

## **Historic Bridge Foundation Facebook Archives**

## Did You Know... That all of Budapest's bridges were bombed and nearly destroyed in World War II?

## **August 2017**

This might come as a surprise if you look at the bridges standing in Budapest today because many of them look the same as they did before the war. After the war, the city chose to repair whatever remained of the bridges, and to replicate new portions of the bridges to the exact design of the original bridges. A brief discussion of each from north to south follows.

The Margaret Bridge (Margit híd) was built in 1876 as a metal arch bridge. The Margaret Island Extension was added ca. 1896 which turned the bridge into a T-shaped bridge. This bridge was the first to be destroyed in the war, although its destruction was actually an accident. German troops were placing explosives on the bridge, preparing for a possible need to destroy the bridge in the future for defensive reasons. During this time, a boat passing under the bridge accidentally ignited a fuse that set off the explosives and collapsed the arch spans, killing 640 soldiers plus hundreds of civilians on the bridge as well. 73 days later, all the other bridges in Budapest were blown up during the Siege of Budapest. After the war, the Margaret Bridge was rebuilt in 1948 as a riveted steel deck arch bridge, and appears to have reused the original piers. Also, the span leading to Margaret Island is more ornamented that the other steel arches, which may indicate that this 1896 extension was spared destruction in 1944 and is what remains in use today. The bridge was restored with the intent of returning the bridge to a 1937 (pre-war) appearance in 2009-2011.

Mystery Railway Bridge. Historical pre-war photos appear to show a truss bridge crossing the river between the Margaret Bridge and the Chain Bridge, crossing the river at the southwest corner of Parliament. Little is known about this bridge. However, it likely was destroyed in the war. The Metro Subway under the river appears to be located where the bridge originally was.

The oldest and most famous of the bridges in Budapest, the Széchenyi Chain Bridge (Széchenyi Lánchíd), often called simply the Chain Bridge, was built in 1849, and is an eyebar chain suspension bridge with stone towers and distinctive lion statues at the ends of the bridge. After suffering damage during the

siege that had put holes in the deck, a final bombing tore the entire deck, stiffening trusses, and most of the suspenders from the main eyebar chains. Historical photos show even the lions were not spared destruction, however the towers remained largely intact. The bridge was rebuilt in 1949, reusing at least the towers, and replicating the original design to a surprising extent. The most significant change may be that the possible original cast iron stiffening trusses (located between the sidewalks and the roadway) were replaced with riveted steel trusses. The sidewalk railings which originally appear to have had the same design as the stiffening trusses were replicated in-kind as cast iron/steel.

The Elisabeth Bridge (Erzsébet híd) stands out because the pre-war design was not replicated. The original bridge was built in 1903, and it received significant attention in the engineering periodicals of the time. The bridge was an eyebar chain suspension bridge with rich ornamentation. The design and aesthetics of the bridge was purposely made to be different from other bridges in the city because it was felt that replicating the design of one of the other bridges would have been too monotonous. The war destroyed most of the bridge, with the exception of one tower and one adjacent backstay span. These ruins remained standing until a simple, modern wire cable suspension bridge with steel riveted towers and stiffening girders was erected in its place in 1964.

The Liberty Bridge (Szabadság híd) is a cantilever through truss bridge that was built in 1896 and has extensive ornamentation. The war destroyed the cantilever arms and suspended span of the bridge, but the main post towers and the anchor arms remained intact, despite one of the anchor arms dropping into the water at the abutment end. In this state, the bridge may have been one of the least damaged of the bridges in the city. Soon after the destruction, a makeshift temporary structure was erected that connected the surviving portions of the bridge. In 1946 this bridge became the first bridge to be rebuilt after the war. Portions of the surviving bridge that could be salvaged were repaired and reused, including the ornamentation on the towers. Portions needed to be rebuilt from scratch were made following the original design. The replication of this bridge's destroyed parts was very accurate, and even when inspected closely, it is not clear where the original and new parts are.

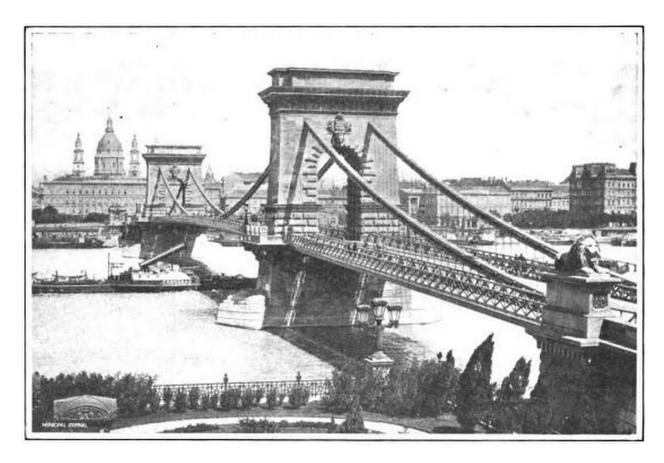
Lastly the Petőfi Bridge (Petőfi híd) was built in 1937 and therefore had only been in use for a few years when the siege began. By far the most utilitarian of the bridges, the bridge is a riveted Warren deck truss with a continuous design. The bridge was rebuilt in 1952.



Chain Bridge after destruction showing surviving towers and main eyebar chain.



Chain Bridge after destruction showing destroyed lion statue.



Taken around 1904, this photo shows the Chain Bridge before the war.



Chain Bridge as seen in 2017.



Chain Bridge as seen in 2017.



The 1903 Elisabeth Bridge as seen after destruction. Note that one tower was completely destroyed, but the other one is mostly intact.



The 1903 Elisabeth Bridge as seen after destruction, showing the tower that did not collapse. Also note to the far right that the non-suspended truss span appears to be intact.



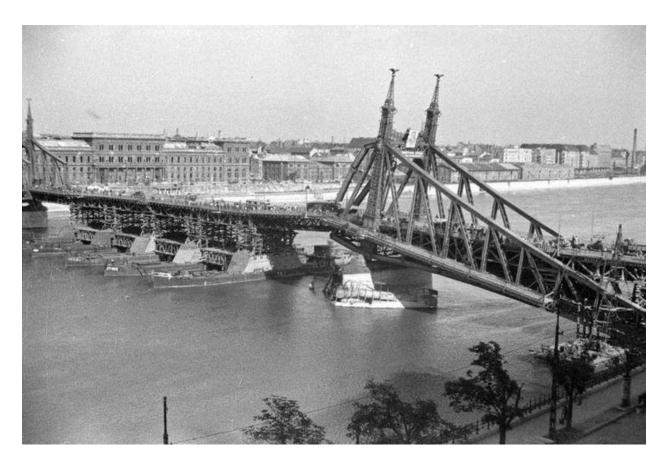
The 1903 Elisabeth Bridge as seen before the war.



The 1964 Elisabeth Bridge as seen in 2017.



The 1964 Elisabeth Bridge as seen in 2017.



Liberty Bridge after destruction showing the temporary structure erected by the Soviets shortly after the destruction. Note the near anchor arm is largely intact despite having tipped over into the water at the abutment end.



Liberty Bridge after destruction, showing the center section totally destroyed, the far anchor arm tipped into the water, and the near anchor arm largely intact.



Liberty Bridge before the war.



Liberty Bridge as seen in 2017.



Liberty Bridge as seen in 2017.



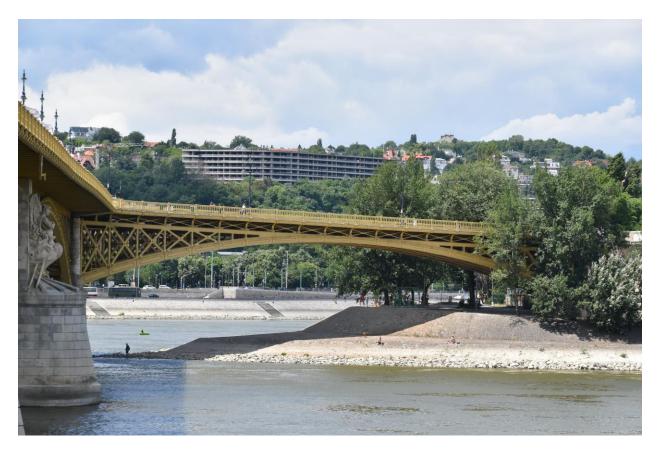
Margaret Bridge after destruction. Note that the piers appear to be intact.



Margaret Bridge before the war, ca. 1900.



Margaret Bridge as seen in 2017.



Margaret Bridge as seen in 2017. This view shows the Margaret Island Extension. Notice how the Margaret Island spans have a different, more detailed arch rib design. This may suggest these spans are original and were reused after the war.