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The Chain Across The Golden Horn

By Paul Kastenellos



Harbors as well as rivers that lead into a nation's interior have always been inviting naval targets. A fleet bottled up in port as the US Navy was at Pearl harbor is a sitting duck unable to maneuver. French Normandy was handed over to Viking raiders on the promise that they would cease to attack Paris via the Seine. Since the Carthaginians chains have been used to deny entrance to an enemy. In fact as late as World War II antisubmarine nets hung from chains or wire ropes and supported by floats were a common and effective defense. In ancient and medieval times they were used to protect the harbors at Famagusta, Antalya, Rhodes and elsewhere. Even much later a floating chain across the Hudson River at West Point denied to the British their intent to split the northern from the southern colonies during the American Revolution. But perhaps the most famous was the chain across the Golden Horn at Constantinople. That great city, the jewel of Christendom from its founding in 330 CE (AD) until its loss in 1453, was built upon a peninsula jutting from the European side of the Bosphorus and protected on three sides by water. The fourth side was secured by its great triple walls which converted what nature had made its most vulnerable side into its most formidable defense.

Two of the three remaining sides were relatively uninviting to an attacking force. Land walls protected all sides facing the water but an attack along the Sea of Marmara or the Bosphorus would have been particularly hazardous. It could not long be supported whereas the Golden Horn was a calm and narrow environment and its relatively unprotected northern shore, the Genoise suburb of Galata, would make a base from which, once secured, an attacker could continually mount attacks on the city itself.

Now a chain might seem an insubstantial obstacle. Merely loose or cut it at one of its mooring points or smash into it with a ship. But harbor chains were kept from dropping to the sea floor by wooden floats or barrels which also gave them flexibility. The ends were secured within fortress walls and anyone attacking these, even at night, would surely come under a fusillade of arrows, spears, and rocks. Still, if attacking ships

could not shatter the iron links or an amphibious raid loose the ends, surely a suicide crew under fleet protection might hack away at the chain's floats with axes so that it would drop to the bottom silt. That scenario assumes however that the opposite side of the chain was not defended by dromon battleships spraying Greek fire into the attackers' faces.

Much is made of these local defenses of Constantinople. What is not so much emphasized is the difficulty in even approaching them. The cities along the Bosphorus, the Dardanelles, and the Sea of Marmara were usually in Byzantine hands until the onslaught of the Ottoman Turks. The only enemies likely to reach it by sea were Bulgars and Russ coming south from the Black Sea or Arabs coming North from the Aegean. So long as the defenses at Anydos near modern Canakale and Yoros where the Bosphorus exits the Black Sea held, Constantinople could only be attacked on the landward side protected by those well-famed walls.



The best way to defend any place is to engage the enemy far from it. The best way to defend Constantinople from an Arab naval attack would have been to control the Dardanelles and the choke point at Abydos. That port city seems to never have been directly threatened by an Arab fleet. Rather it had to be taken by arduous fighting across Asia Minor. Once in Turkish hands it became a narrow crossing point to Gallipoli instead of a block to invasion by sea. Can it not be argued that the strength of Byzantine naval forces and fortress-mounted ballistic weaponry together with the difficulty of sailing upstream against a strong current from the Black Sea had made a naval attack at that point so obviously a bad idea that Abydos was as important to the defense of Constantinople as the city's triple walls?

The literature about the chain generally assumes some rigidity in it; yet a moment's visualization shows that a fairly inflexible chain would have been a weaker defense than one that bobbed about. A relatively loose chain with regular buoys to support it would entangle any ramming ship but not necessarily break. Likewise it would bob about under the impact of axes. A barrier of large stout oak or other hardwood logs connected by relatively short lengths of chain – which seems to be what Leo III emplaced to forestall an Arab assault in 717 – would be a more formidable obstacle both to galleys ramming at their top speed of about five miles per hour or to men with axes.

The Golden Horn was only forcefully taken three times: by the Russ, by the knights of the robber fourth “crusade,” and by Mehmet II – known as the conqueror – who bypassed the chain and is reported to have seized the Horn with warships dragged unopposed in a single night across a hill of Galatea – a patently impossible feat but not one which we shall challenge here. What cannot be known is how often the chain's very existence discouraged attack. A negative cannot be proven. Likewise we cannot know if there was more than one chain over the centuries. The first description is by Theophanes Confessor but his verbiage seems to assume the existence of a chain before the Arab siege of 717. There is considerable dispute among experts as to how many chains there may have been and their construction. Comer Plummer basing an essay on the research of Byron Tsangadas writes that the “Golden Horn posed a certain challenge for the Byzantine engineers, since the five miles of sea walls in that area were comparatively weak and the calm waters there could provide a safe anchorage to an enemy fleet. Emperor Leo III provided the tactical solution in the form of the famous barrier chain. Made of giant wooden links that were joined by immense nails and heavy iron shackles, the chain could be deployed in an emergency by means of a ship hauling it across the Golden Horn from the Kentenarion Tower in the south to the Castle of Galata on the north bank. Securely anchored on both ends, with its length guarded by Byzantine warships at anchor in the harbor, the great chain was a formidable obstacle and a vital element of the city's defenses.” The tenth century chronicler Leo the Deacon mentions the two ends of the chain being “fastened to enormous logs” and secured at the tower of

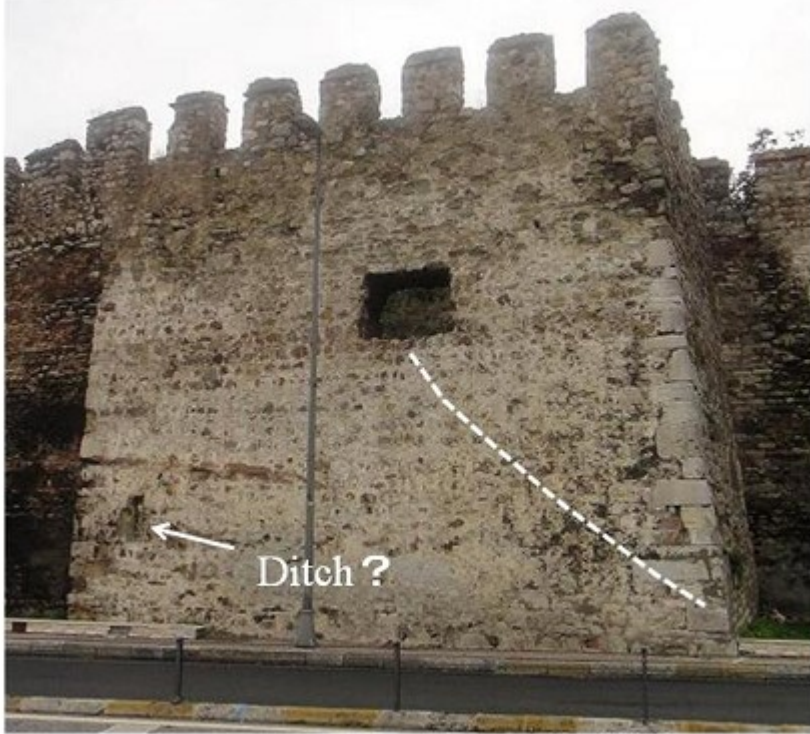
Kentenarion on the side of Constantinople and the tower of Kastellion on the northern shore of the Golden Horn as part of the preparations of the Emperor Nikephoros II Phokas against a possible Russian assault.



This description does not jibe well with the chain that defended the city against Mehmet in 1453 and which is probably the same iron chain sections of which are preserved in various Istanbul museums. The links of the 1453 chain were apparently cast in the same or matching molds but then hammered as wrought iron. I submit that instead of the usually accepted floats supporting a chain the entire distance from Topkapi to Galatia, the many sections of seven links each were linked nose to tail to long and thick logs, except, of course, where the chain exited the water to be fixed at towers. The chain made by the engineer Bartalomeo Soligo before Mehmet's siege may well have been made with old metal and new wood.

Of course the chain would have been secured to strong fortifications at both ends, The **northern end** is accepted as having terminated in a small fort at the eastern end of Galata which would have been Byzantine territory at the time it was built though that suburb – but not the fort itself later was ceded to Genoese merchant enterprises. Today it is known as the **Yeralti Cami** or underground mosque since the supporting basement substructure was at one time used as a place of worship. Unfortunately this building has been so often built over and used for so many purposes that if a ring at the chain's end secured it there the spot, even if intact, is buried within other structures.

As to the **southern terminus**, Junichi and Yoshihiko Takeno argue that the southern terminus of the chain was at **a tower roughly east of Topkapi palace** and somewhat south of the usually accepted southern point. They support this theory by noting that the tower's construction varies from that of other towers and by citing marks on its walls where the chain might have been dragged. Importantly to their argument is the existence of a rather large opening in the tower. According to their theory the chain would have been pulled a distance along the shore before entering the water where it would be buoyed by floats (or logs). From there its weight would be negligible. Although the chain may have been pulled into the tower by a capstan they theorize that it also could have been drawn by a waterwheel using water from the Basilica Cistern, the Yerebatan Sarnici, nearby Hagia Sophia cathedral.



And what exactly happened to the chain after the Turkish conquest? The Nuremberg Chronicle shows the chain extant in 1493, forty years after the conquest. But of course that may merely indicate an historical assumption





According to Ugur Genc who has made a detailed study of the sections, after the conquest the chain was stored intact for a time in the church of St Irene with sections eventually given to four (or five) museums in the city. Indeed it would be unlikely that it was divided immediately after the conquest since a western counteroffensive would have been expected and St. Irene's was being used as a military storehouse. In time as naval ordnance improved its original purpose became moot and it became a mere "heap of iron" of no worth except to commemorate the siege by Mehmet.





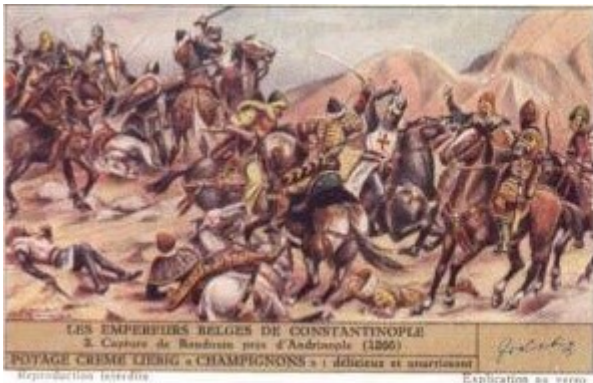
The links in the museums are approximately two foot long and connected every seven links by hook-like members. In actual use these would not have been connected together but either to floating supports or, I submit, to long and heavy logs. As noted above, the latter would have provided a substantial part of the overall length. What remains may be all the iron there ever was. In fact a better image of the chain might be conjured by terming it a chain-linked boom.

Fascinating as it is to imagine dromons spewing Greek fire at enemies on the opposite side of the chain, whatever the details of its construction the existence of both the chain and liquid fire (as the Byzantines called it) discouraged such attacks on the Horn. Yet some stories, almost certainly fictitious, are too fun to not repeat. The eleventh century Viking King Harold Hardrade is said to have crossed the chain by having his rowers advance his ship with all speed while other crewmen holding casks of water placed themselves at the stern so as to raise the bow above the chain then ran forward to tip it over. A silly tale perhaps but indicative

of what a Viking crew might boast that their long ship could do.

However the real history of the Golden Horn is nearly as fascinating. In 941 the Rus' attacked Constantinople with hundreds of small boats while the Byzantine army and navy were away at war with the Arabs. There seems not to have been a battle at the chain but instead the emperor armed with Greek fire fifteen old hulks which had been scheduled for the breakers. These derelicts allowed the Rus' boats to surround them before opening fire. It was a slaughter with many Rus' preferring to drown rather than burn. Captives were beheaded.

In 821 the ships of the rebel Thomas of Gaziura – inaccurately called the slav – bypassed the chain and fought a number of battles with the fleet of the emperor Michael II within the Golden Horn and on the Sea of Marmara. A Saracen attack in 717 was in part frustrated by the chain of Leo III described above. The Arab fleet after being soundly defeated by fire spitting dromons under the city walls in the Bosphorus tried to assault the city from the Horn but were denied entry by the chain, no doubt supported by warships.



Only twice was the chain actually breached. In 1203 knights of the fourth (robber) “crusade” managed to seize the Galata tower while Venetian rams attacked the chain itself. Once the chain had been neutralized their fleet was able to enter the horn and it was from there that a successful attack on the city walls was made and the queen of cities fell and was sacked, never to fully recover.

Weak and denuded of its riches by the “Franks” the wreckage of the still proud city was eventually seized by remnants of the empire in Trebezond on the Black Sea who entered via an unguarded gate fifty eight years after its fall. The city and factious remnants of the empire continued to hobble along for nearly another two hundred years with each despotate, principality, and duchy generally at war with each other and often cooperating with their more powerful Turkish neighbors. In 1453 Mehmet II decided that enough was enough. Constantinople had long since been completely surrounded by his empire which stretched to the Balkans with this bit of Christianity tenuously holding out like a thumb in his Muslim eye. The story of the fall of Constantinople is well known and will not be repeated here except to note how well the chain still worked. Two attempts to break it by ramming failed and it was once opened for a relief ship then quickly closed again. The chain could do what it was designed to do but Mehmet was meanwhile preparing an oiled wooden road and carts and mules and with these he allegedly drew eighty of his smaller galleys over a two hundred foot high hill at Galata and descended into the Horn. Although the defense of the city had been aided by some Venetians and Genoise other Genoise merchants in Galata, seeing the writing on the wall, did nothing to inhibit Mehmet’s ships being transported or even warn the emperor. There was a naval battle. The Byzantines lost. Now the city’s massively outnumbered defenders had to hold the walls along the Golden Horn as well as the land walls. The enemy camped in Galata and attacked at will. At last on May 29, 1453 the Theodosian triple wall was pierced at Blacarnae and the long drawn out death agonies of the empire were at an end. As noted above, the great chain may have been retained for a time but it was never used again and remained for too long just a useless heap of iron until finally taking a place in the city’s museums.