

Animals Use Infrasound to Communicate



- Elephants produce infrasound waves that travel through solid ground and are sensed by other herds using their feet (over hundreds of kilometers).
- Tigers vocalizations include 18 Hz.

1
00:00:07,400 --> 00:00:03,200
okay so I'm going to talk about a little

2
00:00:11,240 --> 00:00:07,410
bit about qigong today and perhaps many

3
00:00:12,860 --> 00:00:11,250
of you are already familiar with jago-ji

4
00:00:16,310 --> 00:00:12,870
has been mentioned quite a bit this

5
00:00:20,859 --> 00:00:16,320
morning already chi gong is a self

6
00:00:24,200 --> 00:00:20,869
healing practice that often involves

7
00:00:27,259 --> 00:00:24,210
pleading control and exercises that

8
00:00:29,390 --> 00:00:27,269
always involves on working with Chi and

9
00:00:31,759 --> 00:00:29,400
that's where that the word she go and

10
00:00:33,290 --> 00:00:31,769
growing in so work in Chinese so I'm

11
00:00:35,299 --> 00:00:33,300
going to start by demonstrating and

12
00:00:38,000 --> 00:00:35,309
personal meditation practice that I

13
00:00:40,520 --> 00:00:38,010

learned in China that I like to do my

14

00:00:43,459 --> 00:00:40,530

favorite it's called dumping buckets and

15

00:00:45,680 --> 00:00:43,469

I'll just to give a brief description of

16

00:00:47,900 --> 00:00:45,690

it and it gives you a feel for what what

17

00:00:51,590 --> 00:00:47,910

does meditation practice is alike so you

18

00:00:54,319 --> 00:00:51,600

stand with the loose loose knees and

19

00:00:57,080 --> 00:00:54,329

imagine scooping up a bucket of water

20

00:00:58,939 --> 00:00:57,090

and dumping it over your head and you

21

00:01:01,310 --> 00:00:58,949

feel the water in the beginning you can

22

00:01:04,399 --> 00:01:01,320

just feel a drip of water going down the

23

00:01:06,620 --> 00:01:04,409

front of your body and you can use your

24

00:01:10,130 --> 00:01:06,630

finger to touch your skin to help your

25

00:01:12,260 --> 00:01:10,140

imagination feel that Chi and you go all

26

00:01:14,719 --> 00:01:12,270

the way down your body splitting only

27

00:01:16,609 --> 00:01:14,729

legs and then slowly slowly and then

28

00:01:19,249 --> 00:01:16,619

dripping off the front of your toes into

29

00:01:21,289 --> 00:01:19,259

the earthen feeling yourself granted

30

00:01:23,539 --> 00:01:21,299

invidi earth and you do three buckets

31

00:01:26,090 --> 00:01:23,549

the one down the front then you start

32

00:01:29,060 --> 00:01:26,100

again at the top and go down the back of

33

00:01:32,480 --> 00:01:29,070

your body third bucket down the sides

34

00:01:35,030 --> 00:01:32,490

and it's is this basically drawing your

35

00:01:36,560 --> 00:01:35,040

attention that there's a theory in

36

00:01:39,920 --> 00:01:36,570

chinese traditional chinese medicine

37

00:01:41,870 --> 00:01:39,930

code the mind moves achieve that she

38

00:01:44,090 --> 00:01:41,880

moves the blood and blood in this sense

39

00:01:47,389 --> 00:01:44,100

and the way they use it is is how much

40

00:01:50,359 --> 00:01:47,399

work encompasses more than just the

41

00:01:52,580 --> 00:01:50,369

right liquid and as you as you progress

42

00:01:55,130 --> 00:01:52,590

you can instead of just a single drop of

43

00:01:57,499 --> 00:01:55,140

water you can make it a sheet of water

44

00:01:59,209 --> 00:01:57,509

that covers your whole body then as you

45

00:02:01,160 --> 00:01:59,219

progress further you can allow that

46

00:02:04,670 --> 00:02:01,170

water to penetrate deeper into your body

47

00:02:06,290 --> 00:02:04,680

with the one caveat I was given by that

48

00:02:08,150 --> 00:02:06,300

my teacher when you're

49

00:02:09,710 --> 00:02:08,160

going in your head you don't you don't

50

00:02:11,630 --> 00:02:09,720

go deep into your brain you wait until

51
00:02:14,960 --> 00:02:11,640
you get to your body to let this cheap

52
00:02:17,900 --> 00:02:14,970
penetrate deeply and this kind of self

53
00:02:22,930 --> 00:02:17,910
healing meditation practice is really

54
00:02:26,540 --> 00:02:22,940
the bulk of Qi Gong but there is also

55
00:02:29,360 --> 00:02:26,550
believe that practitioners who after a

56
00:02:31,070 --> 00:02:29,370
period of becoming adept are able to

57
00:02:34,190 --> 00:02:31,080
manipulate cheat outside their own body

58
00:02:38,150 --> 00:02:34,200
to treat patients and this is referred

59
00:02:40,880 --> 00:02:38,160
to as external Chico now and again this

60
00:02:43,850 --> 00:02:40,890
is this a situation where you have a

61
00:02:46,310 --> 00:02:43,860
practitioner that is trying to influence

62
00:02:49,400 --> 00:02:46,320
the Chi of a patient to promote health

63
00:02:52,460 --> 00:02:49,410

or healing and so my talk today is going

64

00:02:54,050 --> 00:02:52,470

to focus beginning and launch off and in

65

00:03:00,680 --> 00:02:54,060

this direction of looking at external

66

00:03:03,050 --> 00:03:00,690

chi go now G you know maybe prana maybe

67

00:03:06,440 --> 00:03:03,060

the Oregon the tick mentioned earlier

68

00:03:08,600 --> 00:03:06,450

but there were there's some research

69

00:03:10,880 --> 00:03:08,610

done China looking at the mainstream

70

00:03:12,740 --> 00:03:10,890

energetic emissions coming out of 20

71

00:03:16,250 --> 00:03:12,750

masters when they were treating patients

72

00:03:21,170 --> 00:03:16,260

and some of them you know would be what

73

00:03:23,180 --> 00:03:21,180

you expected I was whoops i was i was

74

00:03:25,100 --> 00:03:23,190

surprised to see infrasound in this list

75

00:03:27,140 --> 00:03:25,110

and that's just because I really didn't

76
00:03:28,910 --> 00:03:27,150
know a lot about it for some so perhaps

77
00:03:30,440 --> 00:03:28,920
you don't as well so I'll bring you

78
00:03:34,460 --> 00:03:30,450
along the curve that I fall

79
00:03:37,640 --> 00:03:34,470
so infrasound is basically sound waves

80
00:03:41,119 --> 00:03:37,650
that are below the limit of human

81
00:03:43,820 --> 00:03:41,129
hearing so 20 cycles per second or 20

82
00:03:46,699 --> 00:03:43,830
Hertz is generally the limit at which

83
00:03:48,680 --> 00:03:46,709
humans stop being able to hear sound

84
00:03:51,830 --> 00:03:48,690
waves they're still sound waves but we

85
00:03:56,089 --> 00:03:51,840
just don't hear them and just not a

86
00:04:00,199 --> 00:03:56,099
little bit of a review whoops gotta get

87
00:04:01,910 --> 00:04:00,209
this these molecules of air don't

88
00:04:03,350 --> 00:04:01,920

actually traverse this distance they

89

00:04:05,570 --> 00:04:03,360

just vibrate a little bit affect the

90

00:04:07,670 --> 00:04:05,580

next ones to create these waves but the

91

00:04:13,280 --> 00:04:07,680

molecules themselves are not reversing

92

00:04:15,110 --> 00:04:13,290

this distance so the human body produces

93

00:04:18,949 --> 00:04:15,120

infrasound this little guys going to

94

00:04:23,540 --> 00:04:18,959

help me lead a group exercise with the

95

00:04:25,070 --> 00:04:23,550

heart of course you might imagine is one

96

00:04:27,230 --> 00:04:25,080

of the major producers of infrasound in

97

00:04:28,730 --> 00:04:27,240

the body so with the heartbeat it

98

00:04:30,140 --> 00:04:28,740

produces a sound that we can hear but

99

00:04:31,730 --> 00:04:30,150

also as part of that sound there's an

100

00:04:34,040 --> 00:04:31,740

infrasonic component that we don't hear

101

00:04:35,360 --> 00:04:34,050

now the muscles in our bodies also

102

00:04:38,180 --> 00:04:35,370

produce in for some when they change

103

00:04:41,450 --> 00:04:38,190

length so we follow the example with

104

00:04:43,610 --> 00:04:41,460

this guy making a fist the muscles in

105

00:04:45,469 --> 00:04:43,620

your forearm will make infrasound and

106

00:04:48,860 --> 00:04:45,479

you can sense that by sticking your

107

00:04:51,290 --> 00:04:48,870

thumbs in your ear and slowly making a

108

00:05:00,710 --> 00:04:51,300

fist and it helps to do both so that you

109

00:05:05,850 --> 00:05:03,720

there's a little demonstration of every

110

00:05:09,210 --> 00:05:05,860

sound so you can feel the spot that this

111

00:05:10,920 --> 00:05:09,220

is happening in your body animals

112

00:05:12,090 --> 00:05:10,930

commute animals you know they don't have

113

00:05:13,710 --> 00:05:12,100

to stick their thumbs in the ears they

114

00:05:14,910 --> 00:05:13,720

actually hear the sound of me we're

115

00:05:18,770 --> 00:05:14,920

learning more and more that they use it

116

00:05:21,060 --> 00:05:18,780

to communicate I it's been you know I

117

00:05:23,370 --> 00:05:21,070

elephants are I think the most famous

118

00:05:26,370 --> 00:05:23,380

for using it for sounded they got famous

119

00:05:28,590 --> 00:05:26,380

because they using persona to travel

120

00:05:31,500 --> 00:05:28,600

through the ground and others in the

121

00:05:34,050 --> 00:05:31,510

herd kilometers away can sense the

122

00:05:36,890 --> 00:05:34,060

infrasound through their feet and the

123

00:05:39,960 --> 00:05:36,900

hertz apparently communicate this way

124

00:05:44,540 --> 00:05:39,970

Tigers also in their vocalizations

125

00:05:47,520 --> 00:05:44,550

recently it's been come to light that

126

00:05:49,530 --> 00:05:47,530

they will to basically speak to each

127

00:05:51,660 --> 00:05:49,540

other with impress on salve airy

128

00:05:54,960 --> 00:05:51,670

important component of the way the

129

00:05:57,300 --> 00:05:54,970

Tigers communicate and and the the long

130

00:06:00,300 --> 00:05:57,310

wavelength of infrasound allows it to

131

00:06:02,940 --> 00:06:00,310

penetrate solid of course with the the

132

00:06:05,220 --> 00:06:02,950

elephant elephant example you can you

133

00:06:07,560 --> 00:06:05,230

can see that and again with the Tigers

134

00:06:09,720 --> 00:06:07,570

the dense forests make it difficult for

135

00:06:12,210 --> 00:06:09,730

audible sound to penetrate very deeply

136

00:06:13,680 --> 00:06:12,220

but the long wavelengths of infrasound

137

00:06:16,140 --> 00:06:13,690

makes it very effective for

138

00:06:19,920 --> 00:06:16,150

communicating through dense forest and I

139

00:06:21,900 --> 00:06:19,930

point this out because I'm going to come

140

00:06:23,970 --> 00:06:21,910

back to the penetrative aspect of

141

00:06:27,150 --> 00:06:23,980

infrasound later in the talk when we

142

00:06:30,180 --> 00:06:27,160

when we move into clinical the potential

143

00:06:33,000 --> 00:06:30,190

for clinical application so humans dhoom

144

00:06:35,490 --> 00:06:33,010

sense and force own native even though

145

00:06:37,470 --> 00:06:35,500

we can't hear it in one of the most

146

00:06:41,820 --> 00:06:37,480

profound reactions to high intensity in

147

00:06:45,260 --> 00:06:41,830

person is nausea and this leads to the

148

00:06:47,700 --> 00:06:45,270

very fun urban myth of the brown note

149

00:06:50,000 --> 00:06:47,710

which I don't know if anybody heard of

150

00:06:51,590 --> 00:06:50,010

it it's there's been some fun TV

151

00:06:54,890 --> 00:06:51,600

adaptations of this

152

00:06:57,620 --> 00:06:54,900

most notably on South Park where they

153

00:07:02,290 --> 00:06:57,630

played the brown note to make everybody

154

00:07:08,410 --> 00:07:06,560

now another fun perhaps myth I don't

155

00:07:11,780 --> 00:07:08,420

know a victim yet coventry university

156

00:07:14,120 --> 00:07:11,790

has talked about that the femur there's

157

00:07:15,890 --> 00:07:14,130

a feeling of our fear that sense within

158

00:07:17,990 --> 00:07:15,900

persona and because we don't perceive

159

00:07:19,310 --> 00:07:18,000

anything coming to us it gives us vague

160

00:07:20,750 --> 00:07:19,320

feeling that something weird or

161

00:07:23,810 --> 00:07:20,760

something perhaps supernatural is

162

00:07:25,910 --> 00:07:23,820

happening and perhaps coupled with the

163

00:07:27,920 --> 00:07:25,920

fact that the resonant frequency of the

164

00:07:30,520 --> 00:07:27,930

eyeball is in the range of infrasound if

165

00:07:36,530 --> 00:07:30,530

you combine those two it might create

166

00:07:38,000 --> 00:07:36,540

what is seeing ghosts so just to this is

167

00:07:39,770 --> 00:07:38,010

a little bit more background and really

168

00:07:41,900 --> 00:07:39,780

getting way out of the realm where I

169

00:07:44,270 --> 00:07:41,910

have any expertise that can speak with

170

00:07:46,610 --> 00:07:44,280

any authority whatsoever but just for

171

00:07:48,530 --> 00:07:46,620

fun I wanted to lie about the connects

172

00:07:51,890 --> 00:07:48,540

between infrasound in crop circles which

173

00:07:54,230 --> 00:07:51,900

I learned about just to come to this

174

00:07:56,420 --> 00:07:54,240

conference and share with you the

175

00:08:00,200 --> 00:07:56,430

Italian starts with the nausea that is

176

00:08:02,750 --> 00:08:00,210

apparently experienced by humans

177

00:08:04,310 --> 00:08:02,760

visiting crop circles and then there's a

178

00:08:07,700 --> 00:08:04,320

story emerging that if you look at this

179

00:08:09,830 --> 00:08:07,710

stocks of the of the wheat as they're

180

00:08:12,740 --> 00:08:09,840

bent over they don't look like they've

181

00:08:14,810 --> 00:08:12,750

been physically bent as they would be if

182

00:08:16,310 --> 00:08:14,820

it was a bunch of teenagers with the

183

00:08:20,450 --> 00:08:16,320

two-by-four just smashing down the

184

00:08:22,250 --> 00:08:20,460

stocks but there are small holes right

185

00:08:26,150 --> 00:08:22,260

at the nodes where it looks like water

186

00:08:27,740 --> 00:08:26,160

has escaped it's been superheated so

187

00:08:30,980 --> 00:08:27,750

they the story goes that they're

188

00:08:32,779 --> 00:08:30,990

basically melted or liquefied because of

189

00:08:34,159 --> 00:08:32,789

a combination of infrasound pressure and

190

00:08:36,980 --> 00:08:34,169

then the stocks fall over in this

191

00:08:38,779 --> 00:08:36,990

intricate patterns so that's just for

192

00:08:40,700 --> 00:08:38,789

fun perhaps a little more sinister

193

00:08:43,639 --> 00:08:40,710

definitely more grounded in science and

194

00:08:45,259 --> 00:08:43,649

more relevant to today's

195

00:08:50,480 --> 00:08:45,269

discussion is the development of

196

00:08:51,949 --> 00:08:50,490

infrasound us as weaponry and I'm going

197

00:08:57,559 --> 00:08:51,959

to ask if anybody can help me pronounce

198

00:09:00,819 --> 00:08:57,569

this guy's name Gavin bro so he and his

199

00:09:03,499 --> 00:09:00,829

team were developing weapons and

200

00:09:06,499 --> 00:09:03,509

apparently apparently the team you know

201
00:09:08,569 --> 00:09:06,509
with new nearly fatal experiences in the

202
00:09:12,019 --> 00:09:08,579
inner and developing these things this

203
00:09:14,540 --> 00:09:12,029
has been in 1957 and again I wanted to

204
00:09:15,859 --> 00:09:14,550
point out that the the key and in this

205
00:09:18,139 --> 00:09:15,869
case with the weaponry was the ability

206
00:09:19,879 --> 00:09:18,149
to kill people without the need to just

207
00:09:21,829 --> 00:09:19,889
you know MIT breakthrough buildings and

208
00:09:25,579 --> 00:09:21,839
and also that was real advantage of this

209
00:09:27,980 --> 00:09:25,589
and and and lichen like most things in

210
00:09:30,949 --> 00:09:27,990
medicine if you if you figure out that

211
00:09:33,369 --> 00:09:30,959
something can can be detrimental to

212
00:09:37,699 --> 00:09:33,379
human physiology at one to us it's often

213
00:09:41,179 --> 00:09:37,709

possible to find a therapeutic dose so

214

00:09:45,379 --> 00:09:41,189

what has happened with infrasonic

215

00:09:49,720 --> 00:09:45,389

devices as in the healing realm so we

216

00:09:52,100 --> 00:09:49,730

started to look at this we threw my

217

00:09:54,139 --> 00:09:52,110

interactions working with chi chi gong

218

00:09:57,110 --> 00:09:54,149

practitioners in the chi gong community

219

00:09:58,970 --> 00:09:57,120

we became aware of a device that was