

The Skeptic Zone
Show 352 - 19 July 2015



Saunders & Randi

1
00:00:09,500 --> 00:00:05,809
I'd like to do when we need options for

2
00:00:11,930 --> 00:00:09,510
the show yeah this is where you can

3
00:00:13,940 --> 00:00:11,940
really have it up folks garlic I'll do

4
00:00:15,650 --> 00:00:13,950
an introduction I am and I need you to

5
00:00:21,080 --> 00:00:15,660
pretend that you're actually busy astok

6
00:00:24,650 --> 00:00:21,090
about Trevor Bob's the slide says

7
00:00:28,670 --> 00:00:24,660
especially I am first day ok see you

8
00:00:31,970 --> 00:00:28,680
again hello and welcome to the skeptics

9
00:00:52,130 --> 00:00:31,980
are an episode number 352 for the 19th

10
00:01:09,710 --> 00:00:55,280
welcome to the skeptic zone the podcast

11
00:01:15,570 --> 00:01:12,570
yes we're at the the amazing meeting

12
00:01:17,940 --> 00:01:15,580
here it's as I record this it's Sunday

13
00:01:20,249 --> 00:01:17,950

morning of the amazing meeting Wow right

14

00:01:22,200 --> 00:01:20,259

down the end of this long car door I'm

15

00:01:25,469 --> 00:01:22,210

walking I can actually see james randi

16

00:01:26,940 --> 00:01:25,479

himself at the information desk coming

17

00:01:29,280 --> 00:01:26,950

up on this week's show we have an

18

00:01:31,260 --> 00:01:29,290

interview with well interviews with a

19

00:01:34,280 --> 00:01:31,270

Susan go back from guerrilla skepticism

20

00:01:36,749 --> 00:01:34,290

Tim Farley from what's the harm net and

21

00:01:38,399 --> 00:01:36,759

after the the break with a week in

22

00:01:41,850 --> 00:01:38,409

science from the Royal Institution of

23

00:01:44,100 --> 00:01:41,860

Australia we have Carl Sanders from

24

00:01:46,859 --> 00:01:44,110

carbon dating and will round off the

25

00:01:49,230 --> 00:01:46,869

episode with Jeff wag from the college

26

00:01:51,840 --> 00:01:49,240

of curiosity and look at this it's jay

27

00:01:56,160 --> 00:01:51,850

novella walking past hey has tan going

28

00:01:58,469 --> 00:01:56,170

Jay well hello and there Captain

29

00:02:00,270 --> 00:01:58,479

Saunders no I'm very I'm well I'm good

30

00:02:02,130 --> 00:02:00,280

I'm busy today of course million-dollar

31

00:02:04,230 --> 00:02:02,140

challenge tonight how's your tan be it's

32

00:02:05,669 --> 00:02:04,240

been awesome we had such a good time we

33

00:02:08,219 --> 00:02:05,679

talked to a lot of great people this

34

00:02:10,259 --> 00:02:08,229

year and new venues great it's worked

35

00:02:12,479 --> 00:02:10,269

out pretty well hasn't it as a night

36

00:02:14,310 --> 00:02:12,489

night they made the new del mar bar down

37

00:02:16,289 --> 00:02:14,320

here which is pretty cool yeah right

38

00:02:17,699 --> 00:02:16,299

they converted a little conference room

39

00:02:19,440 --> 00:02:17,709

into the old Del Mar with pictures and

40

00:02:21,539 --> 00:02:19,450

it was really it was pretty cool have

41

00:02:23,160 --> 00:02:21,549

you met my wife oh how do you do I'm

42

00:02:26,910 --> 00:02:23,170

Richard Saunders from Australia it's

43

00:02:30,300 --> 00:02:26,920

very nice to meet you you crazy kids

44

00:02:32,069 --> 00:02:30,310

this is mrs. captain novella oh yes yeah

45

00:02:33,270 --> 00:02:32,079

he's a navigator I'll have to write it

46

00:02:36,990 --> 00:02:33,280

I'll have to write you into the next

47

00:02:40,740 --> 00:02:37,000

episode I think kids to write right

48

00:02:42,180 --> 00:02:40,750

there okay have a good rest of the day

49

00:02:45,290 --> 00:02:42,190

I'll catch up with you later tell the

50

00:02:52,080 --> 00:02:49,620

I'm going to head back to my table my

51
00:02:54,840 --> 00:02:52,090
little information table for the skeptic

52
00:02:56,760 --> 00:02:54,850
zone now on the way I'm going to grab a

53
00:02:59,070 --> 00:02:56,770
coffee and a donut and while i'm

54
00:03:20,120 --> 00:02:59,080
enjoying that I hope you enjoy the

55
00:03:28,590 --> 00:03:22,740
here we are at the amazing meeting tam

56
00:03:31,170 --> 00:03:28,600
13 in 2015 and I'm with ahaha Susan

57
00:03:35,070 --> 00:03:31,180
Kovac from guerrilla skepticism look

58
00:03:37,500 --> 00:03:35,080
there we go and at the same time

59
00:03:38,880 --> 00:03:37,510
skeptics on listeners we're periscoping

60
00:03:41,580 --> 00:03:38,890
live so some of you may have already

61
00:03:43,800 --> 00:03:41,590
heard us and seen this interview as we

62
00:03:46,650 --> 00:03:43,810
were doing it live it's as we record

63
00:03:49,230 --> 00:03:46,660

this it's nearly midday on Thursday the

64

00:03:50,760 --> 00:03:49,240

what is it the the 16th today or

65

00:03:54,150 --> 00:03:50,770

something o.o somebody's is gonna run

66

00:03:56,910 --> 00:03:54,160

down and grab a beer Richard I might

67

00:03:58,350 --> 00:03:56,920

just do that I might so skipping zone

68

00:04:00,090 --> 00:03:58,360

listeners who listening to this on the

69

00:04:01,920 --> 00:04:00,100

podcast we are actually now interacting

70

00:04:04,590 --> 00:04:01,930

with people who are watching us live and

71

00:04:06,210 --> 00:04:04,600

we can answer questions live as we go so

72

00:04:08,490 --> 00:04:06,220

it's a little bit confusing Susan Kovac

73

00:04:10,290 --> 00:04:08,500

hello hello welcome back to the skeptic

74

00:04:12,600 --> 00:04:10,300

zone I am so thrilled to be back on the

75

00:04:14,910 --> 00:04:12,610

skeptic zone who has been so awesome to

76

00:04:16,770 --> 00:04:14,920

the gso w project one of the great

77

00:04:18,570 --> 00:04:16,780

reasons we are the force to be reckoned

78

00:04:21,690 --> 00:04:18,580

with is because of podcasts and

79

00:04:24,180 --> 00:04:21,700

supporters like those in the skeptic

80

00:04:26,130 --> 00:04:24,190

zone we love you now for our skeptic

81

00:04:28,470 --> 00:04:26,140

zone listeners who our new listeners and

82

00:04:30,890 --> 00:04:28,480

for our periscope viewers at the moment

83

00:04:33,180 --> 00:04:30,900

what can you tell me about this

84

00:04:35,340 --> 00:04:33,190

interesting thing that you've involved

85

00:04:38,850 --> 00:04:35,350

with the guerrilla skepticism well we

86

00:04:40,110 --> 00:04:38,860

believe that if you are going to change

87

00:04:41,400 --> 00:04:40,120

the world we're going to have to get

88

00:04:46,500 --> 00:04:41,410

some really good information out there

89

00:04:48,420 --> 00:04:46,510

in a place to the people can find the

90

00:04:51,800 --> 00:04:48,430

answers to questions and citations that

91

00:04:54,450 --> 00:04:51,810

they can follow and actually learn about

92

00:04:57,080 --> 00:04:54,460

whatever the topic it is maybe it's

93

00:05:01,050 --> 00:04:57,090

homeopathy or facilitated communication

94

00:05:04,290 --> 00:05:01,060

or just who are spokespeople are the

95

00:05:06,630 --> 00:05:04,300

escapees own people of all the fantastic

96

00:05:09,890 --> 00:05:06,640

work that's happening in Australia the

97

00:05:12,330 --> 00:05:09,900

Northern Rivers vaccination supporters

98

00:05:14,040 --> 00:05:12,340

group yeah I might have just stumbled

99

00:05:16,710 --> 00:05:14,050

over their name another Northern Rivers

100

00:05:18,870 --> 00:05:16,720

vaccination supporters yeah we just

101
00:05:20,610 --> 00:05:18,880
wrote their wikipedia page and what we

102
00:05:23,100 --> 00:05:20,620
believe is that if we can get the

103
00:05:25,830 --> 00:05:23,110
information on the sixth most amazing

104
00:05:27,750 --> 00:05:25,840
website which is the Wikipedia then

105
00:05:29,670 --> 00:05:27,760
people will be able to find

106
00:05:32,880 --> 00:05:29,680
great information and they can make

107
00:05:35,790 --> 00:05:32,890
their own mind up and find and discover

108
00:05:37,680 --> 00:05:35,800
the answers and so on we're not telling

109
00:05:39,660 --> 00:05:37,690
them what to think basically yeah but so

110
00:05:42,660 --> 00:05:39,670
what you're here at the amazing meeting

111
00:05:44,940 --> 00:05:42,670
because it's just a good place to be and

112
00:05:46,890 --> 00:05:44,950
media people but you're here to two and

113
00:05:48,990 --> 00:05:46,900

I'll be joining you with this because

114

00:05:52,370 --> 00:05:49,000

I'm very keen to hear what you're going

115

00:05:56,190 --> 00:05:52,380

to say teaching people the process of

116

00:05:58,980 --> 00:05:56,200

editing Wikipedia we're finding that a

117

00:06:01,050 --> 00:05:58,990

lot of people are having trouble joining

118

00:06:03,120 --> 00:06:01,060

the gso w project because there is quite

119

00:06:05,490 --> 00:06:03,130

a bit of training involved we teach you

120

00:06:07,290 --> 00:06:05,500

how not only to edit like a wikipedia

121

00:06:13,110 --> 00:06:07,300

editor does but we're also teaching you

122

00:06:15,450 --> 00:06:13,120

how to do edits that are more in the

123

00:06:17,460 --> 00:06:15,460

mindset of a gso w editor we're trying

124

00:06:18,720 --> 00:06:17,470

to teach you a different kind of

125

00:06:20,430 --> 00:06:18,730

philosophy a different way of doing it

126

00:06:21,960 --> 00:06:20,440

still following the rules of Wikipedia

127

00:06:24,150 --> 00:06:21,970

but it is a little bit different than a

128

00:06:26,220 --> 00:06:24,160

normal wikipedia editor would be doing

129

00:06:28,050 --> 00:06:26,230

but what we've discovered is we really

130

00:06:30,870 --> 00:06:28,060

need a lot of people editing Wikipedia

131

00:06:35,190 --> 00:06:30,880

whether they join the GSR w project or

132

00:06:37,770 --> 00:06:35,200

not and I'm finding that there is a lot

133

00:06:39,180 --> 00:06:37,780

of people who are just cannot make that

134

00:06:40,680 --> 00:06:39,190

first step to make the Edit they're

135

00:06:42,750 --> 00:06:40,690

really terrified to make their first ad

136

00:06:45,570 --> 00:06:42,760

I can understand that it is it is pretty

137

00:06:48,900 --> 00:06:45,580

intimidating even especially if you're

138

00:06:50,400 --> 00:06:48,910

not you know in a tech field you know

139

00:06:52,560 --> 00:06:50,410

that kind of thing we want people who

140

00:06:55,020 --> 00:06:52,570

are I get the new a lot of people I

141

00:06:56,820 --> 00:06:55,030

guess would look at Wikipedia but not

142

00:06:59,490 --> 00:06:56,830

necessarily realize you can actually

143

00:07:00,750 --> 00:06:59,500

yeah modify it you can add a message so

144

00:07:02,430 --> 00:07:00,760

I'm going to be doing a workshop here on

145

00:07:04,140 --> 00:07:02,440

Sunday for anybody who brings their

146

00:07:05,550 --> 00:07:04,150

laptops and we're gonna have some real

147

00:07:08,040 --> 00:07:05,560

examples and we're going to help make

148

00:07:09,810 --> 00:07:08,050

their first edits 90 minutes is all I

149

00:07:13,050 --> 00:07:09,820

have and it is going to be really really

150

00:07:15,000 --> 00:07:13,060

hard to get hardly any a lot done in 90

151

00:07:17,660 --> 00:07:15,010

minutes but anybody brings a laptop

152

00:07:20,580 --> 00:07:17,670

should be able to make real edits and

153

00:07:22,140 --> 00:07:20,590

I'm hoping that that will feel their

154

00:07:23,760 --> 00:07:22,150

curiosity they'll go on to be a little

155

00:07:26,700 --> 00:07:23,770

more confident and maybe make more edits

156

00:07:30,270 --> 00:07:26,710

and try to help us change the world

157

00:07:32,490 --> 00:07:30,280

because yeah somebody's asking a

158

00:07:35,010 --> 00:07:32,500

question what did they do if they edit

159

00:07:36,840 --> 00:07:35,020

wrong information well it can be

160

00:07:38,370 --> 00:07:36,850

reverted with about two clicks and we

161

00:07:40,590 --> 00:07:38,380

see this a lot with people who vandalize

162

00:07:43,140 --> 00:07:40,600

Wikipedia pages we can go in and

163

00:07:46,200 --> 00:07:43,150

and change that and not just a gso w

164

00:07:49,230 --> 00:07:46,210

editor but anybody who is on wikipedia

165

00:07:51,450 --> 00:07:49,240

at the moment couldn't go in and change

166

00:07:54,360 --> 00:07:51,460

and edit and that's not a problem the

167

00:07:56,370 --> 00:07:54,370

the beauty of Wikipedia is that things

168

00:07:58,530 --> 00:07:56,380

that are made that are added or

169

00:08:00,000 --> 00:07:58,540

incorrect they can be fixed very quickly

170

00:08:03,360 --> 00:08:00,010

nothing it's not like a printed

171

00:08:05,010 --> 00:08:03,370

encyclopedia and it's it's a pretty it's

172

00:08:07,500 --> 00:08:05,020

a pretty easy process it just works

173

00:08:08,660 --> 00:08:07,510

somehow or other it's managed work i

174

00:08:12,000 --> 00:08:08,670

think we're on our twelfth year

175

00:08:14,970 --> 00:08:12,010

wikipedia is existing really mm-hmm only

176
00:08:17,640 --> 00:08:14,980
12 years 13 years i think that's how you

177
00:08:19,560 --> 00:08:17,650
lose time on the internet i think when

178
00:08:21,240 --> 00:08:19,570
things come along I mean this periscope

179
00:08:23,040 --> 00:08:21,250
that we're looking at right now to me

180
00:08:24,510 --> 00:08:23,050
it's very new but I'm not sure how long

181
00:08:27,870 --> 00:08:24,520
it's been around but I think it's going

182
00:08:29,490 --> 00:08:27,880
to get very popular oh I'm very good

183
00:08:30,930 --> 00:08:29,500
thing I mean this is a this is a great

184
00:08:32,550 --> 00:08:30,940
little thing we're doing and we can

185
00:08:34,440 --> 00:08:32,560
interact with people watching us live

186
00:08:36,810 --> 00:08:34,450
and it's quite random because some I

187
00:08:40,560 --> 00:08:36,820
guess you could you could say ahead of

188
00:08:42,980 --> 00:08:40,570

time tune in oh here's a question what

189

00:08:45,660 --> 00:08:42,990

is wikipedias opinion on console

190

00:08:49,620 --> 00:08:45,670

concerted editors that do that or they

191

00:08:52,590 --> 00:08:49,630

see it as trolling no they're the gso w

192

00:08:54,750 --> 00:08:52,600

project is well-trained editors who are

193

00:08:57,420 --> 00:08:54,760

going in and making real edits that are

194

00:08:58,800 --> 00:08:57,430

usually done with a group of people

195

00:09:02,280 --> 00:08:58,810

looking at them before they're made live

196

00:09:04,200 --> 00:09:02,290

and they welcome us the other what

197

00:09:06,720 --> 00:09:04,210

Wikipedia editors are all welcoming to

198

00:09:10,230 --> 00:09:06,730

our group and they welcome the fact that

199

00:09:12,420 --> 00:09:10,240

we are bringing more editors in who have

200

00:09:14,370 --> 00:09:12,430

some kind of training and that kind of

201
00:09:16,470 --> 00:09:14,380
thing so yeah we've been embraced

202
00:09:18,480 --> 00:09:16,480
completely by the Wikipedia community

203
00:09:20,190 --> 00:09:18,490
and you've had to do I mean the work

204
00:09:22,560 --> 00:09:20,200
you've been doing is remarkable now what

205
00:09:25,140 --> 00:09:22,570
what do you think is is one of the

206
00:09:27,090 --> 00:09:25,150
highlights is it creating Wikipedia

207
00:09:28,890 --> 00:09:27,100
pages for worthwhile groups like the

208
00:09:32,160 --> 00:09:28,900
Northern Rivers vaccination supporters

209
00:09:35,160 --> 00:09:32,170
or is it getting existing content up to

210
00:09:37,290 --> 00:09:35,170
date well you know it's a little bit of

211
00:09:39,060 --> 00:09:37,300
everything and it's fun because we're

212
00:09:40,560 --> 00:09:39,070
able to do such a diverse group of

213
00:09:43,320 --> 00:09:40,570

things one of the things we've been

214

00:09:44,670 --> 00:09:43,330

doing lately with gso w is we spent six

215

00:09:47,100 --> 00:09:44,680

months working on anything that has to

216

00:09:49,530 --> 00:09:47,110

do with vaccinations and we've been

217

00:09:51,870 --> 00:09:49,540

working on pages that are pro vax anti

218

00:09:53,380 --> 00:09:51,880

vax we've also been taking pages for

219

00:09:58,950 --> 00:09:53,390

celebrities like

220

00:10:02,010 --> 00:09:58,960

mccarthy alicia silverstone Donald Trump

221

00:10:04,000 --> 00:10:02,020

different people like that who have

222

00:10:09,160 --> 00:10:04,010

anti-vaccination views that we're trying

223

00:10:10,210 --> 00:10:09,170

to make sure what we try to make we get

224

00:10:11,680 --> 00:10:10,220

a little distracting is it before

225

00:10:14,830 --> 00:10:11,690

document you that's really exciting to

226

00:10:17,230 --> 00:10:14,840

teach respect and the question was can

227

00:10:19,330 --> 00:10:17,240

how do we what is better you know

228

00:10:21,370 --> 00:10:19,340

working on that they just do stuff or is

229

00:10:23,100 --> 00:10:21,380

it is it it's a little very modifying

230

00:10:25,390 --> 00:10:23,110

all depends on the kind of time you have

231

00:10:28,120 --> 00:10:25,400

what is this all about for those who are

232

00:10:30,070 --> 00:10:28,130

just joining okay where the amazing

233

00:10:31,240 --> 00:10:30,080

meeting in Las Vegas this is the annual

234

00:10:33,250 --> 00:10:31,250

meeting of the James Randi Educational

235

00:10:36,310 --> 00:10:33,260

Foundation it's for science and

236

00:10:39,180 --> 00:10:36,320

skepticism and things like that and I'm

237

00:10:41,380 --> 00:10:39,190

interviewing Susan Kovac who is from I

238

00:10:42,880 --> 00:10:41,390

hope you can see that the right way I'm

239

00:10:45,180 --> 00:10:42,890

not sure if you can see that reversed or

240

00:10:50,950 --> 00:10:45,190

not but it's gorilla skeptics calm and

241

00:10:53,640 --> 00:10:50,960

what Susan does is help to bring

242

00:10:56,800 --> 00:10:53,650

wikipedia up-to-date make it factual

243

00:10:58,750 --> 00:10:56,810

correct information and create Wikipedia

244

00:11:00,750 --> 00:10:58,760

for worth worthwhile causes and people

245

00:11:04,110 --> 00:11:00,760

right we focus on scientific skepticism

246

00:11:06,910 --> 00:11:04,120

so all things paranormal all things

247

00:11:08,620 --> 00:11:06,920

medical claims not necessarily like a

248

00:11:10,660 --> 00:11:08,630

like a book we wouldn't work on a book a

249

00:11:12,160 --> 00:11:10,670

pity page for a vaccine I mean it

250

00:11:14,380 --> 00:11:12,170

wouldn't want to go in and mess with the

251

00:11:16,420 --> 00:11:14,390

content on the measles vaccine or

252

00:11:18,840 --> 00:11:16,430

something like that we would work on the

253

00:11:20,800 --> 00:11:18,850

Wikipedia pages for people who are

254

00:11:22,870 --> 00:11:20,810

speaking out and talking about

255

00:11:25,240 --> 00:11:22,880

vaccinations and why it's a good thing

256

00:11:30,070 --> 00:11:25,250

or groups that are encouraging

257

00:11:31,630 --> 00:11:30,080

vaccinations or the anti-vaccine firm

258

00:11:34,210 --> 00:11:31,640

ation about why these people believe

259

00:11:36,130 --> 00:11:34,220

this and what is the rationale what are

260

00:11:37,660 --> 00:11:36,140

their arguments and who they are and

261

00:11:39,400 --> 00:11:37,670

what kind of education and training they

262

00:11:41,650 --> 00:11:39,410

dad because that's important information

263

00:11:43,540 --> 00:11:41,660

to get out there also so this interview

264

00:11:45,010 --> 00:11:43,550

that you're watching live now those

265

00:11:47,680 --> 00:11:45,020

people on periscope will be on the

266

00:11:50,020 --> 00:11:47,690

skeptics own podcast at skeptic zone TV

267

00:11:51,940 --> 00:11:50,030

Oh in the coming weeks you know when I

268

00:11:54,070 --> 00:11:51,950

when I started and I'm not very sure I'm

269

00:11:56,890 --> 00:11:54,080

doing lots of interviews here at the

270

00:11:58,660 --> 00:11:56,900

amazing meeting thank you for for

271

00:12:00,550 --> 00:11:58,670

watching yes somebody's just saying

272

00:12:03,110 --> 00:12:00,560

gotta go we'll catch up on the rescue

273

00:12:05,510 --> 00:12:03,120

thank you very much

274

00:12:07,460 --> 00:12:05,520

it's right now this isn't just chance

275

00:12:08,930 --> 00:12:07,470

for me to try out some new technology as

276

00:12:11,230 --> 00:12:08,940

well but yes this interview is being

277

00:12:13,900 --> 00:12:11,240

recorded onto this microphone here and

278

00:12:16,340 --> 00:12:13,910

will be coming out on the skeptic zone

279

00:12:18,140 --> 00:12:16,350

TV well Susan go back thank you very

280

00:12:20,930 --> 00:12:18,150

much for trying this do this is the

281

00:12:25,070 --> 00:12:20,940

first live skeptic zone interview I've

282

00:12:27,230 --> 00:12:25,080

done oh I am in fact oh great I love it

283

00:12:29,030 --> 00:12:27,240

I love it thank you so much for watching

284

00:12:30,500 --> 00:12:29,040

thank you for watching everywhere for

285

00:12:31,940 --> 00:12:30,510

the benefit of people listening to this

286

00:12:33,470 --> 00:12:31,950

on the skeptics and podcast I'm thank

287

00:12:35,210 --> 00:12:33,480

you for listening and we love the

288

00:12:36,560 --> 00:12:35,220

skeptic zone thank you guys well thank

289

00:12:38,180 --> 00:12:36,570

you sooo just absolutely appreciate

290

00:12:40,400 --> 00:12:38,190

everything that you're doing keep it up

291

00:12:42,440 --> 00:12:40,410

guys and I'll be in Australian October

292

00:12:44,480 --> 00:12:42,450

just to mention yes Susan's coming to

293

00:12:46,340 --> 00:12:44,490

the Australian skeptics national

294

00:12:47,630 --> 00:12:46,350

convention in Brisbane in October so

295

00:12:49,340 --> 00:12:47,640

look forward to that yeah and I'm

296

00:12:52,670 --> 00:12:49,350

planning on going to some other places

297

00:12:57,790 --> 00:12:52,680

hopefully going to be speaking to Mary's

298

00:13:02,240 --> 00:12:57,800

in Tasmania possibly New Zealand Sydney

299

00:13:03,920 --> 00:13:02,250

cambrina melbourn chem rock I'm bra any

300

00:13:05,900 --> 00:13:03,930

place anybody's gonna let me sit and

301

00:13:07,010 --> 00:13:05,910

talk to you I want to be there so

302

00:13:09,260 --> 00:13:07,020

hopefully I'm going to hit a lot of

303

00:13:10,880 --> 00:13:09,270

other places and check us out eventually

304

00:13:13,100 --> 00:13:10,890

I'll have a schedule real soon hopefully

305

00:13:14,960 --> 00:13:13,110

after this week of where I'm going on

306

00:13:16,519 --> 00:13:14,970

with days all right well from the

307

00:13:19,280 --> 00:13:16,529

amazing meeting at the moment this is

308

00:13:32,900 --> 00:13:19,290

Richard saunas and Susan Kovac thanking

309

00:13:38,390 --> 00:13:35,840

hi this is Tim Farley you probably know

310

00:13:41,180 --> 00:13:38,400

me from what's the harm net a catalog of

311

00:13:43,490 --> 00:13:41,190

the real world harm caused by lack of

312

00:13:46,670 --> 00:13:43,500

critical thinking but that's not my only

313

00:13:49,580 --> 00:13:46,680

project i present at skeptic events I

314

00:13:51,830 --> 00:13:49,590

post a daily skeptic history fact on

315

00:13:54,290 --> 00:13:51,840

Twitter and Facebook and I blog about

316

00:13:57,470 --> 00:13:54,300

using new techniques on the internet to

317

00:14:00,950 --> 00:13:57,480

advance skepticism come over to skip

318

00:14:04,070 --> 00:14:00,960

tools com and check out my latest ideas

319

00:14:08,420 --> 00:14:04,080

but first enjoy the rest of the skeptic

320

00:14:11,270 --> 00:14:08,430

zone yes let's enjoy the rest of the

321

00:14:13,430 --> 00:14:11,280

skeptic zone but first it is live here

322

00:14:15,860 --> 00:14:13,440

at the amazing meeting Kim Fowley hello

323

00:14:17,330 --> 00:14:15,870

Tim hi Richard how are you I'm really

324

00:14:18,950 --> 00:14:17,340

well I'm happy to be at the amazing

325

00:14:20,600 --> 00:14:18,960

meeting it's been a great meeting so far

326

00:14:22,700 --> 00:14:20,610

it's been great yeah this is the

327

00:14:24,550 --> 00:14:22,710

Saturday morning here and it's sort of

328

00:14:26,720 --> 00:14:24,560

the calm before the storm where in the

329

00:14:28,580 --> 00:14:26,730

table area where the vendors and

330

00:14:30,200 --> 00:14:28,590

information tables are and lots of

331

00:14:33,530 --> 00:14:30,210

people having breakfast ready for a big

332

00:14:35,090 --> 00:14:33,540

day sir conventional yeah it's going to

333

00:14:38,390 --> 00:14:35,100

be a big day we had a lot of Martin

334

00:14:43,430 --> 00:14:38,400

Gardner stuff yesterday and today we're

335

00:14:46,970 --> 00:14:43,440

gonna have some food babe lots of other

336

00:14:50,210 --> 00:14:46,980

topics yeah now Oh a skeptic zone

337

00:14:53,390 --> 00:14:50,220

listeners know you other guy behind

338

00:14:55,010 --> 00:14:53,400

what's the harm that's right for people

339

00:14:56,540 --> 00:14:55,020

who may not know can you give them a

340

00:14:59,690 --> 00:14:56,550

little rundown of what that's all about

341

00:15:02,300 --> 00:14:59,700

yeah what's the harm was a to kind of

342

00:15:05,510 --> 00:15:02,310

you know why do we do this skeptic stuff

343

00:15:07,760 --> 00:15:05,520

what is it all about is it you know why

344

00:15:10,100 --> 00:15:07,770

is it important that we explain to

345

00:15:12,760 --> 00:15:10,110

people that ideas are incorrect or an

346

00:15:15,050 --> 00:15:12,770

unscientific and so I started collecting

347

00:15:17,840 --> 00:15:15,060

instances that could be documented where

348

00:15:22,490 --> 00:15:17,850

people got hurt people relied on

349

00:15:24,350 --> 00:15:22,500

homeopathy and and died or you know got

350

00:15:26,210 --> 00:15:24,360

themselves hurt or went to the hospital

351

00:15:28,340 --> 00:15:26,220

or something like that and i have a

352

00:15:30,560 --> 00:15:28,350

whole variety of topics alternative

353

00:15:33,440 --> 00:15:30,570

medicine relying on the advice of

354

00:15:36,560 --> 00:15:33,450

psychics and stuff like that and it's

355

00:15:38,460 --> 00:15:36,570

just a something it's not a website

356

00:15:41,010 --> 00:15:38,470

you'd spend a bunch of time on every

357

00:15:42,870 --> 00:15:41,020

eh but it's a resource that if somebody

358

00:15:44,610 --> 00:15:42,880

asks you that question what's the harm

359

00:15:47,220 --> 00:15:44,620

what's the harm in homeopathy you say

360

00:15:48,900 --> 00:15:47,230

it's just water you can go to the

361

00:15:50,580 --> 00:15:48,910

website and go to the homeopathy page

362

00:15:52,980 --> 00:15:50,590

and see some stories about people who

363

00:15:54,240 --> 00:15:52,990

really got hurt yeah and and all sorts

364

00:15:56,460 --> 00:15:54,250

of things all sorts of things from

365

00:15:58,890 --> 00:15:56,470

homeopathy saved a feelings and faith

366

00:16:00,690 --> 00:15:58,900

healing yeah chiropractic I have a bunch

367

00:16:03,540 --> 00:16:00,700

of chiropractic stories I even have some

368

00:16:06,020 --> 00:16:03,550

Fung Shui stories punctuation [h__\h] yeah

369

00:16:10,470 --> 00:16:06,030

people got in trouble with on a swag

370

00:16:12,540 --> 00:16:10,480

yeah but that's I should be surprised

371

00:16:14,970 --> 00:16:12,550

yeah I shouldn't be surprised now I

372

00:16:18,120 --> 00:16:14,980

think I first heard about what's the

373

00:16:19,980 --> 00:16:18,130

harm net in 2008 it's like okay yeah

374

00:16:23,370 --> 00:16:19,990

that's about when I started it because I

375

00:16:25,350 --> 00:16:23,380

would have originally met you you know

376

00:16:27,630 --> 00:16:25,360

what at this meeting or maybe dragoncon

377

00:16:30,360 --> 00:16:27,640

way back then write something like that

378

00:16:32,520 --> 00:16:30,370

and so the site was was going then house

379

00:16:34,710 --> 00:16:32,530

has it changed over the years or is it

380

00:16:37,230 --> 00:16:34,720

more of a case of just growing just

381

00:16:40,080 --> 00:16:37,240

growing a lot of what I do now is you

382

00:16:42,570 --> 00:16:40,090

know people tend to use social media now

383

00:16:44,280 --> 00:16:42,580

so I concentrate on posting new cases on

384

00:16:46,440 --> 00:16:44,290

the Twitter feed which is what's the

385

00:16:48,840 --> 00:16:46,450

harm and there's a new case every day

386

00:16:50,130 --> 00:16:48,850

and it's gotten to the point where I

387

00:16:51,750 --> 00:16:50,140

really don't have to do any research

388

00:16:53,790 --> 00:16:51,760

because everybody knows I'm the what's

389

00:16:56,760 --> 00:16:53,800

the harm guys yeah any skeptics sees a

390

00:16:58,590 --> 00:16:56,770

story that's appropriate they send it to

391

00:17:00,680 --> 00:16:58,600

me I'm sure you get people sending you

392

00:17:03,480 --> 00:17:00,690

things from Australia oh yeah absolutely

393

00:17:07,020 --> 00:17:03,490

absolutely but it is it's the wonderful

394

00:17:08,940 --> 00:17:07,030

saying because we hear it ah so often as

395

00:17:11,760 --> 00:17:08,950

being skeptics people will put a point

396

00:17:13,620 --> 00:17:11,770

of view or quack therapy of something

397

00:17:15,630 --> 00:17:13,630

and I get to the point with almost

398

00:17:18,210 --> 00:17:15,640

agreeing that it doesn't work with all

399

00:17:20,930 --> 00:17:18,220

then say well what's the harm right give

400

00:17:23,570 --> 00:17:20,940

a try it what's the harm yeah yeah

401
00:17:26,420 --> 00:17:23,580
and I guess that's what crossed your

402
00:17:28,690 --> 00:17:26,430
mind yeah it actually came out of this

403
00:17:31,870 --> 00:17:28,700
very meaning I the first skeptic

404
00:17:37,190 --> 00:17:31,880
conference that I attended was tam 5 and

405
00:17:38,690 --> 00:17:37,200
I sort of I saw it and it was I enjoyed

406
00:17:40,640 --> 00:17:38,700
it and I saw that there were a lot of

407
00:17:42,260 --> 00:17:40,650
people like me that weren't like famous

408
00:17:43,940 --> 00:17:42,270
authors or anything that were involved

409
00:17:45,560 --> 00:17:43,950
in this and I thought I should I should

410
00:17:47,810 --> 00:17:45,570
get involved in this and I should come

411
00:17:51,020 --> 00:17:47,820
up with a project and somehow over the

412
00:17:53,090 --> 00:17:51,030
next few months after tam 5 the idea of

413
00:17:54,830 --> 00:17:53,100

collecting these stories because what I

414

00:17:56,870 --> 00:17:54,840

noticed was this if you typically see a

415

00:17:58,940 --> 00:17:56,880

story that's of a skeptical attitude

416

00:18:00,740 --> 00:17:58,950

toward one of these topics they'll

417

00:18:03,020 --> 00:18:00,750

always start with an anecdote at the

418

00:18:06,590 --> 00:18:03,030

front of the story and to kind of give

419

00:18:08,420 --> 00:18:06,600

it a human face and I sort of i noticed

420

00:18:11,090 --> 00:18:08,430

that these anecdotes but they'd always

421

00:18:12,830 --> 00:18:11,100

be one anecdote per story and I thought

422

00:18:15,170 --> 00:18:12,840

would be interesting to collect all

423

00:18:17,330 --> 00:18:15,180

those story all those people's names in

424

00:18:19,700 --> 00:18:17,340

one place so you'd see that it's not

425

00:18:21,320 --> 00:18:19,710

just the one anecdote in the story many

426

00:18:25,640 --> 00:18:21,330

people are getting hurt by these things

427

00:18:27,710 --> 00:18:25,650

and how how if you could put a figure on

428

00:18:29,870 --> 00:18:27,720

it from when you sort of started and you

429

00:18:33,440 --> 00:18:29,880

got the original site together in the

430

00:18:36,050 --> 00:18:33,450

original stories how many was that how

431

00:18:38,300 --> 00:18:36,060

many are there now oh yeah I haven't run

432

00:18:40,010 --> 00:18:38,310

the statistics lately but yeah I have

433

00:18:42,650 --> 00:18:40,020

hundreds and hundreds of cases in fact

434

00:18:44,630 --> 00:18:42,660

i'm in the process i've been long in the

435

00:18:46,850 --> 00:18:44,640

process of doing a complete revamp of

436

00:18:49,490 --> 00:18:46,860

how I gathered the data yeah and I want

437

00:18:51,800 --> 00:18:49,500

to update you know how websites kind of

438

00:18:53,690 --> 00:18:51,810

go through different styles and the

439

00:18:56,300 --> 00:18:53,700

style of what's the harm is kind of a

440

00:18:57,830 --> 00:18:56,310

little dated now so I want to update it

441

00:19:00,950 --> 00:18:57,840

make it a little more modern and I'm

442

00:19:02,450 --> 00:19:00,960

going to kind of backfill a bunch of

443

00:19:05,420 --> 00:19:02,460

cases that I haven't gotten onto the

444

00:19:07,970 --> 00:19:05,430

site yet it's interesting so you do rely

445

00:19:10,850 --> 00:19:07,980

on the huge worldwide skeptical

446

00:19:12,890 --> 00:19:10,860

community oh yeah sending you bits of

447

00:19:15,530 --> 00:19:12,900

information and I and I use the you know

448

00:19:17,970 --> 00:19:15,540

and aside from that I use Google Alerts

449

00:19:19,950 --> 00:19:17,980

is a big part of my research

450

00:19:22,860 --> 00:19:19,960

yeah I spent a bunch of time like

451

00:19:24,780 --> 00:19:22,870

figuring out the exact query yeah to

452

00:19:26,970 --> 00:19:24,790

kind of hit the right kind of story

453

00:19:28,770 --> 00:19:26,980

that's interesting and it's I have these

454

00:19:33,210 --> 00:19:28,780

elaborate queries of things like

455

00:19:38,210 --> 00:19:33,220

homeopathy and death or injury or

456

00:19:40,230 --> 00:19:38,220

hospital or and so I have naturopathy

457

00:19:41,820 --> 00:19:40,240

chiropractor and stuff like that and I

458

00:19:45,120 --> 00:19:41,830

get a lot of junk in those in those

459

00:19:47,549 --> 00:19:45,130

queries like I get stories about

460

00:19:50,070 --> 00:19:47,559

chiropractor suing each other over who

461

00:19:51,720 --> 00:19:50,080

knows what ah but they aren't really

462

00:19:53,730 --> 00:19:51,730

appropriate for the site but every once

463

00:19:56,370 --> 00:19:53,740

awhile I find really interesting stories

464

00:19:57,780 --> 00:19:56,380

that way but yeah a lot of it is a mark

465

00:20:00,950 --> 00:19:57,790

Chris lip from science-based medicine

466

00:20:03,330 --> 00:20:00,960

sends me stuff that he runs across and

467

00:20:05,940 --> 00:20:03,340

dr. ray cheese sometimes sends me good

468

00:20:08,520 --> 00:20:05,950

but everybody you know knows I'm know

469

00:20:10,409 --> 00:20:08,530

what's the harm guy so it's funny when a

470

00:20:12,630 --> 00:20:10,419

story makes it big in the news it almost

471

00:20:15,510 --> 00:20:12,640

gets annoying because everyone will send

472

00:20:17,549 --> 00:20:15,520

it to but I appreciate it because that

473

00:20:19,350 --> 00:20:17,559

way I don't miss it it's a good problem

474

00:20:21,360 --> 00:20:19,360

to have yeah it's absolutely a good

475

00:20:22,980 --> 00:20:21,370

problem and as mentioned in your little

476

00:20:25,440 --> 00:20:22,990

promo it's not only what's the harm

477

00:20:27,930 --> 00:20:25,450

eating oh yeah I do a bunch of different

478

00:20:29,970 --> 00:20:27,940

things i have another twitter feed

479

00:20:31,919 --> 00:20:29,980

called skeptic history where i try to

480

00:20:33,680 --> 00:20:31,929

collect interesting little tidbits from

481

00:20:36,210 --> 00:20:33,690

the history of skepticism and

482

00:20:38,280 --> 00:20:36,220

pseudoscience and paranormal people's

483

00:20:42,870 --> 00:20:38,290

birthdays and events and things like

484

00:20:45,590 --> 00:20:42,880

that like yesterday was the anniversary

485

00:20:48,120 --> 00:20:45,600

of the discovery of martin gardner's

486

00:20:49,440 --> 00:20:48,130

asteroid which was an interesting

487

00:20:52,350 --> 00:20:49,450

coincidence because we were doing all

488

00:20:56,640 --> 00:20:52,360

that martin gardner yeah programming at

489

00:20:59,159 --> 00:20:56,650

tam an asteroid was discovered on july

490

00:21:01,919 --> 00:20:59,169

seventeenth 1980 that is now named

491

00:21:04,730 --> 00:21:01,929

gardener for for martin gardner Wow how

492

00:21:08,510 --> 00:21:04,740

about that yeah that's a good

493

00:21:11,120 --> 00:21:08,520

and of course there's a virtual skeptics

494

00:21:13,930 --> 00:21:11,130

virtual skeptics yeah we do that we do

495

00:21:16,940 --> 00:21:13,940

that every Wednesday we do it live on

496

00:21:19,160 --> 00:21:16,950

google hangouts on air and it's a panel

497

00:21:21,530 --> 00:21:19,170

show and it's kind of off the cuff not

498

00:21:23,600 --> 00:21:21,540

quite as polished as as this podcast

499

00:21:25,549 --> 00:21:23,610

certainly because we just do it live and

500

00:21:28,100 --> 00:21:25,559

we talk about whatever's going on that

501
00:21:30,290 --> 00:21:28,110
week and have some fun with it and it's

502
00:21:32,060 --> 00:21:30,300
since it's on Google Hangouts it records

503
00:21:35,180 --> 00:21:32,070
automatically so if you can't join us

504
00:21:37,280 --> 00:21:35,190
yes when it's on I know it's not super

505
00:21:39,410 --> 00:21:37,290
convenient for Australians because it's

506
00:21:42,230 --> 00:21:39,420
on basically early in the morning on

507
00:21:43,790 --> 00:21:42,240
Thursday you know what I'm going to do

508
00:21:46,430 --> 00:21:43,800
is I'm going to get the virtual skeptic

509
00:21:48,530 --> 00:21:46,440
crew to make a new promotion yes and

510
00:21:50,990 --> 00:21:48,540
will we thought you know not only

511
00:21:52,130 --> 00:21:51,000
winners broke up because we broadcast

512
00:21:53,630 --> 00:21:52,140
around the world in fact I'm going to

513
00:21:57,380 --> 00:21:53,640

get you to do every time zone on the

514

00:21:59,030 --> 00:21:57,390

planet well maybe a couple maybe two or

515

00:22:00,799 --> 00:21:59,040

three so people in different regions

516

00:22:02,810 --> 00:22:00,809

especially that's a good idea yeah yeah

517

00:22:04,820 --> 00:22:02,820

can know when to tune in because it's

518

00:22:06,260 --> 00:22:04,830

year they can catch up with it but of

519

00:22:07,820 --> 00:22:06,270

course if it's live it's more exciting

520

00:22:10,130 --> 00:22:07,830

and interesting it's fine yeah because

521

00:22:12,320 --> 00:22:10,140

you can ask questions and we do a trivia

522

00:22:14,620 --> 00:22:12,330

question in it and we announce who guts

523

00:22:18,410 --> 00:22:14,630

the trivia question during the show and

524

00:22:20,390 --> 00:22:18,420

so it's fun you can actually help shape

525

00:22:22,850 --> 00:22:20,400

the show by asking us questions but yeah

526

00:22:25,490 --> 00:22:22,860

if you can't catch it live it's it's

527

00:22:27,350 --> 00:22:25,500

archived on youtube so you can watch it

528

00:22:29,180 --> 00:22:27,360

later and we try to mark it up for

529

00:22:31,580 --> 00:22:29,190

topics so you can search our feed if you

530

00:22:33,020 --> 00:22:31,590

want to see what topics we've we've

531

00:22:35,480 --> 00:22:33,030

talked about that's pretty cool because

532

00:22:37,760 --> 00:22:35,490

only the other day and as listeners

533

00:22:40,370 --> 00:22:37,770

probably know because I probably rented

534

00:22:42,350 --> 00:22:40,380

the bit already I was interviewing Susan

535

00:22:45,919 --> 00:22:42,360

gulberg and we were using periscope yeah

536

00:22:47,720 --> 00:22:45,929

at the same time and people were texting

537

00:22:49,400 --> 00:22:47,730

in questions yeah as I was interviewing

538

00:22:50,960 --> 00:22:49,410

and I haven't done that yet that was

539

00:22:52,580 --> 00:22:50,970

really interested it is it is very

540

00:22:54,799 --> 00:22:52,590

interesting to do the live interaction

541

00:22:57,340 --> 00:22:54,809

yeah well Jim great to see you again

542

00:22:59,930 --> 00:22:57,350

once again here at the amazing meeting

543

00:23:01,760 --> 00:22:59,940

what's the harm net folks that's the

544

00:23:03,860 --> 00:23:01,770

website to go to it's fascinating and

545

00:23:06,500 --> 00:23:03,870

and it is the classic place to go to

546

00:23:09,320 --> 00:23:06,510

when people say well what's the harm

547

00:23:11,450 --> 00:23:09,330

right yeah and you can also make kind of

548

00:23:13,549 --> 00:23:11,460

my sort of central place that I post a

549

00:23:15,020 --> 00:23:13,559

lot of stuff is Sceptile scom that's my

550

00:23:17,690 --> 00:23:15,030

blog skip tools

551
00:23:19,340 --> 00:23:17,700
right so if there's anything else of

552
00:23:21,830 --> 00:23:19,350
mine you want to find usually you can

553
00:23:41,840 --> 00:23:21,840
start there improbably thank you very

554
00:23:44,840 --> 00:23:41,850
much thank you the cosmos is amazing

555
00:23:47,660 --> 00:23:44,850
world famous astrophysicist dr. Neil

556
00:23:50,630 --> 00:23:47,670
deGrasse Tyson is touring Australia this

557
00:23:52,820 --> 00:23:50,640
August inspirational smart and funny

558
00:23:54,770 --> 00:23:52,830
he'll take you on this personal tour of

559
00:23:57,230 --> 00:23:54,780
the universe there are still more

560
00:24:00,590 --> 00:23:57,240
questions to be explored melbourne

561
00:24:02,570 --> 00:24:00,600
brisbane sydney and canberra monster

562
00:24:05,510 --> 00:24:02,580
days in your cosmic calendar for this

563
00:24:13,000 --> 00:24:05,520

once-in-a-lifetime experience tickets on

564

00:24:17,870 --> 00:24:15,800

welcome to weaken science from our oz

565

00:24:20,750 --> 00:24:17,880

bringing you the science you need to

566

00:24:23,030 --> 00:24:20,760

know mining the moon it's a topic that

567

00:24:24,530 --> 00:24:23,040

comes up fairly regularly the idea being

568

00:24:27,320 --> 00:24:24,540

that we can extract minerals from the

569

00:24:32,630 --> 00:24:27,330

moon but is it really feasible let's

570

00:24:34,250 --> 00:24:32,640

look at some of the arguments the idea

571

00:24:36,110 --> 00:24:34,260

to mind the moon and then bring the

572

00:24:39,110 --> 00:24:36,120

minerals back to earth seems pretty

573

00:24:41,840 --> 00:24:39,120

unlikely major issue is just the sheer

574

00:24:44,480 --> 00:24:41,850

cost to launch equipment from Earth into

575

00:24:46,730 --> 00:24:44,490

a low orbit costs around twenty thousand

576

00:24:49,850 --> 00:24:46,740

dollars per kilogram taking it to the

577

00:24:51,740 --> 00:24:49,860

moon be even more expensive and then you

578

00:24:54,920 --> 00:24:51,750

need to ship everything back from the

579

00:24:56,570 --> 00:24:54,930

moon the cost would be far too high one

580

00:24:59,420 --> 00:24:56,580

of the big arguments of mining the moon

581

00:25:01,280 --> 00:24:59,430

is the presence of helium-3 an isotope

582

00:25:04,190 --> 00:25:01,290

of helium which could be theoretically

583

00:25:06,230 --> 00:25:04,200

used in nuclear fusion reactors however

584

00:25:08,420 --> 00:25:06,240

the supplies on the moon are variable

585

00:25:11,060 --> 00:25:08,430

with concentrations in the parts per

586

00:25:13,100 --> 00:25:11,070

billion range considerable areas would

587

00:25:15,830 --> 00:25:13,110

need to be mined to power just one city

588

00:25:18,770 --> 00:25:15,840

for a year and just like fossil fuels on

589

00:25:19,820 --> 00:25:18,780

earth once you find them they're gone

590

00:25:24,290 --> 00:25:19,830

they're probably not a long-term

591

00:25:26,720 --> 00:25:24,300

solution however what if we use the

592

00:25:29,300 --> 00:25:26,730

minerals on the moon on the moon that's

593

00:25:31,160 --> 00:25:29,310

one idea developing out of moment given

594

00:25:33,050 --> 00:25:31,170

the expense of launching things into

595

00:25:35,660 --> 00:25:33,060

space from Earth there are proposals

596

00:25:38,150 --> 00:25:35,670

that future space exploration depends

597

00:25:40,070 --> 00:25:38,160

from the moon that way minerals mined on

598

00:25:42,260 --> 00:25:40,080

the moon could be refined and used right

599

00:25:44,750 --> 00:25:42,270

there savings from having to transport

600

00:25:46,790 --> 00:25:44,760

materials from Earth this would mean

601
00:25:48,830 --> 00:25:46,800
building a base complete with factories

602
00:25:51,680 --> 00:25:48,840
and everything else needed to establish

603
00:25:53,510 --> 00:25:51,690
a lunar space industry when it comes to

604
00:25:55,790 --> 00:25:53,520
mining the moon in the short term I'm

605
00:25:57,890 --> 00:25:55,800
yet to be convinced but look as

606
00:25:59,750 --> 00:25:57,900
technology develops in the future who

607
00:26:02,900 --> 00:25:59,760
knows what might happen I'm really

608
00:26:06,800 --> 00:26:02,910
excited to find out and now for fast

609
00:26:09,170 --> 00:26:06,810
facts about minerals on the moon the

610
00:26:12,440 --> 00:26:09,180
Apollo moon program brought back around

611
00:26:14,240 --> 00:26:12,450
380 kilograms of moon rocks these

612
00:26:16,430 --> 00:26:14,250
revealed much about the geology and

613
00:26:18,680 --> 00:26:16,440

formation of the moon technology

614

00:26:20,780 --> 00:26:18,690

developed from mining on earth is wildly

615

00:26:23,330 --> 00:26:20,790

unsuited for mining the low gravity moon

616

00:26:25,870 --> 00:26:23,340

a complete rethink of mining technology

617

00:26:28,400 --> 00:26:25,880

and techniques will be required

618

00:26:31,040 --> 00:26:28,410

tranquility ight a mineral previously

619

00:26:32,750 --> 00:26:31,050

only ever found on the moon was recently

620

00:26:35,180 --> 00:26:32,760

also discovered in the Western

621

00:26:37,610 --> 00:26:35,190

Australian outback another possibility

622

00:26:39,770 --> 00:26:37,620

is conversing moon ice into hydrogen and

623

00:26:42,140 --> 00:26:39,780

oxygen which can then be used as a

624

00:26:44,720 --> 00:26:42,150

rocket fuel kind of a lunar petrol

625

00:26:46,790 --> 00:26:44,730

station this seems the most realistic in

626

00:26:49,190 --> 00:26:46,800

the short term that's it for this week

627

00:26:52,070 --> 00:26:49,200

in science for more information on

628

00:26:57,170 --> 00:26:52,080

mining the moon go to the Arias website

629

00:27:00,440 --> 00:26:57,180

are I a USDA you follow us on twitter at

630

00:27:23,580 --> 00:27:00,450

ra oz and like us on facebook i'm ben

631

00:27:28,690 --> 00:27:26,379

well I still hear the amazing meeting in

632

00:27:30,519 --> 00:27:28,700

Las Vegas at the Tropicana Hotel that's

633

00:27:32,739 --> 00:27:30,529

going very well so far I think I have

634

00:27:34,720 --> 00:27:32,749

snuck away here to the depressed room

635

00:27:36,639 --> 00:27:34,730

and along the way I've gathered up Carl

636

00:27:39,639 --> 00:27:36,649

Sanders hello Kyle hey good to see you

637

00:27:42,909 --> 00:27:39,649

again thank you now we met two years ago

638

00:27:45,430 --> 00:27:42,919

the amazing we do is this one is that

639

00:27:47,859 --> 00:27:45,440

when you launched carbon dating and we

640

00:27:50,560 --> 00:27:47,869

have the book right here two years later

641

00:27:53,499 --> 00:27:50,570

it's our first full color collection and

642

00:27:55,960 --> 00:27:53,509

it's kind of a coming full circle back

643

00:27:59,350 --> 00:27:55,970

to tan with the finished product its

644

00:28:01,330 --> 00:27:59,360

carbon comic com folks to check this out

645

00:28:03,129 --> 00:28:01,340

and for those people who may not know

646

00:28:05,739 --> 00:28:03,139

what can you tell them about the comic

647

00:28:07,419 --> 00:28:05,749

strip and the book now carbon dating so

648

00:28:09,430 --> 00:28:07,429

it's a comic strip here in the US it's

649

00:28:12,399 --> 00:28:09,440

usually in the back of our skeptical

650

00:28:13,989 --> 00:28:12,409

Inquirer and it's also translated for

651
00:28:17,680 --> 00:28:13,999
those of you in Germany for the Germans

652
00:28:20,529 --> 00:28:17,690
skeptical magazine but it's a comic strip

653
00:28:23,070 --> 00:28:20,539
about a group of friends and their their

654
00:28:25,810 --> 00:28:23,080
various irrational ideas that they

655
00:28:27,999 --> 00:28:25,820
everybody has you know so the main

656
00:28:29,859 --> 00:28:28,009
character is a science writer and has to

657
00:28:31,389 --> 00:28:29,869
address all of these various things that

658
00:28:33,840 --> 00:28:31,399
come up with his friends over time and

659
00:28:36,639 --> 00:28:33,850
of course there's the romantic interest

660
00:28:39,310 --> 00:28:36,649
as well so a little bit of something for

661
00:28:41,259 --> 00:28:39,320
everybody and all I see it's it's

662
00:28:43,869 --> 00:28:41,269
normally three panels but you've got a

663
00:28:45,700 --> 00:28:43,879

couple that a one penalty you normally

664

00:28:47,230 --> 00:28:45,710

stick to the three billion i do I stick

665

00:28:50,680 --> 00:28:47,240

to the three panel I feel like it's very

666

00:28:52,509 --> 00:28:50,690

easy to write for and you know a good

667

00:28:55,419 --> 00:28:52,519

setup that I try to stick to but

668

00:28:57,430 --> 00:28:55,429

occasionally I'll shake it up for you

669

00:28:59,440 --> 00:28:57,440

know especially a special special

670

00:29:02,200 --> 00:28:59,450

occasion and I see in the back of the

671

00:29:05,080 --> 00:29:02,210

book he'll to we've got some what do we

672

00:29:07,749 --> 00:29:05,090

got debunking handbooks straight from

673

00:29:10,330 --> 00:29:07,759

Australia yeah so a lot and the book I

674

00:29:11,950 --> 00:29:10,340

talk a lot about how difficult it is to

675

00:29:14,009 --> 00:29:11,960

talk to your friends about these things

676

00:29:17,019 --> 00:29:14,019

without causing the backfire effect and

677

00:29:18,159 --> 00:29:17,029

I wanted something at the end kind of a

678

00:29:21,879 --> 00:29:18,169

positive you know

679

00:29:24,460 --> 00:29:21,889

here are some good tools to use for not

680

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

causing that not ruining the dinner

681

00:29:28,690 --> 00:29:26,480

party so to speak it's fantastic it's

682

00:29:31,690 --> 00:29:28,700

pages and pages of logical thinking and

683

00:29:33,909 --> 00:29:31,700

debunking and examples all backed up by

684

00:29:36,099 --> 00:29:33,919

cognitive research yeah queensland

685

00:29:39,849 --> 00:29:36,109

university so so it's good for

686

00:29:43,509 --> 00:29:39,859

australians there you go so okay skeptic

687

00:29:45,609 --> 00:29:43,519

calm / carbon if--and comic or the as we

688

00:29:48,369 --> 00:29:45,619

mentioned before the website you're just

689

00:29:50,320 --> 00:29:48,379

lost it the website is carbon comic con

690

00:29:53,080 --> 00:29:50,330

that's right now tell me something about

691

00:29:55,330 --> 00:29:53,090

the process of doing a comics because

692

00:29:57,190 --> 00:29:55,340

I've done a couple in my time for fun

693

00:29:58,599 --> 00:29:57,200

I've written you know that did panels

694

00:30:00,519 --> 00:29:58,609

and tried to thought think of what are

695

00:30:01,779 --> 00:30:00,529

the characters going to say and how am I

696

00:30:04,450 --> 00:30:01,789

going to make it funny in all the rest

697

00:30:08,259 --> 00:30:04,460

of it what's your process well I usually

698

00:30:10,239 --> 00:30:08,269

take a topic that is frustrating me at

699

00:30:12,609 --> 00:30:10,249

the moment you know and try to really

700

00:30:15,279 --> 00:30:12,619

figure out what about that is

701
00:30:17,279 --> 00:30:15,289
aggravating me come up with a punch line

702
00:30:19,090 --> 00:30:17,289
by taking that to an extreme and

703
00:30:20,799 --> 00:30:19,100
starting with the punch line work

704
00:30:22,450 --> 00:30:20,809
backwards kind of the setup in the

705
00:30:24,519 --> 00:30:22,460
second panel and then some background in

706
00:30:27,269 --> 00:30:24,529
the first panel and that pretty much

707
00:30:29,470 --> 00:30:27,279
rounds out the comic writing process

708
00:30:31,599 --> 00:30:29,480
once I've written it then I kind of

709
00:30:34,239 --> 00:30:31,609
assign characters to it like which

710
00:30:35,680 --> 00:30:34,249
character would say that ah and then you

711
00:30:37,479 --> 00:30:35,690
know which characters would be funniest

712
00:30:39,369 --> 00:30:37,489
in this argument yeah and how many

713
00:30:40,720 --> 00:30:39,379

what's your cost of characters I suppose

714

00:30:42,460 --> 00:30:40,730

you can just forget about good about

715

00:30:44,619 --> 00:30:42,470

five main-care guess you can bring up

716

00:30:46,239 --> 00:30:44,629

new characters as you wish actually the

717

00:30:48,159 --> 00:30:46,249

the new characters that I do bring up

718

00:30:50,169 --> 00:30:48,169

are usually supporters of the comic

719

00:30:51,999 --> 00:30:50,179

strip either Kickstarter or that's not a

720

00:30:54,099 --> 00:30:52,009

tree own supporters at a certain level

721

00:30:57,039 --> 00:30:54,109

they get drawn in as a character they

722

00:30:59,979 --> 00:30:57,049

get drawn yeah oh that's fun so you'll

723

00:31:02,470 --> 00:30:59,989

see a lot some random cameos of the

724

00:31:05,619 --> 00:31:02,480

people you may know from Tam many of

725

00:31:07,180 --> 00:31:05,629

them are in the comic so that's pretty

726

00:31:09,609 --> 00:31:07,190

good as a dog in there somewhere I just

727

00:31:13,210 --> 00:31:09,619

know oh yeah yes well there's plenty of

728

00:31:16,389 --> 00:31:13,220

homeopathic pet remedies out there to

729

00:31:18,039 --> 00:31:16,399

talk about to so let's go ahead and it

730

00:31:20,259 --> 00:31:18,049

you've got your own style of course and

731

00:31:22,930 --> 00:31:20,269

it's interesting to see it in color yes

732

00:31:24,999 --> 00:31:22,940

yes free colored a lot of old comics so

733

00:31:28,389 --> 00:31:25,009

this is uh and it's a very similar

734

00:31:30,489 --> 00:31:28,399

palette throughout good yeah we carry

735

00:31:31,320 --> 00:31:30,499

set palette haven't you when I so last

736

00:31:33,240 --> 00:31:31,330

time

737

00:31:35,520 --> 00:31:33,250

when we talked last I was launching a

738

00:31:37,620 --> 00:31:35,530

Kickstarter which was successful it

739

00:31:40,110 --> 00:31:37,630

allowed me to hire an artist and she

740

00:31:43,680 --> 00:31:40,120

came and knows how to do color so we

741

00:31:45,930 --> 00:31:43,690

were able to do color from then on and

742

00:31:48,180 --> 00:31:45,940

we for a few months with that money from

743

00:31:50,820 --> 00:31:48,190

the Kickstarter did five comics a week

744

00:31:51,900 --> 00:31:50,830

every week day which is quite a pace we

745

00:31:54,510 --> 00:31:51,910

did that for a few months until the

746

00:31:55,680 --> 00:31:54,520

money ran out but it that's pretty much

747

00:31:57,210 --> 00:31:55,690

where this book came from was the

748

00:32:00,200 --> 00:31:57,220

support we got there Tim last year

749

00:32:03,480 --> 00:32:00,210

really mm-hmm really that's fantastic so

750

00:32:05,600 --> 00:32:03,490

over the the two years just two years

751

00:32:08,340 --> 00:32:05,610

you've been really doing is right so

752

00:32:10,680 --> 00:32:08,350

because I I keep track of you from tab

753

00:32:12,300 --> 00:32:10,690

to town right morale if ya the first

754

00:32:13,980 --> 00:32:12,310

year was so low I was writing and

755

00:32:16,230 --> 00:32:13,990

drawing I would be like and white

756

00:32:20,160 --> 00:32:16,240

remember yeah man in fact I think I

757

00:32:23,220 --> 00:32:20,170

interviewed you at the if my memory

758

00:32:26,310 --> 00:32:23,230

serves we even stepped outside yeah out

759

00:32:28,860 --> 00:32:26,320

in the desert he tried his ID record for

760

00:32:31,350 --> 00:32:28,870

some reason maybe it was cuz of it was

761

00:32:34,350 --> 00:32:31,360

noisy in elysian I do remember stepping

762

00:32:37,530 --> 00:32:34,360

outside we're roasting hot enough that's

763

00:32:39,120 --> 00:32:37,540

right yeah but yeah so the first year

764

00:32:42,180 --> 00:32:39,130

was so low black and white and then we

765

00:32:44,430 --> 00:32:42,190

hired the least of my artists and we've

766

00:32:47,600 --> 00:32:44,440

been working together since then and I

767

00:32:49,860 --> 00:32:47,610

think it looks just fundamentally better

768

00:32:51,630 --> 00:32:49,870

since when I started out so I'm very

769

00:32:54,840 --> 00:32:51,640

happy about the color and having her

770

00:32:57,840 --> 00:32:54,850

expertise and as it's not it's a good

771

00:33:00,510 --> 00:32:57,850

book it's a nice solid good looking book

772

00:33:02,450 --> 00:33:00,520

and uh but again the color selection I

773

00:33:05,190 --> 00:33:02,460

think suits it very well with the

774

00:33:07,080 --> 00:33:05,200

debunking handbook in the back and there

775

00:33:09,270 --> 00:33:07,090

are many many many many many comics in

776

00:33:11,850 --> 00:33:09,280

here and guest articles as well I am

777

00:33:14,220 --> 00:33:11,860

some some skeptics friends of mine I had

778

00:33:18,120 --> 00:33:14,230

them write some guest articles of their

779

00:33:20,400 --> 00:33:18,130

very various expertise so there are some

780

00:33:22,980 --> 00:33:20,410

different topics that I dive into I

781

00:33:25,740 --> 00:33:22,990

tried to explain really get into the

782

00:33:27,990 --> 00:33:25,750

background with on the website every

783

00:33:31,110 --> 00:33:28,000

time I discuss a topic in the comic I

784

00:33:33,000 --> 00:33:31,120

have referenced commentary and further

785

00:33:35,790 --> 00:33:33,010

reading and all sorts of things to go

786

00:33:40,050 --> 00:33:35,800

with it so the website folks again is a

787

00:33:41,720 --> 00:33:40,060

carbon comic com and is you would still

788

00:33:43,460 --> 00:33:41,730

I'm sure

789

00:33:45,020 --> 00:33:43,470

shed lots of people visiting the site

790

00:33:47,810 --> 00:33:45,030

and helping you out oh yeah and

791

00:33:50,240 --> 00:33:47,820

everything's free online of course yeah

792

00:33:52,130 --> 00:33:50,250

and creative commons so feel free to put

793

00:33:55,070 --> 00:33:52,140

it wherever you like but how can people

794

00:33:57,410 --> 00:33:55,080

get the book it'll be for this is a just

795

00:33:59,450 --> 00:33:57,420

came out two days ago raleigh boating

796

00:34:02,540 --> 00:33:59,460

hats oh wow it will be available online

797

00:34:03,890 --> 00:34:02,550

for sale here once i send out the copies

798

00:34:05,870 --> 00:34:03,900

to all the kickstarter supporters first

799

00:34:07,250 --> 00:34:05,880

farrah don't get it first but in a few

800

00:34:09,770 --> 00:34:07,260

weeks it'll be available for everybody

801
00:34:11,510 --> 00:34:09,780
it so i guess the message is keep an eye

802
00:34:13,640 --> 00:34:11,520
on the website and then you people can

803
00:34:16,160 --> 00:34:13,650
see apps knows about the book fantastic

804
00:34:18,140 --> 00:34:16,170
well called a good for you for keeping

805
00:34:20,480 --> 00:34:18,150
at it when we can see the results right

806
00:34:21,950 --> 00:34:20,490
here good to see you at tam and maybe

807
00:34:38,990 --> 00:34:21,960
we'll see you again next year absolutely

808
00:34:41,240 --> 00:34:39,000
thanks so much that weird sound folks it

809
00:34:44,840 --> 00:34:41,250
could only mean one thing the college of

810
00:34:46,520 --> 00:34:44,850
curiosity and jeff wag hello Jeff hello

811
00:34:48,500 --> 00:34:46,530
thank you Richard for having me here

812
00:34:50,900 --> 00:34:48,510
today we're here at the amazing meeting

813
00:34:53,270 --> 00:34:50,910

and it's great to see here last time I

814

00:34:55,850 --> 00:34:53,280

saw you I was making sure you were

815

00:34:57,650 --> 00:34:55,860

boarding your cruise right in Sydney

816

00:34:59,780 --> 00:34:57,660

when was that suggests yeah i was in May

817

00:35:02,830 --> 00:34:59,790

as we were leaving they were the islands

818

00:35:06,050 --> 00:35:02,840

of New Caledonia how was that that was

819

00:35:10,250 --> 00:35:06,060

unbelievably found a cave behind a

820

00:35:11,480 --> 00:35:10,260

church not a church behind a KO they

821

00:35:13,970 --> 00:35:11,490

said go to the cave behind the church

822

00:35:15,530 --> 00:35:13,980

and we go down its ass anote a and then

823

00:35:17,900 --> 00:35:15,540

you go into a cave and you jump into

824

00:35:20,060 --> 00:35:17,910

this 30-foot pool of clear water and

825

00:35:22,010 --> 00:35:20,070

then when we got back and I researched

826

00:35:24,260 --> 00:35:22,020

it it had all this crazy history whether

827

00:35:26,810 --> 00:35:24,270

he found Nautilus shells in there that's

828

00:35:28,250 --> 00:35:26,820

fresh water ah the Nautilus shells lived

829

00:35:29,750 --> 00:35:28,260

there one of a saltwater and there was

830

00:35:31,370 --> 00:35:29,760

an uplifting and then this freshwater

831

00:35:33,980 --> 00:35:31,380

killed all the Nautilus shells on the

832

00:35:35,870 --> 00:35:33,990

same day and they carbon-dated them and

833

00:35:38,180 --> 00:35:35,880

they knew that they had died six hundred

834

00:35:40,130 --> 00:35:38,190

and something years ago I it was a

835

00:35:45,050 --> 00:35:40,140

fabulous trip but apart from that how

836

00:35:47,790 --> 00:35:45,060

was it ok I had the pleasure of

837

00:35:50,280 --> 00:35:47,800

joining you and I think wow I probably

838

00:35:52,350 --> 00:35:50,290

mentioned this on the skeptic zone in

839

00:35:54,630 --> 00:35:52,360

fact when i met your way back in two

840

00:35:56,970 --> 00:35:54,640

thousand seven I think that's right I'm

841

00:35:59,520 --> 00:35:56,980

Alaska and unless while we met any event

842

00:36:01,140 --> 00:35:59,530

coupe and Baku yes and that's where we

843

00:36:02,730 --> 00:36:01,150

boarded the ship it was the amazing

844

00:36:04,800 --> 00:36:02,740

adventure north to Alaska with james

845

00:36:06,540 --> 00:36:04,810

randi expert now you were on the cruise

846

00:36:08,820 --> 00:36:06,550

your dad your mom and dad that's really

847

00:36:10,350 --> 00:36:08,830

we're on the cruise we have 90 people in

848

00:36:11,880 --> 00:36:10,360

that group now and and that's the first

849

00:36:13,640 --> 00:36:11,890

time I met many people who are still are

850

00:36:15,840 --> 00:36:13,650

good friends so that those cruises are

851

00:36:17,520 --> 00:36:15,850

really good there's some bond that

852

00:36:20,040 --> 00:36:17,530

happens when you travel with people that

853

00:36:22,050 --> 00:36:20,050

doesn't happen any other way naomi baker

854

00:36:23,910 --> 00:36:22,060

yea i meant for the first time kitty i

855

00:36:27,690 --> 00:36:23,920

meant for the Deaf the city was a lot of

856

00:36:29,340 --> 00:36:27,700

a lot of people so let's talk about why

857

00:36:31,100 --> 00:36:29,350

you're here and a bit more about the

858

00:36:33,750 --> 00:36:31,110

college of curiosity and some of the

859

00:36:35,880 --> 00:36:33,760

curiosity or curious things that you've

860

00:36:37,650 --> 00:36:35,890

brought along here today for the

861

00:36:39,870 --> 00:36:37,660

interview we started off with this

862

00:36:44,280 --> 00:36:39,880

strange sound at the beginning of you

863

00:36:46,500 --> 00:36:44,290

what's that all of us sound here so this

864

00:36:48,480 --> 00:36:46,510

is an instrument and it visually you

865

00:36:51,120 --> 00:36:48,490

probably can't imagine what this looks

866

00:36:53,820 --> 00:36:51,130

like yeah but it's a it's a it's a

867

00:36:55,650 --> 00:36:53,830

square of wire with a handle and hanging

868

00:36:58,200 --> 00:36:55,660

off of that square is a flat piece of

869

00:37:00,210 --> 00:36:58,210

metal that it bends and on either side

870

00:37:03,660 --> 00:37:00,220

of that metal are these two mallets and

871

00:37:06,690 --> 00:37:03,670

when they hit the metal I can bend it

872

00:37:08,280 --> 00:37:06,700

and change the tone this instrument it's

873

00:37:09,990 --> 00:37:08,290

a musical instrument it was used in the

874

00:37:12,780 --> 00:37:10,000

jazz movement of the 30s it's called a

875

00:37:14,700 --> 00:37:12,790

flexagon ooh a flexagon and you have

876

00:37:17,100 --> 00:37:14,710

heard this before probably in cartoons

877

00:37:19,140 --> 00:37:17,110

but famously in the movie The Shining

878

00:37:21,660 --> 00:37:19,150

this is the sound that's used to

879

00:37:23,610 --> 00:37:21,670

indicate there are ghosts and that's

880

00:37:26,070 --> 00:37:23,620

what my association when I heard it

881

00:37:27,810 --> 00:37:26,080

first my somewhere the back of my mind I

882

00:37:29,130 --> 00:37:27,820

was taking ghosts yes it is it is a

883

00:37:31,170 --> 00:37:29,140

ghost noise but it was actually

884

00:37:33,180 --> 00:37:31,180

originally invented to be used as just

885

00:37:35,250 --> 00:37:33,190

part of a jazz set be a percussion

886

00:37:36,570 --> 00:37:35,260

instrument and someone would pick it up

887

00:37:42,099 --> 00:37:36,580

to add a little flavor to the number

888

00:37:47,299 --> 00:37:45,109

you could what else do we have here well

889

00:37:49,880 --> 00:37:47,309

we have a couple of other ones this one

890

00:37:51,260 --> 00:37:49,890

here you may have heard before and this

891

00:37:53,390 --> 00:37:51,270

is an interesting thing you cannot see

892

00:37:55,160 --> 00:37:53,400

this I know but it's a tube with a duck

893

00:38:00,339 --> 00:37:55,170

on it it is so what might a tube with a

894

00:38:04,279 --> 00:38:02,660

strangely enough I strangely enough it

895

00:38:05,539 --> 00:38:04,289

sounds like a duck it's a duck call not

896

00:38:07,970 --> 00:38:05,549

the most interesting thing in the world

897

00:38:10,609 --> 00:38:07,980

but cast yourselves back to nineteen

898

00:38:12,799 --> 00:38:10,619

twenties radio when radio was live and

899

00:38:14,900 --> 00:38:12,809

drama was what happened in the evenings

900

00:38:16,609 --> 00:38:14,910

on radio and they needed to make their

901
00:38:25,840 --> 00:38:16,619
own sound effects so it'd be something

902
00:38:30,970 --> 00:38:28,330
and so what you're hearing this is not

903
00:38:32,860 --> 00:38:30,980
thunder it is a thunder to this is made

904
00:38:34,660 --> 00:38:32,870
by the Remo corporation famous drum

905
00:38:38,260 --> 00:38:34,670
company yeah I'm just looking at it now

906
00:38:40,030 --> 00:38:38,270
it's like a well it's a tube yeah with

907
00:38:43,270 --> 00:38:40,040
the opening at one end and out the other

908
00:38:44,770 --> 00:38:43,280
end is a long bit of curly spring you

909
00:38:47,460 --> 00:38:44,780
type walk kind of like the spring you'd

910
00:38:51,670 --> 00:38:47,470
find at the top of a screen door maybe

911
00:38:54,700 --> 00:38:51,680
and it shakes a membrane through the

912
00:39:01,780 --> 00:38:54,710
tube and sounds sort of vaguely like

913
00:39:04,560 --> 00:39:01,790

thunder we do that again oh yeah I'm

914

00:39:06,940 --> 00:39:04,570

getting all this lovely residual sounds

915

00:39:08,500 --> 00:39:06,950

some of those residuals sounds are

916

00:39:11,020 --> 00:39:08,510

interesting because the movie star wars

917

00:39:12,640 --> 00:39:11,030

use them so you hear that sound or

918

00:39:16,960 --> 00:39:12,650

there's that was established yeah here's

919

00:39:18,520 --> 00:39:16,970

a better version this is a very simple

920

00:39:20,230 --> 00:39:18,530

object folks I can't tell you it's

921

00:39:22,660 --> 00:39:20,240

really is a tube with a bit of springy

922

00:39:24,100 --> 00:39:22,670

metal and coming out the end one of the

923

00:39:25,420 --> 00:39:24,110

things that made Star Wars special with

924

00:39:27,280 --> 00:39:25,430

the sound effects and the sound effects

925

00:39:29,650 --> 00:39:27,290

team looked for organic things to make

926
00:39:31,330 --> 00:39:29,660
sounds from and this isn't exactly what

927
00:39:33,640 --> 00:39:31,340
they used but it's the same principle

928
00:39:35,020 --> 00:39:33,650
yeah yeah they used a very long wire and

929
00:39:35,980 --> 00:39:35,030
they hit it with a hammer and it would

930
00:39:40,510 --> 00:39:35,990
made the laser bolts from the

931
00:39:41,560 --> 00:39:40,520
stormtroopers yes I shot Richard it's

932
00:39:43,240 --> 00:39:41,570
all right he'll be all right can I a

933
00:39:46,330 --> 00:39:43,250
stormtrooper net you okay often shocked

934
00:39:48,160 --> 00:39:46,340
me I didn't here's a very very simple

935
00:39:56,560 --> 00:39:48,170
thing that people have possibly heard

936
00:39:58,630 --> 00:39:56,570
many many times will this do this of

937
00:40:00,970 --> 00:39:58,640
course is a slide whistle it's the same

938
00:40:02,650 --> 00:40:00,980

principles a trombone actually except

939

00:40:06,610 --> 00:40:02,660

with a trombone you start with a sound

940

00:40:08,080 --> 00:40:06,620

like this yeah yeah we know but with

941

00:40:10,330 --> 00:40:08,090

this you sound with a you start with a

942

00:40:14,140 --> 00:40:10,340

whistle i whistle and it's just a tube

943

00:40:16,750 --> 00:40:14,150

with a variable plunder able the the the

944

00:40:18,580 --> 00:40:16,760

cavity in there yeah and vibrant yeah

945

00:40:20,920 --> 00:40:18,590

the finger cheesy but this is often

946

00:40:22,300 --> 00:40:20,930

shown to show this often used to show

947

00:40:23,710 --> 00:40:22,310

somebody going up and down a ladder or

948

00:40:25,510 --> 00:40:23,720

falling down or something well that's

949

00:40:27,400 --> 00:40:25,520

right son yeah nice sound effect all

950

00:40:29,080 --> 00:40:27,410

right now this one is my favorite you'll

951
00:40:31,810 --> 00:40:29,090
have to do that over there yeah luck hit

952
00:40:34,890 --> 00:40:31,820
really loves he's walking down the side

953
00:40:44,260 --> 00:40:40,359
one more time over there ah come back

954
00:40:46,240 --> 00:40:44,270
that's pretty good that's pretty cool so

955
00:40:48,570 --> 00:40:46,250
this is a percussion instrument also

956
00:40:52,780 --> 00:40:48,580
from the Jazz movement it is called a

957
00:40:55,359 --> 00:40:52,790
vibe recep it's called a vibrant but it

958
00:40:58,089 --> 00:40:55,369
was invented it has a very strange story

959
00:40:59,380 --> 00:40:58,099
yep originally there was another

960
00:41:02,530 --> 00:40:59,390
instrument that they used to make that

961
00:41:05,200 --> 00:41:02,540
sound and it was a jawbone of a donkey

962
00:41:07,120 --> 00:41:05,210
or a zebra hooked imagine that should

963
00:41:08,950 --> 00:41:07,130

take the jaw of a donkey receiver let it

964

00:41:11,050 --> 00:41:08,960

dry out let all the tissue go away and

965

00:41:12,790 --> 00:41:11,060

the teeth are still in the jaw but

966

00:41:14,710 --> 00:41:12,800

they're loose and they rattle and you

967

00:41:16,510 --> 00:41:14,720

tap the straw with a drumstick or

968

00:41:19,030 --> 00:41:16,520

something like that and it makes that

969

00:41:20,740 --> 00:41:19,040

noise you just heard so why do we have

970

00:41:23,800 --> 00:41:20,750

this new thing that's a call to vibra

971

00:41:25,450 --> 00:41:23,810

slap because it's a bone Jawbone's are

972

00:41:27,370 --> 00:41:25,460

fragile and if you travel with one

973

00:41:29,470 --> 00:41:27,380

they'll break so these bands are on gigs

974

00:41:31,240 --> 00:41:29,480

they get to the gig and they don't have

975

00:41:34,480 --> 00:41:31,250

the jawbone because it's broken so they

976
00:41:36,070 --> 00:41:34,490
invented an artificial jawbone and it's

977
00:41:38,290 --> 00:41:36,080
called the viber slap and you have to

978
00:41:39,760 --> 00:41:38,300
google vibra slap to see what this thing

979
00:41:43,750 --> 00:41:39,770
looks like it's pretty hard to describe

980
00:41:46,120 --> 00:41:43,760
but it's basically metal teeth vibrating

981
00:41:49,180 --> 00:41:46,130
on a piece of wood that's attached to a

982
00:41:52,450 --> 00:41:49,190
piece of wire that acts as the slap part

983
00:41:54,609 --> 00:41:52,460
it's amazing and it looks good shape is

984
00:41:57,450 --> 00:41:54,619
quite interesting and I can hardly know

985
00:42:01,000 --> 00:41:57,460
how to describe the basic shape all good

986
00:42:02,200 --> 00:42:01,010
now lastly the curiosities you brought

987
00:42:03,520 --> 00:42:02,210
this morning and I might have to turn

988
00:42:06,400 --> 00:42:03,530

the gain down on the microphone a little

989

00:42:08,050 --> 00:42:06,410

bit what's this i'm going to start this

990

00:42:12,460 --> 00:42:08,060

because this sound takes a long time to

991

00:42:14,859 --> 00:42:12,470

finish so what you're listening to is

992

00:42:17,230 --> 00:42:14,869

called Euler's disc Euler as a

993

00:42:19,630 --> 00:42:17,240

mathematician and what we have is a

994

00:42:22,420 --> 00:42:19,640

parabolic mirror very slight parabola

995

00:42:24,099 --> 00:42:22,430

and on it I have tipped over what is

996

00:42:26,380 --> 00:42:24,109

essentially a stainless steel hockey

997

00:42:28,720 --> 00:42:26,390

puck all those happy with the market

998

00:42:31,120 --> 00:42:28,730

look very heavy but the mirror is very

999

00:42:33,190 --> 00:42:31,130

smooth and the puck is very smooth and

1000

00:42:34,540 --> 00:42:33,200

has beveled edges so if you've ever

1001

00:42:36,580 --> 00:42:34,550

dropped a quarter in

1002

00:42:38,980 --> 00:42:36,590

walk and spun around that's what's

1003

00:42:41,950 --> 00:42:38,990

happening here but unlike the quarter

1004

00:42:45,580 --> 00:42:41,960

this will keep going and going and yet

1005

00:42:47,500 --> 00:42:45,590

faster faster and faster because there's

1006

00:42:49,630 --> 00:42:47,510

very little friction there's a whole lot

1007

00:42:55,030 --> 00:42:49,640

of potential energy into heavy metal

1008

00:42:57,130 --> 00:42:55,040

agua wow I love that sound Wow let me

1009

00:42:59,110 --> 00:42:57,140

just just the last a little bit again

1010

00:43:05,800 --> 00:42:59,120

just like that yeah a little twist

1011

00:43:07,720 --> 00:43:05,810

before that's satisfying somehow it's a

1012

00:43:09,430 --> 00:43:07,730

lovely sound completely useless device

1013

00:43:10,690 --> 00:43:09,440

this is not a musical instrument I don't

1014

00:43:13,060 --> 00:43:10,700

even think it's been used as a sound

1015

00:43:14,890 --> 00:43:13,070

defend and and the disc itself folks is

1016

00:43:16,960 --> 00:43:14,900

that's quite heavy it's very heavy and

1017

00:43:18,550 --> 00:43:16,970

that's when I do this demonstration for

1018

00:43:20,320 --> 00:43:18,560

people which is why i'm at tim i have a

1019

00:43:21,760 --> 00:43:20,330

table of unusual objects that i'm

1020

00:43:24,430 --> 00:43:21,770

demonstrating trying to increase

1021

00:43:26,140 --> 00:43:24,440

curiosity with the nulls it's a non

1022

00:43:28,120 --> 00:43:26,150

intuitive thing because everyone soon

1023

00:43:29,560 --> 00:43:28,130

everyone seen a quarter drop and they

1024

00:43:31,030 --> 00:43:29,570

know what only lasts a little while but

1025

00:43:33,190 --> 00:43:31,040

they don't know the math behind it

1026
00:43:35,350 --> 00:43:33,200
quarters don't have that much potential

1027
00:43:37,180 --> 00:43:35,360
energy but this really heavy disk as

1028
00:43:39,580 --> 00:43:37,190
waves a few pounds maybe a pound and

1029
00:43:41,620 --> 00:43:39,590
half has enough energy that'll keep

1030
00:43:43,450 --> 00:43:41,630
going and up to two minutes on ideal

1031
00:43:46,500 --> 00:43:43,460
conditions that will spin and it goes

1032
00:43:49,030 --> 00:43:46,510
ten thousand rpms near the adds a good

1033
00:43:50,980 --> 00:43:49,040
are you doing kilos oh to the keto or

1034
00:43:52,690 --> 00:43:50,990
something like that it's a little hard

1035
00:43:54,010 --> 00:43:52,700
to judge but it's whitey you would want

1036
00:43:55,450 --> 00:43:54,020
to get hit in the head with it no and

1037
00:43:56,860 --> 00:43:55,460
it's about the same size as a hockey

1038
00:43:58,960 --> 00:43:56,870

puck and those listeners you don't know

1039

00:44:01,660 --> 00:43:58,970

what a hockey puck is just google that i

1040

00:44:03,400 --> 00:44:01,670

know where hockey puck is having grown

1041

00:44:06,640 --> 00:44:03,410

up a little bit in canada I certainly do

1042

00:44:09,550 --> 00:44:06,650

but there you go Jeff well it's the

1043

00:44:11,920 --> 00:44:09,560

college of curiosity is aptly named time

1044

00:44:15,130 --> 00:44:11,930

you must say and and your adventure

1045

00:44:16,570 --> 00:44:15,140

sound adventurous how can people find

1046

00:44:19,330 --> 00:44:16,580

out well we're at the college of

1047

00:44:21,520 --> 00:44:19,340

curiosity calm we're also at Facebook as

1048

00:44:24,070 --> 00:44:21,530

strangely enough college of curiosity

1049

00:44:25,750 --> 00:44:24,080

and we're on instagram and twitter and

1050

00:44:27,460 --> 00:44:25,760

all those things and just come to the

1051
00:44:29,320 --> 00:44:27,470
website and you'll find us so that's the

1052
00:44:31,690 --> 00:44:29,330
message folks that's the clue hook up

1053
00:44:58,590 --> 00:44:31,700
with the college of curiosity Jeff wag

1054
00:45:07,000 --> 00:45:03,490
hey Heidi oh hi Joe hi Heidi oh hi

1055
00:45:10,240 --> 00:45:07,010
Maynard hi Bernard oh hi Joe nice day in

1056
00:45:14,080 --> 00:45:10,250
this park yeah yes great weather oh look

1057
00:45:16,660 --> 00:45:14,090
a unicorn a unicorn there are no such

1058
00:45:19,840 --> 00:45:16,670
things as unicorns silly yes there are

1059
00:45:22,330 --> 00:45:19,850
no there isn't hey ladies what are you

1060
00:45:25,810 --> 00:45:22,340
arguing about Joe thinks unicorns are

1061
00:45:29,320 --> 00:45:25,820
real they fo are let's look this up in

1062
00:45:31,600 --> 00:45:29,330
the skeptics dictionary the word how can

1063
00:45:33,910 --> 00:45:31,610

we do that in this park there are no

1064

00:45:36,220 --> 00:45:33,920

computers here you ladies probably don't

1065

00:45:39,310 --> 00:45:36,230

know about the skeptics dictionary app

1066

00:45:42,430 --> 00:45:39,320

available now for iPhone iPad and iPod

1067

00:45:44,410 --> 00:45:42,440

touch in the App Store yeah we do we've

1068

00:45:48,610 --> 00:45:44,420

been listening to the skeptic zone for

1069

00:45:50,950 --> 00:45:48,620

years you know yes ok the app lets you

1070

00:45:54,670 --> 00:45:50,960

access all the great skeptics dictionary

1071

00:45:57,490 --> 00:45:54,680

articles when you're on the go yeah let

1072

00:46:00,430 --> 00:45:57,500

me look up unicorns oh cool Heidi

1073

00:46:02,920 --> 00:46:00,440

prepare to be proven wrong it says here

1074

00:46:06,250 --> 00:46:02,930

the Unicorn is a creature from fables

1075

00:46:07,780 --> 00:46:06,260

aha actually I see now that someone just

1076

00:46:10,300 --> 00:46:07,790

dumped their ice cream cone on that

1077

00:46:12,640 --> 00:46:10,310

horse's head thanks get addicted to

1078

00:46:15,030 --> 00:46:12,650

their iPhone app that's just some guy in

1079

00:46:24,800 --> 00:46:15,040

these undies

1080

00:46:28,950 --> 00:46:27,150

thank you for listening to the skeptic

1081

00:46:31,440 --> 00:46:28,960

zone and mr. Randy thank you very much

1082

00:46:34,170 --> 00:46:31,450

for another wonderful convention who is

1083

00:46:36,150 --> 00:46:34,180

this it's a paparazzi coming after you

1084

00:46:38,490 --> 00:46:36,160

with a fuzzy my microphone yes that's

1085

00:46:40,920 --> 00:46:38,500

right yes have you had a good times I've

1086

00:46:43,200 --> 00:46:40,930

had it oh good talent a good time both

1087

00:46:45,090 --> 00:46:43,210

though at the same time yes how do you

1088

00:46:48,750 --> 00:46:45,100

do that I can't explain to you it's a

1089

00:46:51,120 --> 00:46:48,760

complicated art but i must say that last

1090

00:46:53,070 --> 00:46:51,130

night's attributed to brother

1091

00:46:55,080 --> 00:46:53,080

embarrassed me to a certain extent and I

1092

00:46:56,880 --> 00:46:55,090

don't umber know you don't like my

1093

00:46:59,280 --> 00:46:56,890

doubts for that I'm immune to that sort

1094

00:47:03,360 --> 00:46:59,290

of thing about techno it was a hell of

1095

00:47:05,580 --> 00:47:03,370

an evening and I'm very happy to live

1096

00:47:09,120 --> 00:47:05,590

long enough to see this and have that

1097

00:47:11,160 --> 00:47:09,130

contribute offered to me and yes I'm

1098

00:47:12,720 --> 00:47:11,170

quite excited over it was it was not

1099

00:47:14,700 --> 00:47:12,730

only was it a moving tribute it was a

1100

00:47:18,870 --> 00:47:14,710

very entertaining show I thought oh yes

1101

00:47:21,020 --> 00:47:18,880

oh god yes and Marvin Minsky yeah he

1102

00:47:24,090 --> 00:47:21,030

must be a hundred years of age and I'm

1103

00:47:26,190 --> 00:47:24,100

enclosing a letter right now he's sent

1104

00:47:28,650 --> 00:47:26,200

as a matter of fact all sorts of people

1105

00:47:31,830 --> 00:47:28,660

wishing you well and populating you well

1106

00:47:33,810 --> 00:47:31,840

I'll let you enjoy the rest of today the

1107

00:47:34,890 --> 00:47:33,820

last day of town and we look forward to

1108

00:47:36,990 --> 00:47:34,900

the million dollar challenge this

1109

00:47:39,660 --> 00:47:37,000

evening thank you so much and thank you

1110

00:47:42,680 --> 00:47:39,670

and thank you for listening to the

1111

00:47:45,720 --> 00:47:42,690

skeptic zone this week my friends and

1112

00:47:52,030 --> 00:47:45,730

until next time this is Richard Saunders

1113

00:47:58,220 --> 00:47:54,470

you've been listening to the skeptics

1114

00:48:01,130 --> 00:47:58,230

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1115

00:48:04,580 --> 00:48:01,140

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1116

00:48:07,280 --> 00:48:04,590

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1117

00:48:09,190 --> 00:48:07,290

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1118

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00:48:15,980 --> 00:48:12,360

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1124

00:48:28,190 --> 00:48:25,770

production the views and opinions

1125

00:48:29,810 --> 00:48:28,200

expressed on the skeptic zone and not

1126

00:48:32,690 --> 00:48:29,820

necessarily those of Australian