

# TNC 97: Environmental Degradation, Ocean Acidification, & Man's Great Contamination Cover-Up w/ Guy McPherson



BROUGHT TO YOU BY:  
 **onspiraTees.net**



1  
00:00:36,549 --> 00:00:34,840  
how's it going higher side chatters you

2  
00:00:39,160 --> 00:00:36,559  
know the routine I'm drinking a little

3  
00:00:40,959 --> 00:00:39,170  
drink smoking a little smoke and getting

4  
00:00:43,720 --> 00:00:40,969  
my head right for the journey ahead I'm

5  
00:00:46,239 --> 00:00:43,730  
self-medicating people because I reflect

6  
00:00:48,099 --> 00:00:46,249  
upon the totality of humanity's many

7  
00:00:50,380 --> 00:00:48,109  
mistakes against itself in its own

8  
00:00:52,569 --> 00:00:50,390  
environment in exchange for a rigidly

9  
00:00:55,479 --> 00:00:52,579  
controlled concoction of convenience and

10  
00:00:58,149 --> 00:00:55,489  
servitude and I just have to take the

11  
00:01:00,639 --> 00:00:58,159  
edge off but it's a good day to be alive

12  
00:01:03,189 --> 00:01:00,649  
guy McPherson is here a listener in the

13  
00:01:05,079 --> 00:01:03,199

subreddit requested guy offering a \$100

14

00:01:08,530 --> 00:01:05,089

bounty for the Money bomb so I delivered

15

00:01:11,050 --> 00:01:08,540

now it's your move man but also guy is a

16

00:01:13,150 --> 00:01:11,060

great follow-up to Michael Rupert Mike

17

00:01:15,850 --> 00:01:13,160

sided guy a few times in our interview

18

00:01:17,500 --> 00:01:15,860

and I'm a big fan he's been teaching and

19

00:01:19,690 --> 00:01:17,510

writing about the damage we've done to

20

00:01:22,390 --> 00:01:19,700

our planet for a long time and I would

21

00:01:24,010 --> 00:01:22,400

say in this conversation I had the vast

22

00:01:25,930 --> 00:01:24,020

damage we've done to the planet explain

23

00:01:28,480 --> 00:01:25,940

to me better than it ever has been and

24

00:01:31,240 --> 00:01:28,490

it's [h\_\_\h] shocking guys but I think

25

00:01:33,280 --> 00:01:31,250

that's the only way we can move on to

26  
00:01:35,560 --> 00:01:33,290  
other systems we need to understand the

27  
00:01:37,240 --> 00:01:35,570  
extent of our current failure when you

28  
00:01:40,150 --> 00:01:37,250  
really lay out the themes that make up

29  
00:01:42,610 --> 00:01:40,160  
THC economic slavery the censorship of

30  
00:01:45,430 --> 00:01:42,620  
history science and so many other fields

31  
00:01:47,370 --> 00:01:45,440  
today's topic included the mind control

32  
00:01:49,870 --> 00:01:47,380  
elements of mass media and Hollywood

33  
00:01:50,950 --> 00:01:49,880  
Gnostic wisdom corruption in our

34  
00:01:53,230 --> 00:01:50,960  
leadership and long-standing

35  
00:01:55,390 --> 00:01:53,240  
institutions the destruction of our

36  
00:01:57,460 --> 00:01:55,400  
health and pharmaceutical companies a

37  
00:01:59,080 --> 00:01:57,470  
[h\_\_\h] up medical system and corporate

38  
00:02:01,690 --> 00:01:59,090

farming that produces what seems more

39

00:02:05,500 --> 00:02:01,700

like the equivalent of wet socks the

40

00:02:07,900 --> 00:02:05,510

nutrient-rich fruits and vegetables but

41

00:02:10,240 --> 00:02:07,910

all these subjects all this damage and

42

00:02:13,630 --> 00:02:10,250

deceit on this show I point these things

43

00:02:16,059 --> 00:02:13,640

out not to stir up fear or to drown you

44

00:02:17,979 --> 00:02:16,069

in negativity I point these things out

45

00:02:18,830 --> 00:02:17,989

so that when we hear the mantra of the

46

00:02:20,720 --> 00:02:18,840

machine that were

47

00:02:23,300 --> 00:02:20,730

Peet's that this is the best system we

48

00:02:25,580 --> 00:02:23,310

have we recognize that for the [h\_\_h]

49

00:02:27,410 --> 00:02:25,590

it is and it sounds dumber to us every

50

00:02:29,630 --> 00:02:27,420

day and I want people to understand how

51  
00:02:31,610 --> 00:02:29,640  
I want to understand myself how bad it

52  
00:02:34,280 --> 00:02:31,620  
is how integrated it is how

53  
00:02:36,530 --> 00:02:34,290  
all-encompassing it is so we can know

54  
00:02:38,210 --> 00:02:36,540  
that any proposal that comes short of

55  
00:02:40,100 --> 00:02:38,220  
halting all the damage done by the

56  
00:02:42,559 --> 00:02:40,110  
machine any solution that doesn't reel

57  
00:02:45,020 --> 00:02:42,569  
back all the power and all those corrupt

58  
00:02:47,449 --> 00:02:45,030  
systems that channel it from humanity

59  
00:02:50,150 --> 00:02:47,459  
and the planet itself those solutions

60  
00:02:51,890 --> 00:02:50,160  
aren't going to save us say what you

61  
00:02:54,190 --> 00:02:51,900  
will about the zeitgeist movement or the

62  
00:02:56,720 --> 00:02:54,200  
Venus Project but the solutions we need

63  
00:03:00,020 --> 00:02:56,730

are going to be so radically different

64

00:03:02,300 --> 00:03:00,030

it's gonna be [h\_\_h] scary and it's

65

00:03:04,430 --> 00:03:02,310

gonna be a gamble and the more

66

00:03:05,839 --> 00:03:04,440

information we have about the absolute

67

00:03:07,880 --> 00:03:05,849

worldwide grid of control and

68

00:03:10,069 --> 00:03:07,890

exploitation the more apparent it

69

00:03:12,830 --> 00:03:10,079

becomes that this system is beyond being

70

00:03:14,930 --> 00:03:12,840

tweaked and the closer we collectively

71

00:03:17,240 --> 00:03:14,940

get to taking that gamble and that's

72

00:03:19,009 --> 00:03:17,250

what I want I want to see us roll the

73

00:03:20,390 --> 00:03:19,019

dice on something hopefully the

74

00:03:21,920 --> 00:03:20,400

conversations we've had on the higher

75

00:03:24,140 --> 00:03:21,930

side chats move you closer to that

76

00:03:26,000 --> 00:03:24,150

realization I know today's with guy

77

00:03:28,699 --> 00:03:26,010

McPherson has made an impact on me

78

00:03:30,530 --> 00:03:28,709

hopefully you'll feel the same now I do

79

00:03:32,390 --> 00:03:30,540

want to say guy had a bit of an audio

80

00:03:33,800 --> 00:03:32,400

issue he took our conversation from a

81

00:03:36,559 --> 00:03:33,810

study room at the University of

82

00:03:38,330 --> 00:03:36,569

Arizona's library and the room was a

83

00:03:41,150 --> 00:03:38,340

little too big an empty which gave us

84

00:03:43,099 --> 00:03:41,160

some echo that said I sent the file over

85

00:03:45,110 --> 00:03:43,109

to a listener named Dave who emailed me

86

00:03:47,150 --> 00:03:45,120

many moons ago and said if I ever had

87

00:03:49,039 --> 00:03:47,160

some audio that needed cleaning up he

88

00:03:51,050 --> 00:03:49,049

would happily take a crack at it and I

89

00:03:53,629 --> 00:03:51,060

think he did a bang-up job so thanks

90

00:03:56,120 --> 00:03:53,639

Dave Dave actually runs a website called

91

00:03:57,680 --> 00:03:56,130

looper star where he does several music

92

00:03:59,930 --> 00:03:57,690

related things and sells some pretty

93

00:04:02,569 --> 00:03:59,940

slick-looking guitar pedals I don't know

94

00:04:04,190 --> 00:04:02,579

anything about guitar pedals but I just

95

00:04:06,080 --> 00:04:04,200

know the guy fixed up this audio in a

96

00:04:08,120 --> 00:04:06,090

day and sent it back to me and I think

97

00:04:10,699 --> 00:04:08,130

it's a huge improvement and the file I

98

00:04:12,349 --> 00:04:10,709

sent him actually had cut off the first

99

00:04:14,420 --> 00:04:12,359

few minutes of our conversation so

100

00:04:16,400 --> 00:04:14,430

you'll notice that after about the five

101  
00:04:18,520 --> 00:04:16,410  
minute mark guys side of the

102  
00:04:21,650 --> 00:04:18,530  
conversation sounds a whole lot clearer

103  
00:04:23,960 --> 00:04:21,660  
and that's thanks to Dave it's also just

104  
00:04:26,180 --> 00:04:23,970  
part of having a Skype and phone based

105  
00:04:27,890 --> 00:04:26,190  
show there's only so much you can do to

106  
00:04:29,330 --> 00:04:27,900  
control the quality on the guest send

107  
00:04:31,370 --> 00:04:29,340  
and I'm going on and on but it's really

108  
00:04:32,360 --> 00:04:31,380  
not even that bad and the content is so

109  
00:04:34,340 --> 00:04:32,370  
important that

110  
00:04:36,800 --> 00:04:34,350  
often got lost in it without even

111  
00:04:38,360 --> 00:04:36,810  
noticing but I just want to give a shout

112  
00:04:39,890 --> 00:04:38,370  
out to Dave for the hook-up here's a

113  
00:04:41,689 --> 00:04:39,900

little spot for the Money bomb which is

114

00:04:43,969 --> 00:04:41,699

sitting at a kind of low eighty-five

115

00:04:47,240 --> 00:04:43,979

dollars I believe at my last count and

116

00:04:49,879 --> 00:04:47,250

this next one is episode 100 so I really

117

00:04:52,580 --> 00:04:49,889

hope we can blow it out of the water for

118

00:04:55,100 --> 00:04:52,590

the hundredth show and I know we will

119

00:04:57,170 --> 00:04:55,110

it's been a huge success so far and I

120

00:04:59,090 --> 00:04:57,180

couldn't be happier so thanks all to you

121

00:05:00,920 --> 00:04:59,100

who donate that said let's get it going

122

00:05:04,879 --> 00:05:00,930

and we'll be on the other side with the

123

00:05:06,050 --> 00:05:04,889

almighty guy McPherson hey people I

124

00:05:07,580 --> 00:05:06,060

gotta take a second to tell you about

125

00:05:10,070 --> 00:05:07,590

something we do around here called the

126  
00:05:12,230 --> 00:05:10,080  
THC Money bomb what I do is every five

127  
00:05:13,730 --> 00:05:12,240  
episodes the total of the donations I've

128  
00:05:15,740 --> 00:05:13,740  
gotten in that period of time and half

129  
00:05:17,810 --> 00:05:15,750  
keeps me and the show going I take the

130  
00:05:20,150 --> 00:05:17,820  
other half my gift that back to a random

131  
00:05:21,740 --> 00:05:20,160  
listener so far we're hitting about 500

132  
00:05:22,279 --> 00:05:21,750  
each round and I couldn't be happier

133  
00:05:24,230 --> 00:05:22,289  
about it

134  
00:05:25,550 --> 00:05:24,240  
so consider it thrown in 5 or 10 bucks

135  
00:05:27,200 --> 00:05:25,560  
it's cheaper than a hand at the

136  
00:05:29,000 --> 00:05:27,210  
blackjack table with better odds and a

137  
00:05:30,469 --> 00:05:29,010  
scratch-off ticket plus you know half

138  
00:05:32,029 --> 00:05:30,479

supports the show you like and at the

139

00:05:33,950 --> 00:05:32,039

very least half will go to a like-minded

140

00:05:35,960 --> 00:05:33,960

person who could probably use a nice

141

00:05:37,730 --> 00:05:35,970

surprise in these troubled times when

142

00:05:39,290 --> 00:05:37,740

you make a donation I can see your email

143

00:05:41,000 --> 00:05:39,300

address and that's how I pick the winner

144

00:05:42,860 --> 00:05:41,010

but to keep things kosher you can also

145

00:05:45,260 --> 00:05:42,870

get in the pool by sending your info on

146

00:05:50,270 --> 00:05:45,270

a postcard to me Greg Karl would p.o box

147

00:05:55,159 --> 00:05:50,280

6 3 5 2 2 3 San Diego California 9 2 1 6

148

00:05:56,120 --> 00:05:55,169

3 like I've snow paid bonus shows and I

149

00:05:58,250 --> 00:05:56,130

want to keep it that way

150

00:06:00,200 --> 00:05:58,260

on principle but I'm not a millionaire

151

00:06:02,060 --> 00:06:00,210

the podcast on the side this is it for

152

00:06:04,159 --> 00:06:02,070

me and I'm the only one I know is trying

153

00:06:06,110 --> 00:06:04,169

to help the people out as well that's my

154

00:06:07,550 --> 00:06:06,120

man so help me help you

155

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

if you want to play along go to the

156

00:06:12,320 --> 00:06:09,570

higher side chest cough slash donate and

157

00:06:14,510 --> 00:06:12,330

get in the game dollars bitcoins it's

158

00:06:26,360 --> 00:06:14,520

all good to me and that's what we call

159

00:06:30,540 --> 00:06:28,890

folks it doesn't take much insight to

160

00:06:32,490 --> 00:06:30,550

see that our philosophy of infinite

161

00:06:34,290 --> 00:06:32,500

growth and expansion is not sustainable

162

00:06:35,970 --> 00:06:34,300

on a finite planet and if you're like me

163

00:06:37,590 --> 00:06:35,980

you can feel it in the air that these

164

00:06:39,150 --> 00:06:37,600

are very troubled times as many

165

00:06:40,680 --> 00:06:39,160

researchers are starting to feel as

166

00:06:42,510 --> 00:06:40,690

though we've already passed the point of

167

00:06:44,220 --> 00:06:42,520

no return there's a lot of noise and

168

00:06:45,780 --> 00:06:44,230

wishful thinking on the subject but

169

00:06:47,310 --> 00:06:45,790

today people I'm looking for the facts

170

00:06:47,520 --> 00:06:47,320

and we got just the man to give them to

171

00:06:49,710 --> 00:06:47,530

us

172

00:06:51,650 --> 00:06:49,720

today's guest is guy McPherson who's a

173

00:06:54,600 --> 00:06:51,660

retired professor of Natural Resources

174

00:06:56,820 --> 00:06:54,610

ecology and evolutionary biology at the

175

00:06:58,830 --> 00:06:56,830

University of Arizona and the author of

176

00:07:01,379 --> 00:06:58,840

several books including going dark and

177

00:07:03,390 --> 00:07:01,389

walk it away from Empire he's also the

178

00:07:06,300 --> 00:07:03,400

man behind the blog nature bats last

179

00:07:08,640 --> 00:07:06,310

fresh off an appearance on conspiracy HQ

180

00:07:10,500 --> 00:07:08,650

with our friend Rob davon guy is the man

181

00:07:12,390 --> 00:07:10,510

when it comes to analyzing the damage

182

00:07:14,460 --> 00:07:12,400

humanity is inflicting on the earth and

183

00:07:16,170 --> 00:07:14,470

monitoring the ongoing changes that

184

00:07:18,300 --> 00:07:16,180

result from our self-destructive path

185

00:07:23,540 --> 00:07:18,310

and I for one can't wait to have my day

186

00:07:28,650 --> 00:07:26,790

of course it's a real pleasure man and

187

00:07:30,300 --> 00:07:28,660

I'm half kidding about the day ruining

188

00:07:33,000 --> 00:07:30,310

thing obviously no one wants to hear

189

00:07:35,190 --> 00:07:33,010

negative doom and gloom all day every

190

00:07:36,779 --> 00:07:35,200

day but unfortunately on this show I

191

00:07:39,060 --> 00:07:36,789

like to hear the real deal so that

192

00:07:41,520 --> 00:07:39,070

sometimes puts me in a contradictory

193

00:07:42,840 --> 00:07:41,530

position but what can you do right yeah

194

00:07:45,420 --> 00:07:42,850

I'm meeting with a friend tomorrow

195

00:07:48,300 --> 00:07:45,430

having breakfast with her she was the

196

00:07:50,820 --> 00:07:48,310

founder of poetry inside out program I

197

00:07:52,620 --> 00:07:50,830

participated in for several years and

198

00:07:57,990 --> 00:07:52,630

she used to call me that exact thing

199

00:07:59,340 --> 00:07:58,000

she'd call me dr. de Bruin her so I had

200

00:08:01,230 --> 00:07:59,350

Michel Rupert on the show a few weeks

201  
00:08:03,360 --> 00:08:01,240  
back and it was one of those episodes

202  
00:08:04,920 --> 00:08:03,370  
where the audience got real vocal with

203  
00:08:06,629 --> 00:08:04,930  
me about their thoughts on it most

204  
00:08:08,760 --> 00:08:06,639  
didn't want to hear it but there were

205  
00:08:10,620 --> 00:08:08,770  
opinions on both sides and my excited

206  
00:08:12,300 --> 00:08:10,630  
sure works several times and I've

207  
00:08:13,980 --> 00:08:12,310  
enjoyed hearing you speak on some of

208  
00:08:16,529 --> 00:08:13,990  
these topics so I'm real happy we could

209  
00:08:18,360 --> 00:08:16,539  
do this but of all the topics we cover

210  
00:08:20,760 --> 00:08:18,370  
the idea that we've done too much damage

211  
00:08:23,340 --> 00:08:20,770  
on the planet at this point to recover

212  
00:08:25,080 --> 00:08:23,350  
without some massive human die-off

213  
00:08:27,360 --> 00:08:25,090

it's definitely received the most

214

00:08:28,740 --> 00:08:27,370

backlash and I was wondering if do you

215

00:08:30,940 --> 00:08:28,750

find that in your work that there's a

216

00:08:32,350 --> 00:08:30,950

bit of a denial or a head in the sand

217

00:08:35,010 --> 00:08:32,360

syndrome when it comes to some of these

218

00:08:38,950 --> 00:08:35,020

environmental issues oh yes absolutely

219

00:08:43,240 --> 00:08:38,960

there's time and again I hear that word

220

00:08:45,250 --> 00:08:43,250

clever that we cannot and will not do

221

00:08:47,770 --> 00:08:45,260

anything that will contribute to our own

222

00:08:49,390 --> 00:08:47,780

demise that we obviously depend upon the

223

00:08:52,210 --> 00:08:49,400

Living Planet so we are gonna hurt that

224

00:08:53,980 --> 00:08:52,220

or at the other extreme we don't even

225

00:08:56,740 --> 00:08:53,990

need to we don't even need other species

226

00:08:59,740 --> 00:08:56,750

will engineer engineer our way into and

227

00:09:03,010 --> 00:08:59,750

out of anything at all yes there's

228

00:09:06,190 --> 00:09:03,020

there's a tremendous amount of discord

229

00:09:07,720 --> 00:09:06,200

will say created by my work I mean it's

230

00:09:10,270 --> 00:09:07,730

it's better to get to the truth though I

231

00:09:11,740 --> 00:09:10,280

mean it is what it is I mean I can't say

232

00:09:13,630 --> 00:09:11,750

how many any better you know I eat

233

00:09:16,390 --> 00:09:13,640

things that I know are bad for me we all

234

00:09:18,130 --> 00:09:16,400

carry cell phones and sit next to Wi-Fi

235

00:09:19,870 --> 00:09:18,140

routers and there seems to be a lot of

236

00:09:22,420 --> 00:09:19,880

data accumulating that those aren't very

237

00:09:24,700 --> 00:09:22,430

safe things to do so I guess I'm just as

238

00:09:28,450 --> 00:09:24,710

big of a hypocrite in some areas well

239

00:09:31,990 --> 00:09:28,460

you know Timothy Scott Bennett here

240

00:09:33,790 --> 00:09:32,000

we're all born into captivity I mean we

241

00:09:37,660 --> 00:09:33,800

were born the set of living arrangements

242

00:09:41,740 --> 00:09:37,670

and in many cases there is little or

243

00:09:44,760 --> 00:09:41,750

nothing we can do short of moving to a

244

00:09:47,110 --> 00:09:44,770

cave and sucking the guts out of bugs

245

00:09:49,000 --> 00:09:47,120

that makes any difference at all so

246

00:09:51,310 --> 00:09:49,010

we're stuck here we're born into

247

00:09:52,780 --> 00:09:51,320

captivity yeah we didn't choose when

248

00:09:54,970 --> 00:09:52,790

we're gonna be born where we're gonna be

249

00:09:57,430 --> 00:09:54,980

born we're born into this civilization

250

00:10:00,550 --> 00:09:57,440

right that's a great way to say it and

251  
00:10:02,260 --> 00:10:00,560  
we don't have the education on what it

252  
00:10:04,960 --> 00:10:02,270  
would take to live a more sustainable

253  
00:10:06,580 --> 00:10:04,970  
lifestyle that's a sad piece of the

254  
00:10:09,040 --> 00:10:06,590  
puzzle and an important piece as well

255  
00:10:11,020 --> 00:10:09,050  
but I mean like any topic that involves

256  
00:10:13,060 --> 00:10:11,030  
a lot of money being made at the expense

257  
00:10:15,250 --> 00:10:13,070  
of things that are far more important

258  
00:10:17,110 --> 00:10:15,260  
there's a ton of misinformation and

259  
00:10:18,880 --> 00:10:17,120  
propaganda out there about how that bad

260  
00:10:20,590 --> 00:10:18,890  
things really are I mean corporations

261  
00:10:22,960 --> 00:10:20,600  
and lobbyists or misleading US

262  
00:10:26,380 --> 00:10:22,970  
governments misleading us so it's hard

263  
00:10:29,200 --> 00:10:26,390

to know to what extent this problem how

264

00:10:31,360 --> 00:10:29,210

far it goes but if you can give us a

265

00:10:33,160 --> 00:10:31,370

better understanding of the general

266

00:10:36,550 --> 00:10:33,170

health of the planet I mean is Earth

267

00:10:38,110 --> 00:10:36,560

terminally ill at this point well I

268

00:10:45,010 --> 00:10:38,120

think

269

00:10:47,890 --> 00:10:45,020

that because we're driving to an roughly

270

00:10:50,470 --> 00:10:47,900

200 species a day to extinction that

271

00:10:52,870 --> 00:10:50,480

that's going to have some consequences

272

00:10:55,270 --> 00:10:52,880

that we are as near as I can tell

273

00:10:59,110 --> 00:10:55,280

destroying every aspect of the living

274

00:11:01,120 --> 00:10:59,120

planet that we need to survive in and so

275

00:11:05,580 --> 00:11:01,130

it's no surprise to at some point the

276

00:11:08,530 --> 00:11:05,590

species we take into the abyss is us so

277

00:11:10,810 --> 00:11:08,540

we're following the air and dirtying the

278

00:11:13,560 --> 00:11:10,820

water and watching the soils into the

279

00:11:15,610 --> 00:11:13,570

world's oceans at an astonishing rate

280

00:11:17,770 --> 00:11:15,620

that's gonna catch up with you at some

281

00:11:19,390 --> 00:11:17,780

point and and I think we see plenty of

282

00:11:22,780 --> 00:11:19,400

evidence that the catching up is

283

00:11:24,990 --> 00:11:22,790

underway for example and it's just one

284

00:11:30,220 --> 00:11:25,000

example but on the climate change front

285

00:11:33,490 --> 00:11:30,230

we're seeing events play out in real

286

00:11:37,420 --> 00:11:33,500

time that previously have happened at a

287

00:11:41,010 --> 00:11:37,430

geological time scale we've triggered 30

288

00:11:44,290 --> 00:11:41,020

self-reinforcing feedback loops right

289

00:11:48,610 --> 00:11:44,300

including firing the plethoric gun or

290

00:11:50,100 --> 00:11:48,620

the methane bomb in the Arctic and and

291

00:11:52,150 --> 00:11:50,110

it doesn't in there by any means

292

00:11:54,820 --> 00:11:52,160

industrial civilization apparently

293

00:11:57,550 --> 00:11:54,830

forces us to go into human population

294

00:11:59,050 --> 00:11:57,560

overshoot deeper everyday by adding more

295

00:12:01,720 --> 00:11:59,060

than two hundred thousand people to the

296

00:12:05,740 --> 00:12:01,730

planet that's first- deaths and by

297

00:12:08,320 --> 00:12:05,750

polluting the air and the water in in

298

00:12:11,710 --> 00:12:08,330

destroying the soils and and all those

299

00:12:15,430 --> 00:12:11,720

things that we do that ultimately lead

300

00:12:18,790 --> 00:12:15,440

to such wonders as iPods and and

301

00:12:20,050 --> 00:12:18,800

smartphones and apparently that's a

302

00:12:22,870 --> 00:12:20,060

trade-off were willing to make and have

303

00:12:24,790 --> 00:12:22,880

been willing to make for a long time we

304

00:12:29,320 --> 00:12:24,800

know one thing that I had heard you say

305

00:12:31,330 --> 00:12:29,330

recently in some of the in the cases of

306

00:12:34,510 --> 00:12:31,340

pollution which I thought was really

307

00:12:36,520 --> 00:12:34,520

scary is it takes 40 years for the

308

00:12:38,650 --> 00:12:36,530

effects to manifest in the environment

309

00:12:40,560 --> 00:12:38,660

is that true I mean that seems like a

310

00:12:42,910 --> 00:12:40,570

pretty damning situation because we've

311

00:12:46,000 --> 00:12:42,920

perpetually damaged it more especially

312

00:12:47,790 --> 00:12:46,010

in the past 40 years right and so this

313

00:12:50,560 --> 00:12:47,800

with respect to carbon dioxide emissions

314

00:12:52,760 --> 00:12:50,570

greenhouse gas emissions the primary one

315

00:12:55,070 --> 00:12:52,770

of which is carbon dioxide

316

00:12:57,430 --> 00:12:55,080

it's 40 years between cause and effect

317

00:13:00,710 --> 00:12:57,440

between emissions and temperature rise

318

00:13:04,970 --> 00:13:00,720

so the temperature rise we are seeing

319

00:13:09,890 --> 00:13:04,980

today is a result of emissions from 1974

320

00:13:13,550 --> 00:13:09,900

and in we've we've emitted more carbon

321

00:13:16,820 --> 00:13:13,560

dioxide in the last 29 years than in the

322

00:13:20,480 --> 00:13:16,830

previous 236 years of industrial

323

00:13:22,640 --> 00:13:20,490

civilization so none of those are baked

324

00:13:23,930 --> 00:13:22,650

in yet I mean they're baked into the

325

00:13:27,380 --> 00:13:23,940

cake they're underway but we haven't

326

00:13:29,930 --> 00:13:27,390

observed the outcome yeah that is

327

00:13:31,280 --> 00:13:29,940

terrifying so you so you're right that's

328

00:13:33,260 --> 00:13:31,290

that's horrifying

329

00:13:34,970 --> 00:13:33,270

it's very damning in that there's

330

00:13:38,540 --> 00:13:34,980

nothing we can do about it now we can't

331

00:13:39,890 --> 00:13:38,550

go back and undo those emissions and we

332

00:13:43,430 --> 00:13:39,900

haven't even begun to see the

333

00:13:47,600 --> 00:13:43,440

temperature rise that will result from

334

00:13:49,070 --> 00:13:47,610

those emissions Wow on the plus on the

335

00:13:52,790 --> 00:13:49,080

plus side from an individual perspective

336

00:13:55,550 --> 00:13:52,800

and I think this is really important on

337

00:14:00,380 --> 00:13:55,560

the plus side what that indicates to me

338

00:14:02,030 --> 00:14:00,390

is that we're not to blame you and I we

339

00:14:04,310 --> 00:14:02,040

had essentially nothing to do with it

340

00:14:06,230 --> 00:14:04,320

not only are we born into captivity and

341

00:14:07,070 --> 00:14:06,240

so we don't even get a choice about when

342

00:14:09,230 --> 00:14:07,080

and where reward

343

00:14:12,140 --> 00:14:09,240

what sort of conditions under which were

344

00:14:15,050 --> 00:14:12,150

born but in 1974 I wasn't even driving

345

00:14:16,400 --> 00:14:15,060

yet forty years ago I was not driving a

346

00:14:18,020 --> 00:14:16,410

car certainly was looking forward to

347

00:14:20,780 --> 00:14:18,030

driving a car I thought that was gonna

348

00:14:22,670 --> 00:14:20,790

be awesome and also bear in mind that

349

00:14:26,780 --> 00:14:22,680

that most of us didn't really know

350

00:14:28,910 --> 00:14:26,790

anything about climate change in 1974 so

351

00:14:32,210 --> 00:14:28,920

I don't hold you and me responsible

352

00:14:34,040 --> 00:14:32,220

that's a good point for for actions that

353

00:14:35,750 --> 00:14:34,050

we took when I was in the early teenager

354

00:14:39,920 --> 00:14:35,760

yeah well I'm always willing to accept

355

00:14:42,980 --> 00:14:39,930

an excuse to blame shift but well tell

356

00:14:44,630 --> 00:14:42,990

me about this this Arctic methane bomb

357

00:14:48,490 --> 00:14:44,640

you had mentioned I have not heard much

358

00:14:52,850 --> 00:14:48,500

about that well it was the first

359

00:14:55,880 --> 00:14:52,860

self-reinforcing feedback loop widely

360

00:14:58,660 --> 00:14:55,890

reported in the scientific literature in

361

00:15:01,550 --> 00:14:58,670

the refereed journal literature and

362

00:15:05,340 --> 00:15:01,560

these these methane hydrates or

363

00:15:09,690 --> 00:15:05,350

clathrates our lone cages of methane

364

00:15:11,930 --> 00:15:09,700

and the methane is in cold storage at

365

00:15:15,930 --> 00:15:15,060

at relatively shallow depths in the

366

00:15:18,000 --> 00:15:15,940

Arctic Ocean

367

00:15:21,180 --> 00:15:18,010

and they found a lot of other places too

368

00:15:24,300 --> 00:15:21,190

there for example defendant in the

369

00:15:26,640 --> 00:15:24,310

Antarctica relatively showing temps in

370

00:15:27,930 --> 00:15:26,650

the ocean but these things are just

371

00:15:29,850 --> 00:15:27,940

sitting out there and have been sitting

372

00:15:34,320 --> 00:15:29,860

down there for a long time millions of

373

00:15:36,920 --> 00:15:34,330

years and with as reported in the in the

374

00:15:41,280 --> 00:15:36,930

journal literature relatively minor

375

00:15:45,270 --> 00:15:41,290

increases in temperature would cause

376

00:15:47,730 --> 00:15:45,280

upwards of 16 thousand tons of men of

377

00:15:49,890 --> 00:15:47,740

methane to be released each year that's

378

00:15:53,160 --> 00:15:49,900

from the June 2010 issue of geophysical

379

00:15:55,320 --> 00:15:53,170

research letters well as it turns out we

380

00:15:56,430 --> 00:15:55,330

haven't experienced a minor increase in

381

00:15:59,010 --> 00:15:56,440

temperature in the Arctic we've

382

00:16:00,510 --> 00:15:59,020

experienced a pretty major increase in

383

00:16:03,440 --> 00:16:00,520

temperature at the Arctic and as a

384

00:16:06,030 --> 00:16:03,450

consequence those methane clathrates

385

00:16:08,280 --> 00:16:06,040

having been warmed or not floating up to

386

00:16:10,530 --> 00:16:08,290

the surface and as they warm even more

387

00:16:13,170 --> 00:16:10,540

the clathrate of the cage breaks away

388

00:16:15,480 --> 00:16:13,180

and so the methane is emitted directly

389

00:16:15,780 --> 00:16:15,490

into the atmosphere how important is

390

00:16:18,330 --> 00:16:15,790

that

391

00:16:22,050 --> 00:16:18,340

well methane is in the short-term

392

00:16:24,240 --> 00:16:22,060

meaning less than 20 years more than a

393

00:16:26,190 --> 00:16:24,250

hundred times more powerful a greenhouse

394

00:16:31,640 --> 00:16:26,200

gas than carbon dioxide molecule per

395

00:16:38,250 --> 00:16:31,650

molecule so it appears that starting in

396

00:16:40,530 --> 00:16:38,260

2007 there was more than 10 million

397

00:16:43,920 --> 00:16:40,540

times the amount of energy per year

398

00:16:47,700 --> 00:16:43,930

necessary to dissociate subsea Arctic

399

00:16:52,740 --> 00:16:47,710

methane hydrates so starting in 2007 the

400

00:16:54,690 --> 00:16:52,750

clathrate gun went off and because there

401  
00:16:56,040 --> 00:16:54,700  
was a enough energy in the ocean enough

402  
00:16:58,920 --> 00:16:56,050  
warming in the ocean to start there's

403  
00:17:03,780 --> 00:16:58,930  
clathrates bubbling up even nasa's

404  
00:17:08,810 --> 00:17:03,790  
carved project in the summer of 2011 was

405  
00:17:12,230 --> 00:17:08,820  
pointing out very large methane plumes

406  
00:17:15,230 --> 00:17:12,240  
150 kilometers across in fact

407  
00:17:18,169 --> 00:17:15,240  
and and that's that's as of mid July

408  
00:17:20,029 --> 00:17:18,179  
2013 mid July of last year so the car

409  
00:17:23,510 --> 00:17:20,039  
project had been going on for a while as

410  
00:17:25,789 --> 00:17:23,520  
of last summer they documented 150

411  
00:17:27,529 --> 00:17:25,799  
kilometer across plumes rising onto the

412  
00:17:30,139 --> 00:17:27,539  
Arctic Ocean

413  
00:17:31,549 --> 00:17:30,149

obviously they didn't do that with it

414

00:17:33,139 --> 00:17:31,559

with a boat right there in the midst of

415

00:17:35,450 --> 00:17:33,149

it you would have been able to see

416

00:17:37,460 --> 00:17:35,460

methane as far as you could see in every

417

00:17:40,700 --> 00:17:37,470

direction but then you would have been

418

00:17:44,389 --> 00:17:40,710

dead because methane is lethal at those

419

00:17:46,220 --> 00:17:44,399

concentrations at that proximity so they

420

00:17:48,740 --> 00:17:46,230

observed this with satellite imagery so

421

00:17:51,649 --> 00:17:48,750

these plumes have been coming up out of

422

00:17:53,870 --> 00:17:51,659

the Arctic Ocean and they're large and

423

00:17:57,110 --> 00:17:53,880

it appears we varied the class we got

424

00:17:58,940 --> 00:17:57,120

about seven years ago and that's that's

425

00:18:01,010 --> 00:17:58,950

that's the self-reinforcing feedback

426

00:18:03,200 --> 00:18:01,020

loop that James Hansen particularly

427

00:18:05,570 --> 00:18:03,210

worried about in his book storms of my

428

00:18:09,350 --> 00:18:05,580

grandchildren and so this is a big big

429

00:18:11,419 --> 00:18:09,360

deal and it's been documented in the

430

00:18:13,399 --> 00:18:11,429

refereed journal literature for about

431

00:18:15,590 --> 00:18:13,409

four years now that methane hydrates and

432

00:18:17,720 --> 00:18:15,600

bubbling out of the Arctic Ocean we've

433

00:18:20,120 --> 00:18:17,730

had enough energy for seven years to

434

00:18:24,649 --> 00:18:20,130

cause them to bubble out at an

435

00:18:28,850 --> 00:18:24,659

accelerating rate instead of one one

436

00:18:30,320 --> 00:18:28,860

analysis conducted by same karana of

437

00:18:34,460 --> 00:18:30,330

those methane's

438

00:18:37,430 --> 00:18:34,470

of the methane plume indicates it has

439

00:18:40,340 --> 00:18:37,440

gone exponential and as a consequence

440

00:18:44,720 --> 00:18:40,350

we'll have more than 40 warming on the

441

00:18:46,580 --> 00:18:44,730

planet by 2030 that's important because

442

00:18:50,570 --> 00:18:46,590

there have been no humans on the planet

443

00:18:52,760 --> 00:18:50,580

at 3 and 1/2 C above baseline yeah and

444

00:18:55,100 --> 00:18:52,770

we're headed for forcing in in an

445

00:18:56,690 --> 00:18:55,110

exponential polynomial curve fit to the

446

00:18:59,419 --> 00:18:56,700

data and forecast as his future

447

00:19:02,779 --> 00:18:59,429

indicates based on that one feedback

448

00:19:06,919 --> 00:19:02,789

alone we're headed for more than 10 C

449

00:19:09,710 --> 00:19:06,929

warming by 2040 Wow

450

00:19:12,169 --> 00:19:09,720

yeah that's also scary and I know you

451  
00:19:14,810 --> 00:19:12,179  
said those up to 30 of these different

452  
00:19:16,639 --> 00:19:14,820  
feedback loops which just piles on an

453  
00:19:18,049 --> 00:19:16,649  
already scary situation but let me ask

454  
00:19:20,240 --> 00:19:18,059  
you about some of these specific areas

455  
00:19:22,549 --> 00:19:20,250  
of environmental concern and maybe you

456  
00:19:25,010 --> 00:19:22,559  
can help shed some light on the damage

457  
00:19:27,590 --> 00:19:25,020  
assessment in those areas for me

458  
00:19:29,030 --> 00:19:27,600  
let's start with fracking I mean it

459  
00:19:31,430 --> 00:19:29,040  
seems pretty obvious to me that the

460  
00:19:33,260 --> 00:19:31,440  
majority of people who tend to say it's

461  
00:19:36,169 --> 00:19:33,270  
harmless they have some ties to the

462  
00:19:37,669 --> 00:19:36,179  
industry almost always people are

463  
00:19:40,580 --> 00:19:37,679

lighting their drinking water on fire

464

00:19:42,169 --> 00:19:40,590

that seems hard to argue against but how

465

00:19:47,770 --> 00:19:42,179

much environmental damage is this

466

00:19:53,630 --> 00:19:47,780

practice really causing it's obviously

467

00:19:55,180 --> 00:19:53,640

hugely detrimental to water it requires

468

00:20:00,820 --> 00:19:55,190

a tremendous amount of water to

469

00:20:05,810 --> 00:20:00,830

implement fracking and the fracking

470

00:20:07,480 --> 00:20:05,820

itself contributes to water that when it

471

00:20:10,870 --> 00:20:07,490

comes out of the tap can be lit on fire

472

00:20:13,900 --> 00:20:10,880

and this is pretty well documented in

473

00:20:17,240 --> 00:20:13,910

places like Wyoming where they first

474

00:20:20,390 --> 00:20:17,250

really started getting rolling with this

475

00:20:23,930 --> 00:20:20,400

hydro fracturing idea and more recently

476

00:20:25,970 --> 00:20:23,940

in Pennsylvania so I think if you can

477

00:20:27,380 --> 00:20:25,980

light your water on fire when it comes

478

00:20:29,870 --> 00:20:27,390

out of the tap that's probably not a

479

00:20:31,430 --> 00:20:29,880

good thing I wouldn't be drinking that

480

00:20:34,930 --> 00:20:31,440

water and in fact those people those

481

00:20:37,640 --> 00:20:34,940

people aren't so there are instead

482

00:20:41,630 --> 00:20:37,650

shipping in their water trucking it in

483

00:20:44,360 --> 00:20:41,640

so they have water to drink I'm going to

484

00:20:47,930 --> 00:20:44,370

get a disaster so now we're burning more

485

00:20:49,310 --> 00:20:47,940

fossil fuels so you can have to bring

486

00:20:53,810 --> 00:20:49,320

back the water that was already there

487

00:20:55,190 --> 00:20:53,820

right and and we need more fossil fuels

488

00:20:57,140 --> 00:20:55,200

to maintain this than the living

489

00:21:01,610 --> 00:20:57,150

arrangements always I always have to

490

00:21:03,470 --> 00:21:01,620

have more more more and so it's clear

491

00:21:05,870 --> 00:21:03,480

that we're willing to destroy even

492

00:21:08,780 --> 00:21:05,880

drinking water for ourselves just so we

493

00:21:10,910 --> 00:21:08,790

can have a little bit more fossil fuels

494

00:21:14,299 --> 00:21:10,920

at our disposal what do we use it for

495

00:21:16,010 --> 00:21:14,309

the hauler sells water yeah I mean it

496

00:21:18,740 --> 00:21:16,020

the whole fracking thing seems like a

497

00:21:21,169 --> 00:21:18,750

real play of desperation oil companies

498

00:21:23,540 --> 00:21:21,179

seem to be taking much greater costs and

499

00:21:25,370 --> 00:21:23,550

risks to keep up with this demand and it

500

00:21:27,470 --> 00:21:25,380

seems pretty evident that we are

501  
00:21:31,010 --> 00:21:27,480  
exhausting the last few options for oil

502  
00:21:34,490 --> 00:21:31,020  
extraction doesn't it certainly seems

503  
00:21:41,030 --> 00:21:34,500  
that way to me we are going to

504  
00:21:42,790 --> 00:21:41,040  
go to those lengths to have a little bit

505  
00:21:45,740 --> 00:21:42,800  
more and in the grand scheme of things

506  
00:21:47,270 --> 00:21:45,750  
the CEO bubble is a little bit more the

507  
00:21:51,140 --> 00:21:47,280  
hydrofracking bubble is a little bit

508  
00:21:56,810 --> 00:21:51,150  
more it's a little bump on a curve

509  
00:21:58,460 --> 00:21:56,820  
that's going down down way down so if

510  
00:22:02,150 --> 00:21:58,470  
we're willing to do that things must be

511  
00:22:03,890 --> 00:22:02,160  
pretty dire this is tight oil this is

512  
00:22:10,190 --> 00:22:03,900  
the kind of oil that we didn't used to

513  
00:22:12,470 --> 00:22:10,200

have to go after like Macondo in the

514

00:22:14,840 --> 00:22:12,480

Gulf of Mexico we didn't used to have to

515

00:22:17,540 --> 00:22:14,850

go seven miles below the ocean surface

516

00:22:20,030 --> 00:22:17,550

and then another mile deeper below the

517

00:22:23,120 --> 00:22:20,040

sea floor to get oil that's how

518

00:22:24,860 --> 00:22:23,130

desperate we are yeah there's been a lot

519

00:22:28,070 --> 00:22:24,870

of talk and a lot of analysis about the

520

00:22:29,800 --> 00:22:28,080

Peak Oil situation and what year we'll

521

00:22:32,450 --> 00:22:29,810

be out and of course there's a lot of

522

00:22:34,220 --> 00:22:32,460

factors that have been flow so it's

523

00:22:36,830 --> 00:22:34,230

tough to really know but it does seem

524

00:22:41,170 --> 00:22:36,840

like it seems like I'll see it in my

525

00:22:44,210 --> 00:22:41,180

lifetime yeah inconceivable to me that

526

00:22:45,860 --> 00:22:44,220

we won't see that within the next few

527

00:22:48,080 --> 00:22:45,870

years I think we're already seeing

528

00:22:50,690 --> 00:22:48,090

consequences from an economic

529

00:22:54,200 --> 00:22:50,700

perspective and that's what expensive

530

00:22:58,280 --> 00:22:54,210

oil does is it's Fross and into the

531

00:22:59,870 --> 00:22:58,290

gears of Industry and so what that means

532

00:23:02,410 --> 00:22:59,880

is well we have a Wall Street adviser

533

00:23:06,910 --> 00:23:02,420

move about three or four weeks ago

534

00:23:08,960 --> 00:23:06,920

refusing to be identified said that the

535

00:23:11,420 --> 00:23:08,970

unemployment rate in the United States

536

00:23:12,980 --> 00:23:11,430

is not six point six percent as is

537

00:23:15,020 --> 00:23:12,990

officially reported by the Bureau of

538

00:23:16,580 --> 00:23:15,030

Labor Statistics in fact it's thirty

539

00:23:19,100 --> 00:23:16,590

seven point two percent well that's

540

00:23:22,640 --> 00:23:19,110

about 50 50 percent more than added

541

00:23:26,480 --> 00:23:22,650

depths of the Great Recession yeah

542

00:23:28,190 --> 00:23:26,490

that's a big big number so you can't

543

00:23:30,470 --> 00:23:28,200

tell me there's not a lot of people

544

00:23:33,020 --> 00:23:30,480

feeling the impacts already we're well

545

00:23:38,210 --> 00:23:33,030

within the age of contraction economic

546

00:23:40,400 --> 00:23:38,220

contraction yes well let's talk about

547

00:23:42,520 --> 00:23:40,410

the oceans a little bit more I mean

548

00:23:45,110 --> 00:23:42,530

outside of these huge methane releases

549

00:23:47,210 --> 00:23:45,120

there's definitely other concerns I mean

550

00:23:47,490 --> 00:23:47,220

the Gulf oil spill did some damage I

551  
00:23:49,980 --> 00:23:47,500  
don't

552  
00:23:52,110 --> 00:23:49,990  
know if it's still leaking or not but

553  
00:23:54,240 --> 00:23:52,120  
outside of the methane releases what do

554  
00:23:55,410 --> 00:23:54,250  
you see are some of the biggest oceanic

555  
00:24:01,950 --> 00:23:55,420  
concerns right now

556  
00:24:03,980 --> 00:24:01,960  
well ocean acidification is is a huge

557  
00:24:06,300 --> 00:24:03,990  
phenomenon and is massively

558  
00:24:09,960 --> 00:24:06,310  
underreported ocean acidification

559  
00:24:12,660 --> 00:24:09,970  
results from carbon dioxide being

560  
00:24:14,220 --> 00:24:12,670  
absorbed by the oceans so the oceans are

561  
00:24:18,060 --> 00:24:14,230  
absorbing the carbon dioxide from the

562  
00:24:20,610 --> 00:24:18,070  
atmosphere and what that means is the

563  
00:24:22,860 --> 00:24:20,620

it's essentially turning into carbonic

564

00:24:27,060 --> 00:24:22,870

acid carbonic acid so it's becoming

565

00:24:28,350 --> 00:24:27,070

increasingly acidified and so what are

566

00:24:33,210 --> 00:24:28,360

the consequences of that well we're

567

00:24:35,280 --> 00:24:33,220

already seeing coral reefs die as a

568

00:24:38,760 --> 00:24:35,290

result of bleaching acidification

569

00:24:40,530 --> 00:24:38,770

and higher temperatures were seeing the

570

00:24:43,470 --> 00:24:40,540

phytoplankton die and that's been

571

00:24:46,320 --> 00:24:43,480

attributed to the acceleration of

572

00:24:50,100 --> 00:24:46,330

acidification so where point eight five

573

00:24:53,660 --> 00:24:50,110

degree centigrade above baseline we've

574

00:24:57,270 --> 00:24:53,670

already seen ocean acidification that

575

00:24:59,730 --> 00:24:57,280

has caused half or more of the

576

00:25:03,320 --> 00:24:59,740

phytoplankton to die in the world's

577

00:25:06,900 --> 00:25:03,330

oceans within the last few decades well

578

00:25:09,840 --> 00:25:06,910

we're headed for three or four sea in

579

00:25:11,970 --> 00:25:09,850

the relatively near future you can only

580

00:25:14,910 --> 00:25:11,980

imagine what the consequences will be

581

00:25:16,950 --> 00:25:14,920

for ocean acidification we're just under

582

00:25:18,840 --> 00:25:16,960

400 per million carbon dioxide in the

583

00:25:20,580 --> 00:25:18,850

atmosphere right now and there's no

584

00:25:25,170 --> 00:25:20,590

indication that anybody is interested in

585

00:25:28,110 --> 00:25:25,180

stopping and and you know we were 280

586

00:25:30,030 --> 00:25:28,120

parts per million at the beginning of

587

00:25:32,760 --> 00:25:30,040

the Industrial Revolution when we had

588

00:25:34,410 --> 00:25:32,770

all of the phytoplankton with great

589

00:25:37,980 --> 00:25:34,420

abundance of the ocean and therefore a

590

00:25:40,410 --> 00:25:37,990

tremendous number of fish that now it's

591

00:25:42,570 --> 00:25:40,420

almost impossible to define you look

592

00:25:45,180 --> 00:25:42,580

looking Benjamin Franklin's journals

593

00:25:48,060 --> 00:25:45,190

from when he floated across the Atlantic

594

00:25:51,030 --> 00:25:48,070

Ocean going to Europe and he describes

595

00:25:53,520 --> 00:25:51,040

the fish being so abundant the ocean

596

00:25:56,910 --> 00:25:53,530

fish that they were smacking into the

597

00:25:58,320 --> 00:25:56,920

into the ship it you basically couldn't

598

00:26:00,060 --> 00:25:58,330

get away from the damn things they were

599

00:26:03,210 --> 00:26:00,070

an inconvenience

600

00:26:05,430 --> 00:26:03,220

yeah Wow and you know there's a lot of

601  
00:26:07,080 --> 00:26:05,440  
concerns about overfishing to throw that

602  
00:26:09,600 --> 00:26:07,090  
on the pile I mean we I've heard people

603  
00:26:11,940 --> 00:26:09,610  
say that we'd be almost out of fish by

604  
00:26:14,490 --> 00:26:11,950  
2025 that's a weird thought I mean

605  
00:26:16,680 --> 00:26:14,500  
combined with the acidification and

606  
00:26:19,290 --> 00:26:16,690  
everything else we're doing everything

607  
00:26:23,010 --> 00:26:19,300  
we can to make that just a Dead Pool of

608  
00:26:26,400 --> 00:26:23,020  
nothing right that's right Jeremy

609  
00:26:28,800 --> 00:26:26,410  
Jackson gives a great TED talk on the

610  
00:26:31,950 --> 00:26:28,810  
dying of the oceans there have been

611  
00:26:33,870 --> 00:26:31,960  
people people who are not scientists who

612  
00:26:35,400 --> 00:26:33,880  
are just sailing across the oceans where

613  
00:26:38,010 --> 00:26:35,410

they've been sailing for their entire

614

00:26:40,170 --> 00:26:38,020

lives they're recording hey the ocean is

615

00:26:42,750 --> 00:26:40,180

all but dead I can't find a living thing

616

00:26:46,050 --> 00:26:42,760

in there there's the Pacific Gyre the

617

00:26:50,280 --> 00:26:46,060

the Great Pacific Garbage Patch that is

618

00:26:54,150 --> 00:26:50,290

bigger than Texas right there's as you

619

00:26:56,280 --> 00:26:54,160

pointed out the Macondo that blew up in

620

00:26:58,590 --> 00:26:56,290

the Gulf that probably will never be

621

00:27:01,350 --> 00:26:58,600

capped there are thousands of other

622

00:27:03,840 --> 00:27:01,360

wells that are decomposed and degrading

623

00:27:05,040 --> 00:27:03,850

that are allegedly capped but they are

624

00:27:07,680 --> 00:27:05,050

not going to last forever

625

00:27:09,510 --> 00:27:07,690

you know we cap them and we walk away

626

00:27:14,030 --> 00:27:09,520

and there's no monitoring system for

627

00:27:16,770 --> 00:27:14,040

those nobody's paying any attention and

628

00:27:19,380 --> 00:27:16,780

the laws of thermodynamics indicate that

629

00:27:24,990 --> 00:27:19,390

but things break down and then includes

630

00:27:26,460 --> 00:27:25,000

ramp wells yeah yeah geez man let's talk

631

00:27:29,100 --> 00:27:26,470

about Fukushima I mean that's another

632

00:27:30,810 --> 00:27:29,110

huge man-made disaster that and there

633

00:27:33,270 --> 00:27:30,820

seems to be a ton of mainstream

634

00:27:35,430 --> 00:27:33,280

downplaying and censorship on the issue

635

00:27:37,260 --> 00:27:35,440

I mean I've had some people tell me it's

636

00:27:38,370 --> 00:27:37,270

the largest environmental disaster in

637

00:27:40,260 --> 00:27:38,380

recorded history

638

00:27:42,030 --> 00:27:40,270

and others have said that anybody who

639

00:27:44,130 --> 00:27:42,040

worries about it they just don't

640

00:27:46,050 --> 00:27:44,140

understand how harmless radiation is

641

00:27:47,700 --> 00:27:46,060

which sounds ridiculous but again it's

642

00:27:51,230 --> 00:27:47,710

tough for an average guy to know I mean

643

00:27:56,690 --> 00:27:51,240

how bad is Fukushima and your assessment

644

00:28:00,210 --> 00:27:56,700

Fukushima is really really bad

645

00:28:02,250 --> 00:28:00,220

so I don't I'm not a nuclear engineer

646

00:28:06,270 --> 00:28:02,260

I'm not a nuclear scientist so I'm going

647

00:28:10,710 --> 00:28:06,280

to put some other people here MSNBC

648

00:28:12,870 --> 00:28:10,720

tried to try to stifle news anchor sink

649

00:28:13,590 --> 00:28:12,880

ugr and I'm pretty sure I'm not

650

00:28:16,080 --> 00:28:13,600

pronouncing

651  
00:28:17,970 --> 00:28:16,090  
name right and that's been

652  
00:28:18,510 --> 00:28:17,980  
well-documented nuclear engineer arnie

653  
00:28:20,850 --> 00:28:18,520  
gunderson

654  
00:28:22,289 --> 00:28:20,860  
pointed out in october 2013 that

655  
00:28:24,750 --> 00:28:22,299  
governments were withholding the truth

656  
00:28:26,940 --> 00:28:24,760  
about stillbirths deformities and health

657  
00:28:30,360 --> 00:28:26,950  
defects and also were suppressing

658  
00:28:31,890 --> 00:28:30,370  
studies on deformed animals dr. Timothy

659  
00:28:37,230 --> 00:28:31,900  
Timothy Musa

660  
00:28:41,310 --> 00:28:37,240  
a nuclear ecologist gives an overview of

661  
00:28:43,110 --> 00:28:41,320  
nuclear nightmares in March 2013 he

662  
00:28:45,980 --> 00:28:43,120  
documents the destruction and demise of

663  
00:28:49,560 --> 00:28:45,990

animals in the Chernobyl exclusion zone

664

00:28:52,409 --> 00:28:49,570

being as leading up to extirpation

665

00:28:55,049 --> 00:28:52,419

that's local extinction with respect to

666

00:28:57,570 --> 00:28:55,059

Fukushima in early September 2013 he

667

00:28:58,950 --> 00:28:57,580

said given the vast amounts of material

668

00:29:00,659 --> 00:28:58,960

that was released I think there will be

669

00:29:03,210 --> 00:29:00,669

measurable amounts of radioactive cesium

670

00:29:06,029 --> 00:29:03,220

eating West Coast blanketing the west

671

00:29:07,919 --> 00:29:06,039

coast for some time to come Christina

672

00:29:09,690 --> 00:29:07,929

can sola indicates that billions of

673

00:29:12,690 --> 00:29:09,700

people could die from release of

674

00:29:16,409 --> 00:29:12,700

ionizing radiation just from Fukushima

675

00:29:19,620 --> 00:29:16,419

alone billions billions of people that

676  
00:29:22,049 --> 00:29:19,630  
was in August 2013 September 2013 Yale

677  
00:29:23,760 --> 00:29:22,059  
professor charles perrault concluded

678  
00:29:27,480 --> 00:29:23,770  
that events at Fukushima could lead to

679  
00:29:29,130 --> 00:29:27,490  
fission of fuel rods in put all of

680  
00:29:32,940 --> 00:29:29,140  
humanity will be threatened for

681  
00:29:35,279 --> 00:29:32,950  
thousands of years October 2013 Canadian

682  
00:29:37,560 --> 00:29:35,289  
scientist David Suzuki most people known

683  
00:29:39,299 --> 00:29:37,570  
as this voice to the conversation

684  
00:29:42,930 --> 00:29:39,309  
calling Fukushima quote the most

685  
00:29:44,820 --> 00:29:42,940  
terrifying situation I can imagine it's

686  
00:29:46,260 --> 00:29:44,830  
already terrifying for the 71 sailors

687  
00:29:49,919 --> 00:29:46,270  
assigned to the USS Ronald Reagan

688  
00:29:52,500 --> 00:29:49,929

responded to the Fukushima disaster for

689

00:29:55,140 --> 00:29:52,510

four days after the meltdown in March of

690

00:29:57,149 --> 00:29:55,150

2011 they've reported radiation sickness

691

00:29:58,590 --> 00:29:57,159

they're following lawsuit against Temko

692

00:30:00,450 --> 00:29:58,600

at least half of those sailors have

693

00:30:02,399 --> 00:30:00,460

contracted some form of cancer these are

694

00:30:05,230 --> 00:30:02,409

very young people in the prime of their

695

00:30:10,250 --> 00:30:08,720

37 of them of the 71 who are sick have

696

00:30:15,890 --> 00:30:10,260

already contracted some form of cancer

697

00:30:19,580 --> 00:30:15,900

that says of a few months ago so it's

698

00:30:22,549 --> 00:30:19,590

horrifying it represents a significant

699

00:30:27,260 --> 00:30:22,559

threat to human life in the northern

700

00:30:28,570 --> 00:30:27,270

hemisphere for thousands of years to

701  
00:30:33,560 --> 00:30:28,580  
come

702  
00:30:35,779 --> 00:30:33,570  
yeah I mean it's definitely a depressing

703  
00:30:37,610 --> 00:30:35,789  
thought but I've heard about all the

704  
00:30:39,560 --> 00:30:37,620  
different possible effects being so

705  
00:30:41,389 --> 00:30:39,570  
exponential things people don't even

706  
00:30:44,060 --> 00:30:41,399  
think about you know a bird eats a

707  
00:30:46,430 --> 00:30:44,070  
radioactive fish and then is [h\_\_\h] on

708  
00:30:49,580 --> 00:30:46,440  
your car of course it's in the weather

709  
00:30:52,100 --> 00:30:49,590  
but the food supply is is just the real

710  
00:30:54,340 --> 00:30:52,110  
scary thing you know an over radiated

711  
00:30:57,200 --> 00:30:54,350  
fish eats a smaller fish and now it's

712  
00:31:00,710 --> 00:30:57,210  
compacted and that gets put into our

713  
00:31:03,289 --> 00:31:00,720

food supply man it seems like it's

714

00:31:05,990 --> 00:31:03,299

really intervene and almost impossible

715

00:31:08,389 --> 00:31:06,000

to weed out at this point yes it is and

716

00:31:12,169 --> 00:31:08,399

it's worse than that it's not just us

717

00:31:16,100 --> 00:31:12,179

eating fish it's us eating pretty much

718

00:31:18,860 --> 00:31:16,110

anything if you eat if you drink milk

719

00:31:20,210 --> 00:31:18,870

for example where does that milk come

720

00:31:22,490 --> 00:31:20,220

from it comes from a cow where does that

721

00:31:24,560 --> 00:31:22,500

come from what does it eat it eats the

722

00:31:27,830 --> 00:31:24,570

alfalfa where does the alfalfa come from

723

00:31:32,029 --> 00:31:27,840

the alfalfa is grown in a field that was

724

00:31:35,779 --> 00:31:32,039

either directly watered by rain falling

725

00:31:38,870 --> 00:31:35,789

out of the sky Fukushima rain or it was

726

00:31:40,880 --> 00:31:38,880

irrigated with river water that's

727

00:31:42,860 --> 00:31:40,890

contaminated with Fukushima radiation I

728

00:31:49,430 --> 00:31:42,870

think you'd be hard-pressed at this

729

00:31:52,940 --> 00:31:49,440

point to find any milk in North America

730

00:31:56,960 --> 00:31:52,950

that did not have measurable quantities

731

00:31:59,299 --> 00:31:56,970

of ionizing radiation oh my god man

732

00:32:01,850 --> 00:31:59,309

that's that's scary stuff I had milk

733

00:32:04,789 --> 00:32:01,860

before this interview all right and it

734

00:32:07,940 --> 00:32:04,799

just goes up the food chain right I mean

735

00:32:10,789 --> 00:32:07,950

yeah the whole thing bio magnifies as it

736

00:32:12,850 --> 00:32:10,799

goes up the food chain so yeah you're

737

00:32:14,530 --> 00:32:12,860

drinking milk you're eating eggs

738

00:32:17,320 --> 00:32:14,540

it doesn't really matter what you ate

739

00:32:19,870 --> 00:32:17,330

whatever you ate ate something else or

740

00:32:21,280 --> 00:32:19,880

drank something else or got the water

741

00:32:23,049 --> 00:32:21,290

from somewhere else and that somewhere

742

00:32:25,600 --> 00:32:23,059

else is contaminated with ionizing

743

00:32:27,880 --> 00:32:25,610

radiation from Fukushima man so I mean

744

00:32:29,919 --> 00:32:27,890

on this subject oh there's no it's great

745

00:32:31,240 --> 00:32:29,929

okay yeah that was my question as if

746

00:32:34,570 --> 00:32:31,250

there was gonna be any if there's any

747

00:32:36,190 --> 00:32:34,580

type of supplements or any type of pill

748

00:32:38,890 --> 00:32:36,200

you can take like I've heard about

749

00:32:43,030 --> 00:32:38,900

iodine or something you could take two

750

00:32:45,549 --> 00:32:43,040

off sure you can take potassium iodide

751

00:32:50,080 --> 00:32:45,559

and that will reduce the risk of certain

752

00:32:50,909 --> 00:32:50,090

kinds of cancer hmm well but better than

753

00:32:54,600 --> 00:32:50,919

nothing I guess

754

00:32:57,190 --> 00:32:54,610

well right and and so you can eat

755

00:33:02,320 --> 00:32:57,200

seaweed for example which is really high

756

00:33:07,950 --> 00:33:02,330

in ki and potassium iodine and that will

757

00:33:10,419 --> 00:33:07,960

save your thyroid for for a while Wow

758

00:33:13,360 --> 00:33:10,429

but and you have to make sure of course

759

00:33:15,070 --> 00:33:13,370

that the seaweed came out of an area

760

00:33:19,330 --> 00:33:15,080

that was not already affected by

761

00:33:21,780 --> 00:33:19,340

Fukushima so great right so you have to

762

00:33:26,370 --> 00:33:21,790

go back in and find the old stuff and

763

00:33:28,240 --> 00:33:26,380

and all of this indicates to me that

764

00:33:30,310 --> 00:33:28,250

first of all we're in the age of

765

00:33:32,620 --> 00:33:30,320

economic contraction so it becomes

766

00:33:35,020 --> 00:33:32,630

increasingly difficult to deal with

767

00:33:37,810 --> 00:33:35,030

things like Fukushima and to deal with

768

00:33:40,480 --> 00:33:37,820

San Onofre the exact same design of

769

00:33:43,090 --> 00:33:40,490

nuclear power plant GE designed in

770

00:33:44,350 --> 00:33:43,100

Southern California and so when it was

771

00:33:48,159 --> 00:33:44,360

closed down in a hurry

772

00:33:50,830 --> 00:33:48,169

it was the the cooling ponds the water

773

00:33:55,060 --> 00:33:50,840

in them was held in with plastic and

774

00:33:57,190 --> 00:33:55,070

Broomsticks Wow in in duct tape I did

775

00:33:58,990 --> 00:33:57,200

not know that you know we're in the age

776  
00:34:00,940 --> 00:33:59,000  
of economic contraction so we just don't

777  
00:34:02,380 --> 00:34:00,950  
have any money to throw it these big

778  
00:34:05,620 --> 00:34:02,390  
projects like we did in the age of

779  
00:34:08,440 --> 00:34:05,630  
expansion and so at some point all of

780  
00:34:12,310 --> 00:34:08,450  
the world's 407 nuclear power plants go

781  
00:34:13,840 --> 00:34:12,320  
Fukushima well if they don't if we

782  
00:34:15,550 --> 00:34:13,850  
maintain this that eliminates with

783  
00:34:16,780 --> 00:34:15,560  
forever we maintain industrial

784  
00:34:18,970 --> 00:34:16,790  
civilization forever

785  
00:34:20,980 --> 00:34:18,980  
it makes carbon dioxide emissions and

786  
00:34:23,760 --> 00:34:20,990  
methane emissions and all other

787  
00:34:26,290 --> 00:34:23,770  
greenhouse gas emissions much much worse

788  
00:34:28,060 --> 00:34:26,300

increasingly worse every year

789

00:34:29,560 --> 00:34:28,070

so those are your choices you get to

790

00:34:32,710 --> 00:34:29,570

ratchet up climate change which is going

791

00:34:34,930 --> 00:34:32,720

to kill us in the near future or you get

792

00:34:37,450 --> 00:34:34,940

to stop climate change by collapse of

793

00:34:39,750 --> 00:34:37,460

industrial civilization and then we all

794

00:34:43,570 --> 00:34:39,760

get to die for Mayan izing radiation

795

00:34:46,090 --> 00:34:43,580

great well I mean yeah if this wasn't

796

00:34:48,130 --> 00:34:46,100

enough let's talk about global warming

797

00:34:50,590 --> 00:34:48,140

and some of these extreme weather events

798

00:34:52,480 --> 00:34:50,600

that's another area where skeptics will

799

00:34:54,399 --> 00:34:52,490

tell you that the only reason hurricanes

800

00:34:56,500 --> 00:34:54,409

and tsunamis and these things seem worse

801

00:34:58,120 --> 00:34:56,510

these days is because the scope of

802

00:34:59,980 --> 00:34:58,130

recorded history when compared to the

803

00:35:02,350 --> 00:34:59,990

life of the earth is such a small sample

804

00:35:04,090 --> 00:35:02,360

size and this type of cycling might be

805

00:35:05,530 --> 00:35:04,100

pretty average by comparison I mean is

806

00:35:11,170 --> 00:35:05,540

that a valid argument or are these

807

00:35:13,900 --> 00:35:11,180

people missing the boat that and that's

808

00:35:17,860 --> 00:35:13,910

why climate scientists are so reluctant

809

00:35:20,520 --> 00:35:17,870

to attribute any single event no matter

810

00:35:25,450 --> 00:35:20,530

how horrific to climate change

811

00:35:29,490 --> 00:35:25,460

mm-hmm so yes that's right however we're

812

00:35:33,840 --> 00:35:29,500

seeing an increased an increasingly

813

00:35:36,460 --> 00:35:33,850

frequent series of these extreme events

814

00:35:39,580 --> 00:35:36,470

each of those extreme events by the way

815

00:35:42,330 --> 00:35:39,590

they contributes to warm climate change

816

00:35:46,990 --> 00:35:42,340

let me give you an example we have a

817

00:35:49,870 --> 00:35:47,000

hurricane say that sweeps up from the

818

00:35:52,150 --> 00:35:49,880

Atlantic and batters the eastern

819

00:35:54,100 --> 00:35:52,160

seaboard of the United States but one of

820

00:35:56,800 --> 00:35:54,110

the consequences of that battering is

821

00:35:58,300 --> 00:35:56,810

that a bunch of trees die they a bunch

822

00:36:00,190 --> 00:35:58,310

of them lose their limbs they fall off

823

00:36:02,290 --> 00:36:00,200

and and then a bunch of trees die

824

00:36:04,480 --> 00:36:02,300

and so what's consequence of that well

825

00:36:06,850 --> 00:36:04,490

said we don't have those trees Western

826

00:36:09,160 --> 00:36:06,860

carbon anymore now there are

827

00:36:11,350 --> 00:36:09,170

contributors of carbon dioxide to the

828

00:36:13,960 --> 00:36:11,360

atmosphere they're not taking co2 up

829

00:36:15,610 --> 00:36:13,970

they're giving it up they aren't

830

00:36:18,040 --> 00:36:15,620

sequestering it through photosynthesis

831

00:36:20,740 --> 00:36:18,050

they're decomposing instead so every one

832

00:36:23,230 --> 00:36:20,750

of those storms contributes to more tree

833

00:36:28,000 --> 00:36:23,240

death and therefore acceleration of the

834

00:36:32,500 --> 00:36:28,010

cycle but it you know certainly we've

835

00:36:34,780 --> 00:36:32,510

had events like this within Earth's

836

00:36:35,840 --> 00:36:34,790

history but here's a couple of things we

837

00:36:40,510 --> 00:36:35,850

haven't had

838

00:36:43,190 --> 00:36:40,520

within human history a few examples

839

00:36:44,810 --> 00:36:43,200

we're 396 parts per million carbon

840

00:36:47,780 --> 00:36:44,820

dioxide in the atmosphere that's the

841

00:36:50,540 --> 00:36:47,790

global average right now 396 parts per million

842

00:36:52,430 --> 00:36:50,550

that hasn't happened in the last 20

843

00:36:55,790 --> 00:36:52,440

million years we've had humans on the

844

00:36:59,180 --> 00:36:55,800

planet for about two million years so

845

00:37:01,940 --> 00:36:59,190

were in uncharted waters here methane

846

00:37:03,020 --> 00:37:01,950

levels in the atmosphere at the

847

00:37:05,900 --> 00:37:03,030

beginning of the Industrial Revolution

848

00:37:08,990 --> 00:37:05,910

were about 700 parts per billion now

849

00:37:11,360 --> 00:37:09,000

they're routinely measured at nearly

850

00:37:13,820 --> 00:37:11,370

2,000 parts per billion and the average

851

00:37:17,060 --> 00:37:13,830

is up over 1,800 parts per billion as

852

00:37:20,060 --> 00:37:17,070

two and a half times we ever experienced

853

00:37:23,330 --> 00:37:20,070

in human history before those are just

854

00:37:25,910 --> 00:37:23,340

two just two of the greenhouse gases

855

00:37:28,820 --> 00:37:25,920

were emitting the beginning of them

856

00:37:31,250 --> 00:37:28,830

toaster revolution the global average

857

00:37:33,770 --> 00:37:31,260

temperature was about a little over 14

858

00:37:35,240 --> 00:37:33,780

degrees centigrade now it's at 15

859

00:37:41,860 --> 00:37:35,250

degrees centigrade doesn't sound like

860

00:37:46,880 --> 00:37:41,870

much but the has pointed out in October

861

00:37:50,650 --> 00:37:46,890

1990 by the United Nations one C warming

862

00:37:53,510 --> 00:37:50,660

is truly catastrophic it leads to

863

00:37:55,460 --> 00:37:53,520

self-reinforcing feedback loops the kind

864

00:37:56,830 --> 00:37:55,470

of which we're seeing now in fact so

865

00:38:04,540 --> 00:37:56,840

we've been warned about this for a while

866

00:38:11,080 --> 00:38:07,910

accelerating nonlinear climate change

867

00:38:15,500 --> 00:38:11,090

we've had the warnings for a long time

868

00:38:17,990 --> 00:38:15,510

none of this none of information that is

869

00:38:20,950 --> 00:38:18,000

coming out that I'm aware of

870

00:38:23,380 --> 00:38:20,960

none of the projections going forward

871

00:38:25,640 --> 00:38:23,390

none of this takes into account an

872

00:38:29,030 --> 00:38:25,650

excellent paper in climatic change

873

00:38:31,580 --> 00:38:29,040

published online in November 2009 by Tim

874

00:38:33,080 --> 00:38:31,590

Garrett that points out only complete

875

00:38:35,500 --> 00:38:33,090

collapse of the set of living

876

00:38:38,060 --> 00:38:35,510

arrangements avoids runaway greenhouse

877

00:38:39,170 --> 00:38:38,070

only complete collapse friends Run or

878

00:38:41,480 --> 00:38:39,180

greenhouse that was almost five years

879

00:38:43,280 --> 00:38:41,490

ago and in the interim we found out

880

00:38:45,800 --> 00:38:43,290

about all 30 of those over at forcing

881

00:38:48,740 --> 00:38:45,810

feedback loops Wow

882

00:38:51,350 --> 00:38:48,750

reported by scientists jeez man let's

883

00:38:53,270 --> 00:38:51,360

just keep piling it on I guess let me

884

00:38:55,190 --> 00:38:53,280

just you about let me ask you about

885

00:38:57,020 --> 00:38:55,200

overpopulation in general because of

886

00:38:59,240 --> 00:38:57,030

course 7 billion people is more than

887

00:39:01,340 --> 00:38:59,250

we've ever known but I've heard a recent

888

00:39:02,900 --> 00:39:01,350

statistic that seems kind of hard to

889

00:39:04,850 --> 00:39:02,910

believe but they say that if you took

890

00:39:06,740 --> 00:39:04,860

all 7 billion people and grouped them in

891

00:39:08,900 --> 00:39:06,750

line with the population density of New

892

00:39:10,460 --> 00:39:08,910

York City we would all fit inside the

893

00:39:12,710 --> 00:39:10,470

state of Texas and I'm not sure if

894

00:39:14,840 --> 00:39:12,720

that's true but either way I wonder if

895

00:39:16,790 --> 00:39:14,850

we really have too many people or if we

896

00:39:17,960 --> 00:39:16,800

just have too many people to keep doing

897

00:39:24,470 --> 00:39:17,970

things the way we've been doing them

898

00:39:27,410 --> 00:39:24,480

what do you think yes figure several

899

00:39:28,910 --> 00:39:27,420

times and I don't doubt that if we stack

900

00:39:31,970 --> 00:39:28,920

all the people like cordwood we can fit

901  
00:39:35,270 --> 00:39:31,980  
them in Texas and really I think that's

902  
00:39:38,660 --> 00:39:35,280  
not a bad idea either four four six

903  
00:39:40,340 --> 00:39:38,670  
point nine billion of them and the rest

904  
00:39:44,810 --> 00:39:40,350  
of us can have the whole planet to play

905  
00:39:49,670 --> 00:39:44,820  
off man yeah yeah

906  
00:39:53,330 --> 00:39:49,680  
yes it's the issue is not where we can

907  
00:39:56,090 --> 00:39:53,340  
fit physically it's our footprint yeah

908  
00:39:57,920 --> 00:39:56,100  
so things to keep us alive so people

909  
00:39:59,270 --> 00:39:57,930  
tell me all the time hey I live in a

910  
00:40:01,820 --> 00:39:59,280  
city and I live in a really small

911  
00:40:05,780 --> 00:40:01,830  
apartment and I'm a vegetarian so my

912  
00:40:07,880 --> 00:40:05,790  
footprint is really small okay and then

913  
00:40:11,170 --> 00:40:07,890

they tell me and you live on 2.7 acres

914

00:40:14,630 --> 00:40:11,180

we can't all go live on 2.7 acres

915

00:40:16,190 --> 00:40:14,640

because there's too many of us to live

916

00:40:17,540 --> 00:40:16,200

like you do and live on two point seven

917

00:40:20,000 --> 00:40:17,550

acres that's why I live in this small

918

00:40:22,940 --> 00:40:20,010

apartment okay so let's think about that

919

00:40:25,640 --> 00:40:22,950

for a minute what do you eat even if

920

00:40:30,740 --> 00:40:25,650

you're vegetarian it requires more than

921

00:40:34,190 --> 00:40:30,750

three acres of industrial agriculture to

922

00:40:35,720 --> 00:40:34,200

support simply the food you eat more

923

00:40:38,000 --> 00:40:35,730

than three acres the way I live

924

00:40:40,940 --> 00:40:38,010

takes two point seven acres to feed five

925

00:40:42,680 --> 00:40:40,950

people because I practiced high

926  
00:40:44,660 --> 00:40:42,690  
intensity organic gardening instead of

927  
00:40:47,510 --> 00:40:44,670  
industrial agriculture industrial

928  
00:40:50,450 --> 00:40:47,520  
agriculture if you eat meat you're up to

929  
00:40:53,270 --> 00:40:50,460  
at least six acres that it requires you

930  
00:40:58,620 --> 00:40:53,280  
to support - this is hard to support you

931  
00:41:01,349 --> 00:40:58,630  
rather and so that means that

932  
00:41:02,700 --> 00:41:01,359  
if you're living in a city on a really

933  
00:41:04,170 --> 00:41:02,710  
small apartment taking public

934  
00:41:05,579 --> 00:41:04,180  
transportation all the time and eating

935  
00:41:07,940 --> 00:41:05,589  
low on the food chain it still takes

936  
00:41:10,950 --> 00:41:07,950  
three acres to support your lifestyle

937  
00:41:12,120 --> 00:41:10,960  
you can't escape that just because you

938  
00:41:14,249 --> 00:41:12,130

live in the city doesn't mean you're not

939

00:41:17,749 --> 00:41:14,259

eating and that you're not consuming the

940

00:41:20,039 --> 00:41:17,759

planet to support your way of life

941

00:41:21,870 --> 00:41:20,049

that's only for Americans though that

942

00:41:25,950 --> 00:41:21,880

three to six acres you live anyplace

943

00:41:29,579 --> 00:41:25,960

else where they don't actually have the

944

00:41:32,279 --> 00:41:29,589

absurdity mastered like we do and it

945

00:41:34,890 --> 00:41:32,289

takes less frequently when I speak on

946

00:41:37,289 --> 00:41:34,900

two high schools or on college campuses

947

00:41:38,819 --> 00:41:37,299

I will have the students calculate their

948

00:41:41,670 --> 00:41:38,829

ecological footprint and there's this

949

00:41:44,700 --> 00:41:41,680

there's a simple online calculator that

950

00:41:47,339 --> 00:41:44,710

allows you to do that and now have them

951  
00:41:49,650 --> 00:41:47,349  
calculated based on how they're living

952  
00:41:51,870 --> 00:41:49,660  
right now so for Muslim that means

953  
00:41:54,960 --> 00:41:51,880  
grid-tied electricity and a house with

954  
00:41:56,579 --> 00:41:54,970  
three to six people and they eat a

955  
00:41:59,880 --> 00:41:56,589  
certain point on the food chain and on

956  
00:42:03,209 --> 00:41:59,890  
and off and they discover that being an

957  
00:42:07,709 --> 00:42:03,219  
American requires somewhere between four

958  
00:42:10,859 --> 00:42:07,719  
and seven Earth's to support 7.1 billion

959  
00:42:12,930 --> 00:42:10,869  
people living like they do and they go

960  
00:42:14,670 --> 00:42:12,940  
wow that's that's horrible that's awful

961  
00:42:17,309 --> 00:42:14,680  
and then I said and I say well yeah it

962  
00:42:19,440 --> 00:42:17,319  
is but a lot of it is something that you

963  
00:42:21,900 --> 00:42:19,450

don't have any control over so as an

964

00:42:24,299 --> 00:42:21,910

example let's have you calculate your

965

00:42:26,039 --> 00:42:24,309

age ecological footprint again and do

966

00:42:27,870 --> 00:42:26,049

the exact same way give all the same

967

00:42:29,089 --> 00:42:27,880

answers except change the country you're

968

00:42:32,519 --> 00:42:29,099

from

969

00:42:35,249 --> 00:42:32,529

just pick a country any country and so

970

00:42:37,469 --> 00:42:35,259

some pick some pick Kenyan some pick

971

00:42:39,599 --> 00:42:37,479

dust row yeah most of them countries

972

00:42:41,249 --> 00:42:39,609

that are not that dissimilar from ours

973

00:42:43,709 --> 00:42:41,259

and that they're westernized to

974

00:42:46,890 --> 00:42:43,719

industrialized countries and what they

975

00:42:49,469 --> 00:42:46,900

find is that whereas it required say

976  
00:42:50,789 --> 00:42:49,479  
five earths to support their lifestyle

977  
00:42:55,769 --> 00:42:50,799  
lived in the United States and all it

978  
00:42:58,499 --> 00:42:55,779  
takes to if they're living in France

979  
00:43:00,569 --> 00:42:58,509  
it only takes point nine if they're

980  
00:43:02,759 --> 00:43:00,579  
living in Kenya and they're really

981  
00:43:04,499 --> 00:43:02,769  
confused about that right how can that

982  
00:43:07,529 --> 00:43:04,509  
be they're living the exact same way and

983  
00:43:11,339 --> 00:43:07,539  
I say okay how could that be and we have

984  
00:43:12,180 --> 00:43:11,349  
a long discussion and finally we trip on

985  
00:43:13,559 --> 00:43:12,190  
to it

986  
00:43:15,480 --> 00:43:13,569  
few things that are different here in

987  
00:43:18,300 --> 00:43:15,490  
America than they are other places in

988  
00:43:21,480 --> 00:43:18,310

the world for one thing anytime you go

989

00:43:24,750 --> 00:43:21,490

into a business in this country any

990

00:43:28,470 --> 00:43:24,760

business at all the temperature is set

991

00:43:32,069 --> 00:43:28,480

at the same level year round day and

992

00:43:34,470 --> 00:43:32,079

night you don't get that in South Africa

993

00:43:35,849 --> 00:43:34,480

you go to a store in South Africa it's

994

00:43:37,099 --> 00:43:35,859

the same temperature inside as it is

995

00:43:42,990 --> 00:43:37,109

outside

996

00:43:44,880 --> 00:43:43,000

in addition who has the most lethal

997

00:43:48,569 --> 00:43:44,890

killing force in the history of humanity

998

00:43:51,210 --> 00:43:48,579

yep that's right that's off and I didn't

999

00:43:53,390 --> 00:43:51,220

vote for that no and nobody in the room

1000

00:43:58,109 --> 00:43:53,400

voted for that but that's what we got

1001  
00:44:00,630 --> 00:43:58,119  
that takes a tremendous toll on your

1002  
00:44:03,690 --> 00:44:00,640  
ecological footprint footprint no you

1003  
00:44:08,700 --> 00:44:03,700  
didn't vote for that but you got it

1004  
00:44:10,220 --> 00:44:08,710  
anyway and it isn't it isn't cheap to

1005  
00:44:13,620 --> 00:44:10,230  
maintain the military-industrial complex

1006  
00:44:15,359 --> 00:44:13,630  
and even if you didn't vote for it you

1007  
00:44:16,980 --> 00:44:15,369  
got it and so that's part of your

1008  
00:44:22,109 --> 00:44:16,990  
ecological footprint living here in this

1009  
00:44:26,720 --> 00:44:22,119  
country right yeah and so so there again

1010  
00:44:30,410 --> 00:44:26,730  
for me there again for me this point to

1011  
00:44:35,099 --> 00:44:30,420  
a whole bunch of this is not our fault

1012  
00:44:40,430 --> 00:44:35,109  
how much this is is not the fault of you

1013  
00:44:44,040 --> 00:44:40,440

and me and in that the person living in

1014

00:44:45,809 --> 00:44:44,050

Bismarck North Dakota who makes an

1015

00:44:48,050 --> 00:44:45,819

honest effort to take the bicycle to

1016

00:44:50,460 --> 00:44:48,060

work and all those kinds of things right

1017

00:44:51,780 --> 00:44:50,470

we don't have any control over what the

1018

00:44:53,790 --> 00:44:51,790

military is doing and it gets worse

1019

00:44:56,130 --> 00:44:53,800

every day we don't have any control over

1020

00:44:58,140 --> 00:44:56,140

what Congress is spending our money we

1021

00:45:02,220 --> 00:44:58,150

don't have any control over so many

1022

00:45:04,079 --> 00:45:02,230

aspects of this age of Industry they're

1023

00:45:07,109 --> 00:45:04,089

going on without it they'll continue to

1024

00:45:09,569 --> 00:45:07,119

go on without us we don't have a great

1025

00:45:11,309 --> 00:45:09,579

deal of control over any of that even if

1026  
00:45:14,250 --> 00:45:11,319  
we wanted to and I suspect most people

1027  
00:45:17,370 --> 00:45:14,260  
are not willing to go the Tim Garrett

1028  
00:45:18,630 --> 00:45:17,380  
route in climatic change in vote for

1029  
00:45:23,730 --> 00:45:18,640  
complete collapse of industrial

1030  
00:45:25,950 --> 00:45:23,740  
civilization yeah it's a it's a weird

1031  
00:45:28,710 --> 00:45:25,960  
thing but I think since the Occupy

1032  
00:45:31,040 --> 00:45:28,720  
meant there's been a little more talk

1033  
00:45:33,390 --> 00:45:31,050  
about smaller communities

1034  
00:45:36,510 --> 00:45:33,400  
self-sustaining off-the-grid type living

1035  
00:45:40,859 --> 00:45:36,520  
I think that getting back to the land is

1036  
00:45:45,240 --> 00:45:40,869  
making a big comeback these days I think

1037  
00:45:47,460 --> 00:45:45,250  
it is - and I'm a huge fan and I think

1038  
00:45:51,890 --> 00:45:47,470

it's too late even if we all go back to

1039

00:45:54,660 --> 00:45:51,900

land I think it's too late to undo those

1040

00:46:00,870 --> 00:45:54,670

self-reinforcing feedback loops 28 of

1041

00:46:03,329 --> 00:46:00,880

those 28 of the 30 hour irreversible and

1042

00:46:03,839 --> 00:46:03,339

temporal spans relevant to the human

1043

00:46:09,660 --> 00:46:03,849

condition

1044

00:46:12,780 --> 00:46:09,670

so it's it's not something again that we

1045

00:46:15,180 --> 00:46:12,790

have much control over at this point

1046

00:46:17,849 --> 00:46:15,190

when you kick a soccer ball on a soccer

1047

00:46:20,430 --> 00:46:17,859

field the friction from the grass slows

1048

00:46:22,140 --> 00:46:20,440

it down pretty quickly so it stops but

1049

00:46:25,230 --> 00:46:22,150

if you can't go soccer ball over a cliff

1050

00:46:26,490 --> 00:46:25,240

it doesn't stop right and that's what

1051  
00:46:29,550 --> 00:46:26,500  
we've done with respect to these

1052  
00:46:32,730 --> 00:46:29,560  
self-reinforcing feedback loops man so I

1053  
00:46:34,290 --> 00:46:32,740  
I guess let's talk about maybe something

1054  
00:46:36,000 --> 00:46:34,300  
we can do I mean I think it bothers

1055  
00:46:38,099 --> 00:46:36,010  
people being left without hope but then

1056  
00:46:39,599 --> 00:46:38,109  
again I mean is it better for a guy in

1057  
00:46:41,430 --> 00:46:39,609  
Guantanamo Bay to think he's getting out

1058  
00:46:43,200 --> 00:46:41,440  
tomorrow and we all know he isn't you

1059  
00:46:45,300 --> 00:46:43,210  
know what I mean but I guess if you were

1060  
00:46:48,180 --> 00:46:45,310  
given a blank slate and someone said to

1061  
00:46:49,829 --> 00:46:48,190  
you guy we got 7 billion people we have

1062  
00:46:51,630 --> 00:46:49,839  
the technologies and the resources we

1063  
00:46:53,760 --> 00:46:51,640

have right now help us out I mean is

1064

00:46:55,680 --> 00:46:53,770

there any way that you could see making

1065

00:46:58,800 --> 00:46:55,690

this work for everybody without

1066

00:47:03,329 --> 00:46:58,810

sacrificing the future well I think a

1067

00:47:09,120 --> 00:47:03,339

primary response if I were king for a

1068

00:47:11,040 --> 00:47:09,130

day I would first and foremost shut down

1069

00:47:12,650 --> 00:47:11,050

every nuclear power plant in the world

1070

00:47:16,829 --> 00:47:12,660

as quickly as possible

1071

00:47:23,070 --> 00:47:16,839

those are ticking time bombs and keep

1072

00:47:26,160 --> 00:47:23,080

going off and we if we have if we have

1073

00:47:27,810 --> 00:47:26,170

anything we can do it at all one of the

1074

00:47:29,849 --> 00:47:27,820

things that we could be doing is

1075

00:47:32,070 --> 00:47:29,859

shutting down those nuclear power plants

1076

00:47:35,010 --> 00:47:32,080

and that might mean that people are

1077

00:47:37,890 --> 00:47:35,020

without electricity for a while and that

1078

00:47:39,000 --> 00:47:37,900

doesn't bother me at all you know right

1079

00:47:41,550 --> 00:47:39,010

we live for two

1080

00:47:43,500 --> 00:47:41,560

years without electricity there's still

1081

00:47:45,900 --> 00:47:43,510

a lot of people on the planet who live

1082

00:47:48,240 --> 00:47:45,910

without electricity and couldn't care

1083

00:47:50,490 --> 00:47:48,250

less I think it's a luxury to have

1084

00:47:54,650 --> 00:47:50,500

electricity for a few hours a day I

1085

00:47:57,480 --> 00:47:54,660

think that's amazing and in in my youth

1086

00:47:59,010 --> 00:47:57,490

in the small backwoods redneck logging

1087

00:48:04,050 --> 00:47:59,020

town where I grew up in northern I don't

1088

00:48:06,270 --> 00:48:04,060

know the power would go out and it

1089

00:48:08,880 --> 00:48:06,280

wasn't a big deal the power would just

1090

00:48:13,170 --> 00:48:08,890

go out and it would it would come back

1091

00:48:15,390 --> 00:48:13,180

on my hair and almost nobody died within

1092

00:48:17,520 --> 00:48:15,400

20 minutes of the power going out you

1093

00:48:20,270 --> 00:48:17,530

know it just wasn't that big a deal I'm

1094

00:48:25,260 --> 00:48:20,280

pretty sure we could get along that way

1095

00:48:28,020 --> 00:48:25,270

right now without much hardship but most

1096

00:48:30,270 --> 00:48:28,030

people I know think it's I think it

1097

00:48:31,890 --> 00:48:30,280

really instead of being life liberty and

1098

00:48:33,270 --> 00:48:31,900

the pursuit of happiness it was life

1099

00:48:36,930 --> 00:48:33,280

liberty and the pursuit riptide

1100

00:48:39,990 --> 00:48:36,940

electricity right that's not what it

1101  
00:48:42,090 --> 00:48:40,000  
says let's not assume that we're so

1102  
00:48:44,730 --> 00:48:42,100  
entitled that every time we flip a

1103  
00:48:46,320 --> 00:48:44,740  
switch a light has to come along mm-hmm

1104  
00:48:48,780 --> 00:48:46,330  
and so the first thing I would do

1105  
00:48:50,130 --> 00:48:48,790  
finally to answer your question is shut

1106  
00:48:57,480 --> 00:48:50,140  
down every nuclear power plant in the

1107  
00:49:00,600 --> 00:48:57,490  
world there's more I would love to take

1108  
00:49:02,220 --> 00:49:00,610  
some action that involves carbon

1109  
00:49:04,950 --> 00:49:02,230  
sequestration and you're not thinking

1110  
00:49:05,610 --> 00:49:04,960  
about geoengineering proposals that have

1111  
00:49:07,920 --> 00:49:05,620  
been floated

1112  
00:49:09,810 --> 00:49:07,930  
I'm thinking about people actually doing

1113  
00:49:11,580 --> 00:49:09,820

permaculture and living differently than

1114

00:49:15,780 --> 00:49:11,590

we're living today I'm not under any

1115

00:49:17,820 --> 00:49:15,790

delusion that that will save us but I

1116

00:49:22,020 --> 00:49:17,830

think it will get people closer to the

1117

00:49:25,500 --> 00:49:22,030

planet upon which they depend and it

1118

00:49:30,060 --> 00:49:25,510

might even make them more content human

1119

00:49:31,500 --> 00:49:30,070

beings as a result so I would like to

1120

00:49:33,420 --> 00:49:31,510

see people better connected to the

1121

00:49:34,770 --> 00:49:33,430

planet they live on better connected to

1122

00:49:35,490 --> 00:49:34,780

the human communities that they're a

1123

00:49:39,120 --> 00:49:35,500

part of

1124

00:49:43,620 --> 00:49:39,130

and stop treating the living planet as

1125

00:49:45,860 --> 00:49:43,630

if it is ours to exploit those are a few

1126

00:49:48,300 --> 00:49:45,870

of the things I'd like to see done yeah

1127

00:49:49,740 --> 00:49:48,310

yeah those it'd be definitely great

1128

00:49:51,300 --> 00:49:49,750

steps in the right direction I mean

1129

00:49:52,349 --> 00:49:51,310

obviously a lot of us are addicted to

1130

00:49:54,710 --> 00:49:52,359

those

1131

00:49:56,819 --> 00:49:54,720

modern conveniences in the 24-hour

1132

00:49:59,370 --> 00:49:56,829

electricity and Wi-Fi that's a big

1133

00:50:01,710 --> 00:49:59,380

problem but there are people like Jacque

1134

00:50:03,150 --> 00:50:01,720

fresco and Peter Joseph who are kind of

1135

00:50:05,279 --> 00:50:03,160

out on the fringe but they say that

1136

00:50:08,759 --> 00:50:05,289

there are technologies we could switch

1137

00:50:11,309 --> 00:50:08,769

over to like solar wind tidal xgo

1138

00:50:14,579 --> 00:50:11,319

thermal etc that if we fully realized

1139

00:50:16,650 --> 00:50:14,589

those potentials these people think they

1140

00:50:19,289 --> 00:50:16,660

would sustain us on the planet without

1141

00:50:20,849 --> 00:50:19,299

really impacting our energy needs is

1142

00:50:23,370 --> 00:50:20,859

that possible or is that too far-fetched

1143

00:50:25,140 --> 00:50:23,380

in your assessment I used to think that

1144

00:50:28,079 --> 00:50:25,150

was right and I even wrote a book about

1145

00:50:30,450 --> 00:50:28,089

it proclaiming the glories of renewable

1146

00:50:34,549 --> 00:50:30,460

energy that book was published in 2004

1147

00:50:38,670 --> 00:50:34,559

and subsequently come to my senses and

1148

00:50:40,890 --> 00:50:38,680

realized that there are no renewables

1149

00:50:43,559 --> 00:50:40,900

there are no replacements there are

1150

00:50:46,349 --> 00:50:43,569

derivatives of the current fossil fuels

1151  
00:50:48,960 --> 00:50:46,359  
so it takes a lot of oil as one example

1152  
00:50:52,769 --> 00:50:48,970  
to build a solar panel it takes a lot of

1153  
00:50:54,479 --> 00:50:52,779  
oil and other fossil fuels to build wind

1154  
00:50:57,450 --> 00:50:54,489  
turbines and to distribute them all over

1155  
00:51:00,299 --> 00:50:57,460  
the country it takes a lot of oil to tap

1156  
00:51:02,910 --> 00:51:00,309  
into geothermal resources and then we

1157  
00:51:04,470 --> 00:51:02,920  
build the electrical grid alright so now

1158  
00:51:06,870 --> 00:51:04,480  
we have the grid what does that take it

1159  
00:51:09,509 --> 00:51:06,880  
takes a tremendous amount of liquid

1160  
00:51:11,460 --> 00:51:09,519  
fuels to maintain it because every time

1161  
00:51:13,829 --> 00:51:11,470  
we have a nice storm or every time the

1162  
00:51:15,529 --> 00:51:13,839  
wind blows or every time it gets too hot

1163  
00:51:17,759 --> 00:51:15,539

or too cold or too wet or too dry

1164

00:51:19,799 --> 00:51:17,769

there's some sort of maintenance that

1165

00:51:22,789 --> 00:51:19,809

needs to be done on the grid and that

1166

00:51:28,620 --> 00:51:22,799

all requires liquid fuels at this point

1167

00:51:31,229 --> 00:51:28,630

so I don't see a way out of the monkey

1168

00:51:36,870 --> 00:51:31,239

trap we've cut ourselves in a monkey

1169

00:51:40,410 --> 00:51:36,880

trap and I don't see any way out and

1170

00:51:42,479 --> 00:51:40,420

anything resembling a temporal span that

1171

00:51:46,410 --> 00:51:42,489

catches up with those self-reinforcing

1172

00:51:49,079 --> 00:51:46,420

feedback loops interesting depressing

1173

00:51:50,910 --> 00:51:49,089

but fair I mean these are scary times

1174

00:51:52,589 --> 00:51:50,920

man I like you mentioned not only do we

1175

00:51:54,569 --> 00:51:52,599

have all these environmental concerns

1176

00:51:56,819 --> 00:51:54,579

but the global economy seems to be on

1177

00:51:59,579 --> 00:51:56,829

pretty shaky ground lots of people are

1178

00:52:02,069 --> 00:51:59,589

paralyzed by debt unemployment is way

1179

00:52:03,839 --> 00:52:02,079

too high corporations are posting

1180

00:52:05,120 --> 00:52:03,849

hundreds of millions of dollars in

1181

00:52:06,769 --> 00:52:05,130

profit

1182

00:52:08,930 --> 00:52:06,779

they're paying their employees minimums

1183

00:52:11,319 --> 00:52:08,940

are keeping them off a full-time when

1184

00:52:14,120 --> 00:52:11,329

you factor in these concerns with the

1185

00:52:16,420 --> 00:52:14,130

environmental situation it's really hard

1186

00:52:22,960 --> 00:52:16,430

to be optimistic about anything

1187

00:52:25,849 --> 00:52:22,970

well yes except except we have this we

1188

00:52:28,370 --> 00:52:25,859

you and I and everybody listening to

1189

00:52:31,490 --> 00:52:28,380

this program we have a tremendous

1190

00:52:32,660 --> 00:52:31,500

advantage that almost nobody and nothing

1191

00:52:36,769 --> 00:52:32,670

in the history of the planet has ever

1192

00:52:38,779 --> 00:52:36,779

had we get to die and that makes us the

1193

00:52:42,829 --> 00:52:38,789

lucky ones because it means we get to

1194

00:52:47,210 --> 00:52:42,839

live we get to live here now at the most

1195

00:52:50,480 --> 00:52:47,220

amazing time in history we get to see

1196

00:52:53,329 --> 00:52:50,490

the end we can just see the end of

1197

00:52:55,730 --> 00:52:53,339

industrial civilization and therefore a

1198

00:52:57,380 --> 00:52:55,740

comeback by the Living Planet unlike

1199

00:53:00,230 --> 00:52:57,390

anything we've ever seen before the

1200

00:53:02,269 --> 00:53:00,240

alleviation of oppression will be

1201  
00:53:04,759 --> 00:53:02,279  
astonishing not only that we get to see

1202  
00:53:06,499 --> 00:53:04,769  
the end where I can't imagine a

1203  
00:53:10,430 --> 00:53:06,509  
situation in which we're not among the

1204  
00:53:15,170 --> 00:53:10,440  
last humans on the planet and Wow

1205  
00:53:17,390 --> 00:53:15,180  
we get to live the odds against D and we

1206  
00:53:19,700 --> 00:53:17,400  
know a lot about DNA we've been studying

1207  
00:53:22,339 --> 00:53:19,710  
it for a long time and we know the odds

1208  
00:53:25,160 --> 00:53:22,349  
against any collection of DNA forming

1209  
00:53:29,150 --> 00:53:25,170  
human beings me and you the odds against

1210  
00:53:31,460 --> 00:53:29,160  
any of us being here ever exceed the

1211  
00:53:34,240 --> 00:53:31,470  
odds against plucking a single atom from

1212  
00:53:36,799 --> 00:53:34,250  
ran at random from the entire universe

1213  
00:53:39,049 --> 00:53:36,809

we know that there's between 10 to the

1214

00:53:42,049 --> 00:53:39,059

80th and 10 to the hundredth atoms in

1215

00:53:44,720 --> 00:53:42,059

the entire universe the odds against

1216

00:53:47,960 --> 00:53:44,730

plucking a single atom at random are far

1217

00:53:50,690 --> 00:53:47,970

greater than the odds of DNA coming

1218

00:53:51,670 --> 00:53:50,700

together in this form I think that's

1219

00:53:54,620 --> 00:53:51,680

pretty incredible

1220

00:53:56,599 --> 00:53:54,630

so let's live as if our lives matter

1221

00:53:59,120 --> 00:53:56,609

let's pursue lives of excellence let's

1222

00:54:01,309 --> 00:53:59,130

treat people as if they're decent and

1223

00:54:03,170 --> 00:54:01,319

treat them humanely and act with

1224

00:54:06,200 --> 00:54:03,180

kindness and compassion and do all those

1225

00:54:09,410 --> 00:54:06,210

things that we that we say humans are

1226  
00:54:10,880 --> 00:54:09,420  
are great because they do let's do all

1227  
00:54:13,519 --> 00:54:10,890  
those things instead of rubbing for

1228  
00:54:16,460 --> 00:54:13,529  
another dime instead of instead of

1229  
00:54:18,210 --> 00:54:16,470  
buying 15 pairs of shoes just because we

1230  
00:54:20,250 --> 00:54:18,220  
can because we have the world's reserve

1231  
00:54:24,000 --> 00:54:20,260  
currency let's let's do all those things

1232  
00:54:26,849 --> 00:54:24,010  
that make up life better for humans and

1233  
00:54:29,190 --> 00:54:26,859  
other organisms and the time we have

1234  
00:54:30,900 --> 00:54:29,200  
left because even if we live to a very

1235  
00:54:34,470 --> 00:54:30,910  
old age the time we have left is not

1236  
00:54:36,690 --> 00:54:34,480  
very long I don't find many hundred year

1237  
00:54:39,270 --> 00:54:36,700  
old saying yet I had a good run I'm

1238  
00:54:40,920 --> 00:54:39,280

ready to die now Ill think everybody

1239

00:54:43,490 --> 00:54:40,930

remembers a few things we have a few

1240

00:54:46,710 --> 00:54:43,500

memories we take with us into the grave

1241

00:54:48,810 --> 00:54:46,720

we remember those moments doing bad

1242

00:54:51,420 --> 00:54:48,820

otherwise but there are they're

1243

00:54:52,890 --> 00:54:51,430

relatively few of them well then people

1244

00:54:55,260 --> 00:54:52,900

will remember even if they lived to a

1245

00:54:57,210 --> 00:54:55,270

very old age so let's try to create

1246

00:55:00,720 --> 00:54:57,220

those moments let's try to create those

1247

00:55:03,930 --> 00:55:00,730

moments of beauty and compassion in and

1248

00:55:07,230 --> 00:55:03,940

and human greatness relay where we

1249

00:55:11,190 --> 00:55:07,240

actually exhibit our humanity in a

1250

00:55:14,849 --> 00:55:11,200

manner that is positive that that looks

1251

00:55:19,200 --> 00:55:14,859

good for us and for those were

1252

00:55:21,630 --> 00:55:19,210

interacting with well said I mean and in

1253

00:55:24,079 --> 00:55:21,640

that thread to try to be positive and

1254

00:55:26,400 --> 00:55:24,089

give the people just a little direction

1255

00:55:27,960 --> 00:55:26,410

let's assume you know we are going to

1256

00:55:29,940 --> 00:55:27,970

face extreme weather an economic

1257

00:55:32,730 --> 00:55:29,950

collapse and the decline of excess and

1258

00:55:33,960 --> 00:55:32,740

our cushy American lives I mean how

1259

00:55:35,780 --> 00:55:33,970

would you advise the people on a

1260

00:55:39,599 --> 00:55:35,790

personal level I mean are there places

1261

00:55:41,820 --> 00:55:39,609

to go on the planet or steps to take to

1262

00:55:44,910 --> 00:55:41,830

increase those positive moments and be

1263

00:55:57,960 --> 00:55:44,920

less impacted by the decline of

1264

00:56:00,150 --> 00:55:57,970

everything if your goal is to extend

1265

00:56:02,220 --> 00:56:00,160

your life and the lives of your family

1266

00:56:04,589 --> 00:56:02,230

members for as long as possible then I

1267

00:56:08,339 --> 00:56:04,599

think among the last place is to have

1268

00:56:11,010 --> 00:56:08,349

habitat for humans on this earth will be

1269

00:56:13,500 --> 00:56:11,020

south way south places that are

1270

00:56:16,310 --> 00:56:13,510

surrounded by a lot of water that are a

1271

00:56:20,359 --> 00:56:16,320

long way from nuclear power plants that

1272

00:56:24,390 --> 00:56:20,369

are the southern tip of Chile in

1273

00:56:27,320 --> 00:56:24,400

southern Australia and New Zealand and

1274

00:56:30,510 --> 00:56:27,330

southern South Africa places like that

1275

00:56:32,490 --> 00:56:30,520

but even then I'm guessing you don't by

1276

00:56:35,910 --> 00:56:32,500

yourself

1277

00:56:38,580 --> 00:56:35,920

a very long time so maybe we should take

1278

00:56:43,170 --> 00:56:38,590

a little advice from Nietzsche here live

1279

00:56:45,180 --> 00:56:43,180

as though the day we're here to to to

1280

00:56:48,780 --> 00:56:45,190

live as if we matter and so did the

1281

00:56:50,670 --> 00:56:48,790

people around us yeah that's a fair

1282

00:56:52,890 --> 00:56:50,680

point I mean it's kind of like a bubble

1283

00:56:55,800 --> 00:56:52,900

boy conundrum you can protect yourself

1284

00:56:59,850 --> 00:56:55,810

from everything but at the cost of

1285

00:57:02,250 --> 00:56:59,860

enjoying anything you know yes yes I

1286

00:57:05,400 --> 00:57:02,260

suspect that's exactly right we can

1287

00:57:07,910 --> 00:57:05,410

extend our own run as individuals for a

1288

00:57:10,890 --> 00:57:07,920

little bit but certainly not forever

1289

00:57:14,640 --> 00:57:10,900

nobody gets out alive right right

1290

00:57:18,930 --> 00:57:14,650

and so what does it mean what does it

1291

00:57:22,590 --> 00:57:18,940

mean to live well those those are the

1292

00:57:24,510 --> 00:57:22,600

kinds of questions that I'm interested

1293

00:57:25,980 --> 00:57:24,520

in pursuing at this point right like how

1294

00:57:28,670 --> 00:57:25,990

long do you want to live in the zombie

1295

00:57:31,860 --> 00:57:28,680

apocalypse isn't it easier to just go

1296

00:57:35,640 --> 00:57:31,870

bingo I mean I'd like to see the zombie

1297

00:57:38,660 --> 00:57:35,650

apocalypse obviously it's such exciting

1298

00:57:41,430 --> 00:57:38,670

stuff when you see it in the movies no

1299

00:57:42,870 --> 00:57:41,440

but but of it I'm not sure I want to be

1300

00:57:44,900 --> 00:57:42,880

around for the end of these zombie

1301  
00:57:49,080 --> 00:57:44,910  
apocalypse I'm not sure I turn into all

1302  
00:57:51,600 --> 00:57:49,090  
exactly man well that is pretty much

1303  
00:57:54,000 --> 00:57:51,610  
enough positivity for me for one day I

1304  
00:57:55,950 --> 00:57:54,010  
feel like we should all go watch Shrek

1305  
00:57:58,110 --> 00:57:55,960  
or up or some kind of over-the-top

1306  
00:58:00,000 --> 00:57:58,120  
feel-good movie now to bring us back out

1307  
00:58:02,280 --> 00:58:00,010  
of the gutter but hey in some weird way

1308  
00:58:05,190 --> 00:58:02,290  
it was still a pleasure well I

1309  
00:58:07,130 --> 00:58:05,200  
appreciate the and people ask me all the

1310  
00:58:09,300 --> 00:58:07,140  
time why I do this why I do what I do

1311  
00:58:11,580 --> 00:58:09,310  
part of it is that I think people have

1312  
00:58:14,400 --> 00:58:11,590  
the right to know yeah what the science

1313  
00:58:16,260 --> 00:58:14,410

is saying about our future and another

1314

00:58:21,120 --> 00:58:16,270

party is I'm really trying to encourage

1315

00:58:25,140 --> 00:58:21,130

people to to pursue this information

1316

00:58:27,150 --> 00:58:25,150

with vigor if this is the end if you

1317

00:58:28,770 --> 00:58:27,160

realize you don't have much time left

1318

00:58:32,220 --> 00:58:28,780

and I would argue that's always been

1319

00:58:34,290 --> 00:58:32,230

true if that's the case if you if you

1320

00:58:36,300 --> 00:58:34,300

accept this information if you take it

1321

00:58:38,670 --> 00:58:36,310

in and internalize it what does it mean

1322

00:58:39,810 --> 00:58:38,680

I suspect it means you're not living in

1323

00:58:41,610 --> 00:58:39,820

a cube farm anymore

1324

00:58:46,350 --> 00:58:41,620

that you're not going to work to a job

1325

00:58:49,650 --> 00:58:46,360

you hate and in saving or a future that

1326

00:58:51,240 --> 00:58:49,660

never comes mm-hmm either because we're

1327

00:58:52,710 --> 00:58:51,250

in the age of contraction so your

1328

00:58:55,530 --> 00:58:52,720

retirement is going to be taken away

1329

00:58:57,360 --> 00:58:55,540

from you or because of climate change or

1330

00:58:59,280 --> 00:58:57,370

ionizing radiation shortening your life

1331

00:59:01,380 --> 00:58:59,290

more than here or imagine possible

1332

00:59:03,000 --> 00:59:01,390

so I think this is incredibly liberating

1333

00:59:04,260 --> 00:59:03,010

and I've heard many people tell me the

1334

00:59:06,930 --> 00:59:04,270

same thing it's incredibly liberating

1335

00:59:08,970 --> 00:59:06,940

now I can do the things I've really

1336

00:59:12,480 --> 00:59:08,980

wanted to do but culture was screaming

1337

00:59:15,090 --> 00:59:12,490

at me to not do that yes 100% agree I

1338

00:59:17,760 --> 00:59:15,100

I'm actually thirty days out of my

1339

00:59:20,040 --> 00:59:17,770

nine-to-five job and it all just kind of

1340

00:59:21,510 --> 00:59:20,050

came from this material I thought you

1341

00:59:23,430 --> 00:59:21,520

know if the economy does collapse

1342

00:59:25,710 --> 00:59:23,440

tomorrow I'm gonna feel really silly

1343

00:59:28,680 --> 00:59:25,720

going to a nine-to-five job I hate for

1344

00:59:31,320 --> 00:59:28,690

the past two decades yes

1345

00:59:33,540 --> 00:59:31,330

so I'm with you on that I think that's a

1346

00:59:34,860 --> 00:59:33,550

pretty that's the most positive message

1347

00:59:36,570 --> 00:59:34,870

anyone could gain out of this if you

1348

00:59:38,610 --> 00:59:36,580

don't have a lot of time make the best

1349

00:59:41,340 --> 00:59:38,620

of it start worrying about exactly how

1350

00:59:43,020 --> 00:59:41,350

many seconds you can squeeze out of life

1351

00:59:45,300 --> 00:59:43,030

on the planet but hey I very much

1352

00:59:46,590 --> 00:59:45,310

respect your analysis and thank you for

1353

00:59:48,180 --> 00:59:46,600

sharing everything you have with this

1354

00:59:50,220 --> 00:59:48,190

man would you like to tell the people

1355

00:59:51,510 --> 00:59:50,230

about your website or where they can

1356

00:59:54,540 --> 00:59:51,520

keep up with you before we let you go

1357

00:59:57,960 --> 00:59:54,550

sure I suspect if you put nature bats

1358

00:59:59,280 --> 00:59:57,970

last into your favorite internet search

1359

01:00:02,250 --> 00:59:59,290

engine it'll take you right to my

1360

01:00:04,830 --> 01:00:02,260

website it's a guy members follow all my

1361

01:00:06,360 --> 01:00:04,840

work there that leads to all the essays

1362

01:00:09,500 --> 01:00:06,370

I'm writing for other websites as well

1363

01:00:12,030 --> 01:00:09,510

any time somebody shoots video when I'm

1364

01:00:16,020 --> 01:00:12,040

when I'm speaking it appears there as

1365

01:00:17,970 --> 01:00:16,030

well very cool all right well thanks

1366

01:00:19,680 --> 01:00:17,980

again guy I mean do what you can to

1367

01:00:26,130 --> 01:00:19,690

enjoy the rest of your day all right man

1368

01:00:27,690 --> 01:00:26,140

thank you take care there it is guys I

1369

01:00:29,640 --> 01:00:27,700

hope the audio issues weren't too

1370

01:00:31,590 --> 01:00:29,650

distracting I think I do a lot of things

1371

01:00:33,450 --> 01:00:31,600

well but I don't have an audio guy and

1372

01:00:36,000 --> 01:00:33,460

I'm deaf in one year so I do the best I

1373

01:00:37,470 --> 01:00:36,010

can until I find my Brian Redman but

1374

01:00:38,940 --> 01:00:37,480

it's always getting better and I think

1375

01:00:42,390 --> 01:00:38,950

it has to if we're gonna be going for

1376

01:00:44,790 --> 01:00:42,400

the gold that said guy McPherson Jesus I

1377

01:00:47,460 --> 01:00:44,800

know it's a bit overwhelming but instead

1378

01:00:49,680 --> 01:00:47,470

of tuning that out or channeling it into

1379

01:00:51,930 --> 01:00:49,690

an angry comment to me about how

1380

01:00:54,210 --> 01:00:51,940

depressing it is channel it into an

1381

01:00:56,640 --> 01:00:54,220

angry tweet to Exxon Mobil or take a

1382

01:00:58,860 --> 01:00:56,650

second to publicly shame Walmart I mean

1383

01:00:59,610 --> 01:00:58,870

they make over 300 billion dollars a

1384

01:01:02,100 --> 01:00:59,620

year

1385

01:01:03,840 --> 01:01:02,110

forcing the price is so low that only

1386

01:01:06,090 --> 01:01:03,850

companies that use the cheapest labor

1387

01:01:07,980 --> 01:01:06,100

and materials on earth can be a player

1388

01:01:10,860 --> 01:01:07,990

in their 300 billion dollar marketplace

1389

01:01:13,170 --> 01:01:10,870

which I might also note is three times

1390

01:01:15,750 --> 01:01:13,180

the amount it would take to end poverty

1391

01:01:18,120 --> 01:01:15,760

in America if we could somehow spend

1392

01:01:20,430 --> 01:01:18,130

just 1/3 less on [h\_\_h] at Walmart and

1393

01:01:23,400 --> 01:01:20,440

give that directly to our poor no more

1394

01:01:25,170 --> 01:01:23,410

poverty so [h\_\_h] Walmart either way the

1395

01:01:26,730 --> 01:01:25,180

power lies only with the people and we

1396

01:01:28,800 --> 01:01:26,740

have to start applying some pressure and

1397

01:01:30,990 --> 01:01:28,810

have fun with it it's fun to publicly

1398

01:01:33,180 --> 01:01:31,000

shame a corporation on Twitter it feels

1399

01:01:34,770 --> 01:01:33,190

a little dangerous tagging me in those

1400

01:01:36,810 --> 01:01:34,780

tweets and I'll broadcast them to the

1401

01:01:39,860 --> 01:01:36,820

40,000 people gracious enough to follow

1402

01:01:42,510 --> 01:01:39,870

us on Twitter and we'll all have a nice

1403

01:01:45,300 --> 01:01:42,520

comforting circle-jerk

1404

01:01:46,800 --> 01:01:45,310

I love you guys you're making my dream

1405

01:01:48,540 --> 01:01:46,810

come true and I think we're making

1406

01:01:50,310 --> 01:01:48,550

progress in this [h\_\_\h] up world

1407

01:01:50,850 --> 01:01:50,320

tomorrow I might feel like we're all

1408

01:01:53,490 --> 01:01:50,860

[h\_\_\h]

1409

01:01:56,490 --> 01:01:53,500

but right now progress that's what I

1410

01:01:58,920 --> 01:01:56,500

feel now I was editing this episode and

1411

01:02:01,230 --> 01:01:58,930

reflecting on the implications of its

1412

01:02:03,150 --> 01:02:01,240

information in this song no children by

1413

01:02:04,800 --> 01:02:03,160

the mountain goats pops up on my iTunes

1414

01:02:07,620 --> 01:02:04,810

and if you don't know it it's the most

1415

01:02:09,930 --> 01:02:07,630

angry and depressing but truthful and

1416

01:02:12,330 --> 01:02:09,940

honest breakup song that I know of and

1417

01:02:14,910 --> 01:02:12,340

as I was thinking about all the lyrics

1418

01:02:17,820 --> 01:02:14,920

as a symbolic message to the earth and

1419

01:02:19,590 --> 01:02:17,830

nature and our own humanity I thought it

1420

01:02:21,810 --> 01:02:19,600

really clicked so I'll leave you with it

1421

01:02:23,520 --> 01:02:21,820

if we collectively wrote a song that

1422

01:02:25,980 --> 01:02:23,530

captured the message we're giving to the

1423

01:02:28,320 --> 01:02:25,990

natural world with our own actions until

1424

01:02:31,050 --> 01:02:28,330

we make some radical changes it would

1425

01:02:33,330 --> 01:02:31,060

probably sound a lot like this for

1426

01:02:36,780 --> 01:02:33,340

better or worse donate to the money bomb

1427

01:02:38,430 --> 01:02:36,790

share the show where you can you are the

1428

01:02:41,480 --> 01:02:38,440

water that helps this little THC