spend public money on health

852

00:36:29,159 --> 00:36:33,539

care that works Yeah right look I'll

853

00:36:31,170 --> 00:36:38,099

mention that in the promo now their

854

00:36:33,539 --> 00:36:39,960

website is good thinking society org and

855

00:36:38,099 --> 00:36:42,420

that website is a good resource for

856
00:36:39,960 --> 00:36:43,920
learning more about quackery thanks

857
00:36:42,420 --> 00:36:46,340
Trish that gives me something good to

858
00:36:43,920 --> 00:36:46,340
think about

859
00:36:51,519 --> 00:36:58,090
the California Academy of Sciences is a

860
00:36:55,090 --> 00:37:01,930
Research Institute and Natural History

861
00:36:58,090 --> 00:37:04,480
Museum in San Francisco California it is

862
00:37:01,929 --> 00:37:07,629
among the largest museums of Natural

863
00:37:04,480 --> 00:37:11,550
History in the world housing over 26

864
00:37:07,630 --> 00:37:15,400
million specimens the Academy began in

865
00:37:11,550 --> 00:37:17,680
1853 as a learner society and still

866
00:37:15,400 --> 00:37:21,190
carries out a large amount of original

867
00:37:17,679 --> 00:37:31,449
research it's California's oldest Museum

868
00:37:21,190 --> 00:37:34,139
and located in Golden Gate Park the

869
00:37:31,449 --> 00:37:38,259
Academy of Sciences I'm in the foyer and

870
00:37:34,139 --> 00:37:40,839
one of the first things to greet us and

871
00:37:38,260 --> 00:37:46,210
all these excited children is the

872
00:37:40,840 --> 00:37:48,190
classic t-rex dinosaur skeleton and I'd

873
00:37:46,210 --> 00:37:52,539
love to see these things occasionally it

874
00:37:48,190 --> 00:37:57,000
reminds me how wonderful fantastic and

875
00:37:52,539 --> 00:37:59,550
amazing dinosaurs were and our

876
00:37:57,000 --> 00:38:02,039
and this question is particularly final

877
00:37:59,550 --> 00:38:04,920
it's it looks wonderful as well

878
00:38:02,039 --> 00:38:08,269
presented it looks fierce and it's a

879
00:38:04,920 --> 00:38:11,130
great attraction for kids of all ages

880
00:38:08,269 --> 00:38:15,679
the classic t-rex of course if we look

881
00:38:11,130 --> 00:38:19,740
at the forearms that only has two

882
00:38:15,679 --> 00:38:24,690
fingers or claws and we look at the

883
00:38:19,739 --> 00:38:28,409
giant feet chicken's feet birds feet it

884

00:38:24,690 --> 00:38:31,889
is so clear when you look at the

885
00:38:28,409 --> 00:38:33,509
theropod dinosaur you study the feet and

886
00:38:31,889 --> 00:38:35,639
you think of a Turkey's foot or a

887
00:38:33,510 --> 00:38:39,470
chicken's foot north Negus foot

888
00:38:35,639 --> 00:38:39,469
it's absolutely classic

889
00:38:39,789 --> 00:38:44,639
let's explore the Academy

890
00:38:45,780 --> 00:38:50,070
and I've come across a wonderful display

891
00:38:48,239 --> 00:38:54,479
here it's like a Barrier Reef like a

892
00:38:50,070 --> 00:38:57,450
coral reef I can look down and see no

893
00:38:54,480 --> 00:38:59,409
end of tropical fish and stingrays from

894
00:38:57,449 --> 00:39:03,909
the buff

895
00:38:59,409 --> 00:39:08,368
again it's enchanting to everybody

896
00:39:03,909 --> 00:39:12,449
let's have a look oh it's just beautiful

897
00:39:08,369 --> 00:39:12,450
beautiful tropical fish

898
00:39:16,280 --> 00:39:22,570

the kids just love it and me too

899

00:39:24,019 --> 00:39:29,570

good to see so many kids here today I

900

00:39:26,659 --> 00:39:33,440

guess there are many school groups which

901

00:39:29,570 --> 00:39:34,760

is fine although I myself sometimes

902

00:39:33,440 --> 00:39:36,889

because the school kids here in

903

00:39:34,760 --> 00:39:39,920

California don't have a uniform by and

904

00:39:36,889 --> 00:39:42,019

large whereas back home in Australia if

905

00:39:39,920 --> 00:39:43,730

I was at a museum there was a school

906

00:39:42,019 --> 00:39:47,059

group that they'd all be marching around

907

00:39:43,730 --> 00:39:51,829

in their uniform and here we have a

908

00:39:47,059 --> 00:39:56,289

classic display which is a giant

909

00:39:51,829 --> 00:40:00,348

pendulum all the way to the ceiling on

910

00:39:56,289 --> 00:40:03,949

unwire and it's demonstrating the world

911

00:40:00,349 --> 00:40:09,559

is rotating so the pendulum is swinging

912

00:40:03,949 --> 00:40:12,259

back and forth in the same sweep it

913
00:40:09,559 --> 00:40:15,409
doesn't move in that respect but the

914
00:40:12,260 --> 00:40:18,369
earth is moving beneath it and as the

915
00:40:15,409 --> 00:40:23,960
Earth rotates the pendulum knocks over

916
00:40:18,369 --> 00:40:27,740
various little metal poles

917
00:40:23,960 --> 00:40:29,480
it's quite mesmerizing to watch and it's

918
00:40:27,739 --> 00:40:34,329
a classic experiment the show the world

919
00:40:29,480 --> 00:40:34,329
is rotating beneath our very feet

920
00:40:34,769 --> 00:40:41,849
and here's an interesting one one of the

921
00:40:37,130 --> 00:40:45,349
workers here has a alligator or

922
00:40:41,849 --> 00:40:45,349
crocodile skin on display

923
00:40:47,010 --> 00:40:51,090
you die it's true all right so you guys

924
00:40:49,769 --> 00:40:55,039
can sort of see how that would work

925
00:40:51,090 --> 00:40:55,039
right so

926
00:40:56,840 --> 00:41:00,620
and I was just about to say it's like

927
00:40:58,969 --> 00:41:03,919
feeling leather which of course it is

928
00:41:00,619 --> 00:41:07,250
it's feeling leather now I'm in an

929
00:41:03,920 --> 00:41:11,030
elevator a lift and elevator going down

930
00:41:07,250 --> 00:41:14,300
to the aquarium level it says I saw some

931
00:41:11,030 --> 00:41:20,890
of the tropical fish from above so let's

932
00:41:14,300 --> 00:41:27,110
see where this opens up to anticipation

933
00:41:20,889 --> 00:41:29,379
hello I'm still good now I'm safe here

934
00:41:27,110 --> 00:41:29,380
we go

935
00:41:30,360 --> 00:41:35,769
my word

936
00:41:32,869 --> 00:41:39,890
so this is what I was looking down upon

937
00:41:35,768 --> 00:41:43,058
it is a giant aquarium here I'm looking

938
00:41:39,889 --> 00:41:43,058
directly at the fish now

939
00:41:43,739 --> 00:41:53,589
what a wonderful display how thick

940
00:41:48,369 --> 00:41:56,670
mustace glass or perspex be it's a

941

00:41:53,590 --> 00:41:56,670
complete coral reef

942
00:41:56,780 --> 00:42:02,260
with hundreds of people here absolutely

943
00:41:59,630 --> 00:42:02,260
entranced

944
00:42:03,088 --> 00:42:12,358
now I find myself the exact opposite of

945
00:42:07,719 --> 00:42:17,429
before I'm now under the fish looking up

946
00:42:12,358 --> 00:42:17,429
it's a tunnel and tunnel under the fish

947
00:42:18,130 --> 00:42:25,719
what the hell is that these giant fish

948
00:42:22,579 --> 00:42:25,719
swimming right out of my head

949
00:42:27,869 --> 00:42:34,339
around another corner and what a

950
00:42:30,059 --> 00:42:37,429
spectacular sight this is the biggest

951
00:42:34,340 --> 00:42:41,720
the biggest glass face I've seen here so

952
00:42:37,429 --> 00:42:44,089
far it's about oh I don't know

953
00:42:41,719 --> 00:42:47,559
all metres tall something like that

954
00:42:44,090 --> 00:42:47,559
maybe trained half meters tall

955
00:42:47,989 --> 00:42:54,858

get right up to the front of it now oh

956

00:42:52,030 --> 00:42:56,820

yeah that's tall it's probably about 15

957

00:42:54,858 --> 00:42:59,779

feet tall

958

00:42:56,820 --> 00:43:02,580

or multi-lingual here when it comes to

959

00:42:59,780 --> 00:43:04,950

measurements but it is looking directly

960

00:43:02,579 --> 00:43:07,619

into the coral reefs Oasis fantastic

961

00:43:04,949 --> 00:43:10,379

hundreds of fish unders of tropical fish

962

00:43:07,619 --> 00:43:15,329

I can keep walking around it's quite

963

00:43:10,380 --> 00:43:17,490

disorienting so much like it's moving

964

00:43:15,329 --> 00:43:20,369

and you can probably hear the weird sort

965

00:43:17,489 --> 00:43:24,959

of acoustic effect this curved surface

966

00:43:20,369 --> 00:43:28,440

is making step back a little bit and

967

00:43:24,960 --> 00:43:31,880

enjoy the whole scene and it says

968

00:43:28,440 --> 00:43:31,880

Philippine coral reef

969

00:43:32,940 --> 00:43:37,420

coming back up a level or two I'm now

970
00:43:35,500 --> 00:43:41,019
looking down upon the enclosure of an

971
00:43:37,420 --> 00:43:42,829
albino crocodile or alligator let me

972
00:43:41,019 --> 00:43:46,130
have a look

973
00:43:42,829 --> 00:43:49,249
and the little information sign says you

974
00:43:46,130 --> 00:43:52,099
can tell if this is an albino alligator

975
00:43:49,248 --> 00:43:54,379
by looking at its eyes true albinos have

976
00:43:52,099 --> 00:43:58,099
pink eyes and like the body pigment

977
00:43:54,380 --> 00:44:01,219
melanin in lush green swamps and bright

978
00:43:58,099 --> 00:44:03,349
and then white stands out white

979
00:44:01,219 --> 00:44:05,838
alligator born in the wild would have a

980
00:44:03,349 --> 00:44:10,609
low chance of surviving to adulthood and

981
00:44:05,838 --> 00:44:13,608
yet here one is and look down upon it it

982
00:44:10,608 --> 00:44:15,650
looks like it's a Hollywood prop it's

983
00:44:13,608 --> 00:44:17,688
only when you closely look at its eyes

984
00:44:15,650 --> 00:44:20,778
which move occasionally can you tell

985
00:44:17,688 --> 00:44:25,728
that it's a real alligator absolutely

986
00:44:20,778 --> 00:44:28,818
beautiful I really cannot underestimate

987
00:44:25,728 --> 00:44:30,889
the importance of institutions like the

988
00:44:28,818 --> 00:44:33,708
California Academy of Sciences or the

989
00:44:30,889 --> 00:44:35,449
Australian Museum in Sydney and their

990
00:44:33,708 --> 00:44:39,858
sister organizations all around the

991
00:44:35,449 --> 00:44:42,528
world especially and I note again this

992
00:44:39,858 --> 00:44:44,920
place is full of suit students school

993
00:44:42,528 --> 00:44:48,889
students

994
00:44:44,920 --> 00:44:52,320
Wow and here's something

995
00:44:48,889 --> 00:44:55,259
notable on in both directions to my left

996
00:44:52,320 --> 00:44:58,590
them to my right to my left there is a

997
00:44:55,260 --> 00:45:01,860
open lab will aleb with scientists

998

00:44:58,590 --> 00:45:06,120
working you can observe them through a

999
00:45:01,860 --> 00:45:08,760
glass window large glass window and on

1000
00:45:06,119 --> 00:45:11,099
the other side we have

1001
00:45:08,760 --> 00:45:15,300
goodness me what is this it's a giant

1002
00:45:11,099 --> 00:45:17,569
dome like some sort of weird experiment

1003
00:45:15,300 --> 00:45:19,560
that you see in science-fiction movies

1004
00:45:17,570 --> 00:45:21,600
it's enormous

1005
00:45:19,559 --> 00:45:24,679
completely transparent with the spiral

1006
00:45:21,599 --> 00:45:24,679
walk way inside

1007
00:45:24,800 --> 00:45:31,610
and it looks like a tropical forest

1008
00:45:27,530 --> 00:45:35,570
complete with lagoon and fish I guess

1009
00:45:31,610 --> 00:45:39,620
it's worth a look and in order to get

1010
00:45:35,570 --> 00:45:42,318
there I'm passing the skeleton of I

1011
00:45:39,619 --> 00:45:45,168
guess it's a blue whale

1012
00:45:42,318 --> 00:45:47,688

you can't quite see the information

1013

00:45:45,168 --> 00:45:50,118

about it that's the biggest skeleton

1014

00:45:47,688 --> 00:45:52,308

I've ever seen much like the skeleton

1015

00:45:50,119 --> 00:45:54,610

hanging from the ceiling of the

1016

00:45:52,309 --> 00:45:57,940

Australian Museum in Sydney

1017

00:45:54,610 --> 00:45:59,700

oh I see I'm passing the section to do

1018

00:45:57,940 --> 00:46:02,950

with evolution well that's a good sign

1019

00:45:59,699 --> 00:46:07,779

and I guess I'd better join this long

1020

00:46:02,949 --> 00:46:09,359

line to get into this incredible looking

1021

00:46:07,780 --> 00:46:12,970

dome

1022

00:46:09,360 --> 00:46:14,769

we are hundreds of people and with

1023

00:46:12,969 --> 00:46:18,489

hundreds of people we are in a huge

1024

00:46:14,769 --> 00:46:20,619

glass dome it butterflies flying about

1025

00:46:18,489 --> 00:46:23,469

and displays and giving animals and

1026

00:46:20,619 --> 00:46:25,989

little I've lost cases tropical plants

1027
00:46:23,469 --> 00:46:28,629
everywhere but the people outside in the

1028
00:46:25,989 --> 00:46:32,349
rest of the facility are looking in on

1029
00:46:28,630 --> 00:46:34,769
us so maybe in a weird way we're part of

1030
00:46:32,349 --> 00:46:34,769
the exhibition

1031
00:46:36,369 --> 00:46:42,039
lots of little things to do and explore

1032
00:46:38,980 --> 00:46:46,000
and breathe along the way a couple of

1033
00:46:42,039 --> 00:46:51,889
beautiful merits here just about a me

1034
00:46:46,000 --> 00:46:55,199
defense beautiful macaws

1035
00:46:51,889 --> 00:47:01,739
brilliant blue color blue and yellow a

1036
00:46:55,199 --> 00:47:03,509
orange in the higher I get the warmer it

1037
00:47:01,739 --> 00:47:07,259
seems to be or maybe that's because I'm

1038
00:47:03,510 --> 00:47:10,890
exerting myself to walk up this this

1039
00:47:07,260 --> 00:47:13,740
long ramp and the higher we get the more

1040
00:47:10,889 --> 00:47:16,049
butterflies there are that's interesting

1041
00:47:13,739 --> 00:47:18,689
my guests are all flying to the top and

1042
00:47:16,050 --> 00:47:23,700
I can see way about me there are

1043
00:47:18,690 --> 00:47:26,400
butterfly feeding stations almost the

1044
00:47:23,699 --> 00:47:29,899
very top level and again another

1045
00:47:26,400 --> 00:47:29,900
butterfly feeding station

1046
00:47:31,230 --> 00:47:37,550
in the trees as a coach the butterflies

1047
00:47:41,309 --> 00:47:48,328
I can't describe it adequately insist

1048
00:47:44,710 --> 00:47:52,920
it's mythical by walking in a in a

1049
00:47:48,329 --> 00:47:52,920
living sea of butterflies

1050
00:47:59,769 --> 00:48:05,509
another elevator and a set of stairs

1051
00:48:02,659 --> 00:48:08,269
brings us to the very roof of the

1052
00:48:05,510 --> 00:48:12,730
Academy of Sciences which is called the

1053
00:48:08,269 --> 00:48:12,730
living roof let's have a look

1054
00:48:14,909 --> 00:48:21,940
aha

1055

00:48:17,150 --> 00:48:21,940
some on top now the roof is a garden

1056
00:48:22,030 --> 00:48:27,420
whoa

1057
00:48:24,280 --> 00:48:27,420
sort of a

1058
00:48:27,469 --> 00:48:31,669
representation of a real setting

1059
00:48:31,800 --> 00:48:41,390
and inviting habitat for birds it says

1060
00:48:35,570 --> 00:48:45,910
with funny domes and rolling hills

1061
00:48:41,389 --> 00:48:48,409
covered with grass and small vegetation

1062
00:48:45,909 --> 00:48:50,149
and it's a wonderful day he were on the

1063
00:48:48,409 --> 00:48:51,259
roof of the Academy of Sciences and

1064
00:48:50,150 --> 00:48:53,778
hello who you

1065
00:48:51,259 --> 00:48:58,099
I am shahara whanaketanga and you're one

1066
00:48:53,778 --> 00:48:59,869
of the volunteers docent volunteer here

1067
00:48:58,099 --> 00:49:01,459
and your job is to explain to people

1068
00:48:59,869 --> 00:49:04,670
which you were just explaining to mean

1069
00:49:01,458 --> 00:49:06,259

some other people how the roof works and

1070

00:49:04,670 --> 00:49:08,539

and you've got a little model here and

1071

00:49:06,259 --> 00:49:11,989

you've got the layers of the roof and

1072

00:49:08,539 --> 00:49:13,369

you're saying that some design had

1073

00:49:11,989 --> 00:49:14,900

turned up with a sketch pad and just

1074

00:49:13,369 --> 00:49:16,130

said here's what the roof should look

1075

00:49:14,900 --> 00:49:20,539

like would complete with rolling hills

1076

00:49:16,130 --> 00:49:24,380

yeah yeah the architect for this

1077

00:49:20,539 --> 00:49:25,999

building had it just came in and had

1078

00:49:24,380 --> 00:49:29,660

this vision in his head he was walking

1079

00:49:25,998 --> 00:49:30,919

his daughter this is true legends he was

1080

00:49:29,659 --> 00:49:33,108

walking his daughter around San

1081

00:49:30,920 --> 00:49:35,659

Francisco and noticed the hills and how

1082

00:49:33,108 --> 00:49:38,509

beautiful it was and then he just had

1083

00:49:35,659 --> 00:49:42,170

this thought that he wanted to preserve

1084
00:49:38,509 --> 00:49:44,748
the park within the building you know

1085
00:49:42,170 --> 00:49:46,459
and so he decided that that's how he was

1086
00:49:44,748 --> 00:49:49,368
gonna he was gonna raise the roof and

1087
00:49:46,458 --> 00:49:51,618
let the park be on top of it and it

1088
00:49:49,369 --> 00:49:53,568
worked I think you'll agree it really

1089
00:49:51,619 --> 00:49:55,548
worked so you're up here on the roof

1090
00:49:53,568 --> 00:49:58,518
today explaining to people how the roof

1091
00:49:55,548 --> 00:50:00,108
works you find yourself in other areas

1092
00:49:58,518 --> 00:50:04,458
of the the building to explain other

1093
00:50:00,108 --> 00:50:06,920
things yes I work in the flooded Amazon

1094
00:50:04,458 --> 00:50:09,588
rainforest oh yes you I work at the

1095
00:50:06,920 --> 00:50:11,809
titles and in the rainforest fantastic

1096
00:50:09,588 --> 00:50:13,969
and I guess it's a sort of job that you

1097
00:50:11,809 --> 00:50:16,759
just really have a heart and a passion

1098
00:50:13,969 --> 00:50:19,269
for definitely thank you very much thank

1099
00:50:16,759 --> 00:50:19,269
you so much

1100
00:50:19,519 --> 00:50:24,980
I'm now making my way to the planetarium

1101
00:50:21,920 --> 00:50:28,010
for the 12:30 showing of our journey to

1102
00:50:24,980 --> 00:50:30,590
the Stars I think it is but on my way

1103
00:50:28,010 --> 00:50:33,920
I'm stopping by the African gallery

1104
00:50:30,590 --> 00:50:37,360
human Odyssey it says which has displays

1105
00:50:33,920 --> 00:50:42,909
on Africa and evolution of primates and

1106
00:50:37,360 --> 00:50:42,910
right at the end is a spectacular

1107
00:50:43,429 --> 00:50:51,088
display of living penguins look at them

1108
00:50:46,650 --> 00:50:53,030
aren't they sweet and we can see below

1109
00:50:51,088 --> 00:50:59,960
the water and above the water

1110
00:50:53,030 --> 00:51:03,570
maybe Heine giant glass giant glass

1111
00:50:59,960 --> 00:51:06,320
panel and they're just hanging out on

1112

00:51:03,570 --> 00:51:10,730
their rocks these penguins are just

1113
00:51:06,320 --> 00:51:10,730
looking pretty cool just hanging out

1114
00:51:15,570 --> 00:51:19,789
well that was very enjoyable in the

1115
00:51:17,340 --> 00:51:22,140
planetarium journey to the Stars a

1116
00:51:19,789 --> 00:51:24,960
visualization of the galaxy and the life

1117
00:51:22,139 --> 00:51:27,239
of stars well I'm back at the dinosaur

1118
00:51:24,960 --> 00:51:30,809
again the t-rex which means it's time to

1119
00:51:27,239 --> 00:51:33,869
go maybe a quick trip to the gift shop

1120
00:51:30,809 --> 00:51:36,659
on my way out but what a wonderful thing

1121
00:51:33,869 --> 00:51:45,569
it is to do to visit the California

1122
00:51:36,659 --> 00:51:47,339
Academy of Sciences if you're planning a

1123
00:51:45,570 --> 00:51:49,940
visit to the California Academy of

1124
00:51:47,340 --> 00:51:53,640
Sciences check out their website at Cal

1125
00:51:49,940 --> 00:51:57,030
Academy org and the general opening

1126
00:51:53,639 --> 00:52:00,909

hours are Monday to Saturday 9 a.m. to 5

1127

00:51:57,030 --> 00:52:14,059

p.m. or on Sunday 11 a.m. to 5 p.m.

1128

00:52:00,909 --> 00:52:14,058

[Music]

1129

00:52:19,480 --> 00:52:24,050

thank you for listening to the skeptic

1130

00:52:21,710 --> 00:52:27,519

zone and thank you again to those people

1131

00:52:24,050 --> 00:52:30,680

who contribute and via patreon a PayPal

1132

00:52:27,519 --> 00:52:32,239

and if it wasn't for your generous

1133

00:52:30,679 --> 00:52:34,639

support there would be no skeptic

1134

00:52:32,239 --> 00:52:38,029

certain of course and if you've ever

1135

00:52:34,639 --> 00:52:40,400

considered chipping and helping to

1136

00:52:38,030 --> 00:52:46,750

support the skeptic zone well why not

1137

00:52:40,400 --> 00:52:50,809

try it for \$5.00 a month via patreon and

1138

00:52:46,750 --> 00:52:53,179

do that for the rest of 2019 if only a

1139

00:52:50,809 --> 00:52:57,409

tiny percentage of the listenership did

1140

00:52:53,179 --> 00:53:01,399

that it would really help the show stay

1141
00:52:57,409 --> 00:53:04,219
online as it stands at the moment it it

1142
00:53:01,400 --> 00:53:06,530
scrapes through every week every month

1143
00:53:04,219 --> 00:53:09,859
it sort of just scraped through with a

1144
00:53:06,530 --> 00:53:12,440
lot of kind support from especially my

1145
00:53:09,860 --> 00:53:15,200
reporters and a lot of free work being

1146
00:53:12,440 --> 00:53:17,690
done I have to be candid so if you've

1147
00:53:15,199 --> 00:53:20,419
ever considered it it would be really

1148
00:53:17,690 --> 00:53:21,829
great if you could do so and maybe also

1149
00:53:20,420 --> 00:53:24,860
at the same time you can consider

1150
00:53:21,829 --> 00:53:29,119
supporting Maynard at Maynard comdev a

1151
00:53:24,860 --> 00:53:30,530
you with his podcast because he is works

1152
00:53:29,119 --> 00:53:34,460
very hard to bring you fabulous

1153
00:53:30,530 --> 00:53:36,050
entertainment and comedy looking forward

1154
00:53:34,460 --> 00:53:40,039
to seeing may not soon I hope to be back

1155
00:53:36,050 --> 00:53:41,720
in Australia in about a week although I

1156
00:53:40,039 --> 00:53:45,170
understand with the heat over there

1157
00:53:41,719 --> 00:53:47,739
maybe it's better to be in California or

1158
00:53:45,170 --> 00:53:47,740
anywhere

1159
00:53:47,980 --> 00:53:55,250
but for this week very very excited

1160
00:53:53,570 --> 00:53:56,600
schoolchildren just having visited the

1161
00:53:55,250 --> 00:54:00,699
Academy of Sciences

1162
00:53:56,599 --> 00:54:00,699
this is Richard Saunders signing off

1163
00:54:01,539 --> 00:54:08,809
sort of trying to this is Richard

1164
00:54:04,639 --> 00:54:16,519
Saunders signing off from San Francisco

1165
00:54:08,809 --> 00:54:19,219
California you've been listening to the

1166
00:54:16,519 --> 00:54:25,909
skeptical zone podcast please visit our

1167
00:54:19,219 --> 00:54:28,699
website at wwlp.com and to access

1168
00:54:25,909 --> 00:54:32,299
the back catalog of episodes going back

1169

00:54:28,699 --> 00:54:35,960
to 2008 you can follow the skeptic zone

1170
00:54:32,300 --> 00:54:38,360
podcast on twitter at skeptic zone visit

1171
00:54:35,960 --> 00:54:39,250
our facebook page or leave a review on

1172
00:54:38,360 --> 00:54:41,930
itunes

1173
00:54:39,250 --> 00:54:45,289
you can also support the skeptic zone

1174
00:54:41,929 --> 00:54:48,009
via patreon or PayPal the skeptic zone

1175
00:54:45,289 --> 00:54:50,420
podcast is an independent production

1176
00:54:48,010 --> 00:54:52,520
reviews and opinions expressed on the

1177
00:54:50,420 --> 00:54:54,889
skeptic zone are not necessarily those

1178
00:54:52,519 --> 00:54:56,679
of Australian skeptics or any other

1179
00:54:54,889 --> 00:55:02,969
skeptical organisation

1180
00:54:56,679 --> 00:55:02,969
[Music]