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Published: 02/01/2019

Publisher's PDF, also known as Version of record

[Cyswllt i'r cyhoeddiad / Link to publication](#)

Dyfyniad o'r fersiwn a gyhoeddwyd / Citation for published version (APA):

Karl, R. (2019, Jan 2). An empirical examination of archaeological damage caused by unprofessional extraction of archaeology ex situ ('looting'): A case study from Austria. *Archäologische Denkmalpflege*. <https://archdenk.blogspot.com/2019/01/an-empirical-examination-of.html>

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An empirical examination of archaeological damage caused by unprofessional extraction of archaeology ex situ ('looting')

A case study from Austria

Raimund Karl

Abstract: In this contribution, the reports received and published by the Austrian National Heritage Agency (BDA) pertaining to all professional archaeological fieldwork for the years 2013-2015 are analysed to assess the scale of damage caused to archaeology by 'looting'. The data pertaining to 1,414 archaeological fieldwork projects of all sizes was analysed for stratigraphic observations of recent disturbances of subsoil features by excavations for the extraction of finds. In a total of 5 (= c. 0.35% of all) cases, clear evidence of such recent disturbances was found by stratigraphic observation. In another 7 (= c. 0.5% of all) cases, some damage to the observed stratigraphy may have resulted from recent looting. Only in two cases, damage of some, but almost certainly not major, significance was caused by recent looting, while in all others, it was minimal. Where such 'looting' comes to its attention, the BDA regularly refers it to the prosecuting authorities.

This contrasts – rather uncomfortably for professional Austrian archaeology – with a total of 89 recorded cases (out of 1,674 permitted fieldwork projects) where no report was filed with the BDA. Thus, it must be assumed that in at least some of these cases, archaeology was destroyed in situ either without proper records being created, or at least with the report not filed with the BDA (which is compulsory according to § 11 (6) DMSG) for permanent archiving and thus likely to be lost in the foreseeable future. In each single such case, the damage thus likely caused to the archaeology by its 'rescue' by professional archaeologists, working with a formal permit by the BDA, exceeds by far even the worst stratigraphically attested cases of recent 'looting'. Yet, despite this constituting a major heritage crime, the BDA, the state agency tasked with enforcing the rather prohibitive Austrian heritage protection law, appears to have taken no legal action in these cases.

The unprofessional extraction of archaeology ex situ (also frequently referred to as 'looting') by members of the public untrained or insufficiently competent in archaeological excavation and recording methods is one of the most controversial topics in archaeological heritage management.

Many heritage professionals argue that any unprofessional extraction of archaeology should be strictly prohibited by law, and any violations of such prohibitions severely be punished (see e.g. most recently for Austria ORF 2018; but also e.g. Humer & Krenn 2011, 162-3). Any recovery of archaeology ex situ, many would argue, should only be conducted when necessary (e.g. Planck 1991, 22; Strobl & Sieche 2010, 266) and always be restricted to fully professionally trained archaeologists (e.g. Leskovar & Traxler 2011, 151; Humer & Krenn 2011, 162-3). Anything else would risk damaging the archaeology so that significant information about the past would be lost (e.g. Kriesch et al. 1997, 25-6; Brunecker 2008, 19-20; Leskovar & Traxler 2010, 59-61).

Others have argued that most extraction of archaeology ex situ is mostly harmless, even if conducted by non-professionals without any training. Especially if such extraction is restricted to topsoil contexts, if finds and any observations made during their discovery are reported to an appropriate recording organisation, it arguably is even beneficial (e.g. Huth 2013, 134-6; Deckers et al. 2016, 427). After all, most topsoil archaeology will be destroyed in situ without ever being discovered, let alone professionally recovered and recorded. In addition, if such finds are reported, this helps to improve the archaeological land survey: the more finds are reported, the greater the chances are that

previously unknown archaeological sites will become known to heritage managers (see e.g. Hofer 2016, 48-9). Thus, unprofessional finds extraction *ex situ* may even be improving both our knowledge about the past and our possibilities to protect the heritage still existing in the landscape. Thus, they argue, a liberal approach to regulating such finds extraction by members of the public is necessary, to encourage reporting of finds to the relevant organisation, rather than trying to suppress 'looting' by prohibitive laws and harsh penalties (e.g. Huth 2013, 134-6), which seems to be compelling everyone finding anything to secrecy.

The first group of archaeologists certainly recognise the benefits of finds reports received from members of the public. However, they argue that 'looting' does not just extract archaeology from topsoil contexts.¹ Rather, they argue that, much too often, it also affects 'undisturbed stratigraphy', causing significant archaeological damage (e.g. Brunecker 2008, 19-20; Leskovar & Traxler 2010, 59-61). After all, not only are there famous examples of finds looted from stratified contexts, like the *Nebra Sky Disc* (Otten 2012, 22; Figure 1); but many archaeologists also have personal experiences of archaeological damage caused by looting. In fact, I am one of these: on the very first excavation I ever directed in 1992 (Karl & Prochaska 2005), a looter illegally entered our trenches overnight and damaged some already cleaned, but still unexcavated features.



Figure 1: Professional archaeological excavation of the original find site of the Nebra Sky Disc. Note the dark feature in the section near the centre of the image, the stratigraphic evidence for the backfilled looting hole unprofessionally dug by its finders (image: Otten 2012, 22 Abb. 14).

The second group, on the other hand, certainly recognises that damage to undisturbed stratigraphy ought to be prevented. The major disagreement between the two groups thus mainly lies in the cost-benefit analysis: is it better for archaeology to prevent damage to the undisturbed archaeology *in situ*, so that it isn't disturbed prior to its professional excavation, even if that means that much will be lost completely, because it will never be excavated at all? Or is it better for archaeology to record as much data as possible about what is excavated and thus destroyed *in situ*, whether it has been professionally excavated or not, even if that means that some 'undisturbed' contexts will be destroyed by unprofessional finds extraction?

¹ Leaving aside that topsoil is, of course, also a context; and that there are of course contextual relationships between small finds in topsoil, too.

Assessing the scale of damage caused by looting

Even though virtually all archaeologists agree that ‘looting’ does cause damage to archaeology, the scale and significance of the damage it causes is surprisingly under-researched. What little research there is seems mostly to be based on ‘estimates’, whether about the ‘illicit trade in portable antiquities’ or of the activities of metal detectorists (e.g. Hardy 2017; though cf. Karl 2018a; Deckers et al. 2018). Alternatively, ‘assessments’ of the damage are based on generalisations from particularly spectacular cases like the already mentioned example from *Nebra*, or particularly shocking cases like that of sites looted during the 2003 invasion of Iraq (see Figure 2). Systematic assessment of stratigraphic evidence, on the other hand, appears to mostly be missing in the context of the assessment of archaeological damage done by looting.



Figure 2: Looting of dramatic scale as recorded at many archaeological sites in Iraq in the context of the 2003 invasion of Iraq. Site shown on this particular image: Umm al-Aqarib (image: US Department of Defense cultural property training resource website, <https://www.cemml.colostate.edu/cultural/09476/iraq05-106.html> [2/1/2019]).

That seems rather surprising, given that stratigraphic theory requires that recent disturbances of subsoil should show up quite clearly during the excavation process: we should be able to spot the damage caused by looting when we come upon it when excavating our sites. Indeed, the case from *Nebra* proves that we are: the looting hole dug by the metal detectorists who extracted the *Sky Disc* from its original context is very well visible (Figure 1). Since stratigraphy is the primary method used by archaeology to research, analyse and reconstruct past human activities, it seems all the more astonishing that very little use seems to have been made as yet of actual excavation data to assess the scale and significance of damage to the archaeology by looting.

Thus, for the purpose of an empirical assessment of the damage done to archaeology of a particular area by the extraction of finds ex situ by non-professionals, the systematic assessment of excavation (and other fieldwork) reports from that area seem to be a much better method than those used as

yet. This is especially so since it cannot be assumed that motives for and benefits gained by looting are the same all over the world. Rather, looting patterns and intensities clearly vary quite strongly, and as such, data gathered e.g. in a place like Iraq during a military invasion clearly cannot be generalised, not even to Iraq. Nor does the illicit international trade in portable antiquities provide much in terms of useful data for assessing that question: at best, changes in the number of artefacts probably recently extracted from a particular area being traded on the illicit market says whether looting of sites is probably increasing or decreasing in that area. But that does not indicate how much damage is actually done to stratified archaeology by that looting.

Stratigraphic observations from a particular area, on the other hand, not only provide actual evidence of damage from that area. They can also be assessed in terms of the significance of the archaeological damage a disturbance of stratified contexts is likely to have had. They allow comparisons with the damage caused by other current threats to archaeological site preservation, like development, farming, forestry, but also bioturbation, etc. They even allow to assess how much damage had already been done to sites by past human actions for comparison purposes with current damage caused by likely looting. It even allows to contrast the damage done by looting with that done by professional archaeological excavations (Figure 3), since as an invasive method, excavation largely destroys or at least significantly transforms the evidence it examines.

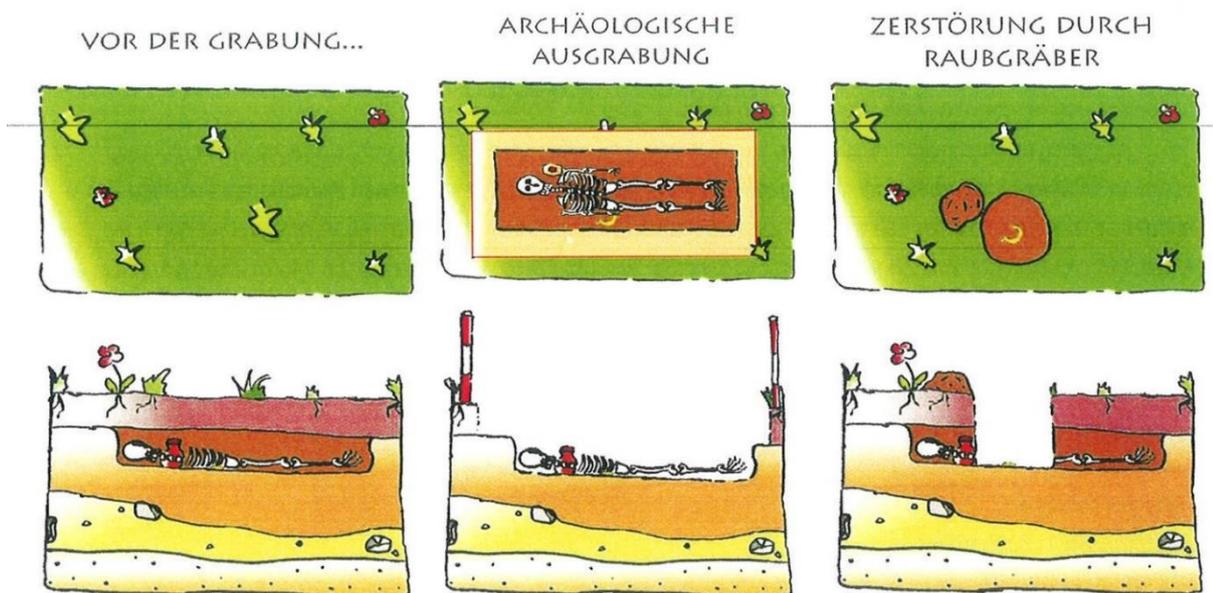


Figure 3: explanatory illustration of the difference in damage to features (left) caused by professional archaeological excavation (centre) and by looting (left). (image: Ch. Schmid; Leskovar & Traxler 2010, 60, Abb. 2).

The stratigraphic data is even better if it is created following a standardised methodology. If e.g. the heritage agency responsible for a particular area enforces compliance with particular fieldwork guidelines and recording standards, data is indeed comparable across the whole examined area. If that data is then also collected by the same or another agency in a single data repository, large datasets can be quite quickly and easily assessed for the amount and significance of observed damage to otherwise 'undisturbed' archaeological contexts. If the dataset is also representative for all archaeology within the relevant area, statistically reliable statements can be made about the damage caused to archaeology by recent looting.

The Austrian dataset for this study

The dataset used for this study is that created by all archaeological fieldwork conducted in Austria in the period 2013-2015 either by the National Heritage Agency, the *Bundesdenkmalamt* [BDA]², itself or with a formal archaeological field research permit issued by it according to § 11 (1) *Denkmalschutzgesetz* [DMSG]³. I have already discussed elsewhere for what archaeological fieldwork the permit requirement of § 11 (1) DMSG actually applies; and also, how this has been and still mostly is being (mis-) interpreted by the BDA to be applicable to all fieldwork conducted (in situ) with the intent of discovering and examining archaeology (Karl 2018b). For the purpose of this paper, it suffices to say that in the period examined, all professional archaeologists conducting any archaeological fieldwork in Austria believed they required such a permit and thus (at least mostly) duly got one before engaging in their fieldwork.

Conversely, all professional archaeological fieldwork conducted in Austria in that period was conducted under the terms and conditions of BDA-permits, meaning that there are official records about all of these fieldwork projects. Since they were attached to permits as binding conditions, all this fieldwork had to be – and largely was – conducted according to the BDA’s official *Richtlinien für archäologische Maßnahmen*⁴ (BDA 2012a; 2014a) and thus to comparable standards. While the 3rd edition of these guidelines replaced its 2nd on 1 January 2014, there are only very minor changes between these two versions that have no bearing on fieldwork methods and recording standards. Excavations in particular had to be conducted in the stratigraphic method and all contexts recorded on context sheets, by plan (and where appropriate, section) drawings, and photographically (BDA 2012a, 15-22; 2014a, 15-22). In addition, standardised reports discussing all relevant observations during the fieldwork had to be filed (according to § 11 (6) DMSG) with the BDA for every permitted project, which the BDA is required by law (§ 11 (7) DMSG) to publish annually in the *Fundberichte aus Österreich*⁵ [FÖ] (BDA 2013; 2014b; 2015).

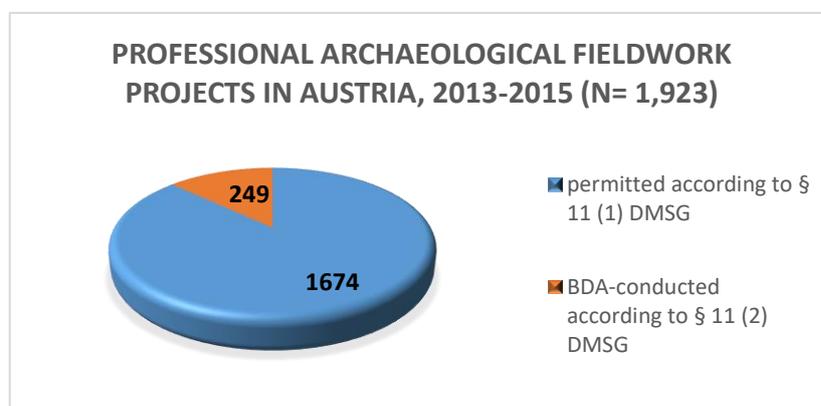


Figure 4: Professional archaeological fieldwork projects in Austria, 2013-2015 (image: R. Karl; data sources: BDA 2013; 2014b; 2015).

Conveniently, the BDA has been publishing the FÖ in electronic format in addition to the traditional print edition since FÖ 50, 2011 (BDA 2011, 9). This electronic edition contains, in addition to the ‘short reports’ published in print (“*Teil A*”; BDA 2012a, 26-7; 2014a, 27-8), also the ‘full reports’ (“*Teil B*”; BDA 2012a, 28-9; 2014a, 29-30) received by the BDA. Formatted as a normal pdf file, it can be searched for any keyword or combination of letters, helping immensely with the analysis of the reports. While

² = Federal Monuments Agency.

³ = Monument Protection Law.

⁴ = Guidelines for Archaeological Measures.

⁵ = Finds Reports from Austria.

I am often critical of the BDA, it deserves to be mentioned that this publication, and especially its electronic version, is an exceptional achievement by the BDA and deserves the highest praise as a world-leading best practice in archaeological heritage management.

For the purpose of this study, the last 3 volumes of the FÖ available to me at the date of commencement of the analysis, FÖ 52/2013 to FÖ 54/2015 (BDA 2013; 2014a; 2015) were analysed. They provide a consistent, comparable dataset for all professional archaeological fieldwork conducted in the years 2013-2015 in all of Austria. The volumes for the previous two years and the following year, which has since been published, were purposefully not included in this study, to leave an unassessed control group for independent falsification attempts of the results of this study.

For the period 2013-2015, the BDA (2013; 2014a; 2015) reports that it conducted 249 ‘archaeological measures’ itself (according to § 11 (2) DMSG) and issued permits (according to § 11 (1) DMSG) for another 1,674. In total, this amounts to 1,923 ‘archaeological measures’ (Figure 4).⁶ Of the 1,674 permitted measures, no reports were received by the BDA within the deadline for mandatory submissions to the respectively relevant volume of the FÖ for a total of 89, and thus could not be included.⁷ This reduces the total sample of reports received to 1,834 (including the BDA’s own fieldwork and permitted fieldwork by others according to § 11 (1) DMSG). Of those 1,834 fieldwork projects, a total of 96 were not actually carried out; with another 324 producing only negative results (no archaeology present). This further reduces the sample of reports which could be analysed to 1,414 (Figure 5).

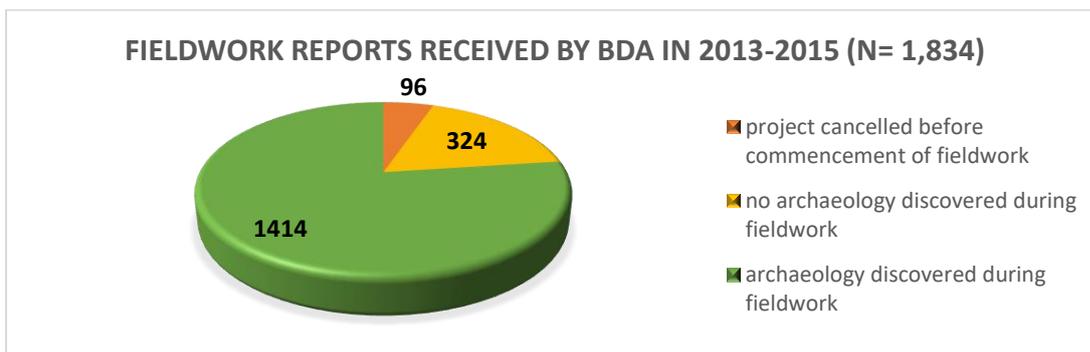


Figure 5: Fieldwork reports received by BDA for 2013-2015 projects (image: R. Karl, data sources: BDA 2013; 2014b; 2015).

The distribution of fieldwork across the country – Austria is a federal republic consisting of 9 constituent states – is somewhat uneven (Figure 6), though the distribution roughly matches the geomorphology and population density of the various parts of the country. About 54.41% of all archaeological fieldwork in Austria was conducted in the states of Lower Austria⁸ and Vienna⁹ in the 2013-2015 period (BDA 2013; 2014b; 2015). These states house c. 40.35% of the population and contain a majority of the non-alpine Austrian land. They are also the parts of the country where the majority of development is taking place, which explains the observed distribution.

⁶ Although a manual count of all listed measures assigned a case file number by the BDA in the FÖ gives the actual number of 1,926 ‘archaeological measures’ reported on in the three relevant volumes (BDA 2013; 2014a; 2015).

⁷ A number of these reports were received late and published in subsequent volumes of the FÖ. Thus, the actual sample examined is slightly larger than the 1,834 mentioned above. The precise number of those ‘late’ reports could not be established due to the nature of how they are published in the FÖ, and thus, the sample size of 1,834 is used in this analysis.

⁸ = Niederösterreich.

⁹ = Wien.

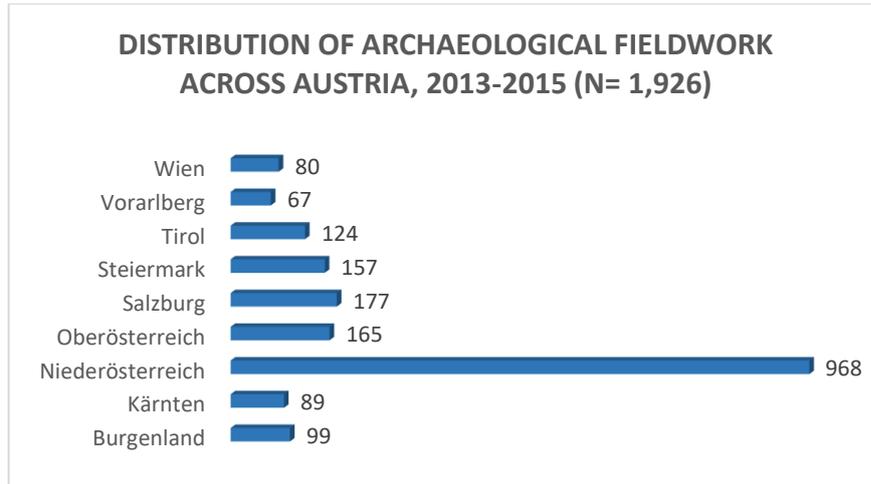


Figure 6: Distribution of archaeological fieldwork across Austria's constituent states, 2013-2015 (image: R. Karl; data sources: BDA 2013; 2014b; 2015).

Overall, the reports can be considered to be representative for all archaeology in Austria. They cover archaeology from the Palaeolithic to the 20th century AD. They include data on all main types of archaeology known from Austria, including lowland, upland and high alpine archaeology; burials, settlements, roads, etc. They also cover a significant percentage of all archaeology known to the BDA: according to its latest figures, it currently knows 21,730 archaeological sites in Austria¹⁰, and appears to have known c. 19.550 in 2015 (Picker et al. 2016, 285). While naturally, several fieldwork projects examined the same site several times in the period 2013-2015, in total, over 1,500 different sites were targeted in this period, and over 1,300 of the 1,414 reports published in FÖ 52-54 pertain to different sites. Thus, the sample represents c. 6.5% of all archaeological sites known in Austria at the time. It also represents a sample of c. 25% of all professional archaeological fieldwork conducted in Austria in the 25-year period between 1990-2015 as well as c. 10% of all professional archaeological fieldwork conducted since a professional archaeology emerged in Austria, and thus can be considered representative in this regard too. The sample chosen thus presents a solid and reliable basis for analysis.

Methodology

The 3 analysed volumes of the FÖ assessed consist, in total, of 21,433 pages, well over 20,500 of which are fieldwork reports. To speed up the identification process of relevant reports, the electronic versions of all three volumes were searched using the search function of Adobe Acrobat Pro DC. The search terms were chosen to identify as many relevant key words as possible in any single search (Table 1); rather than searching for all the actual words which are commonly used in the German language for looting-related damage or looting activities. In addition, all volumes were speed-read to manually identify whether any reports had been missed, which was not the case.

As a control term for assessing whether disturbances of contexts had generally been recorded, even if not caused by human activity, each volume was also searched with the term *'tierbau'* ('animal burrow'; see Table 1). In addition, it was also attempted to use the search term *'stör'*, which would have been suited to identify terms like *'Störung'* ('disturbance'), *'gestört'* ('disturbed'), *'Zerstörung'* ('destruction'), *'zerstört'* ('destroyed'), etc., for the analysis of FÖ 52/2013. However, this attempt was abandoned quickly, since its use led to much too many hits for terms like *'prähistorisch'* ('prehistoric'),

¹⁰ pers.comm. B. Hebert (Head of Archaeology, BDA) per email dated 22/5/2018.

‘historisch’ (‘historic’), etc. (which are used abundantly in almost every report in the FÖ) due to the inability of Adobe Acrobat to distinguish correctly between the German letters *o* and *ö* (*Umlaut o*).

search terms	Key words identified by means of search term
raub	<i>Beraubung</i> (‘looting’), <i>Grabraub</i> (‘grave robbing’), <i>Raubgräber</i> (‘looter’), <i>Raubgrabung</i> (‘robbery excavation, looting’), <i>Steinraub</i> (‘building stone robbing’), etc.; but also <i>graubraun</i> (‘grey-brown’) and similar soil colour descriptions
illegal	<i>illegale Grabung</i> (‘illegal excavation’), <i>illegale Aktivitäten</i> (‘illegal activities’), etc.
sonden	Metall <i>sonden</i> (‘metal detectors’), <i>Sondengänger</i> (‘metal detectorist’), etc.; but also <i>Magnetsonden</i> (‘magnetometer’), <i>Bohrkernsonden</i> (‘auger’), etc.
sondl	<i>Sondler</i> (‘metal detectorist’), etc.
metallsuch	<i>Metallsuchgerät</i> (‘metal detector’), <i>Metallsucher</i> (‘metal detectorist’), <i>Metallsuche</i> (‘metal detecting’), etc.
detekt	Metall <i>detektor</i> (‘metal detector’), <i>detektiert</i> (‘detected’), <i>Detektion</i> (‘detection’), etc.
tierbau	<i>Tierbau</i> , <i>Tierbauten</i> (‘animal burrow’), used as a control term to identify whether (significant) disturbances of archaeological contexts are generally recorded in reports

Table 1: Search terms used to identify relevant fieldwork reports by use of search function of Adobe Acrobat Pro DC.

Each report identified as using one of the relevant key words was then thoroughly read to determine what kind of activity or observation it reported. This allowed not only to identify those cases where a previously ‘undisturbed’ archaeological context had recently (or in a more distant past) been affected by unprofessional finds extraction; that is, modern ‘looting’ and pre-modern ‘grave-robbing’ or ‘stone-robbing’. Rather, it also allowed to identify e.g. how often metal detectors had been used in professional fieldwork; and how frequently bioturbation was recorded by stratigraphic observations. It also allowed to identify in how many cases of professional archaeological fieldwork the (real or imagined) threat of looting had been given as a reason for why the particular fieldwork project had been initiated. This, in turn, also allowed to assess whether any suspected or actually occurring looting had caused observable damage to otherwise ‘undisturbed’ archaeological contexts.

The various activities and kinds of damage identified were then classified and entered into MS Excel spreadsheets for analysis. The categories deemed relevant for analysis were:

- 1) actual or suspected looting given as a reason for professional fieldwork being initiated,
- 2) use of metal detectors as a tool in professional fieldwork,
- 3) recorded instances of looting occurring on ongoing excavations (e.g. overnight, on weekends, etc.),
- 4) recent looting securely identified by stratigraphic observations during fieldwork,
- 5) recent looting identified as a possible cause of stratigraphic disturbances observed during fieldwork,
- 6) past looting (e.g. grave robbing near-contemporary with burial; stone robbing from built structures prior to 20th century AD, etc.) identified by stratigraphic observations,
- 7) damage to stratified contexts by farming or modern human activities other than intentional looting of archaeological sites,
- 8) damage to stratified contexts by animal burrows or other instances of recorded bioturbation of the subsoil (e.g. natural events which may have destroyed archaeological features), and
- 9) negative evidence for looting, i.e. cases in which the threat of looting was given as a reason for professional fieldwork having been initiated, but no evidence of damage to archaeological contexts by looting activities were observed during the fieldwork.

Also, wherever possible, it was attempted to estimate the scale and significance of the damage caused by the identified activity based on the respective report. Such qualitative assessments are of course, at least in parts, subjective. Thus, they are discussed in detail for each of the 5 cases identified as category 4) in the analysis of the results of this study in the text below. Where all other categories are concerned, where relevant, the scale and significance of any damage caused by them is summarily discussed in the relevant results sub-chapter.

Results

The analysis of the dataset has produced the following results:

1) Looting as a reason for the initiation of professional fieldwork

Overall, a total of 15 cases was identified where an actual or suspected threat of looting was mentioned in the respective report as at least one of several, if not the main reason of why professional fieldwork was initiated. Since the relevant sample size for this category of results is all fieldwork conducted or planned for which a report was received by the BDA (n= 1,843), this amounts to c. 0.82% of all professional fieldwork in Austria in the 2013-2015 period (also see Table 2). A few noteworthy ones of these cases will be discussed in greater detail below. Given that no damage was caused by this activity (after all, it is just given as a reason why fieldwork was planned and/or initiated), no qualitative assessment of its scale and significance is necessary.

2) Use of metal detectors as a tool in professional fieldwork

Overall, a total of 86 reports was identified which mentioned the use of metal detectors in the course of archaeological fieldwork or in conjunction with a professional fieldwork project. Since the relevant sample size for this category of results is all archaeological fieldwork conducted or planned for which a report was received by the BDA (n= 1,843), this amounts to 4.69% of all professional fieldwork projects in Austria in 2013-2015 (also see Table 2).

The use of metal detectors in the course of, or association with, professional fieldwork did vary considerably. Most commonly, metal detectors seem to have been used on professional archaeological excavations, to search all or parts of the excavated soil (whether excavated by mechanical digger, manually or both). Alternatively, metal detectors were used to search the designated area of excavation (and/or its surroundings) for metal finds before the removal of the topsoil (whether by mechanical digger, manually, or both); and/or the surface of features / strata prior to their (usually, but not always, manual) excavation. Also, spoil heaps were sometimes searched by metal detector (whether by professional staff and/or volunteer metal detectorists).

Only in a few cases, systematic metal detector surveys of the whole site or indeed a wider area were carried out. Where systematic metal detector surveys were conducted, they were mostly either conducted in combination with excavations on well-known, metal find-rich sites like e.g. *Roseldorf an der Schmida* (BDA 2013, D1788; 2014b, D3022-30; 2015, D3538-49); or during projects to identify the course of Roman or other old roads (e.g. BDA 2013, D4916; 2014b, D5828; 2015, D6370).

Also noteworthy is the chronological development and geographical distribution of the use of metal detectors in Austrian professional archaeology. Where the former is concerned, there is a clearly observable increase in the overall use of metal detectors during professional fieldwork in the 2013-2015 period (Figure 7): while in 2013, only c. 2.52% of all professional fieldwork in Austria made use of a metal detector as a tool, by 2015, this has risen to c. 5.58%. However, it is mainly the westernmost states of Austria – Vorarlberg, Tirol and Salzburg – where metal detector use is (considerably) above average, while the rest of Austria is only slowly catching up (Figure 8).

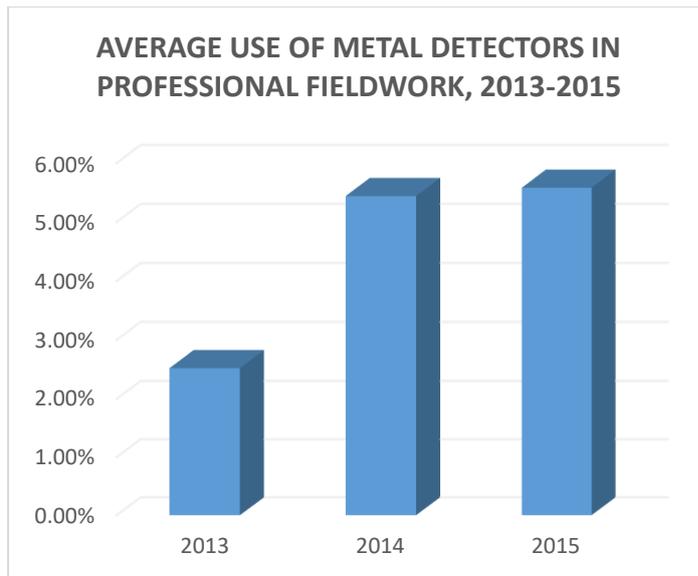


Figure 7: Chronological development of the use of metal detectors in professional fieldwork, 2013-2015 in % of all reported fieldwork (image: R. Karl; data sources: BDA 2013; 2014b; 2015).

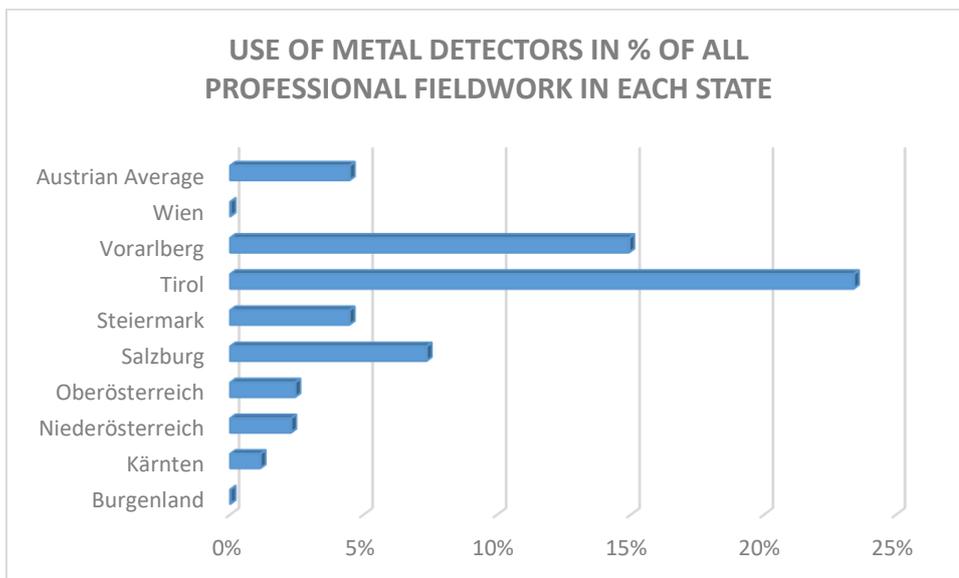


Figure 8: Geographical distribution of the use of metal detectors in professional fieldwork, 2013-2015, in % of all fieldwork reported from each state (image: R. Karl; data sources: BDA 2013; 2014b; 2015).

While the increasing use of metal detectors in professional fieldwork is certainly a positive development, this clearly is also an area of considerable concern: even in 2015, after their use had more than doubled compared to 2013, still over 94% of all professional fieldwork appears to have been conducted without the use of a metal detector. Given that virtually all professional excavations in Austria use mechanical diggers to remove the topsoil before proper excavation commences, this means that virtually all small finds contained in the topsoil will have been removed unnoticed and unrecorded, thus constituting total loss of this archaeology.

While it can be argued whether that leads to significant losses of significant archaeology; it makes any arguments that metal detectorists cause significant damage to archaeology by removing small finds from the ground, even if they restrict their activities to the topsoil only (e.g. Brunecker 2008, 19), rather difficult to sustain. If over 94% of all topsoil contexts and all finds residing in them are destroyed unnoticed and unrecorded during professional fieldwork, what damage is caused by their ‘looting’

that wouldn't also be caused by our professional practice? As such, especially if we want to sustain the argument that any unprofessional extraction of archaeology is damaging, there is certainly considerable room for improvement of professional fieldwork practice in this regard.

That said, I would argue that no significant losses of significant archaeology have actually been caused by this: even where small finds were collected from topsoil (and other) contexts using metal detectors, as yet, no analysis of topsoil finds seems to have been conducted in Austria which has produced any significant results. Thus, at least for the time being, any losses of any such archaeology, whether by the professional practice of removing the topsoil, unsearched, with a mechanical digger, or by unprofessional extraction of topsoil finds by members of the public, can generally be considered to be insignificant; or at least so much less significant than losses of archaeology from stratified subsoil contexts that they seem to be deemed acceptable by the Austrian archaeological profession, at least in its actual practice.

3) Recorded instances of looting of ongoing excavations

No such instances were recorded in the reports received for the 2013-2015 period (also see Table 2). As such, while there certainly occasionally are reported instances of such 'site looting' (also see above for my own experience of such an event), it seems to be a rather minor issue compared to other threats faced by archaeology in situ.

4) Recent looting securely identified by observations during fieldwork

Overall, a total of 5 cases could be identified in the 2013-2015 fieldwork reports from Austria where recent looting had been identified by stratigraphic observations during fieldwork. Given that the relevant sample size for this category of results is the total number of fieldwork reports filed with the BDA recording archaeology discovered by each of these projects (n= 1,414), this amounts to c. 0.35% of all fieldwork conducted in Austria in this 3-year period (also see Table 2). These cases will now be examined in greater detail.

'Haiblwaldgruppe', Barrow 10, KG Matrach, OG Großklein, PB Leibnitz, Steiermark

The so-called 'Haiblwaldgruppe' is one of several (partially extensive) Iron Age barrow cemeteries in the vicinity of the Hallstatt period 'princely seat' on the *Burgstallkogel* in the *Kleinklein* area of the *Großklein* parish in Styria. This cemetery consists of a group of 16 almost completely flattened, relatively small (on average less than 10 m diameter) barrows and had not previously been subjected to invasive professional archaeological investigation (Mele & Kiszter 2013, D3823).

As part of a larger research project by the *Universalmuseum Joanneum (Graz, Styria)*, in 2013, a small excavation of barrow 10 of this cemetery was conducted. After removal of the earth deposit making up the body of the barrow, which could only be distinguished from the sterile natural below by its consistency, a looting pit of c. 50 cm diameter was discovered c. 30 cm below the topsoil. The bottom of that pit was flat with one about hand-sized depression. This depression contained a plastic bag, which covered the pottery found in the burial pit itself. The excavators assume that it had been left behind by the looter(s) to mark the burial in case they decided to re-excavate it (Figure 9).

The looting pit had penetrated through an ashy layer containing some charcoal, which the excavation identified in the centre of the barrow underneath the earth deposit making up its body. Underneath this ashy layer, the remains of the irregular burial pit could be identified. It still contained pottery and also charcoal. The pottery was partially removed *en bloc* and charcoal and soil samples taken. In the burial fill, several metal fragments were discovered during the flotation of the samples (Mele & Kiszter 2013, D3860).



Figure 9: Looting pit with the plastic bag left by the looter(s) still in situ (image: Mele & Kiszter 2013, D3861 Abb. 46).

Apparently, less than 5% of the monument had been affected by the looting activity. However, since the looting pit had penetrated into the remains of the original burial and presumably at least some finds been extracted, where the barrow itself is concerned, this clearly constitutes significant damage. Naturally, what (presumably metal) finds had been extracted from the burial could not be established, which adds a layer of uncertainty to the interpretation of this particular burial and barrow.

That said, while this barrow was clearly significantly damaged by the looting, the damage was not total: after all, most of the pottery still remained in the burial; and much of what had remained of the stratification of the barrow (including the remains of the burial) were still intact. Keeping in mind that Hallstatt burials were frequently looted ever since they were deposited, this might be considered a special case, because only one (fairly recent) disturbance was evident. Thus the chances of interpreting in this case an otherwise 'undisturbed' burial were reduced by the looting to some extent. For instance, had a metal find or finds not been extracted from it by the looter(s), it might have been possible to date it more precisely based on metal find typo-chronology. Also, for a socio-archaeological interpretation of the burial (at least one based on estimated burial wealth), any missing metal finds removed by the looter(s) could have changed somewhat how the burial is to be interpreted. As such, the looting of this burial clearly reduced the possibilities we had to gain archaeological knowledge from the examination of its surviving remains.

Still, given the nature of what survived of it until its professional excavation, and the general level of knowledge of Hallstatt burials in the area most relevant for the interpretation of this particular burial (which extends beyond Austria into, at least, neighbouring Slovenia and Western Hungary), it seems rather unlikely that this burial would have changed the level of understanding we have of this area and period significantly, even if it had not been recently looted. As such, while its looting certainly caused significant damage to the particular burial and barrow, both scale and significance of the

damage more generally are rather low: we might have learnt a bit more from it had it not been looted, but hardly much more than what we could still learn from it anyway.

Hallstatt period barrow, KG Spielfeld, OG Spielfeld, Steiermark

As part of the *'BorderArch-Steiermark'* project, excavations were conducted in 2014 at the *Bubenberg* site, which sits on the Austrian-Slovenian border in what appeared and turned out to be another Hallstatt period barrow. This barrow had been disturbed by a looting pit at its centre and a looting trench dug sideways into its body. Surviving remains of branches and leaves in the fill of these disturbances indicate that they were at least relatively, if not very, recent (Mele et al. 2014a, 343; Figure 10). The looting pit and trench had apparently destroyed whatever had remained of a burial within this barrow, which, based on fragments of pottery and a bronze pendant found in its body, was probably of Hallstatt period date (Mele et al. 2014b, D5478).

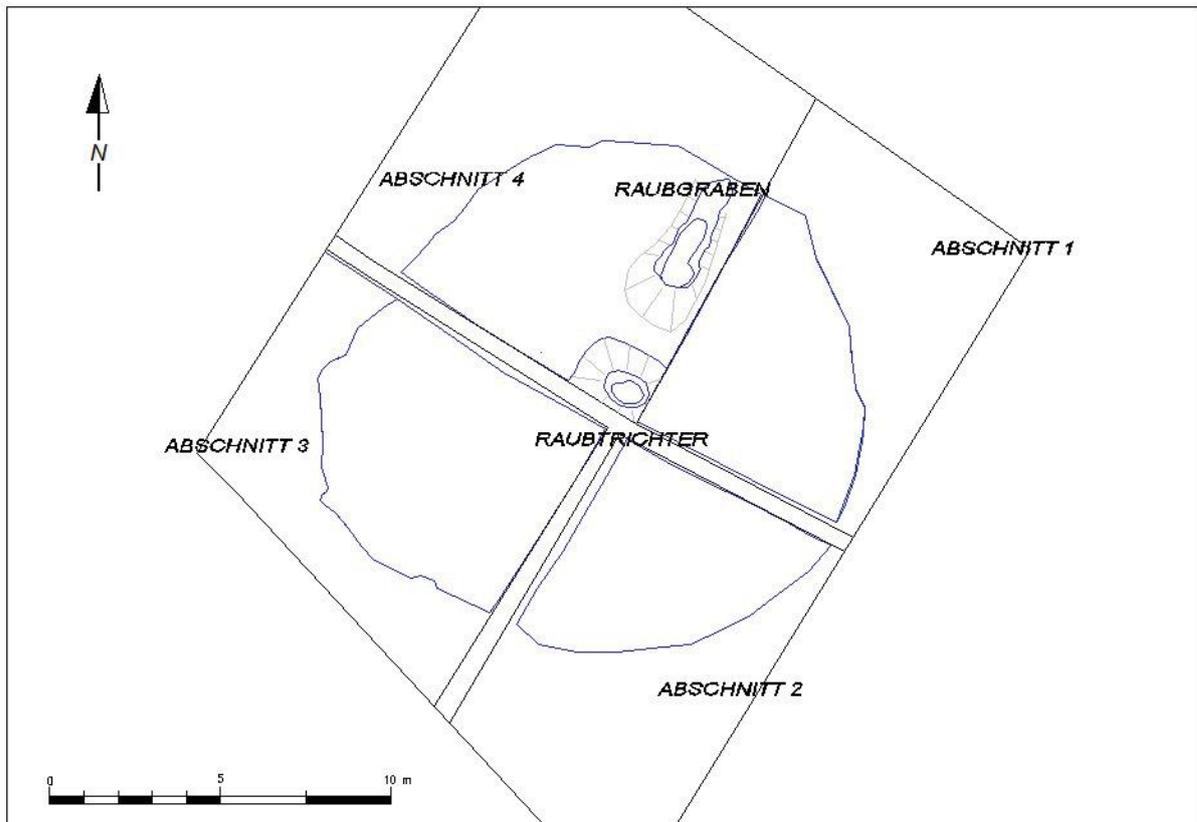


Figure 10: Surface plan of the barrow with central pit ("Raubtrichter") and trench ("Raubgraben"), indicating the scale of the damage done by (presumably) recent looting (image: Mele et al. 2014b, D5475 Abb. 48).

The barrow and the archaeology preserved beneath it, however, contained a much more complex stratification: the body of the barrow consisted of 4 different deposits, of which the topmost contained two Roman coins (Mele et al. 2014b, D5476). The one immediately beneath it also contained finds, including flakes and serpentine stone axes (Mele et al. 2014b, D5476), indicating that archaeology had been disturbed when material was redeposited for the construction of the barrow. Even more significantly, however, beneath the barrow, features of an earlier occupation of the site were discovered. These postholes, pits and gullies had been dug into the natural, with 7 containing undiagnostic prehistoric pottery and a flint flake, indicating a – presumably Neolithic – settlement (of which at least two occupation phases could be identified) occupying the same spot as the later barrow (Mele et al. 2014b, D5478-81). The traces of this settlement appear to not have been affected by the (recent) looting that affected the barrow; with the construction of the barrow itself during the

Hallstatt period presumably having destroyed at least parts of the evidence relating to the earlier settlement on site.

Where the scale and significance of the damage caused to the barrow by its looting is concerned, the situation is almost identical to the previous case: in total, less than 5% of the barrow was affected by it, but apparently, the central burial that is to be expected in such a barrow had been destroyed, in this case, completely. Thus, clearly, its looting has led to significant loss of archaeological information: in fact, we cannot even say with certainty whether this barrow originally did contain a burial, since no traces appear to have remained of it.

Yet, the remainder of the archaeological stratification at the site remained mostly unaffected by this looting: that the barrow itself had been created by the deposition of (at least) 4 layers of soil could still be established. That the last one of these was apparently only added in the Roman period or later, given it contained 2nd century AD coins in what appears to be an undisturbed deposit (Mele et al. 2014b, D5476), indicating a later reuse of the barrow, could also be identified. Even more importantly, the (presumably) Neolithic contexts beneath the barrow were completely untouched by the looting. Thus, much, if not most, of the site's biography can be reconstructed since despite the looting, much of it remained 'undisturbed'.

Thus, again, its looting seems to have hardly significantly changed what we can learn from its professional archaeological examination; nor does it seem to have significantly reduced our possibility to improve our knowledge and understanding of even only Styrian, let alone Austrian and Slovenian prehistory. While the (potential) loss of the burial in the barrow is clearly unwelcome and should not have happened, both scale and significance of the looting damage are very limited.

Iron Age iron smelting area, KG Waltersdorf, SG Judenburg, Steiermark

During the examination of a potential iron smelting area in a Hallstatt and La Tène period settlement on the *Falkenberg* in *Waltersdorf* in Styria in 2014, a looting pit was observed in the stratigraphy. This looting pit, then freshly dug, had first been discovered in 2011 and was the proximate cause of this excavation: iron smelting-related finds (flow slag, furnace wall and nozzle fragments) had been discovered in the spoil created by it (Tiefergraber & Tiefergraber 2014a, 348).

About half a meter in diameter, the looting pit seems to have penetrated only into what is described as an 'erosion layer' of c. 0.05-0.1 m depth, which lay immediately beneath the topsoil, itself only a few centimetres thick, since it is not shown on any of the feature plans attached to the site report. Below this erosion layer, which contained Hallstatt and La Tène period pottery, a substantial levelling layer was recorded, which carried more Hallstatt and in particular lots of early La Tène finds. This levelling layer in turn covered the remains of early La Tène period buildings: the stone bedding layers and foundation stones for the sleeper beams for two houses of the last occupation phase, and beneath one of these, a wall gully and stone bedding layer of an earlier (Hallstatt D?) building (Tiefergraber & Tiefergraber 2014b, D5533-7).

Any damage caused by the looting pit to the stratification of this site thus seems to have been limited to a relatively finds-rich, but nonetheless natural erosion layer of redeposited material. While undoubtedly some find or finds had been removed from the site – the report speaks of several remarkable early La Tène metal finds, including the knob of a *Berrú*-type helmet having been recovered by metal detectorists from the (sizeable) settlement site on the *Falkenberg* (Tiefergraber & Tiefergraber 2014b, D5536) – the damage caused by the looting of the site to its stratification seems to have been minimal and almost completely insignificant. While it may of course be mildly interesting where, exactly, the extracted metal finds were discovered on this settlement site, it seems

extremely unlikely that any significant conclusions could have been drawn from stray finds found in a naturally redeposited erosion layer.

Also, given that the looting pit served as the proximate cause for the selection of the particular spot where the excavation trenches were located, it is hardly surprising that it was recorded during the excavation in this location. Thus, this case introduces a bias into what otherwise is a random sample of archaeological fieldwork, and arguably could have been removed from the statistical analysis of the sample for this reason. I have only refrained from doing so to avoid erroneously under-representing damage by looting by removal of actually relevant evidence for it, at the risk of over-representing it as a result of this sample selection bias.

Iron Age settlement, KG Telfs, MG Telfs, Tirol

In what is a very similar case to the previous ones, the *Institut für Archäologien* of Innsbruck University has excavated in 2013 and 2014 what was originally presumed to be an Iron Age barrow, but may as well have been a place for ritual offerings, in a Hallstatt and La Tène period settlement in *Telfs*, in the Tyrol. Proximate cause for this excavation was the extraction of an iron wheel hub by a metal detectorist in 2013, which had penetrated into this barrow (Staudt et al. 2014a, 371).

The excavation of the barrow recorded various features, including several drystone-built walls and other stone structures of undetermined function. In addition, the looting pit from which the wheel hub had been recovered was identified stratigraphically (SE 18; see Figure 11). A second, similar feature close to it (SE 17) may also be a looting pit, though whether this was actually the case was not established. Both penetrated into the stratification, with the latter also slightly cutting a charcoal-rich layer (SE 30), which may be related to burial or other ritual practices conducted at the site. Several more similar barrow-like structures lie in the immediate vicinity of the excavated one, which may indicate that the site is a small barrow cemetery associated with the settlement on the next hilltop, c. 100 m away from the barrows (Staudt et al. 2014b, D5885-90).

Trenches were also opened in the settled area, which discovered 'undisturbed' evidence of building activity (including drystone foundations of timber buildings), as well as evidence of a destruction of the settlement by fire. In the associated ash and wall collapse layer of a building partially excavated in trench 6, 9 iron arrowheads were discovered in situ, which may – together with other metal finds discovered on the site and the associated barrow cemetery / cult site on the next hilltop – indicate a violent end to the rather short-lived settlement at the site (Staudt et al. 2014b, D5893-5).

In this case, again, there was some evidence of damage to the stratification of the site. However, in this case, this damage is very limited, not least because the find recovered from the securely identified looting pit (SE 18) is known. While the looting pit may have somewhat muddled stratigraphic relationships where it penetrated into the barrow, overall, the interpretation of the site seems not to have been harmed. Thus, much like in the previous case, the damage caused by the looting is minimal in both scale and significance.

Also, much like in the previous case, it is noteworthy that, given that the looting pit was the proximate cause for the excavation, this case also introduces selection bias to the sample. It is therefore particularly noteworthy that in trench 6, several metal finds were made and no evidence of looting affecting the contexts in this area of the site was recorded; despite relevant metal detectorist finds from the site being known. Thus, had trenches been placed randomly on this site, it may well be that no disturbance by looting would have been recorded. For the same reason as in the previous case, this case was retained for analysis despite of the inherent selection bias.

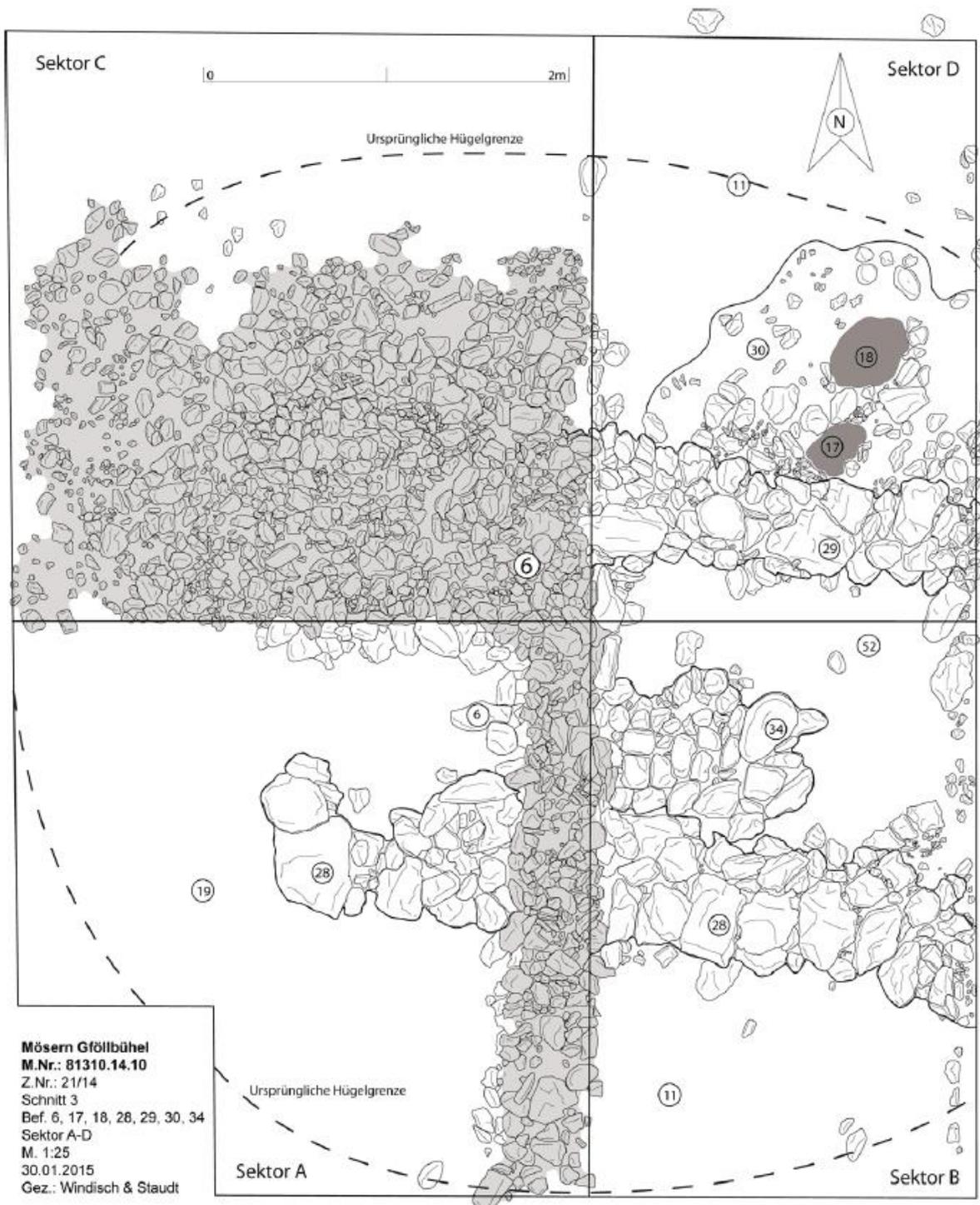


Figure 11: Plan of the main features discovered during the excavations at Mösern Gföllbühel, KG Telfs, Tyrol (image: Staudt et al. 2014b, D5887 Abb. 4).

Prehistoric hilltop settlement and medieval castle, KG Bogenfeld, SG Villach, Kärnten

In 2015, based on the initiative of a local historian and other interested members of the public in the local community, excavations were carried out to determine whether a suspected medieval castle had actually existed on the *Wauberg* in *Bogenfeld* parish in Carinthia. The first of 5 trenches was placed in an area of what is described in the report as a massive looting pit, in which remains of stone masonry were visible (Vetterling 2015, D813).

The excavation report states that following the removal of the very root-rich forest topsoil, a levelling layer of rubble was identified. Beneath this layer, a circular shaft of c. 2.5 metres inner width, constructed with a c. 60 cm wide wall with an inner and outer stone masonry mantle was discovered. Since particularly the masonry was still well-preserved, and there was a risk of finding organic finds in the lower fills of what was identified as a mediaeval cistern, the excavation of this area was halted after cleaning and recording the exposed features. The cistern had been cut into the bedrock, parts of which (showing mediaeval tool marks) had been exposed and recorded during the excavation (Vetterling 2015, D813-6).

While the looting in this case also seems to have caused some damage to the stratification of the site, again, both scale and significance of this damage seems to have been rather minimal. Mainly, the levelling layer, probably stemming from the castle's destruction, seems to have been affected, while the main features present – which are described as well-preserved in the report – seem to largely have remained intact. Again, while some small finds are likely to have been extracted, the possibility to properly record and interpret the site seems to not have significantly been harmed, let alone potentially transformative archaeological knowledge having been lost due to it.

5) Potential cases of recent looting

In addition to these cases of ascertained recent looting, another 7 instances of damage to archaeological contexts, possibly due to recent looting, could be identified in the sample (BDA 2013, 172, 205, 232, D3696; 2015, 60, 377, 379). Given that, again, the relevant sample size for this category of results is the total number of fieldwork reports filed with the BDA recording archaeology discovered by each of these projects (n= 1,414), this amounts to c. 0.5% of all fieldwork conducted in Austria in the 3-year period of 2013-2015 (also see Table 2).

However, in all of those cases, it is not even clear whether the damage observed is related to looting at all, let alone recent looting, let alone whether any damage done was significant. In some (e.g. BDA 2013, 173), the damage recorded may as well be due to other modern or recent activities like ploughing, while in others (e.g. BDA 2013, 232, D3696; 2015, 60) the damage recorded, while probably related to looting or stone-robbing activities, was most likely done before the start of the 20th century AD, if not much earlier than that. Yet other cases are generally inconclusive, like that from *Bernhardsthal* in Lower Austria (BDA 2013, 205), where a potential looting hole was completely backfilled with clean gravel, which is not naturally occurring at the site; indicating that while damage was done to the stratigraphy, it may not have occurred due to looting at all: after all, looters normally do not to bring clean gravel for backfilling with them.

Also, in none of the cases where such damage (potentially linked to recent looting) was recorded, it appears to have been more substantial in both size and significance than any of the 5 certain cases of looting-related damage already discussed in detail above. Thus, the significance of this damage, if it was caused by recent looting at all, can generally be considered to be very low, if not entirely negligible.

6) Past looting

In total, 46 cases of looting in the non-recent past were identified in the fieldwork reports for the 2013-2015 period. Since the relevant sample here is the same as in the two previous sub-chapters (n = 1,414), this amounts to c. 3.25% of all fieldwork (also see Table 2).

Mostly, the disturbances of stratigraphy recorded in the relevant fieldwork reports either indicate grave-robbing within a few decades after the respective deceased had been laid to rest; or the robbing of stones from Roman or later stone-built (or less commonly, also brick-built) buildings for reuse.

Where the latter is the case, since reuse of older masonry as a quarry for construction material is an entirely common phenomenon where pre-modern buildings are concerned, this is clearly not even reported as a 'disturbance' of a site's stratification in many fieldwork reports and thus clearly under-reported in the sample. Only a few fieldwork reports about excavations in Roman or post-Roman settlement sites even mention it, despite photographic evidence in other reports, where provided, clearly demonstrating that even wall foundations have often severely been robbed.

The scale of the damage caused by past looting is certainly huge. Whether it is also significant, or just normal archaeological evidence of past human activities, is another matter. At any rate, however, other than for the purpose of comparison with present-day looting and the scale and significance of the damage caused by it, it is largely irrelevant: after all, it can no longer be prevented anyway, and thus matters little.

However, since it is significant for a point about professional archaeological reporting later on in this paper, there is one case of past looting that deserves greater attention:

Hallstatt barrow 'Strettweg Tumulus III', KG Waltersdorf, SG Judenburg, Steiermark

In 2013, the third 'princely' barrow in the well-known Hallstatt cemetery of *Strettweg* in Styria (particularly famous for the find of its 'cult wagon' during the levelling of its tumulus I in 1851) was excavated, according to the report due to the increasing damage to it by agricultural land use and the increasing threat by looters (Tiefengraber & Tiefengraber 2013a, 343). Despite probably originally standing to about 8-10 metres in height, like the other barrows in this cemetery (which originally seems to have contained c. 70 barrows, though most of them considerably smaller than the 4 'princely' tombs it also contained), it had already mostly been flattened by agricultural land use in the past. However, following the excavation of an 'undisturbed' 'princely tomb' in tumulus II in 2012 (Tiefengraber & Tiefengraber 2012), it was hoped that another such burial could be examined by excavating tumulus III.

Despite the fact that it had largely been flattened, upon excavation, it could be established that the body of the barrow still survived to a height of c. 0.6 metres, which promised good preservation conditions for the central burial. That central burial, however, turned out to have been 'looted' after all, though probably neither in Antiquity nor recently. Rather, it appears to have been 'looted' – more or less professionally – sometime after the original 'excavation' of the burial chamber of tumulus I by *Ferdinand Pfeffer* in 1851 and its 're-excavation' in 1852 by *Prof. Matthias Robitsch*.

As the report puts it, while the original finder *Pfeffer* had simply dug a pit into the central chamber, *Robitsch* traced clusters of grave goods with an angling, irregular search trench. The 'looting pit' observed during the excavation of tumulus III in 2013, however, was almost square or slightly trapezoid, with outer dimensions of c. 5 by 7 metres, its 'sections' also having been sunk into the ground almost vertically. As the report puts it, the 'looting pit' which mostly obliterated whatever remained of the central burial chamber, is not so much reminiscent "of an *unsystematic disturbance and search for individual finds, but rather of a strategically placed and subsequently carefully backfilled 'excavation trench', with obvious attention having been paid to putting larger stones back first near the bottom to avoid diminishing the agricultural quality of the land*"¹¹ (Tiefengraber & Tiefengraber 2013b, D3968; translation: RK). Also, only very few finds (apart from a few fragments of 19th century

¹¹ „Insgesamt erinnert die Beraubungsgrube der Grabkammer von Tumulus III weniger an eine unsystematische Störung und Suche nach einzelnen Funden, sondern vielmehr an einen gezielt angelegten und im Anschluss sorgfältig verfüllten „Grabungsschnitt“, wobei offenkundig Wert darauf gelegt wurde, größere Steine wieder möglichst tief einzufüllen, um die Qualität des Ackerbodens nicht zu beeinträchtigen.“ (Tiefengraber & Tiefengraber 2013b, D3968).

pottery) remained in the backfill of the 'looting pit', indicating a rather careful sifting of the excavated material, rather than a rapid plundering of the burial. As such, Tiefengraber and Tiefengraber (2013b, D3968-9) estimate that this 'excavation' may have happened sometime in the late 19th or early 20th century, perhaps inspired by the discovery of the 'cult wagon' in 1851. Remarkably, though, no records whatsoever or memory of this 'excavation' seem to have survived; though a story told to the excavators by several locals speaks of the discovery of a bronze 'ox', which may or may not be related to this 'looting' event.

To put it in slightly starker terms than Tiefengraber and Tiefengraber (2013b, D3968) do in their report: from the evidence presented in the excavation report, it has to be concluded that in fact, the central chamber of *Strettweg* tumulus III was not 'looted', but rather targeted by a (presumably) 'early professional' excavation, sometime in the 2nd half of the 19th or early in the 20th century. Yet, no report about that excavation seems to ever have been written up; or, at least, if it was, not filed with (or survived in the archives of) any appropriate institution (like, in the 2nd half of the 19th century, the *K.K. Central-Commission zur Erforschung und Erhaltung der Kunst- und Historischen Denkmale* or its successor from 1918 onwards, the BDA; or a suitable museum like the *Joanneum* in *Graz*) and thus since lost. That, effectively, led to the total destruction of the burial chamber and all archaeological information it may have contained; even though the 2013 excavation did arrive at many significant results about the barrow and its construction regardless.

Thus, in this case, the damage now considered to be 'looting' appears to have been done by professional archaeologists. We will have to return to this point later in this paper.

7) Damage to stratified contexts by recent activities other than looting

More relevant, also as a direct comparator to the damage caused by recent looting, is damage to archaeological contexts caused by recent activities other than looting. Overall, 20 cases of significant damage by activities other than looting were reported in the 2013-2015 fieldwork reports from Austria. Again, the relevant sample here is the same as in the last three sub-chapters ($n= 1,414$), this amounts to 1.41% of all fieldwork conducted in Austria in this period (also see Table 2).

However, it has to immediately be noted that damage caused by modern building and/or infrastructure development (i.e. modern building foundations, cable ducts, roads, etc.) was not considered in this case, since such disturbances are usually either not noted at all in the text of reports (through they may be indicated on plans or visible on photos), or are defining the extent of the fieldwork to start with and thus are not recorded as disturbances, but as limits of examined areas or areas not examined. Rather, the damage to archaeological contexts by activities other than looting mentioned in fieldwork reports are normally such caused by modern farming (e.g. plough damage), horticulture (planting pits), or forestry (e.g. storm damage-related disturbances of archaeological features). That, in turn, is also sometimes not presented as damage caused by recent activities other than looting, as for instance the damage to *Strettweg* tumulus III observed in the precious example caused by recent agricultural land use, but simply as the 'current state' of preservation of a site or monument. Thus, the overall amount of damage caused by modern activities other than looting is considerably under-represented by the percentile figure given above.

Regardless of this, even the recorded damage by non-development related activities other than looting is considerably greater than that caused by looting, both in terms of scale and significance. This is particularly the case if the damage is related to the management of agricultural landscapes, where flattening of barrows or other still upstanding features by bulldozers is not unheard of and partially still occurring if they are unscheduled (or sometimes even if they are scheduled).

8) Cases of bioturbation

As already mentioned, the dataset was also analysed for bioturbation by animal activity for control purposes, mainly to identify whether relatively common, but most often rather insignificant, disturbances of archaeological stratigraphy are being reported. In total, 42 reports were identified which mentioned animal burrows. Given that the relevant sample here is all reports received by the BDA of fieldwork actually conducted (n= 1,738), this amounts to c. 2.42% of all fieldwork conducted in Austria in the 2013-2015 period (also see Table 2).

The larger sample size compared to the previous ones is explicable by the fact that in some cases, disturbances of the subsoil by animal burrows were mentioned in reports that indicated that no significant archaeological features had been discovered during the fieldwork. These – and thus also all other ‘no features’ reports – had to be included since if animal burrows have significantly disturbed the subsoil (to an extent that it seemed noteworthy in a report indicating no archaeological discoveries), it is impossible to establish whether archaeological features had previously been present and completely destroyed by animal burrowing activity.

At the same time, the fact that even reports about no archaeology having been discovered indicate (at least substantial) disturbances of the subsoil by animal burrows supports the idea that reporting of observed disturbances, and particularly significant disturbances of archaeology, does indeed take place. Thus, it can also be assumed that significant disturbances of archaeological stratigraphy by looting is being reported if identified during fieldwork. This confirms the reliability of the dataset for the purpose of this analysis.

9) Negative evidence for damage by recent looting

In addition, the dataset of fieldwork reports was also examined for ‘negative evidence’ of damage (not done) by the (suspected or actual) recent extraction (or ‘looting’) of small finds from archaeological sites. As ‘negative evidence’, I consider reports which give as one or the main reason why the fieldwork was conducted that a site was (actually or allegedly) targeted or threatened by ‘looters’, or that it was reportedly repeatedly visited by metal detectorists, but failed to record any actual damage caused by ‘looting’ to the archaeological contexts on the site.¹²

¹² This, of course, is not to say that no small finds were extracted from such actually or allegedly ‘threatened’ sites prior to the fieldwork being conducted: such finds extraction by non-professionals may very well have happened. However, to argue that any such non-professional extraction caused any significant archaeological damage, damage to the stratified contexts of the site likely attributable to the actions of ‘looters’ must be observable: that damage may have happened, after all, is no more than idle speculation, since it may at least as likely not have happened at all.

This is especially the case if the topsoil was removed by mechanical digger at the commencement of the fieldwork without having thoroughly been searched for small finds with a metal detector, as – as shown above – still is the rule in c. 94% of all professional archaeological fieldwork in Austria. Arguing that others caused damage by the extraction of small finds from the topsoil that oneself then has ‘professionally’ removed by mechanical digger without even so much as being searched with a metal detector is nothing short of hypocrisy, after all.

Also, to address an obvious possible response to this definition of ‘negative evidence’ immediately: of course, absence of evidence should never be treated as evidence for absence, particularly in archaeology. After all, it is perfectly possible that the professionals conducting the fieldwork simply beat the ‘looters’ by getting to the site first in any particular case. That said, if sites have a known history of having been ‘looted’ by metal detectorists for almost 50 years, and indeed since considerably before that by earlier ‘treasure hunters’ – which is one of the main reasons why a site is considered to be ‘threatened’ by ‘looting’ – it seems rather unlikely, if not outright impossible, that any excavation or other fieldwork conducted in the present can beat the ‘looters’ to the goalpost. Rather, if a site has been ‘looted’ for many decades, any looting that did cause truly significant damage

Overall, 11 such cases were identified in the sample. The relevant sample size here is the 15 reports which listed a threat by 'looters' or metal detectorists as one of the reasons for professional fieldwork being conducted, which means that in 73.33% of all cases of a suspected threat of 'looting', no evidence for its actual occurrence could be found (also see Table 2). The remaining 4 cases are mostly those already discussed above, where either actual 'looting' was at least the proximate cause of fieldwork being conducted, or where possible 'looting' was – however speculatively – listed as a potential explanation for some damage to the stratification of a site.

Two good examples for fieldwork caused by a suspected threat by looters come from Lower Austria:

[La Tène period cemetery, KG Bernhardsthal, MG Bernhardsthal, Niederösterreich](#)

In this case (BDA 2013, 203-4), the Lower Austrian Museum for Prehistory conducted excavations in a La Tène period cemetery. Hints at its existence had appeared in spring 2012 on Google satellite images, and it was feared that the 'highly active' community of metal detectorists in the area would therefore now be able to 'loot' it.

To prevent this, the museum had c. 420 m² of 0.3-0.4 metre deep topsoil removed by mechanical digger in the area the most obvious hints of a burial had shown on the satellite image, apparently without searching it with a metal detector. After cleaning the area, a total of 32 archaeological features could be identified: 2 pits, 26 postholes, two ditched enclosures, and two burial pits. One of the pits (with dimensions of c. 3.4 by 2.9 metres) not considered a burial pit by the excavators and the 26 postholes could not be excavated due to time constraints and were thus only recorded in plan. The smaller pit not considered a burial pit by the excavators was partially truncated by the ditch of one of the two enclosures, nearly round, c. 0.82 m in diameter and c. 0.28 m deep and may have been a large post pit.

Of the two ditched enclosures, the elder, round enclosure was c. 12 m in diameter, with a c. 0.9 m wide ditch. It had, however, mostly been cut out by the c. 1.75 m wide ditch of the younger, c. 13 m square enclosure (with slightly rounded corners), which occupied nearly the same spot. Roughly at the centre of this were two pits interpreted as burial pits. The smaller one of these was 1.7 m long and 0.6 m wide, contained a badly preserved juvenile skeleton with no grave goods, and was interpreted as an early La Tène burial mostly because of its location within the ditched enclosure(s). It partially cut the other suspected burial pit, with a length of c. 2.65 m, a width of c. 1.65 m, and a preserved depth of 0.68 m. This pit, however, was completely empty, despite not showing any evidence of ever having been looted. It was mostly identified as a grave because its size and location fit that of La Tène burials within ditched enclosures.

Thus, while the metal detectorist community in the area of *Bernhardsthal* may be highly active, either they had not yet found that particular site, or whatever activities they carried out on it had produced no discernible archaeological damage. It is also unclear as to how a partial excavation like the one conducted in this case could prevent, let alone pre-empt, the future 'looting' of this site.

to the site should be discovered by any examination of its archaeological stratification. Thus, at such sites, if no damage to the stratified contexts of the site can be observed in professional fieldwork, it cannot be assumed that we professionals beat the 'looters' to the site, but rather that whatever the 'looters' did 'loot' from there came from the topsoil only. And as already said above: while topsoil finds are not entirely irrelevant in archaeology, it is the currently dominant professional opinion that they are substantially less significant than stratified finds, to the extent that de-contextualised finds are considered to generally be "of little significance" (Kriesch et al. 1997, 26; Leskovar & Traxler 2010, 59; etc.).

La Tène period settlement, KG Haselbach, MG Niederhollabrunn, Niederösterreich

In this case (Trebsche & Fichtl 2015a; 2015b), the site was not specifically targeted for fieldwork because of an actual or alleged threat of 'looting'. However, the report notes that it is known to have been visited by several metal detectorists since the 1980ies, stating that any finds extracted by them are lost (Trebsche & Fichtl 2015b, D2196). Thus, actual archaeological damage to the site caused by looting is at least implied.

The excavation of 1,110 m² (= c. 2%) of a (mainly middle) La Tène period settlement produced a total of 4 sunken floor huts, one (probable) well (not completely excavated) with an associated construction pit, 15 (storage) pits, the remains of a hearth, a 4-post building and 3 isolated postholes. All these features, apart from the well (which would be the first in a La Tène settlement in lower Austria), are typical for La Tène settlements and are reasonably well understood (see Karl 1996). While the report notes recent plough marks and disturbances by animal burrows, no disturbances of any archaeological features by suspected or demonstrable 'looting' were recorded.

Also, 101 metal finds were found during the excavation, including fragments of 16 iron brooches, a knife, a key, 9 non-ferrous metal objects, and two coins (Trebsche & Fichtl 2015a, 199-200; 2015b, D2211-4). A metal detector was used on site to survey the topsoil before its removal with a mechanical digger (Trebsche & Fichtl 2015b, D2197). Judging from the frequency of metal finds made on other contemporary sites in Lower Austria – though these were mostly dug without the assistance of a metal detector to locate small metal finds – this is a high number of such finds for a 1,110 m² trench (Karl 1996, 37-42).

Thus, also in this case, despite c. 30 years of attested metal detectorist activity on this site, no evidence was observed indicating that 'looting' had actually damaged any 'undisturbed' archaeological contexts there. Any finds removed thus seem to have been from the topsoil, whose depth is not mentioned in the excavation report but which, given the recorded plough damage, is unlikely to be much thicker than c. 30 cm and has been heavily ploughed for centuries, if not millennia.

	1)	2)	3)	4)	5)	6)	7)	8)	9)
FÖ 52/2013	6	17	0	1	4	17	3	7	4
FÖ 53/2014	2	34	0	3	0	13	7	19	1
FÖ 54/2015	7	35	0	1	3	16	10	16	6
Sum total	15	86	0	5	7	46	20	42	11
<i>Relevant sample size (n=)</i>	<i>1,834</i>	<i>1,834</i>	<i>n/a</i>	<i>1,414</i>	<i>1,414</i>	<i>1,414</i>	<i>1,414</i>	<i>1,738</i>	<i>15</i>
% of relevant sample	0.82	4.69	0	0.35	0.5	3.25	1.41	2.42	73.3

Table 2: Overview of recorded instances of each of the categories of activities / events analysed.

Disregarded evidence: WW2 Flak tower Augarten, KG Leopoldstadt, SG Wien

One case of an 'illegal excavation' recorded in the report regarding an archaeological fieldwork project was disregarded in the above analysis. For the sake of completeness, a description of this case and explanation why it has been disregarded is provided here.

During a survey of the Flak tower *Augarten* in the 2nd municipal district of Vienna, conducted during the preparation of a research project into the history of forced labour during WW2 in Vienna, a possible 'illegal excavation' was discovered in a first floor room within the structure. The floor of this room was covered by a c. 20-60 cm thick, relatively flat layer, consisting mostly of pigeon guano, pigeon cadavers, and nesting material introduced from the outside, which seems to have accumulated in this room since WW2, intermixed with some rubble from the slowly decaying tower itself (Bauer-Wassmann et al. 2013, D5606). Roughly at the centre of this room, a depression in this layer was

identified. Immediately surrounding it, several heavily fragmented, mostly charred paper fragments were found, which appear to have been dislocated by the 'excavation' of some of the guano which created this depression (Bauer-Wassmann et al. 2015, D5604). These papers were fragments of lists and work books clearly related to forced labour employed in WW2 (Bauer-Wassmann et al. 2015, D5604).

As a consequence of this discovery, subsequently, an excavation was conducted in this room which uncovered considerably more, highly relevant and significant evidence regarding its use and forced labour in WW2 Vienna; though much of the topmost layer of papers discovered in the central area of the room was heavily charred (and thus most likely what had mainly been disturbed by the 'illegal excavation' that led to this discovery; Bauer-Wassmann et al. 2015, D5607). Generally, much of the room and the features discovered in it show signs of burning (Bauer-Wassmann et al. 2015, D5608), indicating that the room had been set on fire, presumably in the course of its looting or to destroy evidence, presumably at the end of WW2. Due to the constant nesting of pigeons in the room, apparently since shortly after the end of WW2, much of the wartime finds had been repeatedly disturbed and distributed through all layers of the guano deposits (Bauer-Wassmann et al. 2015, D5608). While most finds are papers of all sorts, the finds spectrum also included various sheet metal objects, metal clasps, but also a cooking spatula, shoe polish tins, buttons, parts of electrical installations, a door lock, metal fittings of transport boxes and a cupboard as well as box locks (Bauer-Wassmann et al. 2015, D5608-9).

Despite the fact that the most recent excavation of this room was certainly conducted professionally, using archaeological methods, and that a disturbance of the guano and rubble deposit was observed and recorded by it, this case was nonetheless disregarded from this analysis for several reasons. Leaving aside legal technicalities like that, as a clearly natural deposit, the guano and rubble layer cannot be a 'monument'¹³ under Austrian law (see Bazil et al. 2015, 5-6 with references to relevant Supreme Constitutional Court judicature on this matter), and that an archaeological 'excavation' as defined by § 11 (1) DMSG must be aimed at discovering 'monuments' "*...beneath the surface of the ground or water...*"¹⁴, which is technically impossible in a 1st floor room, these reasons are as follows:

Firstly, it is entirely unclear whether any excavation in a guano layer dating from the last c. 70 years, which has since constantly been heavily disturbed by bioturbation, can be considered to be 'looting' of an archaeological feature at all. Even the authors of the report are not entirely unequivocal about whether their own excavation was actually an archaeological excavation at all, or not just research into contemporary history with archaeological methods (Bauer-Wassmann et al. 2015, D5605); and their main interest clearly is not in the 'archaeology' of the Flak tower or the objects found there, but rather in the historical information contained in the recovered papers. Many Austrian archaeologists would thus hardly consider a disturbance like the one recorded in this case as the 'looting' of an archaeological site; but much more likely as the 'looting' of historical documents.

Secondly, it is not clear from the description of the depression considered (erroneously from a legal perspective) as evidence of an 'illegal excavation' in the report that it was actually caused by human action (Bauer-Wassmann et al. 2015, D5604). Since all the ground-level entrances into the Flak tower have been sealed, the room in question can only be accessed via a 2nd floor opening used originally to deliver bulky goods into the structure, requiring either the use of a ladder or some rather hazardous wall-climbing (Figure 12). While that certainly doesn't mean that the room is totally inaccessible to humans, it appears rather unlikely that it was accessed by anyone with the intent of looting something

¹³ = 'Denkmal' in the sense of § 1 (1) DMSG.

¹⁴ „... Denkmalen unter der Erd.- bzw. Wasseroberfläche“ (§ 11 (1) DMSG).

from this monument. A more likely explanation would seem to be that – assuming that the ‘depression’ interpreted as an ‘illegal excavation’ was created by human action – someone climbed into the structure and explored it, made a chance find of something sticking out of the constantly perturbed guano layer, and scraped away guano with his boot to remove it, thereby creating the depression rather accidentally.



Figure 12: Access to the Flak tower during the excavations in 2013. Take note that the excavated room can only be accessed by entering the structure through the 2nd floor (or higher) openings seen in this image (image: Bauer-Wassmann et al. 2013, D5606).



Figure 13: The room in the Flak tower in the Augarten during the survey that led to the subsequent excavations. The depression near the centre of the room may be partially visible in the bottom right corner of the image (image Bauer-Wassmann et al. 2013, D5604).

Thirdly, the depression interpreted as evidence of an ‘illegal excavation’ itself – should it be the shallow one partially visible in the bottom right corner of Figure 13 (Bauer-Wassmann et al. 2013, D5604), the report itself is not clear in this regard – does not particularly look like a ‘looting’ hole created by human interference with the guano and rubble deposit in this room. From its looks, it rather appears to have developed naturally, quite like the guano deposits in run-down pigeon lofts, which are characterised by shallow depressions near their centre and more substantial guano deposits in the periphery, where the pigeons tend to nest and rest.¹⁵

Taken together, these reasons were deemed sufficient to exclude this case from the analysis conducted in this study as evidence for damage to archaeological stratigraphy caused by ‘looting’. After all, to rise to the level of looting (rather than just accidental destruction of archaeology by any kind of human action), intent of removing loot ex situ is a precondition. In the specific case, there is no evidence that supports the suggestion of intent; and indeed, at least based on the evidence provided in the report, not even compelling hints supporting the idea that the depression observable on the above image was created by human action at all, rather than pigeon activity.

Looting (and other ‘heritage crimes’) by professional archaeologists

In the course of the data collection and analysis, it also was noticed that, apparently, a total of 89 of (presumably) the 1,674 fieldwork projects which had been permitted by the BDA according to § 11 (1) DMSG had not submitted any report by the deadline for submissions to the respectively relevant volume of the FÖ (52/2013: 35 reports not received; 53/2014: 31; 54/2015: 23). This deadline, according to the editorial guidelines for the FÖ, is the 31st of May of the calendar year following the one in which the fieldwork was completed;¹⁶ which is 2 full calendar months after the legal deadline of three months after the end of the calendar year in which the fieldwork was conducted stipulated in § 11 (6) DMSG.

Reports whose authors indicate that their completion and submission will be delayed until after the editorial deadline normally are listed in the overview tables (e.g. BDA 2013, 195-202) as appearing in the subsequent volume (indicated by entries like “*report 2014*”¹⁷ in such cases in volume 52/2013). Thus, only reports not submitted before the relevant deadline without explanation, or not received at all, are listed in the same overview tables as “*report not submitted*”.¹⁸ Naturally, the BDA is chasing missing reports, at least for a while after they would have been due, so fieldwork project managers are informed¹⁹ that their report has not been received by the BDA even in cases where a physical report sent by post was lost on its way to the BDA.

An inquiry to the BDA by email regarding the ‘missing’ 89 reports was answered on 9/9/2018 (case file: BDA-00841.sb/0067-ARCHÄO/2018), stating that all 89 reports had since been received and – if they had contained results worthy of publication – been published in subsequent volumes of the FÖ, virtually always in the following year. However, a manual check of the subsample of the reports listed as ‘missing’ in the 2013 volume (BDA 2013) has shown that only about 30% of them have been

¹⁵ See e.g. <https://allinone-taubenabwehr.de/bilder/bilder-reinigungsarbeiten-verwahrloster-taubenschlag/#!/prettyPhoto> [2/1/2019].

¹⁶ See https://bda.gv.at/fileadmin/Dokumente/bda.gv.at/Archaeologie/Redaktionsrichtlinien_FOE.PDF [2/1/2019].

¹⁷ = „*Bericht 2014*“ (e.g. BDA 2013, 196).

¹⁸ = „*kein Bericht abgegeben*“ (e.g. BDA 2013, 195).

¹⁹ Some colleagues even describe their personal experiences with such reminders as being ‘pestered’ by the BDA, rather than just politely reminded, even though the few examples I have seen tend to be both very polite and factual.

published in the 2014 and 2015 volumes of the FÖ (BDA 2014b; 2015). In comparison to all other fieldwork projects in the sample, of which c. 76% had their reports published in the FÖ, this seems like a remarkably low number of 'publishable' archaeological discoveries in the sub-sample of seriously delayed reports.

The remarkably high percentage of negative results in the delayed reports is even more surprising given that reporting no discoveries causes hardly any effort for the project leader. Since the timely submission of fieldwork reports is a standard condition attached to § 11 (1) DMSG fieldwork permits and a legal duty according to § 11 (6) DMSG, belated or non-submission of reports is even a punishable administrative offence.²⁰ Thus, it is rather inexplicable why any archaeologist would risk being fined for this administrative offence if there was nothing of substance to report anyway.²¹

The high percentage of negative reports in this sub-sample may, however, be well explicable by the fact that in its reminders to delinquent permit holders, the BDA indicates that it will not issue any further § 11 (1) DMSG permits to the concerned party until they have submitted any 'missing' reports.²² This threatens the ability of these archaeologists to continue to legally practice their profession, requiring them to submit, if only belatedly, their 'delayed' reports if they want to continue to engage in it. This at least raises the suspicion that the considerably higher percentage of negative findings in the sub-sample of 'delayed' reports may well be explicable by the need of delinquent permit holders to submit a 'delayed' report as quickly as possible when they need a new permit, making it tempting to submit a false negative finding; rather than having to write up a possibly extensive report about archaeology that actually was discovered during their project.

From an archaeological perspective, these 89 cases of failure of timely submission of the required reports thus are examples of professional misconduct; and may, should false reports of negative findings have been among them, even indicate gross professional misconduct.²³ But not only that, should cases of false reports of no findings have been among them, any such false negatives are also likely to have caused truly significant damage to Austrian archaeology. After all, they would be precise current equivalents to the case of *Strettweg* 'princely' tumulus III, which was already discussed in the results chapter above: cases where an apparently 'professional' excavation was conducted, but no report ever produced or filed with an (the) appropriate institution; and thus, all knowledge about any discoveries made now lost. Only, in difference to the *Strettweg* case, they are likely to have caused

²⁰ At the very least, non-compliance with the reporting duty of § 11 (6) DMSG is punishable by up to € 5.000 per instance according to § 37 (3.7) DMSG.

However, non-compliance with any permit condition, including the one concerning the report submission, also turns the whole fieldwork project into an unpermitted activity retrospectively; since for the permit to be valid, compliance with *all* its conditions is a legal requirement. Thus, fieldwork projects who do not submit the required reports on time technically also breach the provisions of § 11 (1) DMSG. Such unpermitted fieldwork, however, is punishable by a fine of up to € 25.400 per instance according to § 37 (2.2) DMSG.

Thus, at the very least, such non-compliance can be a costly mistake, if not a very costly one; especially if all that was required was for the project leader to send an extremely short report to the BDA, stating what area the fieldwork had examined and no archaeology had been discovered therein.

²¹ It is, however, noteworthy that in practice, the BDA never seems to have reported any archaeologist for any of these offences to the prosecuting authorities. As such, the risk in practice may be much lower than the law would imply.

²² According to the BDA itself and other sources in Austrian archaeology, the BDA indeed actually withholds § 11 (1) DMSG permits from delinquent permit holders until they have submitted any 'delayed' reports.

²³ Based on the comparison of the manual analysis of the 2013 subsample of 'delayed' submissions and the overall percentage of negative reports in the total sample, false reporting of 'no findings' may well have occurred in as many as c. 40% (or c. 36) of these (89) cases. This would amount to c. 2.2% of all professional fieldwork conducted in Austria in the examined 3-year period.

much greater damage. Modern excavations, after all, are not normally restricted to small trenches hand-dug with hand tools and then carefully backfilled again, like the 7x5 metre trench which obliterated the central burial in *Strettweg* tumulus III, but left most of the rest of the c. 33 metre diameter barrow and everything underneath it intact. Rather, they often are area excavations in the context of planned developments, destroying in many cases all archaeology in an area at least the size of the whole tumulus III in *Strettweg*, and often enough then some. Thus, where this modern ‘professional’ archaeologists’ looting has been done, not only will a single burial have been lost, but rather, any and every archaeological feature that was there.

As we like to say: once excavated, the archaeology is irretrievably gone, forever. Thus, if no or a false negative report is submitted, chances are that whatever was present in situ where these fieldwork projects were conducted, must now be considered to be lost completely.

Illegal heritage management?

What makes this matter even worse is that not only may significant archaeology have been destroyed in at least some of these cases, but that these 89 cases also are proven instances of ‘heritage crimes’ – or if you will, ‘looting’ – having been committed by professional archaeologists. After all, § 11 (6) DMSG sets a deadline of 3 months after the end of the calendar year in which the fieldwork was conducted for the submission of the legally compulsory report; and § 37 (3.7) DMSG makes the non-submission or submission of an incorrect fieldwork report an administrative offence punishable by a fine of up to € 5,000 per instance. Yet, the BDA seems to not have reported even only a single one of these 89 cases to the prosecuting authorities, despite having proof positive as well as positive knowledge that offences under the penal clauses of the DMSG were committed.

This is doubly remarkable and concerning, since the BDA not only reports non-professional suspected ‘looters’, e.g. individuals caught allegedly ‘illegally metal detecting’, to the prosecuting authorities and argues strongly they be punished in written submissions to related proceedings (see on this e.g. Karl 2016, especially 28-30, for a short discussion of a particularly pertinent case). Rather, it even tries to influence Supreme Administrative Court decisions to secure convictions by making written submissions in cases related to unpermitted excavations by non-professional members of the public, despite not even being party to these proceedings.²⁴ Thus, the BDA apparently has no compunction whatsoever to actively pursue non-professionals as ‘heritage criminals’ for the offences they commit, but rather accuses non-professionals of having committed ‘heritage crimes’ even if they, in all likelihood, have not actually committed any offence at all (Karl 2018b).

Yet at the same time, it appears to show exceptional restraint where it would have a legal duty to report positively proven ‘heritage crimes’, committed by professional archaeologists, to the prosecuting authorities. One thus has to wonder what the BDA is trying to achieve with its obviously blatantly discriminatory practice where prosecuting real or alleged heritage crimes is concerned. Does it truly try to achieve the best possible protection of archaeology from serious threats it faces by this practice? Or does it not rather try to protect professional archaeology and professional archaeologists’ interests in doing with the archaeology as they will from their own failures and interference by anyone else, particularly those pesky members of the public who may want to dig up ‘treasure’ as a hobby?

²⁴ See for this the judgement by the Austrian Supreme Administrative Court (*Verwaltungsgerichtshof*) dated 23/2/2017, case file no.: Ro 2016/09/0008, side numbers 4 and 27 in a case regarding a possibly illegal excavation by a non-professional member of the public of a (possibly) prehistoric mining slag heap (https://www.ris.bka.gv.at/Dokument.wxe?Abfrage=Vwgh&Dokumentnummer=JWT_2016090008_20170223J00 [2/1/2019]).

As in every modern, democratic, civilised nation, in Austria, constitutional law requires the state and its agencies to treat **all** its citizens equal before the law (Art. 7 *Bundes-Verfassungsgesetz*; Art. 2 *Staatsgrundgesetz 1867*; and Art. 66 (1-2) *Treaty of St. Germain*). Unfair discrimination – including positive discrimination without a justifying cause of any arbitrarily picked group of citizens – is also prohibited by European and international law (Art. 20-21 *Charter of Fundamental Rights of the European Union*; Art. 14 *European Convention of Human Rights*; and Art. 2 (2) *International Covenant on Economic, Social and Cultural Rights*). Thus, the zealous persecution by a state agency of some who it suspects to be ‘evil looters’, allegedly causing untold archaeological damage, in virtually all cases without a sliver of proof; while at the same time refusing to prosecute their ‘professional’ peers, who it positively and demonstrably knows have committed offences under the very heritage protection laws it is bound by law to uphold; is in itself highly illegal.

To put it bluntly: what the BDA does in practice is illegal heritage management, plain and simple. It does not protect the archaeology from professional misconduct; nor does it punish it if it occurs, despite having more than sufficient, effective legal means to do so. Furthermore, from a professional archaeological perspective, it is also gross professional misconduct: if those archaeologists entrusted by the state with the power to enforce heritage protection laws do not do so if the targets of that enforcement would be their own ‘professional’ peers, then they fail, not only to properly dispense their legal duties, but also to fulfil their professional responsibilities.

Conclusions

This paper examined the reports produced by 1,923 archaeological fieldwork projects in Austria. This is all ‘professional’ archaeological fieldwork projects planned or – in most (1,738) cases – actually having been conducted in Austria in the period between 1 January 2013 and 31 December 2015. This includes 249 projects carried out directly by the Austrian National Heritage Agency, the BDA, and 1,674 projects by third parties permitted by the BDA according to § 11 (1) DMSG. 1,414 of these projects submitted (one or several) reports about the archaeology that had been examined during the fieldwork to the BDA.

The dataset used for this study thus represents a sample of c. 25% of all ‘professional’ archaeological fieldwork either conducted or permitted by the BDA in the last 30 years²⁵ and c. 10% of all such fieldwork conducted in Austria since 1850, the year the predecessor of the BDA, the *K.K. Central-Commission zur Erforschung und Erhaltung der Kunst- und Historischen Denkmale*, was founded. It thus can certainly be considered a representative sample of Austrian archaeology since its beginnings. Since all fieldwork in the 2013-2015 period was also conducted, recorded and reported according to a common quality standard (BDA 2012a; 2014a), requiring the reporting of any archaeologically significant observations made, the dataset also can be considered to be a reliable indicator of all relevant archaeological discoveries in Austria.

The main aim of this study was to conduct an empirical examination of archaeological evidence for damage caused to previously ‘undisturbed’ archaeological contexts by the unprofessional extraction of archaeological finds *ex situ*, also commonly referred to as ‘looting’; particularly in recent times. For this purpose, the annual reports of all archaeological ‘finds’ in Austria, including all fieldwork reports received, published by the BDA (also) in pdf format for the years 2013-2015, were searched, using relevant search terms, in Adobe Acrobat Pro DC. All reports thus identified were read fully, to collect statistical data on the occurrence of such damage, identified by means of – mainly – the stratigraphic method; and assess its scale and significance in terms of actual or likely loss of archaeological

²⁵ Based on the figures reported in the volumes of the FÖ for the period 1986-2015.

knowledge caused. In addition, several other sets of data were collected, mainly for control purposes, e.g. on reported damage by animal burrows, the reported use of metal detectors in the context of professional archaeological fieldwork, etc., using the same method.

The main result of this empirical examination of the archaeological evidence is that it does not support the popular archaeological belief that 'looting' causes significant archaeological damage and thus poses a serious threat to present and future archaeological research; or even only the protection of archaeological sites and monuments; in Austria. Of the 1,414 fieldwork projects which had submitted reports about archaeological discoveries in the 2013-2015 period, only 5 (or 0.35%) reported damage which could with a reasonable degree of certainty be attributed to recent 'looting' at all. Of those, 4 had been initiated at least partly because of the very 'looting' that they then also succeeded in observing using the stratigraphic method, and thus are mainly due to selection bias. In another 7 (or 0.5%) cases, damage observed by means of the stratigraphic method was suspected to possibly have been caused by recent 'looting'; though in all of them, the probability for this was very low and other reasons (like plough damage, or looting in a more distant past) a much more likely explanation of the observed damage.

While these cases, especially the 5 certain ones, prove that indeed, 'looting' is not only happening but also sometimes causes some damage to previously 'undisturbed' contexts, it is certainly not endemic amounts of grievous damage that are being caused by it. Even if assuming that in all 12 (or 0.85% of all) cases, the damage caused was due to recent 'looting', at the most, a very small percentage of previously 'undisturbed' archaeology seems to have been affected at all. Even more importantly, the damage recorded was extremely limited in its scale, and mostly insignificant. Even in the worst cases, what was affected was a single or at the very most a handful of features, and in most cases, even only a small percentage of the features concerned. In terms of the significance of the losses caused, again in the worst attested cases, what was lost was a single burial or some grave-goods and parts of the fill of a single burial. While this clearly makes interpreting that individual feature more difficult, or – in the case of the one completely destroyed burial in the sample – even impossible; in none of these cases, significant damage to the possibilities of the archaeological discipline to answer wider research questions (that is, other questions than such related directly to the interpretation of the particular feature affected and its immediate relations to any directly associated features) could be identified; let alone damage to archaeological knowledge on a more general level.

Thus, overall, the damage to Austrian archaeology caused by recent 'looting' has to be assessed as miniscule, if not even completely irrelevant. This is especially so when compared to the overall knowledge gained from the results of the 1,414 fieldwork projects which, in the 2013-2015 period alone, examined certainly well over 10,000 'undisturbed' individual features, as well as the contextual relationships between many of them. Yes, it may be upsetting if, when excavating a Hallstatt, potentially even 'princely', tomb, it turns out one has been beaten to it by a 'looter'; but where our greater understanding of Austrian archaeology beyond the individual case is concerned, even that makes little difference; and even less if it is a less extraordinary feature that has been affected.

Thus, it has to be concluded that while 'looting' certainly happens in Austria, and even occasionally causes some (albeit minimal) damage to previously 'undisturbed' archaeological contexts, it does not constitute a major threat to the preservation or indeed analysis of the Austrian archaeological record. All other damage controlled for – whether 'looting' in the more distant (non-recent) past, damage by agricultural (and even more so other invasive) modern land use, or even only animal activity – is much more commonly identified (3.25%, 1.41%, and 2.42% of all cases respectively) in the reports as a cause of damage to otherwise 'undisturbed' contexts. Such other damage is also almost always more

significant, and often much more substantial in terms of both scale and significance, than any – even the worst – damage caused by recent ‘looting’.

Even where sites specifically targeted by professional fieldwork because of a real or assumed threat by the activities of ‘looters’, and sites known to have been regularly (and partially intensively) visited by metal detectorists (the archetypical ‘looter’ in many an archaeologists’ opinion), are concerned, any damage to previously ‘undisturbed’ contexts could only be observed during fieldwork in 4 (or 26.66%) of the 15 relevant cases in this study. This includes those cases where attested recent looting had been at least one of the reasons why the site in question had been targeted by fieldwork at all, that is, where the sample is distorted due to a specific selection bias. Even the examination of sites known to be regularly and intensively frequented by metal detectorists discovered hardly any traces of ‘looting’ in the archaeological record. ‘Looting pits’ so big that *“one could, if necessary, scuttle a small car”*²⁶ (Hebert 2011, 140) in them are certainly occasionally occurring, but are equally certainly not the rule, but an outstandingly rare exception.

As such, it must be concluded that ‘looters’ in Austria seem to extract the finds they remove ex situ almost exclusively from the topsoil and only extremely rarely penetrate into previously ‘undisturbed’ archaeological contexts. While it can of course be argued that even topsoil is a context and that the analysis of topsoil finds and their distribution can help to answer significant research questions, this study found that, at least in Austria, this mostly remains a hypothetical argument. Topsoil, after all, is regularly stripped by mechanical digger on professional archaeological excavations in Austria, with – on average – only 4.69% of fieldwork projects in the 2013-2015 reporting the professional use of a metal detector. Of those, only about half have indicated that the topsoil was searched by metal detector before its removal by a mechanical digger. Thus, at least for the time being, any argument that the ‘looting’ of finds from the topsoil is causing significant archaeological damage cannot be sustained; at least not without accusing c. 95% of ‘professional’ archaeological fieldwork projects in Austria of doing much worse damage than the ‘looters’.

While the latter would be entirely unfair, this study did nonetheless find shocking levels of professional misconduct, with the damage caused by ‘looting by professional archaeologists’ likely dwarfing that done by non-professional ‘looting’. When analysing the figures provided by the BDA for fieldwork permitted by it according to § 11 (1) DMSG and the reports subsequently submitted discussing its results, it was discovered that a total of 89 (or 5.32%) of the 1,674 ‘professional’ projects permitted by the BDA in the 2013-2015 period had not filed a report with the BDA about their results within the set legal deadline for doing so; and a much higher percentage than among the other project belatedly reported no findings of archaeology. Thus, since ‘professional’ area excavations, in stark contrast to unprofessionally dug ‘looting pits’, on average are large enough to scuttle (or park) a whole fleet of luxury cars in them, rather than just a single small one, completely destroying many, rather than just small parts of a handful of features, at least some of these cases of non-reporting of ‘professional’ fieldwork are likely to have caused a large multiple of the total damage done by any, including the worst, ‘looting’ pits in terms of both scale and significance. In many of these cases, it may thus not only have been a single burial that was lost, but a whole cemetery, including all burials contained in it, all barrows that may have covered them, and all associated and non-associated structures that may have been preserved between and under them.

Moreover, since reporting is compulsory according to § 11 (6) DMSG, with non-submission threatened by § 37 (3.7) DMSG with a fine of up to € 5,000, these 89 cases of non-submission of fieldwork reports

²⁶ *“>Größer< meint so groß, dass man in das akkurat gegrabene Raubgrabungsloch notfalls einen Kleinwagen versenken könnte”* (Hebert 2011, 140).

also constitute proven 'heritage crimes' committed by professional archaeologists. Yet, despite having publicly stated that it is duty-bound to refer any offences against the DMSG observed by itself or reported to it by others to the prosecuting authorities, and having done so in a noteworthy number of cases of alleged non-professional 'looting' (Hebert 2011, 140), the BDA seems not to have done so in any of these proven cases of 'heritage crimes' committed by professional archaeologists. Not only does this constitute gross professional misconduct by the archaeological officials of the BDA, who are obviously remiss of their duties, but indeed is evidence of the unconstitutional dispensation of their duties. Such preferential treatment of 'professional' archaeologists by their peers holding public office violates the constitutional equality principle, the essential constitutional principle for the maintenance of the rule of law, and thus constitutes illegal heritage (mis-)management.

Thus, it turns out that, at least in Austria, it is not non-professional 'looting' that causes a significant threat to Austrian archaeology and the Austrian legal order. Rather, it is 'professional' archaeological misconduct and illegal heritage management practice by public archaeological officials. As a result of an empirical examination of c. 25% of all 'professional' archaeological fieldwork conducted in Austria in the past c. 30 years and c. 10% of all such fieldwork ever conducted in Austria since the first public institution for the protection of heritage was created in Austria by imperial decree in 1850, this is not just sobering, but positively devastating for professional archaeology in this country. It is not the 'looters' who are the problem; but rather, the unprofessional misconduct of a small minority of us archaeologists, not all of whom appear to be truly professional. Thus, before accusing others of causing serious archaeological damage by 'looting', we would be well advised to clean up our own profession, first.

Wider implications of this study

As has been indicated near the beginning of this paper, looting patterns and intensity are not the same everywhere. Thus, the results of this empirical archaeological study of the scale and significance of damage caused by recent looting in Austria can no more be generalised or applied to other areas than the scale of looting observed in Iraq during the 2003 military invasion of that country. Yet, while studies similar to the one presented in this paper would have to be conducted for other countries to arrive at reliable empirical assessments of the actual scale and significance of damage caused to archaeology by recent looting, there are some tentative wider implications of the Austrian case study presented here.

Firstly, since in Austria, the damage caused to stratified archaeology has been vastly over-rated in the past by the archaeological profession, chances are that this has also been the case at least in countries where similar overall conditions prevail. With similar conditions I mean mostly: stable, peaceful countries generally governed by the rule of law, with reasonably wealthy populations; i.e. at least much of the so-called 'Western World'. In countries in which non-professional 'looting' of archaeology is mostly a hobby of a relatively small fraction of the population, rather than a (realistic) source of economic income, the damage to archaeology caused by recent looting may be much less than what archaeologists in any such country expect.

Secondly, if we want to argue that even the extraction of small finds from topsoil contexts is causing significant archaeological damage, we had better make sure that we practice what we preach. If, as in Austria, the topsoil is regularly stripped by mechanical diggers on most 'professional' rescue and even research excavations without even being searched by metal detector before its removal, no argument that 'topsoil contexts are also important' is rationally sustainable. If topsoil contexts are truly significant, then we must treat them accordingly in professional fieldwork; that is, search for, record

and actually analyse them. If we do not treat them as significant in professional fieldwork, we must stop to argue that they are so significant that no one else must disturb them.²⁷

And finally, thirdly, and probably most importantly, we should be very careful who we accuse of 'looting' and causing serious damage to the archaeology. After all, there is little which could be worse for the reputation of professional archaeology than accusing all non-professionals who extract small finds unprofessionally ex situ of being 'heritage criminals' who do untold damage to the archaeology, only to be found out that in 5% of all cases, the proven 'heritage crimes' committed by 'professional' archaeologists lead – in many such incidents – to greater damage to the archaeology than all recent non-professional 'looting' identifiable in the archaeological record of the whole country combined. Other than, perhaps, that the public servants in the state agency tasked with protecting the monuments are zealously persecuting mostly harmless unprofessional 'looters', while shielding their 'professional' colleagues from the legal consequences of their own misconduct; as also seems to have been the case in Austria. Because to anyone who isn't looking at this through the lens of archaeological 'tribal' identity politics will see such grossly discriminatory practice for what it is: hypocrisy on top of gross professional misconduct for the benefit of these 'professionals', not effective heritage protection for the benefit of all.

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²⁷ And incidentally: if we wish to argue that topsoil contexts are so significant that they must not be disturbed by human actions, we must also consider the wider implications of that argument. Because if we argue that all topsoil contexts must be left untouched until professionally archaeologically recorded, this means that we must, first and foremost, concentrate on stopping archaeological damage caused by farming and forestry (see e.g. Trow et al. 2010). After all, farming and forestry are by far more damaging to topsoil contexts than all the unprofessional extractions of small finds from them combined, and that by a large margin, as the Austrian case also amply demonstrates. Thus, any argument for the general archaeological significance of topsoil contexts implies – since farming and forestry cannot imaginably be stopped – that as much of them as humanly possibly must be professionally recorded, and any finds within them retrieved, as quickly as possible. That, however, can only be achieved by training as many of the current 'looters' as possible in professional topsoil context recording and encouraging them to extract, record and report as many finds as possible; rather than the opposite.

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