The province of Amasya is located inland of the Central Black Sea Region. The province is between 34.57- 36.31 east longitude and 41.04 - 40.16 north latitude. The sea level of the province is 1,150 m and its provincial center is 411.69 m above sea level. Amasya (Amaseia) is an important city in the history of Anatolia. The city was given the name Hakmis/Hakpis according to Hittite sources. The Amasya Fortress was founded on Mount Harsena as the most convenient place to defend the city. From the Early Bronze Age (3200 BC) to the end of the Ottoman period, it was used for defense purposes. The first settlement at Amasya commenced around 5500 BC and continued without interruption under the Hittites, Phrygians, Kimmers, Scythians, Lydians, Persians, Hellenes, (Pontuians), Romans, Byzantines, Danismends, Seljuks, Ilkhanids and Ottoman periods. The fortress standing at the northern end of Amasya consists of three sections known as the Inner Town (Hatuniye Neighborhood), the Palace of Maidens and the Upper Fortress (Har'ena).

During the Hellenistic Age, the Tombs of the Pontic Kings in Amasya, as the capital of the Pontic kings between 333 BC and 26 AD, were carved from calcareous rocks in the southern foothills of Mount Harsena. The Fortress has four gates named: Belkis, Saray, Maydonos and Meydan, a water well named Cilanbolu, as well as a cistern and prisons. Seventy meters below the fortress is an underground stairway dating back to 3 BC that stretches to the Kizilirmak River and the Tombs of the Kings as well as the remains of a bastion and a mosque.

On the southern skirts of the fortress, the remains of the Palace of the Maidens used by the Ottomans as well as a 20-25 meter straight wall rising from the mountain skirts that is carved from calcareous rocks and that includes 18 large and small stone cemeteries dating from 3 BC can be found.

The Palace of the Maidens is below the caves which are located above the inner fortress. When the niece of governor Isfendiyar Bey, Dograk Hatun arrived at Amasya and not being able to enter the Seljuk Palace, the Palace of the Maidens was built. The Palace of the Maidens housed Ottoman princes, ladies and governors for over 150 years and was used continuously until 1852. Today it stands in ruins.

In terms of topographic location, Amasya exists today without having changed for centuries. Founded on the skirts of the valley where the Kizilirmak (Iris) River flows through, for reasons of settlement, security and defense, it was built among the rising foothills north of the Kizilirmak River among a hill surrounded by a fortress and expanded from the slopes to the floor of valley as security was made available.

The Fortress of Amasya consists of three main sections of Lower City that declines from the top to the lower end; the fortress terrace (basilica) known as the Palace of the Maidens and the Upper Fortress known as the Harsena Fortress. The section known as the Palace of the Maidens of Amasya Fortress is on a terrace that is against the mountain behind it.

Using geophysical techniques in archaeological site is rather important in terms of both saving time and reducing the cost. For these reasons, in order to research foundation structure of Amasya Fortress and to determine the locations in which excavations will be executed in the 2011 excavation season, GPR and magnetometer methods were used in Amasya. After taken magnetic and GPR measurements, it was clear that the magnetic maps and GPR radargrams indicated regular anomalies in the foundation of structure. In the light of these data, it was decided that trenches will be executed at these locations during the 2011 excavation season.

Keywords: Amasya- Harsena Castle, Archaeogeophysics, Magnetic Survey, GPR