

1

00:00:00,000 --> 00:00:05,000

An architectural auditing on the brink of collapse.

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

The fate of Italy's national treasure depended on one man.

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00:00:10,000 --> 00:00:13,000

A master thief who robbed the rich and famous.

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00:00:13,000 --> 00:00:19,000

He robbed Bob Hope, Phyllis Diller, even Tarzan himself.

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00:00:19,000 --> 00:00:23,000

And a literary giant tied to a baffling scourge.

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00:00:23,000 --> 00:00:28,000

Shakespeare inspired an environmental catastrophe in this country.

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00:00:28,000 --> 00:00:32,000

Sometimes the greatest secrets lie in plain sight.

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00:00:34,000 --> 00:00:36,000

These are the mysteries of the monument.

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00:00:44,000 --> 00:00:49,000

Central Park has over 840 acres of meadows and ponds,

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00:00:49,000 --> 00:00:53,000

making it one of the most popular destinations in New York City.

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00:00:53,000 --> 00:00:58,000

Completed in 1863 as America's first landscaped public space,

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00:00:58,000 --> 00:01:03,000

this urban oasis is a breathtaking blend of nature and design.

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00:01:05,000 --> 00:01:11,000

But among its man-made treasures, one imposing bronze sculpture stands apart.

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00:01:11,000 --> 00:01:14,000

This statue is about 17 feet tall.

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00:01:14,000 --> 00:01:18,000

He's holding a book and he's deep in thought.

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00:01:18,000 --> 00:01:23,000

And it depicts a rather dignified Elizabethan figure.

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00:01:23,000 --> 00:01:26,000

This is a statue of William Shakespeare.

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00:01:26,000 --> 00:01:31,000

It was donated in 1872 by the Shakespeare Tri-Sentennial Committee

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00:01:31,000 --> 00:01:34,000

to honor the legendary playwright.

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00:01:35,000 --> 00:01:38,000

But according to writer Steve Mersky,

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00:01:38,000 --> 00:01:41,000

Shakespeare left an unexpected legacy of his own

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00:01:41,000 --> 00:01:44,000

that reaches far beyond his body of work.

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00:01:44,000 --> 00:01:50,000

Shakespeare has inspired what some people consider to be an environmental catastrophe in this country.

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00:01:52,000 --> 00:01:56,000

October 4th, 1960, Boston, Massachusetts.

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00:01:56,000 --> 00:02:02,000

On this clear fall evening, emergency crews respond to a devastating scene north of Logan Airport.

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00:02:03,000 --> 00:02:08,000

Eastern Airlines Flight 375 has just plunged into Boston Harbor.

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00:02:09,000 --> 00:02:14,000

Tragically, of the 72 people on board, only 10 survive.

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00:02:16,000 --> 00:02:20,000

In the aftermath, investigators try to uncover the cause of the disaster.

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00:02:20,000 --> 00:02:25,000

Little do they know that it has its roots in the previous century.

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00:02:26,000 --> 00:02:30,000

The tale begins in 1890, New York.

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00:02:30,000 --> 00:02:35,000

An eccentric man named Eugene Sheffelin belongs to a group of amateur naturalists

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00:02:35,000 --> 00:02:39,000

called the American Acclimatization Society.

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00:02:39,000 --> 00:02:42,000

But that's not Sheffelin's only passion.

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00:02:42,000 --> 00:02:48,000

He was a big fan of theater and of a particular writer

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00:02:48,000 --> 00:02:53,000

who mentioned birds a lot in his writings, Shakespeare.

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00:02:55,000 --> 00:03:02,000

So to honor his literary hero, Sheffelin proposes an ambitious scheme to his fellow naturalists.

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00:03:02,000 --> 00:03:06,000

He thought it would be nifty if we could bring over to this country

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00:03:06,000 --> 00:03:10,000

every bird mentioned in all the writings of Shakespeare.

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00:03:13,000 --> 00:03:18,000

Thrilled by the novel plan, the group begins to import birds from Europe.

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00:03:21,000 --> 00:03:26,000

Most of the feathered newcomers fail to thrive when released into the alien city.

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00:03:26,000 --> 00:03:32,000

But there's one species whose arrival will have ramifications that nobody could predict.

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00:03:33,000 --> 00:03:36,000

As Sheffelin works his way through Shakespeare's plays,

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00:03:36,000 --> 00:03:43,000

he arrives at one of the playwright's most celebrated dramas, Henry IV, Part 1.

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00:03:43,000 --> 00:03:49,000

There's one line in which a character cites starlings, and that was enough for Sheffelin.

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00:03:49,000 --> 00:03:52,000

We gotta get us some starlings here, too.

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00:03:52,000 --> 00:03:56,000

The hopeful members release 60 starlings in Central Park,

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00:03:56,000 --> 00:03:59,000

and the birds thrive in their adoptive home.

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00:03:59,000 --> 00:04:02,000

These birds loved New York.

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00:04:02,000 --> 00:04:06,000

They started to reproduce and expand their territory.

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00:04:07,000 --> 00:04:11,000

Over time, starlings spread beyond the borders of New York

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00:04:11,000 --> 00:04:15,000

and soon come to blanket the continent, from the East Coast to the West,

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00:04:15,000 --> 00:04:17,000

and from Canada to Mexico.

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00:04:18,000 --> 00:04:24,000

But as their population increases, many begin to regard the creatures as tremendous pests.

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00:04:25,000 --> 00:04:29,000

Starlings are bossy little birds. They're pretty aggressive.

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00:04:29,000 --> 00:04:36,000

They will roost in the millions and even flock in a group of a million or a million and a half.

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00:04:36,000 --> 00:04:45,000

They were thought to be responsible for the demise of other species in the United States, like the Sapsucker.

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00:04:45,000 --> 00:04:48,000

But the damage doesn't end there.

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00:04:48,000 --> 00:04:54,000

With the rise of air travel, these winged pests begin interfering with airplanes.

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00:04:56,000 --> 00:05:02,000

After Eastern Airlines Flight 375 goes down in Boston Harbor in October 1960,

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00:05:02,000 --> 00:05:07,000

investigators trace the cause of the crash to a massive flock of starlings.

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00:05:08,000 --> 00:05:15,000

It seems that seconds after takeoff, the jet had collided with thousands of birds and sucked them into its engines.

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00:05:17,000 --> 00:05:23,000

The flock interfered with a turboprop causing the crash of the airplane.

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00:05:23,000 --> 00:05:27,000

It is the deadliest bird strike in aviation history.

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00:05:27,000 --> 00:05:33,000

I'm sure Sheffelin thought he was doing a lovely thing for the city by bringing these birds over.

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00:05:33,000 --> 00:05:37,000

But the Climateization Society and Sheffelin were not scientists.

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00:05:37,000 --> 00:05:41,000

They didn't know what they were doing from an environmental point of view.

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00:05:42,000 --> 00:05:50,000

Today, starlings still thrive in Central Park, where this statue of William Shakespeare endures

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00:05:50,000 --> 00:05:57,000

as a testament to the way in which the Bard has inspired lovers of the written word and admirers of the winged bird.

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00:06:03,000 --> 00:06:07,000

In the heart of Italy is the picturesque region of Tuscany.

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00:06:07,000 --> 00:06:12,000

With its lush vineyards and chatting piazzas and Romanesque gems,

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00:06:12,000 --> 00:06:17,000

the area brings in nearly 47 million visitors each year.

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00:06:19,000 --> 00:06:26,000

But perhaps the most popular attraction here is a stunning example of medieval engineering gone wrong.

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00:06:27,000 --> 00:06:32,000

It's 180 feet tall. It tilts almost 15 feet toward the south.

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00:06:32,000 --> 00:06:36,000

And it has six levels of colonnades that have small arched openings.

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00:06:36,000 --> 00:06:39,000

It's almost wedding cake-like in its quality.

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00:06:40,000 --> 00:06:47,000

This is the Leaning Tower of Pisa, an ancient bell tower that has stood for eight centuries.

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00:06:48,000 --> 00:06:55,000

But according to engineer Kathleen Dunn, this architectural oddity was once on the brink of total collapse.

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00:06:57,000 --> 00:07:01,000

The fate of Italy's national treasure depended on one man.

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00:07:05,000 --> 00:07:08,000

1995, Tuscany, Italy.

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00:07:09,000 --> 00:07:14,000

For centuries, the Leaning Tower of Pisa has been drawing in crowds with its unique slant.

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00:07:15,000 --> 00:07:18,000

The crooked structure was built on unstable ground.

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00:07:20,000 --> 00:07:25,000

And since its creation, the incline has been increasing each year.

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00:07:26,000 --> 00:07:29,000

But now the situation has reached a tipping point.

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00:07:31,000 --> 00:07:35,000

Engineers fear the Leaning Tower of Pisa might fall down.

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

The problem was accelerating.

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00:07:39,000 --> 00:07:43,000

The prime minister was very worried and had to close the tower to tourists.

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00:07:44,000 --> 00:07:48,000

The task of preventing this disaster falls to a special 14-member committee

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

led by a prominent British professor named John Burland.

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00:07:53,000 --> 00:07:56,000

John Burland is the quintessential engineer.

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00:07:56,000 --> 00:07:59,000

He's not afraid to take on any problem.

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00:07:59,000 --> 00:08:05,000

No matter what obstacles are put in place, he goes right to figuring out the solution.

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00:08:05,000 --> 00:08:09,000

The mission will put Burland's sterling reputation to the test.

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00:08:10,000 --> 00:08:14,000

If he succeeds, then he's known as the man who saves the Leaning Tower of Pisa.

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00:08:16,000 --> 00:08:20,000

His team consists of engineers, architects, and art historians.

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00:08:22,000 --> 00:08:26,000

With such a diverse group, tensions are high from the start.

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00:08:27,000 --> 00:08:31,000

There's an enormous debate about how to stabilize the tower.

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00:08:31,000 --> 00:08:36,000

Professor Burland finds that the other members of the committee have different backgrounds,

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00:08:38,000 --> 00:08:42,000

different interests, and different ideas of what it means to save the Leaning Tower of Pisa.

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00:08:45,000 --> 00:08:50,000

And the longer the tower remains closed, the more the community suffers.

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00:08:52,000 --> 00:08:58,000

With tourism already down by 45%, the pressure to solve the problem is huge.

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00:08:59,000 --> 00:09:05,000

The whole idea that the Leaning Tower is no longer this destination is just devastating.

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00:09:08,000 --> 00:09:13,000

Then, later that year, the team finally comes up with a plan to save the tower.

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00:09:14,000 --> 00:09:17,000

Attach 10 underground steel anchors to its base.

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00:09:18,000 --> 00:09:25,000

They install 10 drilled anchors on the north side of the tower to stop it from leaning further to the south.

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00:09:28,000 --> 00:09:33,000

But little do Burland and his colleagues know they are making a devastating mistake.

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00:09:34,000 --> 00:09:37,000

On September 7th, 1995, disaster strikes.

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00:09:39,000 --> 00:09:43,000

Overnight, the tower lurches southward by a sixteenth of an inch.

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00:09:44,000 --> 00:09:51,000

Sixteenth of an inch doesn't sound very dramatic, but it was more than it had moved in the entire year before.

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00:09:51,000 --> 00:09:53,000

It was very bad news indeed.

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00:09:54,000 --> 00:10:01,000

Burland realizes that by installing the anchors, they created a series of dangerous voids underground.

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00:10:01,000 --> 00:10:05,000

The tower settled into one of the voids and that's what created the lurch.

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00:10:06,000 --> 00:10:11,000

With the pride of Pisa at greater risk than ever before, the public is enraged.

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00:10:12,000 --> 00:10:19,000

When the team is driven into Pisa to look at the damage, the locals are so infuriated they pelt the cars with tomatoes.

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00:10:21,000 --> 00:10:26,000

Unless Burland comes up with another solution, the World Heritage Site will topple over.

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00:10:28,000 --> 00:10:32,000

This would be a devastating loss not just for the country, but for the entire world.

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00:10:33,000 --> 00:10:36,000

It's 1995 in Italy.

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00:10:37,000 --> 00:10:46,000

When the Leaning Tower of Pisa is reported to be near collapse, British engineer John Burland and a team of experts undertake the challenge to try and save it.

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00:10:47,000 --> 00:10:52,000

But their recent solution has just plunged the tower into more jeopardy than ever before.

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00:10:53,000 --> 00:10:58,000

So can Burland and his team save one of Italy's most cherished landmarks?

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00:11:03,000 --> 00:11:08,000

After weeks of agonizing, Burland proposes a radical solution.

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00:11:09,000 --> 00:11:12,000

Remove soil from under the tower.

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00:11:13,000 --> 00:11:15,000

The committee is stunned.

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00:11:16,000 --> 00:11:22,000

Some members argue that extracting so much earth will only increase the tower's tilt and cause it to tumble.

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00:11:23,000 --> 00:11:25,000

This solution was counter-intuitive.

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

All the previous solutions pretty much were based on the idea of bringing the south side up.

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00:11:30,000 --> 00:11:36,000

But Burland predicts that lowering the north side will cause the tower to level off at the base.

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00:11:37,000 --> 00:11:39,000

This was a revolutionary idea.

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00:11:39,000 --> 00:11:45,000

Yet with no other option, the team agrees to give Burland's audacious plan a try.

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00:11:46,000 --> 00:11:50,000

And in 1999, they put his idea to the test.

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00:11:51,000 --> 00:11:54,000

It took two years of extractions.

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00:11:54,000 --> 00:11:56,000

It took 70 tons of soil.

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00:11:57,000 --> 00:11:59,000

This was a monumental task.

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00:12:01,000 --> 00:12:04,000

But in the end, it was a resounding success.

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00:12:05,000 --> 00:12:11,000

The tower is returned to a stable position, but one that still preserves its signature lean.

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00:12:12,000 --> 00:12:19,000

And in June of 2001, the committee proclaims the beloved monument is safe for at least another 200 years.

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00:12:21,000 --> 00:12:24,000

I think Professor Burland was delighted with the whole operation.

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00:12:25,000 --> 00:12:28,000

He was the man who managed to save the Leaning Tower of Pisa.

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00:12:28,000 --> 00:12:36,000

And today, this miraculous structure still stands askew as a testament to one man's ingenuity and dedication.

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00:12:36,000 --> 00:12:40,000

And to the lengths people will go to save a national treasure.

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00:12:44,000 --> 00:12:46,000

Portsmouth, New Hampshire.

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00:12:46,000 --> 00:12:51,000

The proud tradition of shipbuilding in this coastal city dates back to colonial days.

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00:12:51,000 --> 00:12:57,000

Today, the town is still home to one of just four military shipyards in the nation.

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00:12:59,000 --> 00:13:05,000

And here at the Portsmouth Navy Yard stands an example of the area's finest work.

144

00:13:06,000 --> 00:13:11,000

It is gray. It is about 15 feet tall, 45 feet long.

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00:13:11,000 --> 00:13:16,000

Made of steel and there are little tiny paintings along the side.

146

00:13:17,000 --> 00:13:19,000

This is the USS Squaless Memorial.

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00:13:20,000 --> 00:13:25,000

It was constructed from the tower of a World War II submarine that patrolled the Pacific.

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00:13:26,000 --> 00:13:33,000

But as historian J. Dennis Robinson can attest, the vessel's most perilous voyage occurred much closer to home.

149

00:13:34,000 --> 00:13:38,000

Because of this event, suddenly 59 lives were hanging in the balance.

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00:13:39,000 --> 00:13:41,000

What happened was the Navy's worst nightmare.

151

00:13:47,000 --> 00:13:48,000

May 1939.

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00:13:49,000 --> 00:13:55,000

With World War II looming, President Franklin Roosevelt is building up America's arsenal.

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00:13:56,000 --> 00:14:06,000

Among the country's most potent weapons are a new line of state-of-the-art submarines housed at the Portsmouth Navy Yard, including the just completed USS Squalus.

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00:14:09,000 --> 00:14:12,000

So these new submarines, they were bigger, they were faster.

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00:14:12,000 --> 00:14:14,000

They could dive deeper, they could stay under longer.

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00:14:15,000 --> 00:14:22,000

Before the Squales can be deployed, it must undergo a series of trial dives that simulate actual combat scenarios.

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00:14:23,000 --> 00:14:30,000

And on May 23rd, the 59-man crew is preparing for the vessel's final and most dangerous test.

158

00:14:31,000 --> 00:14:34,000

An emergency battle descent known as the Crash Dive.

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00:14:35,000 --> 00:14:38,000

So the critical test simulates an enemy attack.

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00:14:39,000 --> 00:14:44,000

The Squaless has to hit its top speed and dive to about 50 feet.

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00:14:45,000 --> 00:14:47,000

And it has to do this in 60 seconds.

162

00:14:48,000 --> 00:14:52,000

The steep dive will place a massive strain on the vessel's mechanics.

163

00:14:53,000 --> 00:14:58,000

As the sub begins its plunge, everything seems to go according to plan.

164

00:15:01,000 --> 00:15:05,000

They go under and everything is perfect.

165

00:15:05,000 --> 00:15:08,000

The Squaless quickly descends to 50 feet.

166

00:15:09,000 --> 00:15:16,000

But as the craft starts to level off, the sailors in the control room receive alarming news from the stern.

167

00:15:17,000 --> 00:15:19,000

Call comes in from the engine room.

168

00:15:20,000 --> 00:15:21,000

It is flooding.

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00:15:22,000 --> 00:15:26,000

The crew rushes to seal off the flooded stern from the rest of the vessel.

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00:15:27,000 --> 00:15:28,000

But it's no use.

171

00:15:29,000 --> 00:15:33,000

As the back half of the sub fills with water, the power cuts out.

172

00:15:36,000 --> 00:15:38,000

The Squaless sinks to the ocean floor.

173

00:15:40,000 --> 00:15:42,000

They're resting on the bottom of the ocean.

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00:15:43,000 --> 00:15:46,000

They're trapped 240 feet below the surface.

175

00:15:47,000 --> 00:15:51,000

In the vessel's front compartments are 33 men who are still alive.

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00:15:52,000 --> 00:15:55,000

The other 26 in the back are presumed dead.

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00:16:00,000 --> 00:16:04,000

The stranded survivors release a three-foot-tall distress buoy.

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00:16:04,000 --> 00:16:06,000

There's sole hope for a rescue.

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00:16:07,000 --> 00:16:11,000

Tethered to the sub by a cable, the beacon floats to the surface.

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00:16:12,000 --> 00:16:16,000

On it is a sign saying, Submarine sunk here.

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00:16:17,000 --> 00:16:22,000

But until a passing ship spots the buoy, the crew will literally be holding their breath.

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00:16:23,000 --> 00:16:28,000

With each exhalation, the men are adding toxic carbon dioxide to their limited air supply.

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00:16:29,000 --> 00:16:33,000

They have maybe two days of oxygen and the clock was ticking.

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00:16:35,000 --> 00:16:41,000

May 23, 1939, 10 miles off the coast of New Hampshire,

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00:16:42,000 --> 00:16:46,000

a disaster aboard the submarine has left 26 men presumed dead

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00:16:47,000 --> 00:16:51,000

and 33 more stranded in the depths of the Atlantic Ocean.

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00:16:52,000 --> 00:16:55,000

With oxygen running low, the crew is growing desperate.

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00:16:56,000 --> 00:16:59,000

So will they somehow survive this underwater nightmare?

189

00:16:59,000 --> 00:17:04,000

When the squalus fails to report back to base,

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00:17:05,000 --> 00:17:08,000

the Navy dispatches a search party to find the missing sub.

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00:17:09,000 --> 00:17:13,000

Just before 1 p.m., five hours after the vessel disappeared,

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00:17:14,000 --> 00:17:16,000

the group spots the distress buoy.

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00:17:17,000 --> 00:17:19,000

But the rescue team now faces a bigger problem.

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00:17:20,000 --> 00:17:26,000

No Submariner has ever been saved from a sunken submarine below 20 feet.

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00:17:30,000 --> 00:17:34,000

To lead the rescue, the Navy calls in Lieutenant Commander Charles Momsen,

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00:17:35,000 --> 00:17:38,000

the head of its experimental deep-sea diving program.

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00:17:39,000 --> 00:17:45,000

Charles Momsen had been for years developing ways to escape from submerged submarines.

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00:17:48,000 --> 00:17:54,000

Momsen presents a bold plan centered around a large steel diving bell of his own design.

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00:17:55,000 --> 00:17:59,000

The diving bell is a hollowed-out tank that could be lowered down theoretically,

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00:18:00,000 --> 00:18:06,000

attached to the squalus, and the men could escape through a hatch into the bell and up to the surface.

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00:18:07,000 --> 00:18:08,000

But it's never been done.

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00:18:09,000 --> 00:18:11,000

The untested procedure is extremely risky.

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00:18:12,000 --> 00:18:16,000

If the seal between the submarine and the chamber isn't airtight,

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00:18:17,000 --> 00:18:19,000

both vessels could instantly flood.

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00:18:20,000 --> 00:18:23,000

Yet with few options, the Navy is ready to give it a try.

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00:18:25,000 --> 00:18:27,000

Just before noon, Momsen watches as the chamber,

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00:18:28,000 --> 00:18:32,000

manned by two of his best divers, disappears under the water.

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00:18:34,000 --> 00:18:37,000

No one knows what's going to happen when they reach the squalus.

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00:18:38,000 --> 00:18:40,000

It has been underwater for a day.

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00:18:44,000 --> 00:18:47,000

But then, an hour later, the diving bell emerges.

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00:18:48,000 --> 00:18:51,000

Suddenly, the diving bell breaks the surface,

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00:18:52,000 --> 00:18:55,000

out comes the first survivors of the squalus.

213

00:18:57,000 --> 00:18:59,000

A huge tear arose.

214

00:19:00,000 --> 00:19:06,000

Over the next several hours, the bell makes three more trips to retrieve the other sailors.

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00:19:07,000 --> 00:19:10,000

All 33 survivors are brought back from the brink of death.

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00:19:11,000 --> 00:19:15,000

The moment marks the first rescue of a submerged submarine in history.

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00:19:18,000 --> 00:19:20,000

Momsen, of course, is over the moon.

218

00:19:21,000 --> 00:19:22,000

This is unprecedented.

219

00:19:23,000 --> 00:19:27,000

The American public who had been following this hailed this as one of the greatest events in the 20th century.

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00:19:30,000 --> 00:19:37,000

In the months following the disaster, the squalus is salvaged, repaired, and renamed the USS Sailfish.

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00:19:38,000 --> 00:19:41,000

The refurbished vessel returns to sea during World War II.

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00:19:42,000 --> 00:19:49,000

After the submarine is decommissioned in 1946, its conning tower is brought back to the Portsmouth Navy Yard,

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00:19:50,000 --> 00:19:54,000

an apt memorial for this tale of tragedy and triumph at sea.

224

00:19:59,000 --> 00:20:01,000

Las Vegas, Nevada.

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00:20:02,000 --> 00:20:09,000

With over 75 casinos, it's no wonder that the city's gaming industry generates over \$6 billion a year.

226

00:20:12,000 --> 00:20:19,000

And on the southern tip of the famed Vegas Strip stands a monument that embodies the town's allure.

227

00:20:20,000 --> 00:20:25,000

It's about 25 feet tall, about 20 feet wide, made out of metal and plastic.

228

00:20:26,000 --> 00:20:28,000

It has lights around the edges that are solar powered.

229

00:20:29,000 --> 00:20:32,000

On the front it reads, welcome to fabulous Las Vegas.

230

00:20:33,000 --> 00:20:39,000

This iconic sign greets thousands of hopeful guests to the gambling capital of the world every day.

231

00:20:41,000 --> 00:20:50,000

But according to retired gaming agent James Floyd Edwards, there's one visitor who, in his quest for fortune, cheated his way to riches.

232

00:20:52,000 --> 00:20:57,000

This man was behind one of the longest running scams and schemes in the history of Las Vegas.

233

00:21:02,000 --> 00:21:04,000

1990, Las Vegas.

234

00:21:05,000 --> 00:21:12,000

40-year-old Oklahoma native Tommy Carmichael has moved to Sin City to chase a lucrative new profession.

235

00:21:13,000 --> 00:21:22,000

Tommy Carmichael was the television repair man. His business was struggling, so he decided to take up a career in slot machine cheating.

236

00:21:23,000 --> 00:21:28,000

The one-time TV shop owner knows that gaming the system won't be easy.

237

00:21:29,000 --> 00:21:34,000

The newest slot machines are designed to thwart fake coins and other known cheating devices.

238

00:21:35,000 --> 00:21:37,000

But Carmichael has a unique talent.

239

00:21:38,000 --> 00:21:43,000

Because of his background as a television repair man, Tommy was a good tinkerer.

240

00:21:44,000 --> 00:21:50,000

He understood mechanics, so he decided to create a device that would cheat the new version of a slot machine.

241

00:21:53,000 --> 00:21:58,000

He begins by purchasing one of the latest slot machines and carefully taking it apart.

242

00:21:59,000 --> 00:22:05,000

Only by understanding its complex inner workings can he develop a tool sophisticated enough to dupe the machine.

243

00:22:06,000 --> 00:22:14,000

It's a difficult task, but I don't think Tommy Carmichael is the kind of guy that would just give up. He wanted to beat the house.

244

00:22:15,000 --> 00:22:22,000

The cunning technician finally identifies a weak spot, the counter that tracks the number of coins being paid out.

245

00:22:23,000 --> 00:22:29,000

He realizes that by triggering a switch, he can trick the counter into spewing out a mountain of money.

246

00:22:33,000 --> 00:22:43,000

Day after day Carmichael perfects the gadget he dubs, the monkey paw, the small tool capable of snaking through the machine to hoodwink the payout switch.

247

00:22:44,000 --> 00:22:51,000

The monkey paw is fabricated out of ring steel. At one end it has a V-shaped notch along the edge.

248

00:22:52,000 --> 00:22:56,000

There's some piano wire that allows for the bending of the tip as it's inserted into the machine.

249

00:22:57,000 --> 00:23:04,000

It's that type of attention to work in detail. The device that Tommy created, so remarkable.

250

00:23:04,000 --> 00:23:14,000

Finally, after months of practice Carmichael is ready to put his gadget to the test in a casino.

251

00:23:16,000 --> 00:23:24,000

It was very important that Tommy avoided detection. When he visited the casino, he looked for where the cameras were located and where the exits were.

252

00:23:25,000 --> 00:23:32,000

Trying to be inconspicuous, he takes a seat at a slot machine and inserts the monkey paw into the coin chute.

253

00:23:34,000 --> 00:23:40,000

In order for Tommy to use this device, he would have had to be subtle, quick and proficient.

254

00:23:41,000 --> 00:23:45,000

Maneuvering the wire, he finally locates the switch that disables the counter.

255

00:23:46,000 --> 00:23:52,000

He then trips the toggle and hits the jackpot.

256

00:23:53,000 --> 00:23:56,000

Tommy was elated and was quite the rush.

257

00:23:57,000 --> 00:24:05,000

Over the next few years Carmichael continues to beat the house, making up to \$1,000 an hour.

258

00:24:06,000 --> 00:24:10,000

He was making very good money, enough to support a fairly extravagant lifestyle.

259

00:24:11,000 --> 00:24:16,000

Fancy cars, eating well, drinking, just partying up nicely.

260

00:24:18,000 --> 00:24:24,000

Yet in spite of his lavish lifestyle, Carmichael isn't satisfied. He wants more.

261

00:24:26,000 --> 00:24:29,000

And he soon sees an opportunity to achieve his goal.

262

00:24:30,000 --> 00:24:35,000

By selling his invention to other slot machine cheats for up to \$10,000 a piece.

263

00:24:37,000 --> 00:24:43,000

By 1999, Carmichael's devices are rinsing casinos of millions of dollars a year.

264

00:24:44,000 --> 00:24:45,000

Everything was going his way.

265

00:24:46,000 --> 00:24:50,000

But how long can this master cheater's lucky streak last?

266

00:24:51,000 --> 00:25:03,000

It's 1999, Las Vegas. TV repairman Tommy Carmichael has invented a device to scan casino slot machines.

267

00:25:04,000 --> 00:25:07,000

And now he's struck it rich, selling the device to others.

268

00:25:08,000 --> 00:25:13,000

But in a game of high stakes, how long can Carmichael stay on top?

269

00:25:14,000 --> 00:25:20,000

Authorities suspect the city's casinos are being built out of millions of dollars in cash.

270

00:25:21,000 --> 00:25:25,000

But who is stealing the money and how they are doing it remains a mystery.

271

00:25:26,000 --> 00:25:29,000

Then one day police get their break.

272

00:25:31,000 --> 00:25:36,000

A gambler is caught using a strange device to trip slot machines and is promptly arrested.

273

00:25:37,000 --> 00:25:43,000

After interrogating the suspect, investigators believe that Tommy Carmichael supplied him with a gadget.

274

00:25:44,000 --> 00:25:49,000

Carmichael's phones are tapped and it's not long before they reveal something incriminating.

275

00:25:50,000 --> 00:25:53,000

Tommy Carmichael was heard making deals with other slot sheets.

276

00:25:56,000 --> 00:26:00,000

On April 19, 1999, police arrest Carmichael en route to Atlantic City.

277

00:26:01,000 --> 00:26:07,000

He pleads guilty to running an illegal gambling enterprise and spends almost a year behind bars.

278

00:26:08,000 --> 00:26:11,000

He had taken a greater risk by selling these devices.

279

00:26:12,000 --> 00:26:15,000

I think what led to his downfall was greed.

280

00:26:16,000 --> 00:26:20,000

But it seems even the greediest of crooks can be redeemed.

281

00:26:21,000 --> 00:26:24,000

After serving his sentence, Carmichael goes straight.

282

00:26:24,000 --> 00:26:31,000

Teaming up with slot machine manufacturers, he uses his talents to invent an anti-cheating device he names the Protector.

283

00:26:35,000 --> 00:26:45,000

And this iconic sign in Las Vegas, now listed on the National Register of Historic Places, continues to attract those who go to cunning lengths to have it all.

284

00:26:55,000 --> 00:26:59,000

Straddling Germany's Spray River is the nation's capital, Berlin.

285

00:27:00,000 --> 00:27:11,000

Founded in the 13th century, this cosmopolitan city is home to architectural gems, like the Berlin Cathedral, the Bellevue Palace and Brandenburg Gate.

286

00:27:14,000 --> 00:27:18,000

But on the southern side of town is a landmark that is often overlooked.

287

00:27:19,000 --> 00:27:22,000

You can see children playing green grass, trees.

288

00:27:23,000 --> 00:27:29,000

But if you're standing in the middle of it, there's concrete and all across it you can see markings that showed its original purpose.

289

00:27:31,000 --> 00:27:35,000

Once an international airport, this is Tempelhofer Freyheidpark.

290

00:27:37,000 --> 00:27:46,000

And as author Andre Czerny explains, it was from this site that one pilot launched a mission that helped change the fate of Berlin.

291

00:27:47,000 --> 00:27:53,000

Because of one man's acts of kindness and ingenuity, he transformed the lives of millions of people.

292

00:27:57,000 --> 00:27:59,000

June 1948, Berlin.

293

00:28:01,000 --> 00:28:05,000

Since the end of the Second World War, this German city has been carved in two.

294

00:28:06,000 --> 00:28:15,000

In the West, the US and its allies are trying to establish a democratic state, while the East is controlled by the Soviet Communist regime.

295

00:28:17,000 --> 00:28:21,000

West Berlin was surrounded on all sides by Soviet territory.

296

00:28:22,000 --> 00:28:25,000

The people were really living on an island in Eastern Germany.

297

00:28:26,000 --> 00:28:36,000

Now, in a bid to force West Berliners into accepting his Communist creed, Stalin has blocked all roads leading into the city and cut off the flow of supplies by land.

298

00:28:37,000 --> 00:28:45,000

In response, the US has instituted an airlift called Operation Vittles, based out of Tempelhof Airport.

299

00:28:46,000 --> 00:28:56,000

Operation Vittles was a massive effort, planes landing and taking off every 90 seconds to bring the people of Western Berlin what they needed to survive.

300

00:28:57,000 --> 00:29:00,000

But America's endeavors are achieving little success.

301

00:29:00,000 --> 00:29:07,000

Years of war have bred a deep-seated distrust of the US.

302

00:29:08,000 --> 00:29:12,000

Berliners after the war were a scared and scarred people.

303

00:29:13,000 --> 00:29:17,000

They had the sense that they were just pawns in a big geopolitical chess game.

304

00:29:18,000 --> 00:29:21,000

It was really a struggle for the hearts and minds of the people of Western Berlin.

305

00:29:21,000 --> 00:29:33,000

As the US military wonders what they can do to win over the Berliners, little do they know the solution will come from an unlikely source.

306

00:29:37,000 --> 00:29:38,000

July 1948.

307

00:29:39,000 --> 00:29:47,000

27-year-old American pilot Lieutenant Gale Halverson is assigned to Operation Vittles and reports for duty at Tempelhofer Airport.

308

00:29:48,000 --> 00:29:57,000

Gale Halverson was a veteran of World War II. He was a sunny, happy person of real kindness who really wore his heart on his sleeve.

309

00:29:58,000 --> 00:30:05,000

One day, while walking through the base, the pilot sees a crowd of local children gathered behind the runway fence.

310

00:30:06,000 --> 00:30:12,000

The children were dressed in rags. Almost none of them had shoes and they were emaciated.

311

00:30:13,000 --> 00:30:17,000

Halverson strikes up a conversation with the young West Berliners.

312

00:30:18,000 --> 00:30:22,000

Hoping to make them smile, he digs into his pockets and pulls out two sticks of gum.

313

00:30:23,000 --> 00:30:30,000

He ripped them in half and started passing them out to the children. And their eyes lit up.

314

00:30:31,000 --> 00:30:35,000

Moved by their joyful reaction, Halverson makes a promise to the group.

315

00:30:36,000 --> 00:30:41,000

He promised them that the next day he would fly overhead and drop down candy from his plane.

316

00:30:42,000 --> 00:30:45,000

But Halverson's generosity comes with a big risk.

317

00:30:47,000 --> 00:30:54,000

Altering the airlift's highly regimented operation could result in a court-martial and the end of his career.

318

00:30:57,000 --> 00:31:01,000

Nonetheless, the kind-hearted pilot proceeds with his covert plan.

319

00:31:02,000 --> 00:31:06,000

He used handkerchiefs and some twine to fashion tiny candy parachutes.

320

00:31:07,000 --> 00:31:15,000

The next day, as Halverson's plane passes over the site of the planned drop, he pushes bundles of candy through the flare shoot.

321

00:31:22,000 --> 00:31:27,000

The children were waving the handkerchiefs, signaling their gratitude for what they had received.

322

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

Delighted by the success of the candy drop, Halverson decides to push on with his secret mission.

323

00:31:34,000 --> 00:31:37,000

The candy-loving crowd quickly swells into the thousands.

324

00:31:40,000 --> 00:31:47,000

These children, who had only known America as the country that had occupied them, began to see America in a new light,

325

00:31:48,000 --> 00:31:52,000

gave them a sense of optimism and a sense of hope, and it changed their lives.

326

00:31:54,000 --> 00:31:58,000

Yet it seems the aviator's success will be short-lived.

327

00:31:59,000 --> 00:32:05,000

Just weeks into his spirit-lifting scheme, Halverson is summoned to his colonel's office.

328

00:32:07,000 --> 00:32:10,000

He thought that his secret had been found out.

329

00:32:18,000 --> 00:32:21,000

July 1948, West Berlin, Germany.

330

00:32:22,000 --> 00:32:30,000

American aviator Gail Halverson is trying to lift the spirits of this newly divided city by dropping candy from his airplane.

331

00:32:31,000 --> 00:32:37,000

But when he's summoned by his commander, the flyer fears his candy-dropping days are over.

332

00:32:38,000 --> 00:32:41,000

So has Halverson's sweet scheme gone sour?

333

00:32:45,000 --> 00:32:49,000

As the pilot nervously approaches his commanding officer's desk,

334

00:32:51,000 --> 00:32:54,000

the colonel points to a headline in the newspaper.

335

00:32:55,000 --> 00:32:59,000

Halverson's secret operation is now big news.

336

00:33:02,000 --> 00:33:05,000

But he doesn't get the reprimand he expects.

337

00:33:06,000 --> 00:33:09,000

Instead, the colonel gives him a surprising order.

338

00:33:12,000 --> 00:33:14,000

The colonel told him to keep on doing what he was doing.

339

00:33:15,000 --> 00:33:16,000

Thank you, sir, I will.

340

00:33:16,000 --> 00:33:23,000

The Americans realized that what Halverson was doing had huge potential to win the hearts and minds of the western half of Berlin.

341

00:33:24,000 --> 00:33:27,000

And so begins Operation Little Biddles.

342

00:33:30,000 --> 00:33:37,000

Over the next 10 months, a total of 23 tons of candy are dropped from 25,000 mini-parachutes.

343

00:33:38,000 --> 00:33:43,000

Operation Little Biddles transformed into something that had a larger meaning.

344

00:33:44,000 --> 00:33:46,000

It helped America win the trust of the Berliners.

345

00:33:46,000 --> 00:33:49,000

They began to believe in democracy and freedom.

346

00:33:52,000 --> 00:33:56,000

Eventually, Stalin realizes his campaign is ineffective.

347

00:33:57,000 --> 00:34:02,000

In May of 1949, the blockade around West Berlin is lifted.

348

00:34:04,000 --> 00:34:13,000

As for Halverson, the humble pilot becomes one of the most celebrated heroes of the post-war era, and is dubbed the candy bomber.

349

00:34:13,000 --> 00:34:17,000

His kindness really did transform the world we live in today.

350

00:34:20,000 --> 00:34:33,000

And what remains of the runway at Berlin's Tempelhofer Freyheit Park stands as a reminder that even during the sourest of times, a kind heart and determination can help sweeten the world.

351

00:34:34,000 --> 00:34:42,000

Along the eastern seaboard, stretching from Norfolk, Virginia to the Florida Keys, is a massive maritime maze.

352

00:34:43,000 --> 00:34:52,000

This man-made passage protects commercial barges and pleasure crafts alike from the hazards of the open sea.

353

00:34:52,000 --> 00:35:05,000

It's about 1200 miles long. It consists of canals, bays, estuaries. It's an extremely impressive feat of engineering.

354

00:35:06,000 --> 00:35:09,000

This is the Atlantic Intracoastal Waterway.

355

00:35:11,000 --> 00:35:19,000

According to author Lee Gruenfeld, these glittering waters were once at the center of a string of daring heists.

356

00:35:20,000 --> 00:35:27,000

These luxurious properties represented an irresistible lure for a criminal genius.

357

00:35:33,000 --> 00:35:41,000

1976, Fort Lauderdale, Florida. The city's social elite are renowned for their lavish black-tie charity galas.

358

00:35:42,000 --> 00:35:48,000

Among those often in attendance is a dashing 35-year-old real estate entrepreneur named Bill Mason.

359

00:35:50,000 --> 00:35:57,000

Bill is a very good-looking guy. He's also very engaging and very charming. Just a really nice guy that people trusted.

360

00:35:58,000 --> 00:36:01,000

But the handsome socialite is hiding an ugly secret.

361

00:36:02,000 --> 00:36:05,000

Bill is arguably the most successful cat burglar in the world.

362

00:36:05,000 --> 00:36:15,000

During the course of his career, he robbed Bob Hope, Phyllis Diller, even Johnny Weissmiller, Tarzan himself.

363

00:36:16,000 --> 00:36:22,000

Although his victims are rich and famous, Mason's meticulous ways shield him from suspicion.

364

00:36:23,000 --> 00:36:28,000

He has a code that he sticks to religiously. No partners. He only trusted himself.

365

00:36:29,000 --> 00:36:34,000

It's at events like these that the master thief chooses his targets.

366

00:36:35,000 --> 00:36:42,000

He then carefully stakes out their homes and plans how he'll get in and out unobserved.

367

00:36:43,000 --> 00:36:46,000

And for Bill Mason, the trickier it is, the better.

368

00:36:47,000 --> 00:36:50,000

Bill's true addiction was solving puzzles.

369

00:36:51,000 --> 00:36:57,000

Trying to do things that nobody would believe would be possible and that afterwards they couldn't even figure out

370

00:36:58,000 --> 00:36:59,000

how he did it.

371

00:37:00,000 --> 00:37:04,000

But finding and absconding with the jewels is the easy part.

372

00:37:05,000 --> 00:37:11,000

Bill was always working on several things at a time. You have to understand that it could take four, five, six, seven months to plan a score.

373

00:37:15,000 --> 00:37:22,000

One day, when Mason is boating on the Atlantic Intracoastal Waterway, an irresistible opportunity presents itself.

374

00:37:23,000 --> 00:37:27,000

He observes a black-tie event being held on a passing yacht.

375

00:37:28,000 --> 00:37:34,000

And he saw all those gowns and all that jewelry. He thinks, I've got all these people in one place.

376

00:37:35,000 --> 00:37:37,000

Maybe I could take down this boat in one great big score.

377

00:37:39,000 --> 00:37:44,000

Mason learns that each year the city's elite gather on the yacht for a Red Cross Charity Gala.

378

00:37:45,000 --> 00:37:53,000

If he can rob them all in one stroke at the next gala, it could be the crowning glory of his career and his biggest haul.

379

00:37:54,000 --> 00:37:59,000

So, over the next several months, he plots out a watertight scheme.

380

00:38:00,000 --> 00:38:05,000

The plan was to approach quietly by boat, throw grappling hooks up, climb up really quickly.

381

00:38:06,000 --> 00:38:12,000

And just by brandishing the weapons, people would hand over all this jewelry and the whole thing shouldn't take but five or six minutes.

382

00:38:13,000 --> 00:38:17,000

Yet the ambitious heist is like nothing Mason has ever attempted.

383

00:38:18,000 --> 00:38:22,000

He realizes that to pull it off, he must violate his code.

384

00:38:23,000 --> 00:38:27,000

He can't do this alone. Bill had to have somebody to drive this boat.

385

00:38:29,000 --> 00:38:38,000

Fate delivers up a convenient accomplice. An acquaintance named Derek Johnson, who mentions he's hard up for cash.

386

00:38:39,000 --> 00:38:43,000

When Derek said, I need a lot of money really fast, something clicked in Bill's mind.

387

00:38:44,000 --> 00:38:45,000

Can you drive a boat?

388

00:38:45,000 --> 00:38:48,000

He said, how'd you like \$10,000 to drive a boat for an hour?

389

00:38:51,000 --> 00:38:58,000

Johnson eagerly agrees to the deal. What Mason doesn't realize is that he's just made a big mistake.

390

00:39:02,000 --> 00:39:10,000

It's 1976, Fort Lauderdale, Florida. Serial jewel thief Bill Mason is preparing for his most ambitious heist to date.

391

00:39:10,000 --> 00:39:15,000

But to do so, he must break his cardinal rule to bring in an accomplice.

392

00:39:15,000 --> 00:39:20,000

And together, they'll stick up a luxury yacht and rob all its wealthy guests.

393

00:39:23,000 --> 00:39:26,000

Mason meticulously plans the hold up.

394

00:39:27,000 --> 00:39:33,000

Meanwhile, the Fort Lauderdale police have been scratching their heads over a number of recent burglaries.

395

00:39:34,000 --> 00:39:40,000

The police were so baffled that they simply couldn't even figure out how these individual scores had been done.

396

00:39:42,000 --> 00:39:44,000

But suddenly, investigators get a break.

397

00:39:45,000 --> 00:39:51,000

A petty thief comes forward with a tip about an elusive cat burglar who's planning a big score.

398

00:39:51,000 --> 00:39:55,000

It's a plot to rob every guest at the next Red Cross charity gala.

399

00:39:57,000 --> 00:40:00,000

The informant's name is Derek Johnson.

400

00:40:01,000 --> 00:40:06,000

It seems that Mason slipped up when he broke his rule and hired an accomplice.

401

00:40:06,000 --> 00:40:09,000

Who he didn't realize had a checkered past.

402

00:40:10,000 --> 00:40:17,000

Derek Johnson, who he got to drive the boat, turned him in in exchange for him getting off some minor charges that he was facing.

403

00:40:19,000 --> 00:40:23,000

The cops are skeptical, but they start tailing Bill Mason.

404

00:40:24,000 --> 00:40:29,000

And sure enough, within weeks, they catch him casing a joint and arrest him.

405

00:40:31,000 --> 00:40:37,000

But the police only have a weak case, and Derek Johnson's word against Mason.

406

00:40:37,000 --> 00:40:44,000

But they know that he probably did some other things, and the police sometimes care more about closing cases than they do catching perpetrators.

407

00:40:44,000 --> 00:40:49,000

So they said, if you tell us some of the other stuff you did, maybe we can work out a deal here.

408

00:40:49,000 --> 00:40:59,000

Promised with immunity for earlier offenses, Mason eventually confesses to all the other robberies he's pulled, leaving authorities stunned.

409

00:41:00,000 --> 00:41:08,000

They discover that Bill was behind some of the most high-profile jewelry thefts in all of Southern Florida history.

410

00:41:09,000 --> 00:41:15,000

After serving less than three years in prison, Mason publishes a book detailing his long career.

411

00:41:15,000 --> 00:41:19,000

He also declares that his thieving days are over.

412

00:41:20,000 --> 00:41:30,000

Today, the Atlantic Intracoastal Waterway and Fort Lauderdale's plush hotels and homes remain a playground for the very rich.

413

00:41:31,000 --> 00:41:38,000

But with this master cat burglar no longer on the prowl, their prized gems are now a little more secure.

414

00:41:39,000 --> 00:41:50,000

From an underwater rescue to an architectural oddity, a casino cheat to a beachside burglar.

415

00:41:50,000 --> 00:41:55,000

I'm Don Wildman, and these are the Mysteries at the Monument.