

1

00:00:00,000 --> 00:00:04,540

An unstoppable and deadly invasion.

2

00:00:04,640 --> 00:00:09,280

Killing machines wielding deadly heat rays and poison gas.

3

00:00:09,380 --> 00:00:12,180

The largest city in the world devastated within hours.

4

00:00:15,280 --> 00:00:18,060

This was the nightmare that H.G. Wells-Ford told

5

00:00:18,160 --> 00:00:21,620

more than a century ago.

6

00:00:21,720 --> 00:00:24,120

A story made even more terrifying by the fact

7

00:00:24,220 --> 00:00:27,400

that the Marauders were creatures from Mars who fed

8

00:00:27,500 --> 00:00:28,460

on human blood.

9

00:00:30,020 --> 00:00:32,260

And as fantastic as the story was,

10

00:00:32,360 --> 00:00:35,640

it struck deep-rooted fear in everyone who read it,

11

00:00:35,740 --> 00:00:37,940

and much later caused legendary panic

12

00:00:38,040 --> 00:00:40,040

in the streets of America.

13

00:00:40,140 --> 00:00:43,380

Why then does this story continue to terrorize us?

14

00:00:43,480 --> 00:00:45,520

As modern probes discover more and more

15

00:00:45,620 --> 00:00:48,160

about the red planet, how close to the truth

16

00:00:48,260 --> 00:00:51,380

is this work of science fiction?

17

00:00:51,480 --> 00:00:54,660

This is the real story behind this tale,

18

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

a journey beyond the war of the worlds.

19

00:01:00,000 --> 00:01:03,900

How can I describe it?

20

00:01:04,000 --> 00:01:07,800

A monstrous tripod striding over the pine trees,

21

00:01:07,900 --> 00:01:10,800

smashing them aside.

22

00:01:10,900 --> 00:01:13,880

A walking engine of glittering metal,

23

00:01:13,980 --> 00:01:17,220

articulate ropes of steel writhing from it,

24

00:01:17,320 --> 00:01:19,520

and the clattering tumult of its passage

25

00:01:19,620 --> 00:01:21,620

mingling with the riot of thunder.

26

00:01:30,060 --> 00:01:32,800

And the attack from Mars begins in a story

27

00:01:32,900 --> 00:01:36,740

by a young British author H.G. Wells.

28

00:01:36,840 --> 00:01:40,340

First appearing as a magazine serial in 1897,

29

00:01:40,440 --> 00:01:44,280

the war of the worlds grips readers from page one.

30

00:01:44,380 --> 00:01:47,680

The war of the worlds was a shocker.

31

00:01:47,780 --> 00:01:49,520

And all of a sudden, you have a novel where Martians

32

00:01:49,620 --> 00:01:53,020

are invading tranquil British countryside

33

00:01:53,120 --> 00:01:54,280

and wreaking havoc upon it.

34

00:01:54,380 --> 00:01:58,260

I think this was something that was quite extraordinary.

35

00:01:58,720 --> 00:02:00,220

The magazine sells out quickly.

36

00:02:00,320 --> 00:02:03,920

And when the war of the worlds is published as a novel in 1898,

37

00:02:04,020 --> 00:02:06,200

it becomes an instant bestseller,

38

00:02:06,300 --> 00:02:08,960

playing on the paranoia of the British Empire

39

00:02:09,060 --> 00:02:11,640

at its precarious height.

40

00:02:11,740 --> 00:02:13,440

The end of the 19th century, England

41

00:02:13,540 --> 00:02:16,840

was certainly the most protected and most powerful

42

00:02:16,940 --> 00:02:18,380

nation on earth.

43

00:02:18,480 --> 00:02:20,540

Then yet, there was a foot, a sense

44

00:02:20,640 --> 00:02:24,740

that this was a fragile piece, that there were forces abroad

45

00:02:24,840 --> 00:02:27,620

that were menacing the British Empire.

46

00:02:28,120 --> 00:02:30,320

Air warfare, people would drop bombs on England.

47

00:02:30,420 --> 00:02:32,780

England was not this invulnerable island,

48

00:02:32,880 --> 00:02:36,720

but it was quite, on the contrary, quite vulnerable.

49

00:02:36,820 --> 00:02:38,060

And Wells took it one degree higher

50

00:02:38,160 --> 00:02:42,260

by simply associating the war of the worlds with Martians.

51

00:02:42,360 --> 00:02:45,660

The idea of a Martian invasion in Victorian England

52

00:02:45,760 --> 00:02:49,600

is not only a good story device, but seems a real possibility

53

00:02:49,700 --> 00:02:52,240

to his readers.

54

00:02:52,340 --> 00:02:55,980

Wells is putting into words thousands of years of curiosity

55

00:02:56,040 --> 00:02:58,640

and fear about Earth's next door neighbor.

56

00:03:03,180 --> 00:03:07,420

At its closest, Mars is scarcely 35 million miles away

57

00:03:07,520 --> 00:03:11,420

and a third the size of Earth.

58

00:03:11,520 --> 00:03:13,680

Of the nearby planets, it is the easiest

59

00:03:13,780 --> 00:03:17,700

to identify as it stands alone, scarlet in the night sky.

60

00:03:20,960 --> 00:03:23,700

5,000 years ago, the ancient Egyptians

61

00:03:23,760 --> 00:03:26,700

are the first to record its presence in the sky.

62

00:03:26,800 --> 00:03:31,360

They call it, Har Desher, the red one.

63

00:03:31,460 --> 00:03:33,560

Four millennia later, the Babylonians

64

00:03:33,660 --> 00:03:37,800

call the planet Nurgall, the star of death.

65

00:03:37,900 --> 00:03:40,140

The Babylonians are also the first to record

66

00:03:40,240 --> 00:03:42,780

that the planet has peculiar motions,

67

00:03:42,880 --> 00:03:47,620

as if it is under some things or someone's control.

68

00:03:47,720 --> 00:03:50,880

If you were an ancient person watching the sky,

69

00:03:50,980 --> 00:03:52,720

there are two aspects of Mars that

70

00:03:52,780 --> 00:03:56,040

would be most likely to bring thoughts of war and terror

71

00:03:56,140 --> 00:03:57,380

to your mind.

72

00:03:57,480 --> 00:04:02,820

First, the fact that it swells up in brightness dramatically

73

00:04:02,920 --> 00:04:05,920

when it comes near the Earth, so that it dominates the sky

74

00:04:06,020 --> 00:04:07,720

and then fades again.

75

00:04:07,820 --> 00:04:10,220

And then, of course, the reddish color.

76

00:04:10,320 --> 00:04:12,960

The ancient Greeks named the planet Aries

77

00:04:13,060 --> 00:04:15,960

after their god of war, one of five heavenly bodies

78

00:04:16,060 --> 00:04:19,140

they call the wandering stars.

79

00:04:19,240 --> 00:04:22,340

Ancient people believed the stars were very far away

80

00:04:23,040 --> 00:04:25,000

and sort of incomprehensible.

81

00:04:25,100 --> 00:04:28,060

And by giving the planets and the stars a character,

82

00:04:28,160 --> 00:04:31,200

they somehow enabled us to relate to them,

83

00:04:31,300 --> 00:04:33,740

which I think is a very important underlying thing

84

00:04:33,840 --> 00:04:36,940

that human beings need to do to relate to the universe,

85

00:04:37,040 --> 00:04:39,640

to feel that we mean something.

86

00:04:39,740 --> 00:04:44,420

As early as 250 BC, the Greek astronomer Aristaklis of Samos

87

00:04:44,520 --> 00:04:48,180

makes the bold claim that Aries is one of several planets,

88

00:04:48,280 --> 00:04:52,020

including Earth, that revolve around the sun.

89

00:04:52,800 --> 00:04:57,100

But the Roman astronomer Claudius Ptolemy insists in 100 AD

90

00:04:57,200 --> 00:05:00,100

that the planets and stars revolve around Earth,

91

00:05:00,200 --> 00:05:04,200

and that is the theory that sticks.

92

00:05:04,300 --> 00:05:09,900

And so does the Roman name for the planet Mars, the god of war.

93

00:05:10,000 --> 00:05:12,440

Well, it's perfectly natural to think of the Earth

94

00:05:12,540 --> 00:05:14,380

as the center of the universe, because the Earth feels

95

00:05:14,480 --> 00:05:15,980

stationary and solid to us.

96

00:05:16,080 --> 00:05:17,480

It's the center of our existence.

97

00:05:17,580 --> 00:05:21,280

And the sky appears to be a dome or the inside of a sphere

98

00:05:21,340 --> 00:05:24,440

with things moving across it.

99

00:05:24,540 --> 00:05:26,480

Earth as the center of the universe

100

00:05:26,580 --> 00:05:30,080

is a comforting explanation for 1,400 years.

101

00:05:30,180 --> 00:05:33,880

Until 1543, when a Polish astronomer named Nicholas

102

00:05:33,980 --> 00:05:38,420

Copernicus sets the scientific world on its ear.

103

00:05:38,520 --> 00:05:42,960

Copernicus in the 1,500s gets the credit for being the first

104

00:05:43,060 --> 00:05:46,860

to make a strong case that the planets go around the sun,

105

00:05:46,960 --> 00:05:49,500

not around the Earth.

106

00:05:50,000 --> 00:05:52,800

This theory means that Earth is just another planet orbiting

107

00:05:52,900 --> 00:05:56,540

the sun, so scientists wonder how much the other planets might

108

00:05:56,640 --> 00:05:58,840

be like our own.

109

00:05:58,940 --> 00:06:01,840

This is the beginning of real scientific inquiry

110

00:06:01,940 --> 00:06:04,340

into the possibility that we are not alone.

111

00:06:07,180 --> 00:06:10,580

In 1609, German astronomer Johannes Kepler

112

00:06:10,680 --> 00:06:12,660

explains the strange movement of Mars

113

00:06:12,760 --> 00:06:16,020

by proving it has an elliptical orbit

114

00:06:16,120 --> 00:06:19,160

and wonders if this may be the next planet upon which we will

115

00:06:19,220 --> 00:06:21,260

find life.

116

00:06:21,360 --> 00:06:24,720

He writes, who shall dwell in these worlds

117

00:06:24,820 --> 00:06:26,460

if they be inhabited?

118

00:06:26,560 --> 00:06:31,260

Are we or they lords of the world?

119

00:06:31,360 --> 00:06:34,800

In 1610, Italian astronomer Galileo Galilei

120

00:06:34,900 --> 00:06:39,480

is the first to observe Mars through a telescope.

121

00:06:39,580 --> 00:06:42,480

In his one-inch lens, Mars is the size of a pea held

122

00:06:42,580 --> 00:06:44,980

eight feet away, but it is impressive enough

123

00:06:45,080 --> 00:06:47,780

to sustain the idea of life on other planets.

124

00:06:49,220 --> 00:06:51,880

To the naked eye, without the aid of a telescope,

125

00:06:51,980 --> 00:06:54,760

a planet just looks like a bright star.

126

00:06:54,860 --> 00:06:56,920

And yet when Galileo looked at the planets

127

00:06:57,020 --> 00:06:59,760

of a telescope, he found they were not stars.

128

00:06:59,860 --> 00:07:04,440

They were tiny worlds like the Earth.

129

00:07:04,540 --> 00:07:07,840

Over the next three centuries, telescopes gradually improve.

130

00:07:07,940 --> 00:07:09,380

And so does the scientific evidence

131

00:07:09,480 --> 00:07:12,540

that Mars could be another Earth.

132

00:07:12,640 --> 00:07:16,580

1877, we had what is called an opposition of Mars.

133

00:07:16,600 --> 00:07:19,180

Every two years, Mars comes closest to the Earth

134

00:07:19,280 --> 00:07:20,980

and is brightest in the sky.

135

00:07:21,080 --> 00:07:25,480

And that's generally the best opportunity to observe it.

136

00:07:25,580 --> 00:07:27,780

During this close approach of the red planet,

137

00:07:27,880 --> 00:07:30,380

Italian astronomer Giovanni Ciapparelli

138

00:07:30,480 --> 00:07:35,460

publishes sensational new maps of the surface of Mars.

139

00:07:35,560 --> 00:07:37,060

If you look at the drawings of Shaperade,

140

00:07:37,160 --> 00:07:38,200

they're absolutely beautiful.

141

00:07:38,300 --> 00:07:39,900

They're a work of art, as well as

142

00:07:40,000 --> 00:07:41,460

being a work of science.

143

00:07:41,560 --> 00:07:43,040

But the most interesting thing was

144

00:07:43,100 --> 00:07:47,900

his drawings of straight line linear features on the surface,

145

00:07:48,000 --> 00:07:52,340

which he saw, and which he wrote in his paper

146

00:07:52,440 --> 00:07:56,480

were a canale, which again, Italian means channels.

147

00:07:59,380 --> 00:08:01,880

He entertained the possibility that they

148

00:08:01,980 --> 00:08:06,520

could be artificial, but he certainly

149

00:08:06,620 --> 00:08:10,620

was open to other interpretations.

150

00:08:10,680 --> 00:08:13,980

In 1892, a French scientist, Camille Flammarion,

151

00:08:14,080 --> 00:08:17,020

cites more evidence of life on Mars.

152

00:08:17,120 --> 00:08:19,820

He discovers what he calls the wave of darkening

153

00:08:19,920 --> 00:08:23,220

during the Martian spring, when dark patches on the surface

154

00:08:23,320 --> 00:08:25,060

spread from the poles to the equator

155

00:08:25,160 --> 00:08:28,000

and then recede at the end of Martian summer.

156

00:08:28,100 --> 00:08:30,360

Flammarion theorizes that this darkening

157

00:08:30,460 --> 00:08:33,400

may be caused by vegetation changing with the seasons.

158

00:08:36,600 --> 00:08:39,040

As the scientific evidence grows more compelling,

159

00:08:39,540 --> 00:08:41,840

wild theories about the possibility of intelligent life

160

00:08:41,940 --> 00:08:44,640

on Mars capture the public imagination.

161

00:08:44,740 --> 00:08:47,640

And the imagination of writers who feature space travel

162

00:08:47,740 --> 00:08:53,380

on Mars in a new genre called science fiction.

163

00:08:53,480 --> 00:08:55,780

People consider H.G. Wells and Jules Verne

164

00:08:55,880 --> 00:08:57,720

to be the two fathers of science fiction.

165

00:08:57,820 --> 00:08:59,320

And between the two of them, they

166

00:08:59,420 --> 00:09:02,620

created some of the basic ideas that we've all

167

00:09:02,720 --> 00:09:06,100

taken so many times from time machines and invasions.

168

00:09:06,160 --> 00:09:07,720

And Jules Verne, of course, came up

169

00:09:07,820 --> 00:09:11,260

with the really cool technology with the submarines

170

00:09:11,360 --> 00:09:14,100

and the flying airships.

171

00:09:14,200 --> 00:09:17,140

Their collective dreams inspire one of the first motion

172

00:09:17,240 --> 00:09:22,680

pictures ever made, Georges Melies from the Earth to the Moon.

173

00:09:22,780 --> 00:09:25,980

The 1902 film envisions an advanced lunar population

174

00:09:26,080 --> 00:09:29,980

of man-sized insects ruling a cold, desolate world.

175

00:09:30,980 --> 00:09:33,940

But the most popular works about life on other planets

176

00:09:34,040 --> 00:09:35,840

don't come from science fiction.

177

00:09:35,940 --> 00:09:39,040

They come from amateur astronomer Percival Lowell

178

00:09:39,140 --> 00:09:41,680

and his best-selling series of highly-speculated books

179

00:09:41,780 --> 00:09:44,820

about Mars, which aspire to be science fact.

180

00:09:47,820 --> 00:09:51,220

And those books took the world by storm.

181

00:09:51,320 --> 00:09:54,860

He had his convictions, and he just bulldozed over anybody

182

00:09:54,960 --> 00:09:55,860

who got in his way.

183

00:09:55,960 --> 00:09:58,360

And he wrote these books out of the blue.

184

00:09:58,860 --> 00:10:01,520

And he wrote these books about Mars and life on Mars.

185

00:10:01,620 --> 00:10:04,560

And they became extremely popular books at the time.

186

00:10:07,300 --> 00:10:09,860

Air to an enormous textile fortune,

187

00:10:09,960 --> 00:10:13,600

Lowell travels to Flagstaff, Arizona in 1894,

188

00:10:13,700 --> 00:10:17,240

where he builds an observatory with a 24-inch telescope atop

189

00:10:17,340 --> 00:10:21,600

a mountain he calls Mars Hill.

190

00:10:21,700 --> 00:10:23,640

After a year of observation, Lowell

191

00:10:23,740 --> 00:10:27,640

theorizes that intelligent life has created waterways all

192

00:10:27,660 --> 00:10:29,940

over the surface of Mars.

193

00:10:30,040 --> 00:10:31,600

He called them canals.

194

00:10:31,700 --> 00:10:35,240

And they appeared to be very straight, linear features.

195

00:10:35,340 --> 00:10:38,940

And Lowell thought the only way these could have been formed

196

00:10:39,040 --> 00:10:41,240

was by intelligent life, digging them

197

00:10:41,340 --> 00:10:44,340

to bring water down from the dry parts of the planet

198

00:10:44,440 --> 00:10:47,780

to water a dying planet.

199

00:10:47,880 --> 00:10:49,720

They had run out of water and resources,

200

00:10:49,820 --> 00:10:53,020

and it was very poignant that their cities were falling

201

00:10:53,120 --> 00:10:56,060

and that they couldn't survive very long.

202

00:10:56,120 --> 00:11:00,720

Lowell pictured Mars as a dying society.

203

00:11:00,820 --> 00:11:03,560

But many scientists scoff at Lowell's observations

204

00:11:03,660 --> 00:11:06,820

and accuse him of playing connect the dots with his telescope

205

00:11:06,920 --> 00:11:09,760

for not everyone sees the elusive canals.

206

00:11:09,860 --> 00:11:12,360

Most of the professional astronomical community

207

00:11:12,460 --> 00:11:14,360

were not quite so convinced.

208

00:11:14,460 --> 00:11:17,860

Of course, the public loved it, the idea of Mars.

209

00:11:17,960 --> 00:11:20,500

Nonetheless, about a year after Lowell's first book

210

00:11:20,600 --> 00:11:24,040

about Mars is published, a young writer in London, England,

211

00:11:24,140 --> 00:11:25,340

puts pen to paper.

212

00:11:26,440 --> 00:11:28,560

H.G. Wells has paid close attention

213

00:11:28,660 --> 00:11:31,700

to Lowell's theories about a dying Martian civilization,

214

00:11:31,800 --> 00:11:34,260

speculates about their evil intentions,

215

00:11:34,360 --> 00:11:36,440

and creates literary history.

216

00:11:39,240 --> 00:11:43,140

No one would have believed in the last years of the 19th century

217

00:11:43,240 --> 00:11:47,040

that this world was being watched keenly and closely

218

00:11:47,140 --> 00:11:51,380

by intelligences greater than man's, who regarded this Earth

219

00:11:51,440 --> 00:11:56,480

with envious eyes, slowly and surely drawing their plans

220

00:11:56,580 --> 00:11:57,480

against us.

221

00:12:05,080 --> 00:12:08,360

For centuries, astronomers have gathered scientific evidence

222

00:12:08,460 --> 00:12:10,460

of life on Mars.

223

00:12:10,560 --> 00:12:14,060

Now in 1897, a hot new science fiction writer

224

00:12:14,160 --> 00:12:16,400

offers his own chilling interpretation.

225

00:12:16,460 --> 00:12:18,100

Had our telescopes permitted it, we

226

00:12:18,200 --> 00:12:22,260

might have seen gathering trouble far back in the 19th century.

227

00:12:22,360 --> 00:12:25,240

Men like Chaperrelli watched the Red Planet,

228

00:12:25,340 --> 00:12:28,180

but failed to interpret the fluctuating markings they

229

00:12:28,280 --> 00:12:30,040

mapped so well.

230

00:12:30,140 --> 00:12:35,040

While all the time, the Martians must have been getting ready.

231

00:12:35,140 --> 00:12:38,420

Herbert George Wells was born into a lower middle class

232

00:12:38,520 --> 00:12:41,180

family in southern England.

233

00:12:41,280 --> 00:12:46,160

Wells had a very long history of the Martian civilization.

234

00:12:46,180 --> 00:12:48,980

He had quite an extensive scientific background.

235

00:12:49,080 --> 00:12:51,820

He was very interested in human evolution

236

00:12:51,920 --> 00:12:54,320

and the evolutionary process.

237

00:12:54,420 --> 00:12:56,160

He spent his early career as a somewhat

238

00:12:56,260 --> 00:12:58,660

unenthusiastic school teacher.

239

00:12:58,760 --> 00:13:01,800

Then in 1895, at the age of 29, Wells

240

00:13:01,900 --> 00:13:05,260

moves to a sleepy London suburb called Woking

241

00:13:05,360 --> 00:13:08,000

and tries his hand at writing.

242

00:13:08,100 --> 00:13:11,440

His first two novels, *The Time Machine* and *The Invisible Man*,

243

00:13:11,540 --> 00:13:14,740

combine his interest in science with social criticism

244

00:13:14,800 --> 00:13:19,240

and establish him as one of the most popular writers of the day.

245

00:13:19,340 --> 00:13:22,540

Great things are expected from H.G. Wells when his third novel

246

00:13:22,640 --> 00:13:24,780

debuts in 1897.

247

00:13:24,880 --> 00:13:28,420

His public is not disappointed.

248

00:13:28,520 --> 00:13:30,480

Amidst the thrill of alien invasion,

249

00:13:30,580 --> 00:13:33,160

the War of the World suggests the vulnerability

250

00:13:33,260 --> 00:13:34,960

of the empire.

251

00:13:35,060 --> 00:13:36,560

When Wells wrote The War of the Worlds,

252

00:13:36,660 --> 00:13:39,300

the British Empire was the big kahuna on the planet.

253

00:13:39,400 --> 00:13:41,600

They were the ones that conquered every country

254

00:13:41,700 --> 00:13:42,760

that they went up against.

255

00:13:42,820 --> 00:13:46,480

They were the superpower.

256

00:13:46,580 --> 00:13:51,460

Wells offers a warning to an arrogant empire.

257

00:13:51,560 --> 00:13:53,060

The War of the Worlds is an allegory

258

00:13:53,160 --> 00:13:55,960

of those these Martians misuse their own technology.

259

00:13:56,060 --> 00:13:58,960

They have this overpowering military might,

260

00:13:59,060 --> 00:14:01,840

but they misuse it, and therefore they fall.

261

00:14:01,940 --> 00:14:04,140

So I mean, there is a sense here that we could do the same thing,

262

00:14:04,240 --> 00:14:07,040

that Wells is trying to teach us some kind of responsible use

263

00:14:07,140 --> 00:14:09,640

of all these things.

264

00:14:09,700 --> 00:14:15,400

This superior force arrives in a spectacular fashion.

265

00:14:15,500 --> 00:14:18,600

Hollow cylinders crash into a park just minutes

266

00:14:18,700 --> 00:14:19,940

from Wells' walking flat.

267

00:14:25,640 --> 00:14:28,980

Fascinated readers wonder what the Martians look like.

268

00:14:29,080 --> 00:14:32,420

It is not what they expect.

269

00:14:32,520 --> 00:14:34,480

The lid of the cylinder fell upon the gravel

270

00:14:34,580 --> 00:14:38,620

with a ringing concussion, a big rounded grayish bulk,

271

00:14:38,700 --> 00:14:41,940

the size of a bear was rising slowly and painfully

272

00:14:42,040 --> 00:14:43,840

out of the cylinder.

273

00:14:43,940 --> 00:14:46,980

As it caught the light, it glistened like wet leather.

274

00:14:47,080 --> 00:14:51,040

Two large dark colored eyes were guarding me steadfastly.

275

00:14:54,820 --> 00:14:57,620

Wells portrays the Martians as highly evolved beings

276

00:14:57,720 --> 00:15:02,660

which use advanced technology to wage war on humanity.

277

00:15:02,760 --> 00:15:06,220

And worse still, the creatures are vampires.

278

00:15:06,260 --> 00:15:09,900

Perhaps more social commentary from Wells?

279

00:15:10,000 --> 00:15:12,300

Wells, it makes certain analogies in his book

280

00:15:12,400 --> 00:15:15,100

to how we treat the so-called lower animals

281

00:15:15,200 --> 00:15:17,060

and how the Martians treat us.

282

00:15:17,160 --> 00:15:18,800

The Martians feeding off blood, well,

283

00:15:18,900 --> 00:15:19,800

they're intelligent beings.

284

00:15:19,900 --> 00:15:21,540

You think, well, they wouldn't be doing that.

285

00:15:21,640 --> 00:15:22,940

But if we look at our own history,

286

00:15:23,040 --> 00:15:24,440

we're not that different.

287

00:15:24,540 --> 00:15:29,580

So there's that much difference between blood and flesh.

288

00:15:29,680 --> 00:15:31,300

During this time, people are still

289

00:15:31,400 --> 00:15:34,140

fascinated with the theory of evolution.

290

00:15:34,160 --> 00:15:37,940

Are these creatures a future generation of man?

291

00:15:38,040 --> 00:15:40,580

If we look at Wells' depiction of the Martians,

292

00:15:40,680 --> 00:15:44,380

he is coming from a perfectly valid standpoint

293

00:15:44,480 --> 00:15:47,160

in terms of trying to extrapolate what directions

294

00:15:47,260 --> 00:15:51,320

evolution might take for an intelligent species.

295

00:15:51,420 --> 00:15:55,000

This superior race rides in giant war machines,

296

00:15:55,100 --> 00:15:58,600

armed with horrifying weapons that unleash violent fury

297

00:15:58,700 --> 00:15:59,340

into the crowd.

298

00:15:59,840 --> 00:16:01,740

A thin rod rose up.

299

00:16:01,840 --> 00:16:04,680

A ghost beam of light seemed to flicker out from it.

300

00:16:04,780 --> 00:16:08,180

It was as if each man was suddenly turned to fire.

301

00:16:08,280 --> 00:16:13,020

And by the light of the fire, I saw them staggering and falling.

302

00:16:13,120 --> 00:16:16,080

The Martian heat ray renders humankind's greatest

303

00:16:16,180 --> 00:16:18,420

weapons useless.

304

00:16:18,520 --> 00:16:20,920

As the Martians begin advancing toward London,

305

00:16:21,020 --> 00:16:23,160

they reveal an even deadlier weapon

306

00:16:23,260 --> 00:16:26,160

that neutralizes Britain's army in an instant.

307

00:16:26,960 --> 00:16:30,560

Each of the Martians had discharged a huge canister, which

308

00:16:30,660 --> 00:16:32,300

smashed on the ground and disengaged

309

00:16:32,400 --> 00:16:35,860

a great volume of heavy, inky vapor,

310

00:16:35,960 --> 00:16:40,140

coiling and pouring upward in a huge ebony cloud.

311

00:16:40,240 --> 00:16:43,880

At the touch of the vapor, the inhaling of its pungent wisps

312

00:16:43,980 --> 00:16:45,640

was death to all that breathes.

313

00:16:48,740 --> 00:16:50,980

The stark reporting style of the novel

314

00:16:51,080 --> 00:16:56,080

adds to the tension between the Martians and the Martians.

315

00:16:56,180 --> 00:16:59,860

And the terrible reality of the story.

316

00:16:59,960 --> 00:17:01,820

This frightening book is translated

317

00:17:01,920 --> 00:17:05,920

into dozens of languages and sells out around the world.

318

00:17:06,020 --> 00:17:08,860

Interest in Mars, both fictional and scientific,

319

00:17:08,960 --> 00:17:10,800

is increasing.

320

00:17:10,900 --> 00:17:13,340

The question I'm at we're trying to answer is, are we alone?

321

00:17:13,440 --> 00:17:15,840

Well, suppose the answer is, no, we're not alone.

322

00:17:15,940 --> 00:17:17,180

There's other things out there.

323

00:17:17,280 --> 00:17:21,180

The next question is, well, is it dangerous?

324

00:17:21,280 --> 00:17:22,980

What does it think about us?

325

00:17:23,080 --> 00:17:24,940

Obviously, our first concern is our own survival

326

00:17:25,000 --> 00:17:26,360

and so fear is the great motivator.

327

00:17:29,700 --> 00:17:33,200

In 1910, even the scientific pioneer Thomas Edison

328

00:17:33,300 --> 00:17:35,540

speculates about what Martians might look like.

329

00:17:40,940 --> 00:17:42,620

Edison's vision of the red planet

330

00:17:42,720 --> 00:17:44,980

is a complete departure from his traditionally

331

00:17:45,080 --> 00:17:45,880

rational thinking.

332

00:17:48,620 --> 00:17:51,660

He brazenly disregards contemporary scientific notions

333

00:17:51,720 --> 00:17:54,620

of Mars for a wild fantasy of his own design.

334

00:17:57,720 --> 00:18:01,720

In 1926, Russia offers another view of the red planet

335

00:18:01,820 --> 00:18:04,960

when it releases aelita, Queen of Mars,

336

00:18:05,060 --> 00:18:07,560

written by a cousin of Leo Tolstoy.

337

00:18:07,660 --> 00:18:10,800

Mars again becomes a metaphor for evil,

338

00:18:10,900 --> 00:18:13,380

as Earth's first cosmonauts arrive on a planet

339

00:18:13,480 --> 00:18:17,740

where people live under crushing capitalist oppression.

340

00:18:17,840 --> 00:18:20,880

The space travelers land on Mars.

341

00:18:21,340 --> 00:18:22,500

They, of course, have come from Russia,

342

00:18:22,600 --> 00:18:23,700

where the revolution has occurred,

343

00:18:23,800 --> 00:18:26,840

and they see an opportunity here to help the Martians

344

00:18:26,940 --> 00:18:29,980

and improve their lot in life.

345

00:18:30,080 --> 00:18:33,240

In no time, they introduce the joys of communism

346

00:18:33,340 --> 00:18:37,580

and are soon on their way home to the Soviet Union.

347

00:18:37,680 --> 00:18:39,220

They wanted to make a movie that wasn't just

348

00:18:39,320 --> 00:18:42,360

about the revolution, but would be sort of a very entertaining

349

00:18:42,460 --> 00:18:43,360

film as well.

350

00:18:43,940 --> 00:18:49,340

But soon, entertainment turns to horror,

351

00:18:49,440 --> 00:18:53,040

as Mars prepares to invade the United States.

352

00:18:57,780 --> 00:19:02,020

In 1938, Mars invades New Jersey.

353

00:19:02,120 --> 00:19:05,020

The new medium of radio adds a terrifying dimension

354

00:19:05,120 --> 00:19:05,820

to the war of the worlds.

355

00:19:06,820 --> 00:19:10,240

Halloween Eve, 8 p.m., Orson Welles' Mercury Theatre

356

00:19:10,340 --> 00:19:11,240

is on the air.

357

00:19:20,240 --> 00:19:21,740

Good evening, ladies and gentlemen.

358

00:19:21,840 --> 00:19:24,340

From the Meridian Room in the Park Plaza Hotel in New York City,

359

00:19:24,440 --> 00:19:27,340

we bring you the music of Raymond Raquello and his orchestra.

360

00:19:27,440 --> 00:19:29,840

The Dutch of the Spanish, Raymond Raquello leads off

361

00:19:29,940 --> 00:19:30,840

with la Compensita.

362

00:19:30,940 --> 00:19:33,040

The first ever film in the world,

363

00:19:33,040 --> 00:19:35,240

Raymond Raquello leads off with la Compensita.

364

00:19:40,040 --> 00:19:42,200

Ladies and gentlemen, we interrupt our program of dance

365

00:19:42,300 --> 00:19:43,740

music to bring you a special bulletin

366

00:19:43,840 --> 00:19:45,840

from the Intercontinental Radio News.

367

00:19:45,940 --> 00:19:48,080

At 20 minutes before 8 central time,

368

00:19:48,180 --> 00:19:50,920

Professor Farrell of the Mount Gennings Observatory, Chicago,

369

00:19:51,020 --> 00:19:53,760

Illinois reports observing several explosions

370

00:19:53,860 --> 00:19:56,820

of incandescent gas occurring at regular intervals

371

00:19:56,920 --> 00:19:59,860

on the planet Mars.

372

00:19:59,960 --> 00:20:02,100

At first, it seems like an ordinary broadcast

373

00:20:02,160 --> 00:20:03,720

of an evening concert.

374

00:20:03,820 --> 00:20:06,400

But news flashes in the program grow progressively more

375

00:20:06,500 --> 00:20:08,400

frightening.

376

00:20:08,500 --> 00:20:10,660

It is reported that a huge flaming object

377

00:20:10,760 --> 00:20:13,240

believed to be a meteorite fell on a farm

378

00:20:13,340 --> 00:20:15,200

in the neighborhood of Grover's Mill, New Jersey,

379

00:20:15,300 --> 00:20:16,940

22 miles from Trenton.

380

00:20:17,040 --> 00:20:19,640

We have dispatched a special mobile unit to the scene.

381

00:20:19,740 --> 00:20:23,220

In the meantime, we take you to the Hotel Martinet in Brooklyn,

382

00:20:23,320 --> 00:20:25,080

where Bobby Millett and his orchestra

383

00:20:25,180 --> 00:20:29,320

are offering a program of dance music.

384

00:20:29,440 --> 00:20:32,480

The original story took place in England,

385

00:20:32,580 --> 00:20:36,520

and Orson adapted it to present day,

386

00:20:36,620 --> 00:20:41,320

and actually then put into it places and street names

387

00:20:41,420 --> 00:20:46,160

and locations and geographic regions that were in New Jersey.

388

00:20:46,260 --> 00:20:48,360

So that as people heard those names,

389

00:20:48,460 --> 00:20:52,640

of course, it added to the realism of it all.

390

00:20:52,740 --> 00:20:54,640

I started listening, and I heard the music,

391

00:20:54,700 --> 00:21:00,700

and then another broadcast that they were hitting some town

392

00:21:00,800 --> 00:21:01,700

in New Jersey.

393

00:21:01,800 --> 00:21:05,640

And then I had over my eyes and listened.

394

00:21:05,740 --> 00:21:08,340

In 1938, the idea of a fake newscast

395

00:21:08,440 --> 00:21:10,680

is unheard of to the listeners at home, who

396

00:21:10,780 --> 00:21:13,080

start to become genuinely alarmed.

397

00:21:13,180 --> 00:21:15,180

Most have not heard the opening of the show,

398

00:21:15,280 --> 00:21:19,260

warning that this is only a drama.

399

00:21:19,360 --> 00:21:22,260

As the War of the Worlds program begins on CBS,

400

00:21:22,320 --> 00:21:24,880

many Americans are listening to a sketch by Edgar Bergen

401

00:21:24,980 --> 00:21:29,220

and Charlie McCarthy on competitor NBC.

402

00:21:29,320 --> 00:21:32,320

But when the Charlie McCarthy skit ends at 8.12 PM,

403

00:21:32,420 --> 00:21:36,260

an estimated 6 million listeners switch over to CBS.

404

00:21:36,360 --> 00:21:40,760

And what they hear doesn't sound like a dramatization at all.

405

00:21:40,860 --> 00:21:43,260

Ladies and gentlemen, this is Carl Phillips again

406

00:21:43,360 --> 00:21:46,260

out at the Wilmets Farm, Grover's Mill, New Jersey.

407

00:21:46,360 --> 00:21:50,260

I'm a self-made, the 11-mile convention in 10 minutes.

408

00:21:50,760 --> 00:21:53,260

If you didn't hear that first part of the World of Worlds,

409

00:21:53,360 --> 00:21:54,960

you didn't know what was going on.

410

00:21:55,060 --> 00:21:56,860

So a lot of people got excited when they heard it,

411

00:21:56,960 --> 00:22:01,360

because they sounded like real loose flashes at the time.

412

00:22:01,460 --> 00:22:03,360

What I can see of the object itself

413

00:22:03,460 --> 00:22:05,860

doesn't look very much like a meteor.

414

00:22:05,960 --> 00:22:07,160

At least not the meteors I've seen.

415

00:22:07,260 --> 00:22:10,160

It looks more like a huge cylinder.

416

00:22:10,260 --> 00:22:13,960

As a diameter of, what would you say, Professor Pearson?

417

00:22:14,060 --> 00:22:14,960

What's that?

418

00:22:15,060 --> 00:22:15,660

What would you say?

419

00:22:15,760 --> 00:22:16,860

What's the diameter of this?

420

00:22:16,960 --> 00:22:17,660

About 30 yards.

421

00:22:17,760 --> 00:22:20,160

About 30 yards.

422

00:22:20,260 --> 00:22:23,160

It might be almost there.

423

00:22:23,260 --> 00:22:24,160

That's heaven.

424

00:22:24,260 --> 00:22:27,160

Something breaking out of the shadow like a gray snake.

425

00:22:27,260 --> 00:22:29,960

Now it's another one, and another one, and another one.

426

00:22:30,060 --> 00:22:32,160

They look like tentacles to me.

427

00:22:32,260 --> 00:22:33,660

I can see the thing spotty.

428

00:22:33,760 --> 00:22:34,660

Now it's large.

429

00:22:34,760 --> 00:22:36,160

Large is a bear.

430

00:22:36,260 --> 00:22:39,660

Just seems like wet leather, but hey.

431

00:22:39,760 --> 00:22:40,960

Ladies and gentlemen, it's been described

432

00:22:41,060 --> 00:22:44,860

of like an hardly forced myself to keep looking at it.

433

00:22:44,960 --> 00:22:47,860

Radio listeners on the East Coast start calling local police

434

00:22:47,960 --> 00:22:49,960

and radio stations but can't get through.

435

00:22:49,960 --> 00:22:52,760

The lines are jammed.

436

00:22:52,860 --> 00:22:53,960

The broadcast went on.

437

00:22:54,060 --> 00:22:56,660

Jesus, they're talking about playing field and then

438

00:22:56,760 --> 00:22:57,660

Newark.

439

00:22:57,760 --> 00:22:59,960

That's my god, they're coming closer.

440

00:23:00,060 --> 00:23:01,660

So I ran next door to Bonnie Walk.

441

00:23:01,760 --> 00:23:04,360

I said, are you listening to this?

442

00:23:04,460 --> 00:23:07,060

I'm on the awesome wells.

443

00:23:07,160 --> 00:23:08,060

He said, yeah, I'm listening.

444

00:23:08,160 --> 00:23:09,060

Let's go out and look.

445

00:23:09,160 --> 00:23:10,760

So we were looking all over the streets

446

00:23:10,860 --> 00:23:13,160

and see they were coming into Bayonne, which

447

00:23:13,260 --> 00:23:15,260

was right next door to Hoboken.

448

00:23:15,360 --> 00:23:17,760

And we don't see anything.

449

00:23:17,760 --> 00:23:19,960

The streets are dark and deserted,

450

00:23:20,060 --> 00:23:23,160

but that's little comfort to the panic listeners.

451

00:23:23,260 --> 00:23:25,260

And so the fact that, oh my gosh,

452

00:23:25,360 --> 00:23:26,860

there aren't any cars on the street,

453

00:23:26,960 --> 00:23:28,460

well, that would be a sign to most of us

454

00:23:28,560 --> 00:23:31,160

in rational times that it's a quiet night.

455

00:23:31,260 --> 00:23:34,960

But for somebody who is inclined to move toward hysteria,

456

00:23:35,060 --> 00:23:38,360

no cars on the street means that those people have already

457

00:23:38,460 --> 00:23:41,660

been harmed in some way.

458

00:23:41,760 --> 00:23:43,960

Wait a minute, something's happening.

459

00:23:44,060 --> 00:23:46,860

Pumped shape is rising out of the pit.

460

00:23:47,060 --> 00:23:51,960

It may got a small beam of light against a mirror.

461

00:23:52,060 --> 00:23:52,960

What's that?

462

00:23:53,060 --> 00:23:55,060

There's a jet of flames springing from the mirror

463

00:23:55,160 --> 00:23:57,460

and at least it's right at the advancing men.

464

00:23:57,560 --> 00:23:59,460

It strikes them head on.

465

00:23:59,560 --> 00:24:00,960

They're turning into flames.

466

00:24:01,060 --> 00:24:04,560

How the hell is he a scholar by the word of the Bible?

467

00:24:04,660 --> 00:24:06,660

Of the 7 million listeners, it's estimated

468

00:24:06,760 --> 00:24:10,060

that 1.7 million believe the broadcast is real.

469

00:24:10,160 --> 00:24:14,260

And 1.2 million panic.

470

00:24:14,360 --> 00:24:16,460

In Grover's Mill, New Jersey, many residents

471

00:24:16,960 --> 00:24:20,360

grab their rifles and a few fire at a local water tower

472

00:24:20,460 --> 00:24:23,860

thinking it is an alien death machine.

473

00:24:23,960 --> 00:24:27,160

Ladies and gentlemen, I have a grave announcement to make.

474

00:24:27,260 --> 00:24:30,160

Incredible as it may seem, both the observations of science

475

00:24:30,260 --> 00:24:33,960

and the evidence of our eyes lead to the inescapable assumption

476

00:24:34,060 --> 00:24:36,760

that those strange beings who landed in the Jersey farmlands

477

00:24:36,860 --> 00:24:40,360

tonight are the vanguard of an invading army from the planet

478

00:24:40,460 --> 00:24:41,860

Mars.

479

00:24:41,960 --> 00:24:45,560

Some people started storing food because of some sort

480

00:24:45,760 --> 00:24:47,360

of impending attack.

481

00:24:47,460 --> 00:24:50,460

Some people tried to leave the area and gather up the kids

482

00:24:50,560 --> 00:24:53,760

and rush out of the city.

483

00:24:53,860 --> 00:24:56,660

Others remain confident that a mobilization of the American

484

00:24:56,760 --> 00:24:59,860

military can stop the Martians.

485

00:24:59,960 --> 00:25:02,060

Because we're going to take care of them

486

00:25:02,160 --> 00:25:04,360

because we were Americans.

487

00:25:04,460 --> 00:25:06,660

In those days, we won every war there was.

488

00:25:06,760 --> 00:25:08,660

We were a ren.

489

00:25:08,760 --> 00:25:10,560

Rumors run rampant.

490

00:25:10,660 --> 00:25:13,460

Many believe the invasion is not extraterrestrial.

491

00:25:13,460 --> 00:25:15,160

But part of the growing threat from the Nazis.

492

00:25:18,260 --> 00:25:20,760

A bulletin has handed me.

493

00:25:20,860 --> 00:25:25,860

Martian cylinders are falling all over the country.

494

00:25:25,960 --> 00:25:29,460

One outside of Buffalo, one in Chicago.

495

00:25:29,560 --> 00:25:31,960

They've lost.

496

00:25:32,060 --> 00:25:36,860

Finally, at 9 PM, the attack is over.

497

00:25:36,960 --> 00:25:39,360

This is the end now.

498

00:25:39,460 --> 00:25:40,360

Smoke comes out.

499

00:25:40,460 --> 00:25:42,360

Black smoke.

500

00:25:42,360 --> 00:25:45,360

People are trying to run away from it, but it's no use.

501

00:25:45,460 --> 00:25:48,360

They're falling like flies.

502

00:25:48,460 --> 00:25:52,360

Now the smoke's crossing 6th Avenue,

503

00:25:52,460 --> 00:25:57,360

5th Avenue, 100 yards away.

504

00:25:57,460 --> 00:26:01,360

It's just a feat.

505

00:26:04,960 --> 00:26:07,960

The X2L calling, say kill.

506

00:26:08,060 --> 00:26:11,960

The X2L calling, say kill New York.

507

00:26:12,460 --> 00:26:14,760

Anyone on the air?

508

00:26:14,860 --> 00:26:17,060

The eerie silence is followed by an announcement

509

00:26:17,160 --> 00:26:20,960

that the program is a dramatization, but it's too late.

510

00:26:21,060 --> 00:26:23,760

The hour-long broadcast has convinced millions of listeners

511

00:26:23,860 --> 00:26:25,260

that the end is near.

512

00:26:25,360 --> 00:26:28,260

And the citizens fleeing for their lives tonight

513

00:26:28,360 --> 00:26:31,760

will be calling for the head of Orson Welles tomorrow.

514

00:26:37,260 --> 00:26:40,860

A 1938 radio dramatization of the H.G. Welles classic,

515

00:26:40,860 --> 00:26:43,760

The War of the Worlds, has thrown the United States

516

00:26:43,860 --> 00:26:45,760

into a panic.

517

00:26:45,860 --> 00:26:48,060

When listeners find out they have been duped,

518

00:26:48,160 --> 00:26:50,860

there are angry calls for a congressional investigation

519

00:26:50,960 --> 00:26:55,160

to prevent future fake news broadcasts.

520

00:26:55,260 --> 00:26:58,260

Orson Welles is blamed for the panic.

521

00:26:58,360 --> 00:27:01,060

It's identified with Orson because he was the voice,

522

00:27:01,160 --> 00:27:02,960

and he did direct the show.

523

00:27:03,060 --> 00:27:08,060

He was the product of his directorial talent.

524

00:27:08,060 --> 00:27:11,160

But it was a fluke.

525

00:27:11,260 --> 00:27:14,160

He never expected to get out of hand that way.

526

00:27:14,260 --> 00:27:14,960

Do you want me to speak now?

527

00:27:15,060 --> 00:27:15,960

I'm sorry.

528

00:27:16,060 --> 00:27:18,960

The next day, a contrite Welles addresses the nation.

529

00:27:19,060 --> 00:27:24,960

Of course, we are deeply shocked and deeply regretful

530

00:27:25,060 --> 00:27:29,160

about the results of last night's broadcast.

531

00:27:29,260 --> 00:27:30,860

Came rather as a great surprise to us

532

00:27:30,860 --> 00:27:37,760

that a story by H.G. Welles classic

533

00:27:37,860 --> 00:27:41,760

about a mythical invasion by monsters from the planet Mars

534

00:27:41,860 --> 00:27:46,760

should have had so profound an effect upon radio listeners.

535

00:27:46,860 --> 00:27:49,760

I remember now how worried he looked and how pale

536

00:27:49,860 --> 00:27:51,760

and it sort of frightened.

537

00:27:51,860 --> 00:27:53,760

The FCC began looking into it,

538

00:27:53,860 --> 00:27:55,760

but I think there were some commissioners

539

00:27:55,860 --> 00:27:58,760

who were concerned about somehow infringing

540

00:27:58,760 --> 00:28:02,660

on freedom of speech and radio's creativity.

541

00:28:02,760 --> 00:28:05,660

And so there wasn't really much done about it.

542

00:28:05,760 --> 00:28:08,660

And I think that even though Orson Welles had a fairly

543

00:28:08,760 --> 00:28:12,660

half-hearted apology, this made him very famous.

544

00:28:12,760 --> 00:28:15,660

And when you have fame, you don't apologize too much.

545

00:28:15,760 --> 00:28:18,660

But he did say, I don't think we'll try anything like this

546

00:28:18,760 --> 00:28:20,660

again.

547

00:28:20,760 --> 00:28:22,660

Orson Welles never admits whether or not

548

00:28:22,760 --> 00:28:24,660

the panic was premeditated.

549

00:28:24,760 --> 00:28:27,660

When asked, he merely smiled.

550

00:28:27,660 --> 00:28:30,560

Despite the furor over the 1938 broadcast

551

00:28:30,660 --> 00:28:34,560

on February 12, 1949, another radio play based

552

00:28:34,660 --> 00:28:37,560

on the War of the Worlds results in pandemonium

553

00:28:37,660 --> 00:28:39,560

in Quito, Ecuador.

554

00:28:39,660 --> 00:28:42,560

Tens of thousands of panic-stricken residents run

555

00:28:42,660 --> 00:28:46,560

into the streets to escape deadly Martian gas rains.

556

00:28:46,660 --> 00:28:50,560

Once the public realized that it was this hoax,

557

00:28:50,660 --> 00:28:54,560

they were pretty irate about it and stormed the radio station

558

00:28:54,660 --> 00:28:57,560

and actually burned the radio station to the ground.

559

00:28:57,660 --> 00:29:00,560

15 employees of the radio station die in the fire.

560

00:29:03,660 --> 00:29:07,560

In July, 1947, newspapers report that alien bodies have

561

00:29:07,660 --> 00:29:11,560

crashed to Earth in Roswell, New Mexico.

562

00:29:11,660 --> 00:29:16,560

This sparks a worldwide mania for all things Martian.

563

00:29:16,660 --> 00:29:19,560

Please contact us.

564

00:29:19,660 --> 00:29:22,560

We are your friends.

565

00:29:22,660 --> 00:29:25,560

Scientists insist the Roswell spacecraft is a government

566

00:29:25,560 --> 00:29:29,460

weather balloon, but that doesn't stop a pop culture

567

00:29:29,560 --> 00:29:33,460

explosion of books and movies about flying saucers and aliens.

568

00:29:39,560 --> 00:29:42,460

We want to believe that we're not alone.

569

00:29:42,560 --> 00:29:45,460

We want to believe that there are other people out there.

570

00:29:45,560 --> 00:29:48,460

And so if you tap into that great reservoir, you not only

571

00:29:48,560 --> 00:29:52,460

have great entertainment, but you also validate these beliefs

572

00:29:52,560 --> 00:29:53,460

that we have.

573

00:29:55,560 --> 00:29:59,460

And the first big-budget science fiction movie in 1953 is an

574

00:29:59,560 --> 00:30:04,460

adaptation of The War of the Worlds.

575

00:30:04,560 --> 00:30:07,460

This could be the beginning of the end for the human race.

576

00:30:07,560 --> 00:30:10,460

For what men first thought were meteors or the often ridiculed

577

00:30:10,560 --> 00:30:15,460

flying saucers are in reality the flaming vanguard of the invasion

578

00:30:15,560 --> 00:30:16,460

from Mars.

579

00:30:16,560 --> 00:30:19,460

It was the first time they'd taken a really good science fiction

580

00:30:19,560 --> 00:30:23,460

story and coupled it with really good special effects.

581

00:30:26,560 --> 00:30:30,460

The film is a blockbuster the world over for its Oscar-winning

582

00:30:30,560 --> 00:30:34,460

visual effects and groundbreaking spaceship design.

583

00:30:34,560 --> 00:30:37,460

Well, those war machines in the world certainly were unique

584

00:30:37,560 --> 00:30:39,460

for their time.

585

00:30:39,560 --> 00:30:43,460

They took this idea of a craft from another world and

586

00:30:43,560 --> 00:30:48,460

surprised everybody with this sort of organic notion.

587

00:30:48,560 --> 00:30:50,460

Move it, you're dead!

588

00:30:55,560 --> 00:30:59,460

The very first movie I ever saw was The War of the Worlds.

589

00:30:59,560 --> 00:31:03,460

And I stayed up late to watch it and it scared the crap out of

590

00:31:03,560 --> 00:31:04,460

me.

591

00:31:04,560 --> 00:31:09,460

And I was obsessed with these Martians and their death rays.

592

00:31:09,560 --> 00:31:21,460

For the next decade, pop culture keeps the dream of life on

593

00:31:21,560 --> 00:31:25,460

Mars alive at the same time that scientists are learning more

594

00:31:25,560 --> 00:31:36,460

and more about the inhospitable forces at work in the universe.

595

00:31:36,560 --> 00:31:40,460

On November 28, 1964, the six-year-old National Aeronautics

596

00:31:40,560 --> 00:31:45,460

and Space Administration, NASA, launches Mariner 4 on a fly-by

597

00:31:45,560 --> 00:31:46,460

mission to Mars.

598

00:31:46,560 --> 00:31:48,460

I'm current in one panel.

599

00:31:48,560 --> 00:31:49,460

I'm behind you.

600

00:31:49,560 --> 00:31:50,460

We have a current on the panel.

601

00:31:50,560 --> 00:31:53,460

Eight months later, Mariner snaps 22 black and white images of

602

00:31:53,460 --> 00:31:57,360

the surface of the Red Planet and 5,000 years of speculation

603

00:31:57,460 --> 00:32:03,360

about Martian life, it's transformed overnight.

604

00:32:03,460 --> 00:32:06,360

You know, when Mariner 4 went by, it surprised us like, oh my

605

00:32:06,460 --> 00:32:08,360

gosh, it's just like the moon.

606

00:32:08,460 --> 00:32:11,360

It's completely lifeless, completely dead.

607

00:32:11,460 --> 00:32:14,360

Mariner 4 changed everything.

608

00:32:14,460 --> 00:32:19,360

There was enough there to see no canals, no civilizations, no

609

00:32:19,360 --> 00:32:26,260

little green men for the popular world to see that whole Martian

610

00:32:26,360 --> 00:32:31,260

empire smashed was a big moment.

611

00:32:31,360 --> 00:32:35,260

Despite this scientific evidence, the War of the Worlds still has

612

00:32:35,360 --> 00:32:37,260

the power to cause panning.

613

00:32:37,360 --> 00:32:41,260

Traffic coming off the young man's expressway is completely at a standstill.

614

00:32:41,360 --> 00:32:44,260

We've asked you to please stay away from the area.

615

00:32:44,360 --> 00:32:46,260

There have been fires and explosions.

616

00:32:46,260 --> 00:32:49,160

You're not exactly sure how many people have been killed or injured,

617

00:32:49,260 --> 00:32:51,160

but they're calling it all available.

618

00:32:51,260 --> 00:32:54,160

Ambulance is from the area.

619

00:32:54,260 --> 00:32:59,160

On Halloween night 1968, on the 30th anniversary of the original radio broadcast,

620

00:32:59,260 --> 00:33:04,160

WKBW Radio in Buffalo, New York presents a modernized version of the Mercury

621

00:33:04,260 --> 00:33:06,160

Theater program.

622

00:33:06,260 --> 00:33:11,160

This time, the Martian invasion hits the US-Canadian border.

623

00:33:11,260 --> 00:33:12,160

I'll be all right.

624

00:33:12,260 --> 00:33:13,160

I just want to see.

625

00:33:13,160 --> 00:33:16,060

Jeff, Jeff, it's turning my way.

626

00:33:16,160 --> 00:33:20,060

Irv, Irv, can you hear me?

627

00:33:20,160 --> 00:33:24,060

KAK393, KAK393 to KH2586, can you hear me?

628

00:33:24,160 --> 00:33:27,060

Irv, can you hear me?

629

00:33:27,160 --> 00:33:32,060

Despite the fact that the broadcast is heavily promoted as a dramatization,

630

00:33:32,160 --> 00:33:36,060

with disclaimers broadcast 21 days in advance, every hour on the hour,

631

00:33:36,160 --> 00:33:41,060

local police report more than 4,000 phone calls from panicked listeners.

632

00:33:43,160 --> 00:33:48,060

A year later, in 1969, NASA launches Mariner 6 and 7.

633

00:33:48,160 --> 00:33:53,060

200 more photographs of Mars confirm that the red planet is not a place

634

00:33:53,160 --> 00:33:57,060

where Martians might be planning our destruction after all.

635

00:33:57,160 --> 00:34:01,060

Hope for a Martian civilization fades until 1976,

636

00:34:01,160 --> 00:34:05,060

when one amazing image from NASA stuns the world.

637

00:34:05,960 --> 00:34:10,960

The 1970s see an explosion in unmanned exploration of the red planet.

638

00:34:11,060 --> 00:34:16,960

And the photos taken from orbit reveal more than just rocks and craters.

639

00:34:17,060 --> 00:34:19,960

It is now known simply as the Face on Mars,

640

00:34:20,060 --> 00:34:23,960

a feature in the Sedonia region of the planet that looks like the result

641

00:34:24,060 --> 00:34:25,960

of intentional engineering.

642

00:34:26,060 --> 00:34:29,960

And this rekindles the passions of thousands of wishful thinkers.

643

00:34:30,960 --> 00:34:36,860

I can understand their passion about this, because were this to be genuine,

644

00:34:36,960 --> 00:34:39,860

it would be one of the most fantastic discoveries of all time in science

645

00:34:39,960 --> 00:34:43,860

to find some monolith, some ancient structure on Mars.

646

00:34:43,960 --> 00:34:47,860

NASA insists the face is a natural geologic formation,

647

00:34:47,960 --> 00:34:49,860

a trick of light and shadow.

648

00:34:49,960 --> 00:34:52,860

But many people, eager to believe in Martians,

649

00:34:52,960 --> 00:34:54,860

think NASA's involved in a cover-up.

650

00:34:54,860 --> 00:35:01,760

Scientists would be the first people to be fascinated if that face on Mars was genuine.

651

00:35:01,860 --> 00:35:03,760

The evidence is simply not there.

652

00:35:04,860 --> 00:35:09,760

Much later, the Mars global surveyor spacecraft flew over this same landscape

653

00:35:09,860 --> 00:35:12,760

with cameras that can see at much higher resolution,

654

00:35:12,860 --> 00:35:16,760

looked at many different times of day, and it's just a hill.

655

00:35:16,860 --> 00:35:21,760

The fact that the face idea of the face is a natural geologic formation

656

00:35:21,760 --> 00:35:23,660

and it's just a hill.

657

00:35:23,760 --> 00:35:26,660

The fact that the face idea can continue to survive

658

00:35:26,760 --> 00:35:31,660

is another piece of evidence about this weird hold that Mars has on our imagination.

659

00:35:33,760 --> 00:35:40,660

Two Viking spacecraft launched in 1975 send back thousands of pictures from Martian orbit.

660

00:35:40,760 --> 00:35:43,660

And the results are the same as before.

661

00:35:43,760 --> 00:35:46,660

Mars is a dry, weather-beaten desert.

662

00:35:46,760 --> 00:35:50,660

But there is one more amazing find still to come.

663

00:35:50,660 --> 00:35:57,560

Later images reveal deep channels that appear to have been carved by water in the distant past.

664

00:35:57,660 --> 00:36:01,560

What we've observed on Earth is wherever we find liquid water on Earth

665

00:36:01,660 --> 00:36:04,560

and some sort of energy source we find life.

666

00:36:04,660 --> 00:36:10,560

Then therefore what we want to look for on Mars is where a long time ago there was also liquid water.

667

00:36:11,660 --> 00:36:16,560

In the quest for water, the Viking lander does something remarkable.

668

00:36:16,560 --> 00:36:23,460

It detaches from the orbiter and without the aid of any modern computer guidance system, Viking lands on Mars.

669

00:36:28,560 --> 00:36:34,460

I am truly amazed when I look back at Viking as to how they were able to do what they did

670

00:36:34,560 --> 00:36:37,460

and with the technology they had at the time.

671

00:36:37,560 --> 00:36:39,460

I figured those guys must have been a lot smarter than we were

672

00:36:39,560 --> 00:36:42,460

to be able to get those things down successfully and they did

673

00:36:42,560 --> 00:36:45,460

and it was a fantastic success to be able to do that.

674

00:36:47,560 --> 00:36:52,460

The Viking landers perform three life-seeking remote-controlled experiments.

675

00:36:52,560 --> 00:36:58,460

The first mixes Martian soil with water and other Earth elements to see if anything will grow.

676

00:36:58,560 --> 00:37:03,460

The second searches for organic compounds in the Martian atmosphere.

677

00:37:03,560 --> 00:37:08,460

The third burns a patch of the Martian surface and analyzes the ashes.

678

00:37:08,560 --> 00:37:13,460

Viking was the first attempt to do biology on another planet

679

00:37:13,460 --> 00:37:18,360

and it was actually very impressive because we had never even been to Mars before.

680

00:37:18,460 --> 00:37:23,360

We were going to do some of the most ambitious biology experiments ever attempted.

681

00:37:24,460 --> 00:37:30,360

At first they think they found life but the results are a false positive.

682

00:37:31,460 --> 00:37:38,360

The overwhelming scientific consensus is definitely that Viking rather than finding life on Mars

683

00:37:38,360 --> 00:37:44,260

was only able to sort of discover an interesting aspect of Martian surface chemistry.

684

00:37:44,360 --> 00:37:49,260

This tantalizing result would inspire another Mars landing mission.

685

00:37:49,360 --> 00:37:57,260

It would take 22 years but in 1998 the tiny Mars pathfinder roams the surface of the red planet.

686

00:37:59,360 --> 00:38:02,260

CLCBR had the dex flesh on.

687

00:38:02,360 --> 00:38:07,260

With this success behind them, NASA sends the first of two new Mars exploration rovers aloft

688

00:38:07,260 --> 00:38:10,160

on June 10th, 2003.

689

00:38:10,260 --> 00:38:15,160

And liftoff of the Delta II rocket with the Mars exploration rover.

690

00:38:15,260 --> 00:38:25,160

Its twin launches just weeks later and both undertake the lonely voyage to Mars.

691

00:38:30,260 --> 00:38:35,160

Seven months later, on January 3rd, 2004, the first rover lands on Mars,

692

00:38:35,160 --> 00:38:45,060

armed with a new close-up camera and rock grinder, which search for evidence of microscopic life inside the frozen rocks.

693

00:38:47,160 --> 00:38:53,060

It is followed just weeks later by the second rover with similar stunning results.

694

00:38:57,160 --> 00:39:03,060

These NASA missions continue the quest for water and ultimately life itself.

695

00:39:04,060 --> 00:39:08,960

Upcoming missions may eventually lead to the manned exploration of Mars,

696

00:39:09,060 --> 00:39:14,960

but it seems highly unlikely that any of these expeditions will discover the creatures of science fiction.

697

00:39:17,060 --> 00:39:23,960

It's funny that Mars, after all the exploration we've done, is still kind of a fantasy planet to a lot of people.

698

00:39:24,060 --> 00:39:29,960

We still somehow hope there's Martians there or we think,

699

00:39:29,960 --> 00:39:34,860

gee, maybe they're underground or maybe their cities are covered in sand or something.

700

00:39:35,960 --> 00:39:41,860

We had a culture for so long of thinking about that planet as being a place that had life.

701

00:39:41,960 --> 00:39:43,860

We want neighbors in space.

702

00:39:43,960 --> 00:39:51,860

Mars is so darn close and if only there was life there, it would make our solar system so much more fun, if nothing else.

703

00:39:52,860 --> 00:39:59,760

Despite the scientific evidence, this great tale of interplanetary invasion lives on.

704

00:39:59,860 --> 00:40:05,760

In 2005, Steven Spielberg's sci-fi blockbuster rekindles the terror of invasion.

705

00:40:08,860 --> 00:40:13,760

Now in Britain, major computer animated motion pictures are developed.

706

00:40:14,760 --> 00:40:18,660

The movie is the brainchild of musician and filmmaker Jeff Wayne,

707

00:40:18,760 --> 00:40:23,660

whose creative energies have been driven by this story for almost 30 years.

708

00:40:23,760 --> 00:40:32,660

In 1978, he and his father buy the rights to the H.G. Wells story and create, of all things, a musical interpretation of the classic novel.

709

00:40:32,760 --> 00:40:38,660

The work is set in Wells' time, but the music is inspired by 1970s rock.

710

00:40:39,660 --> 00:40:44,560

Famed British actor Richard Burton reads dramatic passages from the book.

711

00:40:45,660 --> 00:40:51,560

The Martians release their black smoke, but the ship's sped on, cutting down one of the tripod figures.

712

00:40:51,660 --> 00:40:58,560

Instantly, the others raise their heat rays and melt it the Thunder Child's valiant heart.

713

00:40:59,660 --> 00:41:06,560

When the smoke cleared, the Thunder Child vanished forever, taking with a man's last hope of victory.

714

00:41:06,560 --> 00:41:14,460

The lead in the sky was lit by green fashions, cylinder following cylinder, and no one and nothing was left now to fight them.

715

00:41:14,560 --> 00:41:17,460

The Earth belonged to the Martians.

716

00:41:19,560 --> 00:41:26,460

The original album is a hit in the UK and sells over 13 million copies worldwide over the next 27 years.

717

00:41:28,560 --> 00:41:35,460

H.G. Wells is an author of The Great Vision and The War of the Worlds just got my nod.

718

00:41:35,460 --> 00:41:45,360

And I think probably because H.G. did write it as this episodic adventure, it was easy to cut off moments within a block of the story and compose a sequence.

719

00:41:45,460 --> 00:41:49,360

And I followed the chapters exactly as H.G. did.

720

00:41:54,460 --> 00:42:02,360

I think the appearance of a musical version of War of the Worlds really says a lot about the sort of the viability and the flexibility of this basic story.

721

00:42:03,360 --> 00:42:10,260

Jeff Wayne orders paintings for the album, which offer a striking new interpretation of the Martian fighting machines.

722

00:42:10,360 --> 00:42:18,260

The paintings were quite extraordinary at that time, and they were really kind of a definitive version of the walking tripods.

723

00:42:18,360 --> 00:42:25,260

When Jeff Wayne commissioned these paintings, that was really reminded us about striking the H.G. Wells concept.

724

00:42:26,260 --> 00:42:37,160

Over the next two decades, Wayne's passion for the story inspires video games and an ever-expanding range of merchandise, and now a major animated feature film.

725

00:42:37,260 --> 00:42:45,160

Why does the idea of something horrible from Mars continue to strike a chord?

726

00:42:45,260 --> 00:42:50,160

Why is it something that you can still make into a popular sensation?

727

00:42:51,160 --> 00:42:57,060

Maybe you just put it all together and you've got something that's got a hook into people's minds that just won't let go.

728

00:42:58,160 --> 00:43:07,060

For more than a century, H.G. Wells' book has never been out of print, and Mars remains a pivotal character in our thoughts about life from beyond.

729

00:43:08,060 --> 00:43:23,960

Maybe we see Mars as our evil twin, that we look at it and see a planet that is in some ways like Earth, but it has never been associated with good things from Earth.

730

00:43:24,060 --> 00:43:31,960

The popular imagination about Mars has so often had to do with threat and terror and evil.

731

00:43:31,960 --> 00:43:36,860

The power of Mars over our imagination is still there.

732

00:43:36,960 --> 00:43:43,860

And as for H.G. Wells' Martians, for all their power, how did man survive?

733

00:43:45,960 --> 00:43:52,860

As I emerged from Baker Street, I saw far away and over the trees the hood of a Martian giant.

734

00:43:52,860 --> 00:44:08,760

He appeared to be standing still and scattered about it in a dozen of their machines, stark and silent, with a Martians, dead, slain by the disease bacteria against which their systems were unprepared.

735

00:44:09,860 --> 00:44:12,760

The War of the Worlds is over for now.