

Vienna Program in Urban Archaeology

Timetable, Field Guide, Data Processing

TIMETABLE

Planned schedule: excavation three half-days a week, artifact and materials processing one half-day a week (alterations possible).

Week	Excavations	Processing
1	Introduction: basic knowledge of theories, methods, surveying techniques, reconnaissance, excavations, measurement, stratigraphy	Readings and discussion of Vienna's urban history, research history, geology and past archaeological investigations and results
2-3	Theories, methods, surveying, excavations, measurement, stratigraphy Practising archaeological fieldwork	Lectures and discussion of Vienna's history, trajectories of urban development, history of research initiatives, and geological and archaeological contexts
4-6	Practising archaeological fieldwork	Practical work with archaeological investigation, from survey, to excavation, and data recording
7-10	Practising archaeological field and laboratory work	Processing archaeological finds (artifacts, soil samples, and other recovered field data) and features
11	Overview of research findings from investigations conducted during the semester, review and evaluation of course and program goals and results	Presentations of preliminary results, discussion of data implications and interpretations, overview and evaluation of goals and outcomes

Archaeological field procedure guide for surveys and excavations (Department of Urban Archaeology in Vienna, Austria)

Introduction

In Vienna, scientific archaeological research and excavations resulting from building projects have been conducted since the end of the 19th century. Modern excavations according to stratigraphic principles and methods have been standard since the 1990s, while a complete digital recording of excavation layers (or strata) began in 2006.

AIMS

The main tasks will be for students to learn the principal facets of scientific archaeological excavation. For a related, useful resource, please see the archaeological measure catalogue of the Austrian National Heritage Agency: <http://www.bundesdenkmalamt.at/documents/621701608.pdf>

1) Historic-archaeological facts of the urban development

- The appearance of up to 4 metres of layered structures and the assigning to a certain time period
- Which historical sequences could be linked with certain archaeological layers (key words: Roman legionary fortress, dark earth layer, the rising of the medieval town, the town fortifications etc.)



2) Excavation process:

- Setting of archaeological statements for a building site before starting an excavation.
- Safety on building sites (helmets, security shoes, security vests)
- Observation of dredger work: during the replacing of water pipes, gas lines or pipes of the district heating; or during the first steps of an excavation by removing the top layer.
- Tool handling: how and when do you use the different kinds of excavation implements, their names and modes of operation.
- Removing strata: what has to be kept in mind when a single layer is excavated (keyword: removing the latest stratum).
- Preparing an archaeological surface: preparing and cleaning a surface before beginning the actual scientific recording through mapping, photography and data recovery.



3) Scientific record:

- Photo documentation: Use of a digital camera and what has to be considered by taking pictures of archaeological layers. Rules of saving the image files.
- 3D digital measurements: using the total station, learning the software AutoCAD and the applications TachyCAD and PhotoPlan, creating layer in AutoCAD, measuring strata and finding points, digital orthophotography, saving the plan data.
- Description of strata and documentation of finds: the entire spectrum of digital and analogue specifications; inventory of findings at the excavation site.
- Storing and conservation of findings and rules for the transfer to the museum



4) Fundamentals of the scientific processing after the excavation

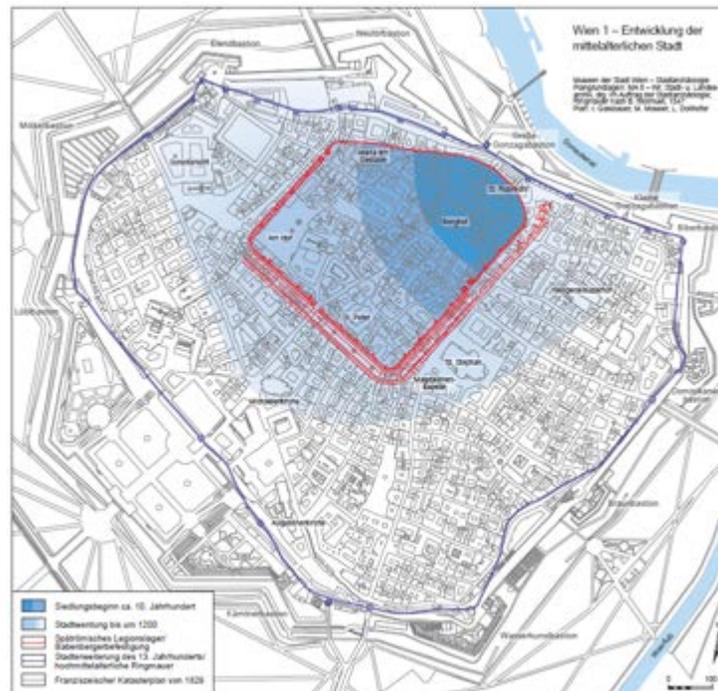
- Plan preparation
- Creating databases
- Preparing a GIS overview of a site.
- Interpreting assemblages, analysis, typology and dating of finds and layers
- Literature research
- Creating a catalogue and writing archaeological reports

Archaeological field procedure guide for data processing (Department of Urban Archaeology in Vienna, Austria)

Part 1 - From unnamed prehistoric structure to modern urban landscape

Content

Before starting to “work in the field”, it is essential to have extensive knowledge of the “field” itself. In case of working in an urban surrounding this involves learning about the historical background of the city and the results of a century of previous archaeological research. So the first step for every student joining this program is to get to know Vienna from different angles, especially its very special urban history. Wherever we are looking at a sequence ranging from prehistoric beginnings to roman fortress to medieval settlements and the early modern township, there are certain processes and structures to be aware of, steps of development to be scrutinized and analysed. Among other topics relevant for Vienna’s past, this introduction is concentrating on the different archaeological patterns that can be associated on one hand with medieval towns that were planned and founded in high medieval times and - on the other hand - urban structures that evolved step by step using roman remains as foundations. The progress and development of Vindobona’s and in medieval times Vienna’s fortification are other very important topics to be discussed.



A map showing the medieval settlement structures growing inside the boundaries (marked in red) of the former roman fortress. At the turn from the 12th to the 13th century when Vienna had gradually developed as an urban community a new fortification (marked in blue) was built.

Goal

You will learn about roman military and civilian structures, the beginning of settlement in medieval times, and the dynamics of continuities and hiatuses between late roman times and first medieval settlement. You can begin to appreciate the twists and turns that can be observed in the settlements medieval development including the last step in the process of becoming urban. It is important at this stage for every student, to learn how to apply a critical approach to archaeological as well as historical sources and older theories dealing with Vienna’s past.

Part 2 - Work with finds

Content

The different categories of archaeological finds that we typically encounter in excavations in Vienna are going to be presented. Each category of finds has its own specifics and those characteristics should be considered beginning at the excavation itself and during the laboratory analysis and restoration processes.



Medieval pottery and glass objects

Goal

A general survey as well as detailed insight into the different find categories and their handling from prehistoric times up to the 19th century will be provided.

2.1 – Pottery

Introduction

Pottery is the most substantial category of archaeological material that we uncover and analyse. Besides its aid in dating archaeological features it has the capacity to demonstrate the challenges that occur in handling a find category that mainly exists in vast quantity.



Roman and early modern pottery fragments

In detail:

2.1.1 Categorization, identification and description

Content

The identification of the form and function as well as the description of material, quality and tempering is the first and fundamental step. You will learn how to create a typology of form and material and to drawing the objects in question to create data records of these artifacts.

2.1.2 Dating pottery/age determination of archaeological features based on pottery.

Content

The first step is to learn how to analyse isolated fragments. By focusing on the pottery's matrix and tempering on one hand and the object's shape on the other hand we often come close to a determination of age within a range of 50 to 100 years. The evaluation of a whole compilation of finds requires a lot more experience and skill and is therefore going to be discussed in a second step. To practice the first and especially the second step and to enhance your capability to recognise time specific forms and tempering even if confronted with a vexing mass of tiny fragments, you will work with materials recovered from diverse time periods.

The last and most important step is the proper use of the information derived from close analysis of the pottery finds for determination of the age and probable functions of associated archaeological features. Features consist of elements of the built environment, such as a hearth space in a house or a trash pit.



Fragments of high-medieval pottery visibly tempered with graphite and muscovite



Late medieval oven tiles – the right one showing green lead glazing

Goal of 2.1.1 and 2.1.2

The main focus lies on acquiring the skills to handle pottery basically and more specific when it comes to dating the sole item or a whole complex of finds. Learning how to make further deductions on their own concerning the corresponding archaeological features is one of the most important challenges for you to master.

Literature:

I. Gaisbauer/S. Saki-Oberthaler, Retrogression, transformation und restart: various aspects of streets and squares in Vienna's 1st district from the Roman period to modern times. Proceedings of the "Conference on cultural heritage and new technologies", Wien 2011.

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R. McPhail/H. Galinie/F. Verhaege, A future for dark earth?, *Antiquity* Volume 77 Number 296, 2003, 349-358.

E. C. Harris, *Principles of archaeological stratigraphy* (2nd edition, London 1989).

M. Kronberger/M. Mosser, Vindobona – Legionary fortress, canabaelegionis and necropolis. *Limes XVIII*. Proceedings of the XVIIIth International Congress of Roman Frontier Studies. BAR Int. Ser. 1084 (Oxford 2002) 573–584.

Vindobona – Aquincum. Probleme und Lösungen in der Stadtarchäologie. *Aquincumnostrum* II.5 (Budapest 2009)

Vindobona – Aquincum. Herausforderungen und Ergebnisse in der Stadtarchäologie. *Aquincumnostrum* II.6 (Budapest 2010)