



## Season 6, Episode 7: Black Tom Shell

Gwen Wright: Our first story probes a devastating act of foreign sabotage on American soil. World War One. America is determined to remain neutral. Then, an earth-shaking explosion rocks New Jersey and Manhattan. Headlines attribute the devastation and carnage to an industrial accident on nearby Black Tom Island. But Black Tom was being used to store ammunition bound for British guns...and the blast was no accident. Unlike other terrifying peacetime attacks, however -- Pearl Harbor or 9/11 -- Black Tom is little known, and strangely faded from history. Almost a century later, Elaine Harvan Barbini from White House Station, New Jersey, believes she has an artillery shell that survived that fateful attack.

Elaine: My mother always used it at home as a doorstop and I thought wouldn't be great to find out more history about it and see if you could trace it back and actually find out how it got into the family.

Gwen: I'm Gwendolyn Wright, and I'm here to take a careful look at Elaine's shell. Hi you're Elaine?

Elaine: Nice to meet you. Please come in.

Gwen: So this is what you wanted to show me?

Elaine: Yes it is.

Gwen: Wow. This does look like an artillery shell, what do you know about it?

Elaine: Very little. My mom had put this piece of paper in it. It says "Bomb, Black Tom explosion" and she wasn't sure the year she put 1914 and World War I.

Gwen: Aren't you a little nervous about having what might still be live ammunition in your house?

Elaine: I know my mom did have this checked out so it is safe.

Gwen: How old was she at the time of the explosion?

Elaine: She was just born in 1915 so that's why I think it links back to my grandfather here John Hagstrom.

Gwen: Well do you have a sense of what might have been his connection to this shell?



Elaine: Well he was a tool and die maker. Now during Black Tom he was working for the Victory Typewriter Company in New York, but if he has a link to it I'm not really sure.

Gwen: Tell me exactly what you would like for me to find out about this shell?

Elaine: I'd really like to know if it's actually is from Black Tom, and how it could have gotten into the possession of the family.

Gwen: I have to take it with me. Whoa!

Elaine: Be careful, it's very heavy!

Gwen: It certainly is. I won't treat it lightly. I'm not quite sure how to analyze an artillery shell, but let me take a closer look. Well to me this shell seems in very good shape to have been involved in a major explosion. To start there are different metals; this seems to be brass and probably steel and copper. Now there are some markings here that may mean something. Well it's grooved inside and smooth all the rest of the way down. There's not much to go on. But right off the bat, I discover that Elaine's mother got the date of the blast wrong. It occurred in 1916, not 1914. On July 30<sup>th</sup>, at 2:08 in the morning, a massive cache of munitions on Black Tom Island exploded, rocking New York and New Jersey. More than 1,000 tons of TNT, gunpowder, and dynamite had been warehoused on train cars and barges owned by the Lehigh Valley Railroad Company. The deadly cargo had been bound for Allied troops on the World War One battlefields of Europe. Early news reports point the finger at the company that ran the munitions terminal. A few days later New Jersey officials and federal prosecutors arraigned and arrested officials of the Lehigh Valley Railroad holding them responsible for the accident. Eight years later – long after the war had ended – the true cause of the explosion finally came out in the press...German sabotage. Not until 1924 when the Lehigh Valley Railroad presses charges against the German government that it's publicly acknowledged. I'm curious why this major story received such minor press coverage, and why it took so long? But my first task is to find out if Elaine's shell had been part of this historic German attack. Black Tom Island is a 15-minute ferry ride from the southern tip of Manhattan. It was once part of a thriving industrial port, just opposite Ellis Island and less than 2,000 feet from the statue of liberty. It's very close to where terrorists struck the Twin Towers in September of 2001. Although the 1916 blast must also have sown widespread panic and fear, I'd never heard of the disaster. I'm meeting Chad Millman, author of *The Detonators*, a book about the explosion.

Chad: This is where the Black Tom Island was, extending out. It was less than half a mile from the statue of liberty.



Gwen: He explains the Black Tom munitions depot had once supplied shells to both Germany and Britain. But when the British Navy started blockading German ports, a desperate Germany hatched a plan to destroy stockpiles of American munitions before they could fall into their enemy's hands.

Chad: There were explosions at munitions depots in Ohio and in Missouri and in Detroit and in Delaware; this happened to be the biggest one.

Gwen: Chad tells me the attack required months of planning and involved top German officials, including the German ambassador to the United States. The devastating explosion on Black Tom was carried out by three men, one of whom worked at the depot.

Chad: So when the guard saw him he didn't think twice about this guy being in the area because he was always in the area. And then from the sea came two other spies who had actually rowed over from New York City.

Gwen: The men planted lead pipes filled with two different chemicals separated by a piece of copper. The chemicals quickly ate through the copper, mixed, and erupted in flames, exploding the enormous cache of munitions. Chad says the blast wreaked havoc across northern New Jersey and much of New York City.

Chad: The Statue of Liberty was pelted with shrapnel. All the way up to midtown of Manhattan you know buildings and the windows were blown out. All the way as far as Maryland they thought they were having an earthquake.

Gwen: Geologists say a sustained earthquake with equivalent force would have registered as a 5.5 on the Richter scale. On Ellis Island, shrapnel rained down for over three hours. How many people died in the explosion?

Chad: The official death toll was six, but you got to remember this is the time where it's with the height of immigration you know at Ellis Island and there were hundreds of people living in boats and barges in the harbor here who the police speculate literally turned to dust.

Gwen: Chad's not a munitions expert, but he says Elaine's shell could be a souvenir from the blast that night.

Chad: The next day the papers were actually talking about people picking up shrapnel and souvenirs all over Jersey City and within the area and actually the police had to go and cordon off an area within a mile radius of the explosion because people were starting to go to piles inferno themselves and tried to pick things out.



Gwen: But if Elaine's shell had been part of such a massive blast, why does it appear to be largely undamaged? Was it even made during World War One? I'm headed to Aberdeen, Maryland, home of the U.S. Army Ordnance Museum, where Dr. William Atwater is an expert in weaponry from that period.

Dr. William Atwater: I know exactly what this is. I have the gun that fires it right over here. Well this is the British 18 Pounder gun and this was the standard divisional artery piece for the British Army.

Gwen: William tells me America was making millions of shells like Elaine's during the first World War.

Dr. William Atwater: When guns fired in the 19<sup>th</sup> century the entire gun went to the rear and one of the big innovations the First World War was a recoil mechanism so this prevented the gun from going to the rear so it became a very quick firing weapon.

Gwen: With that new, quick-firing weapon came a demand for massive amounts of shells. After two years of war, Europe's manufacturing abilities were at their limit.

Dr. William Atwater: In 1915 there was an ammunition crisis where quite literally the British were rationing the number of rounds that they fired at the enemy, so they needed to manufacture lots of this stuff quick and they came to the United States to do that. The DuPont's of this world also got into the business mainly of the explosives, the Bethlehem Steel Corporation actually got into manufacturing the shells themselves, but the majority of the early manufacture of ammunition was by small machine shops.

Gwen: I tell William that the lack of damage to the shell left me skeptical of Elaine's story about its origin. If this shell had been at Black Tom how did it stay in such a good condition with an explosion?

Dr. William Atwater: Explosions do funny things.

Gwen: If it had been far enough away from the blast's epicenter, it could have withstood the explosion and remained intact.

Dr. William Atwater: This could very easily have been a survivor from Black Tom.

Gwen: Why did the press take almost eight years to acknowledge German involvement in a devastating attack on a neutral United States? I'm meeting John Cooper, who authored a biography of President Wilson, at the Woodrow Wilson house in Washington, D.C. He says the president knew almost immediately that the blast was not an industrial accident, but almost certainly the work of German spies.



Gwen: So you're suggesting that he knew it was German sabotage but did not want this to become public.

John Cooper: They had good intelligence about what was going on there. We don't have the FBI yet, but we do have a Bureau of Investigations already beginning to follow this and the Secret Service is also on it... oh yeah, they knew about it.

Gwen: At the time, however, President Wilson was only three months away from the next election, and running on an anti-war platform.

John Cooper: The reason that the administration sat on the Black Tom: they didn't want to get into the war; it's simply you want to keep it quiet. That's why there is no official response to the Black Tom.

Gwen: John explains that tensions were already high. The previous May a German submarine had sunk the Lusitania. Approximately 1,200 people were killed including over 100 Americans.

John Cooper: This is 9/11, that kind of shock and outrage. This is what brings the shock of recognition that we might be involved in the war, this isn't just something that's happening to somebody else.

Gwen: As Wilson's political opponents, notably Teddy Roosevelt, bellowed for American entry into the European war, President Wilson also worried about a backlash against German Americans.

John Cooper: The worry is that this if we get into the war it's going to tear this country apart, particularly because of the ethnic divisions.

Gwen: John explains that, despite his commitment to keeping the nation neutral, President Wilson did not stand in the way of those many companies that wanted to sell supplies to the Allied forces.

John Cooper: The American economy was very much involved in it; the biggest thing we were supplying to the Allies was food, food stuffs and then machine goods, lots of trucks, Henry Ford is building a lots of trucks for the British and the French.

Gwen: Elaine's grandfather had worked for a small typewriter company. Had they been part of this national effort to supply shells for the European war? John doesn't know, so I'm meeting army munitions specialist Ed Rudnicki. He explains that the specifications for producing British shells were available to a variety of manufacturers.



Ed: Well a number of publishers took advantage of the war in Europe and the Allies need for munitions of all types the produce instructions so various machine shops could produce the ammunition and the Allies needed. One of the items they have is, lo and behold, manufacturing British 18 Pounder high explosive shells. You can see here, here is an actual drawing of our projectile.

Gwen: Well I see these marking here but I am not quite sure how to read them.

Ed: They are little hard to see right now but we have a way to hopefully get around that one of the things we do is we take ordinary blackboard chalk and you can just rub it on these, these are stamp metal markings so they are actually pressed into the metal surface so you can just rub a little chalk on there. We can see an arrow, which is the British acceptance mark it's called the broad arrow.

Gwen: OK.

Ed: We have QF18PR, which is Quick Firing 18 Pounder. We have a numerical number, which is the mark of the projectile, and finally we have a date of 5/16.

Gwen: And that dates before the Black Tom explosion.

Ed: Yes it was; it was produced before the Black Tom explosion.

Gwen: The man who owned this had worked for a small typewriter manufacturer, is there a sense that a shop like that could have produced armaments?

Ed: It's possible, it could have been more likely the fuse could have been there because the fuse was a smaller more intricate component; it would have been more likely made on the lighter duty machines in a typewriter shop, the shell body itself would typically require heavier machines you can see it's a larger heavier component.

Gwen: So these were made separately?

Ed: Yes they were.

Gwen: Often?

Ed: Yes they were.



Gwen: When Ed attempts to find a manufacturer's stamp on the fuse, he discovers that the nearly faded markings do have a story to tell.

Ed: We have a date.

Gwen: It's time to report back to Elaine. Here you go and I have a lot of information about it.

Elaine: Oh excellent.

Gwen: This was American artillery shell manufactured here in the U.S. for use as a weapon by the British Army in World War I.

Elaine: Oh!

Gwen: But the faint markings on the ammunition's fuse reveal that Elaine's shell isn't quite what she suspected.

Ed: What we are seeing here is the number 80 slash with a roman numeral four that's telling us number 80 mark IV fuse, and we have a date which is showing up as 09/16. Two months after the Black Tom explosion.

Gwen: So it could not have been at Black Tom at the time of the explosion.

Elaine: Oh that's disappointing.

Gwen: Although Ed could not identify the manufacturer of the fuse, or the shell, Elaine's heirloom recalls a time when the U.S. perhaps naively thought it could sit on the sidelines and aid foreign entanglements.

Gwen: Your grandfather, he worked at a typewriter manufacture company and that's the kind of place that in the beginning of World War I it was producing weapons for the British, the French and to some extent for the Germans too.

Elaine: Oh!

Gwen: So he may have made either this particular shell or pieces like this, and therefore wanted to keep it as a souvenir of his own small role in the American involvement in world politics.



Elaine: I think it's actually even better to think that grandpa could have actually made it. This has been very enlightening.

Gwen: You'll still keep it?

Elaine: Oh, absolutely. And I'll still keep my mom's note inside it, but maybe I'll add to it.

Gwen: It took over 60 years to close the books on the case against the Black Tom bombers. Despite the Wilson government's failure to pursue suspicions as to the true cause of the blast, in 1939, a combined German American commission ruled that Germany needed to pay reparations in the amount of 50 million dollars. Those reparations were finally paid off in 1979.