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1. Characterisation of the pilot site



Figure 1: Aerial image of Tulln¹

The roman castrum and the vicus of Comagenis (Comagena) are representing the Austrian Pilot Site. The fort is situated in the center of the medieval city Tulln, on the south bank of the Danube between the estuary of the rivers Große Tulln and Kleine Tulln. A small part of the fortress and the vicus has already been destroyed by the Danube, but the main part is still preserved as an archeological site under the layers of medieval and modern structures. In some cases the roman structures are even remaining above ground, for example in the case of the Hufeisenturm at the western front of the castrum (also known as Salzturm). Other parts of the fortress have been digt up and conservated during archeological excavations, one of those examples is the Porta principalis dextra.

The castrum - the military facility of the ancient roman time - is surrounded by the vicus, the extramural, civil settlement. Parts of the settlement were excavated in recent times because of construction work, but a large part remain still underground and its extent is unknown. The graveyards from this period are situated outside the vicus, along the historic roads. Based on archaeological excavations, four different areas have been defined as burial sites, one of them uses the area of an abandoned part of the early roman settlement.



Figure 2: Hufeisenturm (Salzturm) in Tulln²

¹ <https://wirtschaft.tulln.at/investieren-in-tulln/wirtschaftsdaten> (accessed 12.07.2021).

² © Bwag/CC-BY-SA-4.0.



Figure 3: Site plan of Comagenis - ■ castrum (fortress) ■ vicus (civil settlement) ■ graveyard³

The roman remains of Comagenis are under protection by the Federal Monument Office and since 2021 they are a part of the Frontiers of the Roman Empire - The Danube Limes (Unesco World Heritage Site).

Thanks to the building of a large flood barrier along the Danube the risk of floods has been decrease for the whole area of the modern city Tulln. Nevertheless, floods and flash floods from rivers and riverless flowing into the Danube can still be a threat. Due to the location of the site in the central area of Tulln, the most threatening risk are construction activities.

³ R. Ployer 2013, S. 85.



2. Threat analysis pilot site

Likelihood	Almost certain					
	Likely					
	Possible	Accidents, Vandalism, Pollutants	Theft	Climate, Pests & Mold	Severe Weather	Fire, Flood
	Unlikely	Light	Deterioration		Earthquake	
	Rare	General Security, Violence				
		Insignificant	Minor	Moderate	Major	Severe
Impact						

The analysis is based on the SiLK Guidelines and takes the whole area of Comagenis (the castrum, vicus and burial sites of the roman time period) into account.⁴ The main part of the pilot site remains as archeological site under the modern city of Tulln. Only a few structures are preserved (and reused) above the surface or were excavated and conserved in the last decades during archeological surveys. In addition to a few building structures a numerous amount of artefacts have been recovered. Parts of those artefacts are in museums or stored in depots.

Due to the different types of cultural heritage (built und movable cultural heritage) a wide range of threats must be taken into account. Earthquakes are rare, but the area of Comagenis is in an earthquake zone.⁵ Extreme weather events like heavy rain or storm in intensities that result in major damage to cultural heritage are possible. The biggest threats among the SiLK Guideline categories are fire and flood⁶. Fire is recognized as big risk for the whole area, especially for the museum and the depot in the attic level of the Minoritenkloster. In general, the fire brigades are well established and are currently reworking their firefighting plans for old towns and following the fire in Notre Dame in Paris they want to extend their knowledge and expertise on and into cultural heritage protection. Nevertheless, there has been no plans or training exercises with the local fire brigade of Tulln. Floods by the river Danube und rivulets flowing into the Danube are certain, but hitherto the mobile flood protection has withheld all the water masses, even if in Krems-Stein 2013 sand bags had to be put on top of the metal structures in order to keep the water out. The threat analyzed above explicitly regards floods which the mobile flood protection cannot withstand, wherefore such an event was rated as possible only. The impact on cultural heritage would be severe in any case.

A major risk for the archeological site below the modern city of Tulln are construction activities. Regardless the fact that the whole pilot site is under protection of the Federal Monument Office in

⁴ SiLK - Sicherheitsleitfaden Kulturgut, <https://www.silk-tool.de/en/> (accessed 08.07.2022).

⁵ Threat classification for Earthquakes: middle. <https://www.hora.gv.at/> (accessed 08.07.2022).

⁶ Threat classification for Floods: low to high or HQ30 to HQ300. <https://www.hora.gv.at/> (accessed 08.07.2022).

some cases it is unavoidable to dig up the area of the building site. However, these cases can also be seen as possibility to gather more information and knowledge of the roman Comagenis.

3. Threat analysis for further selected Roman sites along the Danube

3.1. Enns (*Lauriacum*)

Ancient *Lauriacum* is located in the area of the modern city Enns in Upper Austria. The Roman remains of the legionary fortress, *vicus* (civil settlement), cemeteries, lime kilns and even of a harbour (?) are partly covered by medieval and modern buildings. Some of the Roman structures have been

excavated and reconstructed, some of them remain underground. Non-invasive prospectations such as geophysical surveys and aerial surveys (producing aerial images) have been conducted. The civil settlement of *Lauriacum* dates back to the the 1st century CE, the legionary fortress was founded in the Middle Imperial Era (190-270 CE) and was used until the the 5th century.

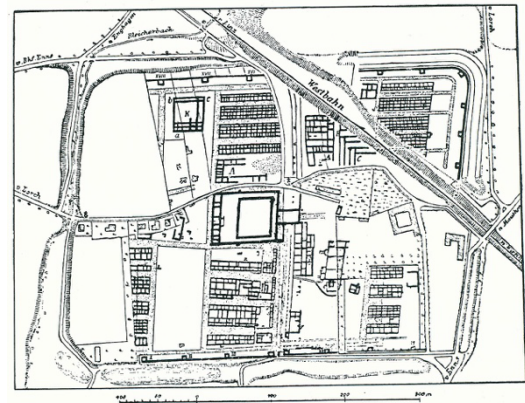


Figure 4: Ground plan of *Lauriacum*.

K. Genser, *Der Römische Limes in Österreich Nr. 33, 1986, S. 140.*

Likelihood	Almost certain					Agriculture, Construction Activity
	Likely					
	Possible	Vandalism	Earthquake, Theft	Fire, Flood		
	Unlikely	Accidents/Malfunctions, Violence	Deterioration			
	Rare	Light, Pests and Mold, Pollutants, Climate				
	Insignificant	Minor	Moderate	Major	Severe	
Impact						

3.1. Fischamed (*Aequinoctium*)

The watchtowers, a presumed fort, the civil settlement and a necropolis in the area of Fischamend are representing the Danube Limes site *Aequinoctium*. As archeological excavations have shown were the watchtowers first constructed in wood (in the case of the watchtower Fischamend-Markt surrounded by a circular stone wall), before they were rebuild in stone. There first building phase dates back to the Early Imperial Era, there last use dates in the 5th century.



Likelihood	Almost certain					construction activity
	Likely					
	Possible	Accidents, Vandalism, Pollutants, Earthquake, Severe Weather, Fire	Theft, Climate, Flood			
	Unlikely	Light	Deterioration			
	Rare	General Security, Violence, Pests and Mold				
		Insignificant	Minor	Moderate	Major	Severe
Impact						

4. Responsibilities in cultural heritage protection – case study pilot site

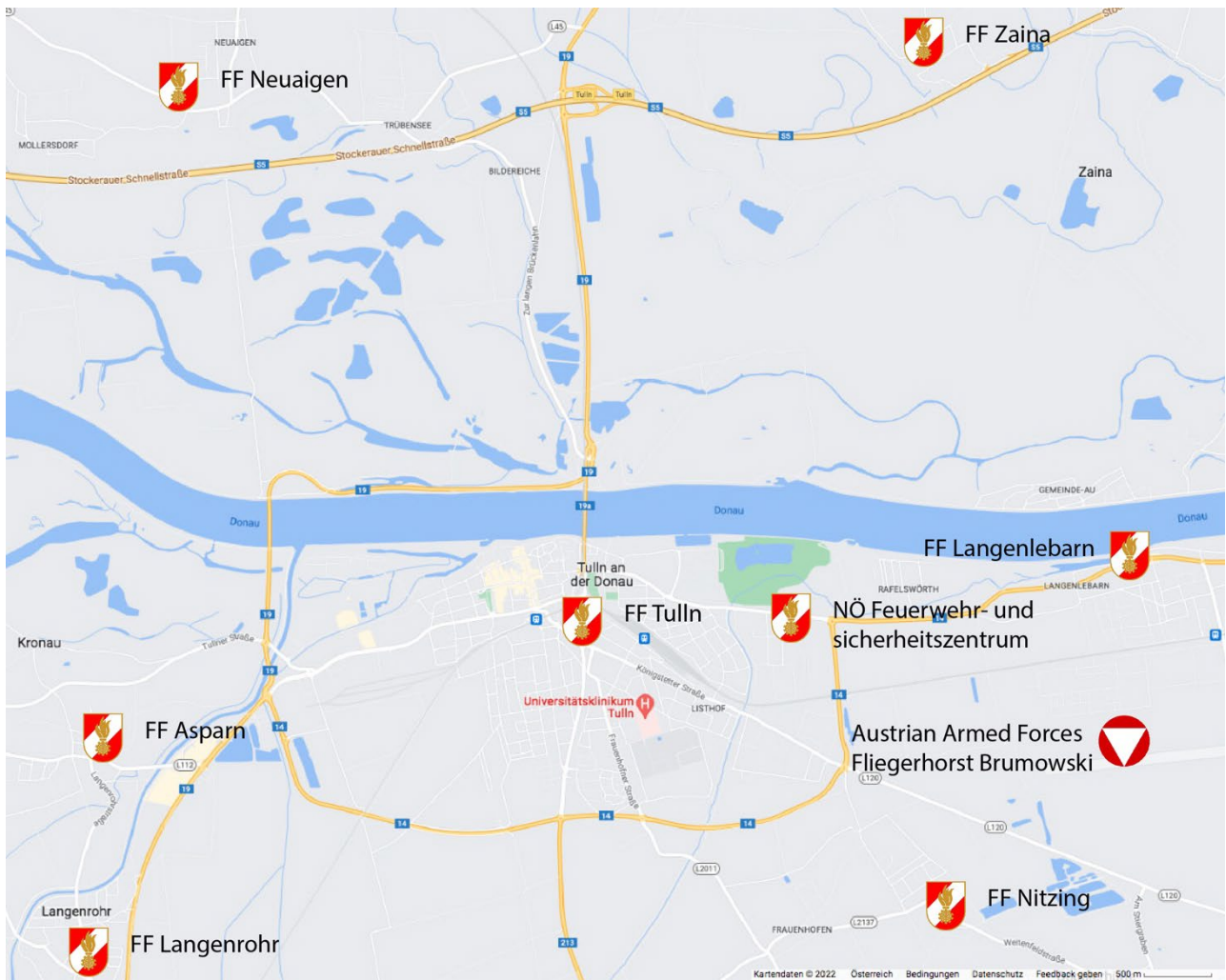


Figure 5: Location of possible first responders for cultural heritage recovery in Tulln. Voluntary fire brigades exist in every bigger village.⁷

As established in Project ProteCHt2ave (D.T3.1.1) in Austria the cultural heritage institutions

⁷ <https://www.google.at/maps>

themselves are responsible for the safety of their cultural heritage. Firefighting plans and plans for evacuating visitors and staff are mandatory, but emergency plans for movable cultural heritage are not. Built cultural heritage is of course taken into account by the firefighting plans.

On the very level of the pilot sites the fire brigades are the most likely emergency responders possible to assist in cultural heritage protection, even if there has been no special trainings or preparations so far. During big floods the Austrian Armed Forces are usually called in for assistance to the civilian organisations and would also be available for protecting cultural heritage. Since getting the assistance of the army is a procedure that involves two ministries it takes some time and the army will in most cases not be able to assist during a fire, unless it should burn for a whole day.

Expertise in cultural heritage protection can be brought in by Danube University Krems which has different academic centres dealing with cultural heritage, its protection, the treatment of materials and collections in general, as well as the local branch of the Federal Monument's Protection Authority (for Lower Austria) that is situated in Krems. The Austrian Notfallverbund for libraries and museums could be asked for assistance with specialised personnel, but also equipment and restoration facilities.⁸

Private initiatives like the Heimatkundlicher Arbeitskreis für die Stadt und den Bezirk Tulln and Volunteers could be an invaluable resource if trained, guided and organised correctly and given only tasks they are able to accomplish. An issue that has to be taken into account is the question of insurance for these volunteers. The Team Österreich does have volunteers aiding during catastrophes and insures them, but an extension into the cultural heritage sector is yet pending.⁹ The same can be said for the Cultural Heritage Rescue Team developed and implemented in ProteCHt2save which will inter alia be able to link the heritage and emergency responder sides as well as to briefly train and supervise volunteers.

5. References

René Ployer, Der norische Limes in Österreich. Fundberichte aus Österreich, Materialheft Reihe, Band 3 (FÖMat B3), 2013.

Sonja Jilek und Eva Kuttner, Der Donaulimes in Österreich. Das römische Kastell Tulln – Comagenis. Hrsg. Institut für österreichische Geschichtsforschung, o.J..

⁸ <https://www.notfallverbund.at/> (accessed 11.07.2019).

⁹ <https://www.teamoesterreich.at/toe/> (accessed 11.07.2022).