

The 'artefact erosion estimation'-fallacy

Karl, Raimund

Published: 19/02/2019

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, Feb 19). The 'artefact erosion estimation'-fallacy: Another response to papers by Samuel A. Hardy. Archäologische Denkmalpflege. <https://archdenk.blogspot.com/2019/02/the-artefact-erosion-estimation-fallacy.html>

Hawliau Cyffredinol / General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal ?

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

The ‚artefact erosion estimation‘-fallacy

Another response to papers by Samuel A. Hardy

Raimund Karl

Abstract: In this article, I again discuss the attempts by Samuel A. Hardy to ‘estimate’ the ‘cultural harm’ caused by non-professional metal detecting. I already discussed the serious methodological (and arithmetic) flaws in his original paper in an earlier contribution ([Karl 2018a](#)), highlighting why the results of his study were unreliable and thus anything but useful. In this contribution, I focus on the even more fundamental conceptual flaws underpinning his research, which lead to his fundamentally flawed methodology. Particularly crucial in this context is that not only do the assumptions he makes for conducting his study directly determine its outcomes, but that most of these assumptions are fundamentally flawed themselves. For instance, in his attempt to compare the different efficacies of different kinds of (more liberal as opposed to more restrictive and prohibitive) regulations of the practice, he only seriously considers to what extent these different systems (may) reduce the number of artefacts extracted ex situ, while neither considering how different regulatory systems affect reporting frequencies of finds made regardless, nor whether retaining the finds in situ will indeed preserve them until they might be recovered by professional excavation. Nor does he consider that artefacts simply retained, entirely unknown, in situ, are not a cultural good whose extraction from there causes ‘cultural harm’, but rather only gain any cultural value they may be assigned when they are extracted and thus become beneficial to humanity.

Perhaps most crucial however, for someone claiming to be interested in improving legal regulation, he shows astonishing disregard for the law, and a serious lack of understanding of what the law aims to achieve. Sadly, not entirely unlike quite a significant segment of other archaeologists, too, he appears to believe that the law, and especially heritage law, is there to allow us to achieve our goal, the (ideally total) protection of the archaeological heritage from anyone other than professional archaeologists. As a consequence, he substitutes his belief as to what the ‘spirit of the law’ should be for what it actually is, which has to be determined not by archaeological (or archaeologists’) bias, but by careful analysis of the intent of the legislator. Using the Austrian *Denkmalschutzgesetz* (Monuments Protection Law), it is demonstrated how such a careful interpretation is to be done, and why it is essential to undertake it, rather than seeing heritage law as a means which allows archaeologists to advance their own, personal, entirely private interests. This allows to demonstrate that, at least in Austria, it is not necessarily causing ‘cultural harm’ if archaeology is extracted ex situ, and that, indeed, most such extraction activities, including entirely unprofessionally conducted ones aimed at generating private economic profits, must actually be considered to be culturally beneficial and in the public interest.

The crucial lesson to be learned, thus, is that it is not we professional archaeologists who get to define what cultural values and what private actions are in the public interest and serve the greater common good, and not our values which reign absolute. Rather, it is for all citizens alike, via their duly elected representatives in parliament, to define what the cultural values of a particular society are, and what actions are in the public interest and serve the greater common good. Unless we understand that it is not we who are the absolute sovereign in all matters archaeological, but that, as everyone else too, are just one private interest group with particular (and particularly uncommon) interests, whose interests the legislature and the courts must balance with equally justified interests of others, we will never be able to actually advance our interests reasonably, and achieve the most effective protection of our values possible under the law.

When I published my refutation ([Karl 2018a](#)) of the seriously flawed paper ‘*Quantitative analysis of open-source data on metal detecting for cultural property: Estimation of the scale and intensity of metal detecting and the quantity of metal-detected cultural goods*’, written by Samuel A. Hardy ([2017a](#)), I hoped that I would not have to return to discuss again yet more fundamental problems with Hardy’s work. Sadly, his original paper ([Hardy 2017a](#)) is still widely referenced and indeed repeatedly

has been recommended since my (and another) refutation (by [Deckers et al. 2018](#)) were published, even though Hardy himself had to post very major corrections to it on his own blog ([Hardy 2017b](#)).¹ Yet, Hardy himself has not only written another – this time methodological – paper ([Hardy 2018](#)), more or less in response to these refutations, but seems to intend to produce yet more studies quite similar to his original, fundamentally flawed one. As such I, sadly, now feel the need to address some more of the major – not least conceptual – flaws of his original and subsequent attempts at estimating the ‘*scale and intensity of metal detecting*’ using open source data; and particularly estimating the ‘*quantity of metal-detected cultural goods*’ ([Hardy 2017a](#), 1).

‘Reasonable estimates’

I already highlighted the most serious flaw in Hardy’s ([2017a](#); [2018](#)) work in my first refutation ([Karl 2018a](#), 163-165), discussing it – to spare him even more grief – as if it were a purely methodological flaw, rather than a conceptual one; by contrasting the methodology Katharina Möller and I ([Karl & Möller 2016](#); [2018](#)) had used in our original study he used as inspiration for his ([Hardy 2017a](#)), with his.

To quickly summarise the significant difference: we were comparing data collected from the same kind of sources – metal detecting internet discussion forums – for deductively testing the hypothesis – frequently promoted by proponents of a restrictive legislative approach to regulating metal detecting as a means to resolve the problems caused by this practice – that its restrictive regulation by legislation reduces the incidence of metal detecting ([Karl & Möller 2016](#); [2018](#)). Hardy ([2017a](#)), on the other hand, attempted to create what he called ‘reasonable estimates’ of the numbers of metal detectorists active in several different countries, and the amount of ‘artefacts’ they were extracting *ex situ*, from any kind of ‘open source data’ he found by searching the internet with a search engine and a range of defined search terms, for transnational comparison purposes.

Deductive hypothesis testing

This is a significant methodological, but even more so a very significant conceptual difference. Because our research design is based on a very simple main premise, and two equally simple assumptions, which we also made explicit in both the German ([Karl & Möller 2016](#)) and the English ([Karl & Möller 2018](#)) versions of our paper.

Our premise was that for the hypothesis that restrictive regulation has a deterrent effect on the practice, and thus reduces the incidence, of metal detecting to be true, the self-determined, self-expressed level of interest in metal detecting should be lower in countries who restrictively regulate this practice than in such which do not, or only liberally, regulate it. Our assumptions were that there is ‘*a significant correspondence between interest and participation*’, as Hardy ([2018](#), 2) has since

¹ Hardy ([2017b](#)) claims in his corrections that he himself spotted the arithmetic mistake I also highlighted in my first refutation of his paper ([Karl 2018a](#), 172-173). However, to set the record straight, I pointed out this serious miscalculation in personal correspondence to him a few weeks after his original study ([Hardy 2017a](#)) had been published, and subsequently – since he was unwilling to correct at least this grievous mistake at the time – also (in February 2017) informed the journal in which he had published the piece, which also refused to correct the mistake. As already highlighted in my first refutation, ‘*Cogent Social Sciences is a ‘Pay to Publish’ Open Access Journal, which allegedly ensures high quality standards of papers published in it by a rigorous process of peer-review. As recently demonstrated by Peter Boghossian and James Lindsay (2017), that quality assurance process seems to be less efficient than desired.*’ ([Karl 2018a](#), 163 FN 1). Also, I mentioned the same fact in a short response to a discussion of Hardy’s ([2017a](#)) paper in the newsletter of the *Deutsche Gesellschaft für Ur- und Frühgeschichte* [DGUF], published 1/6/2017, which is also widely distributed, though I cannot say whether it was read there by Hardy, too. Thus, it seems rather surprising that it took Hardy months to realise his mistake, and that he now believes he discovered the mistake that I had previously told him about by himself.

correctly observed; and that for all uncontrollable variables, *ceteris paribus* applies between all the compared countries in our study.

The latter is a necessary prerequisite for all comparisons of data about human social behaviour which could have been influenced by any number of variables, many of them entirely unknown and thus necessarily uncontrollable (Neuman 2003, 149-162).² The former, on the other hand, in the context of an activity that in the compared countries is almost exclusively pursued as a hobby, seems a quite reasonable one: a hobby, after all, presupposes interest in the respective activity, and usually is an expression of a particularly pronounced interest in that activity; an interest so strong that individuals invest significant amounts of their spare time (and possibly money) into actively engaging in the activity. As such, there is certainly a positive correlation between interest in an activity and taking it up as a hobby, even if the precise percentage of people who turn an interest into a hobby may vary considerably.

As a consequence of our particular research design, the actual number of metal detectorists active in each of the countries we compared matters comparatively little, and matters ever the less the greater the discrepancy between the compared observable data for different countries is. Only if the discrepancy in the data from different countries is relatively small – e.g. if the per capita ratio of actively self-expressed interest in metal detecting were something like 1:1.1 (regardless which way) – do the precise numbers of metal detectorists active in any of the compared countries matter considerably. After all, if that were the case, minor variations in uncontrollable variables influencing the data we collected might reverse our findings.

However, the greater this discrepancy becomes, the greater variations in uncontrollable variables influencing our data must be to significantly change our findings. So, if the ratio is – as we found it to be between the countries we compared (Karl & Möller 2016, 218-220; 2018, 135-137) – nearly 1:3, the uncontrollable variables biasing the data in one direction would have to be extremely significant to even level the result, let alone reverse it. Thus, the probability that such a result is purely due to data bias introduced by uncontrollable variables is very low.

Of course, that does not mean that our assumptions must be right and cannot (and indeed should not) be questioned. However, it makes it unlikely that they are so significantly off that our results are not a reasonably reliable first approximation; at least until it is shown that there are indeed specific variables which could have been controlled for and were not, or only since have become controllable due to new data becoming available, which demonstrate that our assumptions are actually wrong.

The arguments raised by Hardy (2018, 24-27) in his recent methodological paper do neither, they just demonstrate that there are such factors which do influence the data. However, this is something we have assumed from the start (Karl & Möller 2016, 221-222), and thus does not have a significant bearing on our results. If Hardy wishes to show that our results are indeed false – which is of course entirely possible – he would need to demonstrate what specific variables have actually biased the data we have examined so significantly that it shows the opposite of what is actually the case: that, indeed, there are not considerably fewer, but rather considerably more, active metal detectorists per capita in England and Wales, than in both Austria and Germany.

Abductive 'estimating' of actual numbers of metal detectorists

This brings us to Hardy's (2017a; 2018) approach: as already explained in my first refutation of his methodology (Karl 2018a, 164-173), he tries to create 'reasonable estimates' of the actual number of metal detectorists active in different countries, purporting to use 'all open source' data he finds trawling the internet. I have already addressed his main methodological flaw in his original paper

² As for both controllable and uncontrollable variables that might influence the data, we controlled for those we could, and mentioned several that were uncontrollable in our discussion (Karl & Möller 2016, 221-222), highlighting that these could possibly invalidate our results.

([Hardy 2017a](#)) where his approach is concerned, that for the 12 countries he compares in this study, he compares **‘estimates’ of the minimum number of metal detectorists** which must be **active in 10** of the compared **countries** (most of them with restrictive regulations of metal detecting) **with ‘estimates’ of the actual number of metal detectorists** he presumes to be **active in two** (with liberal regulatory regimes). As a consequence of that methodological flaw, hardly surprisingly, he arrives at the (unreliable) result that the per capita-numbers of active metal detectorists he ‘estimates’ for the latter two are higher than the ones for the former 10.

But there are also a number of conceptual flaws in his approach, and they are, indeed, even much more serious than this – already lethal – methodological flaw.

The first of those - which, however, may be the least significant of them all – is that he creates his various estimates from a plethora of different kinds of data, with no regard whatsoever for data comparability, let alone transnational data comparability; because he does not compare data at all. Rather, he uses different sets of data – partially vastly different kinds of data, like online metal detecting discussion forum and Facebook group memberships, membership numbers of metal detecting organisations (or ‘clubs’), metal detector sales data, estimates of other scholars as to how many metal detectorists are active in a particular country, etc. – more or less independently of each other to create what he believes to be ‘reasonable estimates’ of how many metal detectorists are active in any particular country; and then compares these ‘estimates’ directly, assuming they are comparable.

To create his ‘estimates’, he uses abduction: he takes an individual observation – of some numerical data (of whatever kind, from whatever source) – and infers from that data – usually using various different methods of mathematical transformation, for various reasons which sometimes differ on a case by case basis – another number, which he then takes to be – as his conclusion from this logical inference – a ‘reasonable estimate’ of the number of metal detectorists active in a country. Yet, of course, *‘Deduction proves that something **must** be; Induction shows that something **actually is** operative; Abduction merely suggests that something **may be**.’* ([Peirce 1931, 171](#); emphasis as in original). Thus, as it is always in case of abductions, *‘No reason whatsoever can be given for it, as far as I can discover; and it needs no reason, since it merely offers suggestions.’* ([Peirce 1931, 171](#)). Thus, the ‘reasonable estimates’ Hardy creates may be suggestion of how many metal detectorists there may be in any particular country, but nothing more than that.

But comparing transnationally some figure which ‘may be’ true in one country with some other number which ‘may be’ true in another is no sound comparison from which anything further can be inferred: it is simply comparing suggestions. To arrive at reliable results regarding the efficacy of different systems of regulating metal detecting by way of such a transnational comparison, Hardy would rather need to establish that his ‘estimates’ are actually (at least roughly) true (‘verisimilar’), not just ‘reasonable’. But for being able to do that, he would have to determine the ‘verisimilarity’ of his ‘estimates’ by comparing them to the actually true figures, in which case he would not need to use any ‘estimates’ in the first place, since he could simply use the figures that are demonstrably true.

Thus, due to his research design, his attempt – however much ‘open source’ data he collects by searching the internet – can never produce any reliable results. To arrive at reliable results in a transnational comparison, one must compare data, not ‘estimates’, and take all necessary steps that the data compared is actually transnationally comparable.

In fact, Hardy’s ([2017a](#)) original study requires one to make (at least) 12 separate, not just unproven, but untestable, assumptions: that his ‘estimates’ for each of the 12 countries he compares are actually true (or at least sufficiently ‘verisimilar’ that minor deviations between his ‘estimates’ and the actual number of active metal detectorists in each of these countries do not actually matter). Of course, that does not mean that his results are necessarily wrong, after all, at least hypothetically, his ‘estimates’ could indeed be sufficiently verisimilar that his overall conclusions are actually true. However, the

probability that this is the case is very small, and none of the necessary assumptions for it can actually be tested. Thus, his study doesn't get us anywhere closer to knowing whether restrictive regulation of metal detecting is likely to be more effective than more liberal regulation, but only muddies the already murky waters even more.

'Estimating' the damage caused by metal detecting

But this is just the start where the conceptual problems with his study are concerned. An even much bigger problem than the one just discussed is the ultimate goal he was trying to achieve, at least (because there, it was clearly explicit) with his original study ([Hardy 2017a](#)), though also with his more recent one ([Hardy 2018](#)).

The issue here starts with the reason why he tries to 'estimate' the number of metal detectorist active in any country in the first place. After all, this is less so for establishing by transnational comparison which kind of regulating metal detecting is more effective (even though this clearly is also an aim of his relevant studies); but rather, mostly for establishing the amount of 'cultural harm' ([Hardy 2017a](#), 42) done to the archaeological record by the extraction of metal objects from the ground by this activity. We will leave aside for the moment what exactly 'cultural harm' is, though I will return to this issue later. At the moment, suffice to say that Hardy is interested in what kind of regulation, whether more restrictive or more liberal, is more effective because it better prevents the 'loss of archaeological evidence' ([Hardy 2017a](#), 42). This loss, as he explains, is caused by the non-reporting of what he considers 'recordable' finds; and he concludes that this loss is more effectively prevented by restrictive regulation ([Hardy 2017a](#), 42-43).

Loss of archaeological evidence by artefact extraction ex situ

Now, there can be no doubt that, if archaeological finds are extracted ex situ and, despite being 'recordable', are not being reported, they are most likely lost for good, at least from the perspective of archaeological scholarship. As such, the unreported extraction of 'recordable' archaeological finds ex situ definitely leads to a loss of archaeological evidence.

That this loss of archaeological evidence cannot be prevented by liberal (or no) regulations is obvious: after all, if the extraction of (even if only 'recordable', not all) archaeological finds ex situ is not or hardly prohibited at all,³ which is the defining feature of liberal systems of regulating this activity, there is nothing (or hardly anything) which could (legally) prevent anyone from engaging in this activity. Liberal regulation of this activity also does not indicate that it is socially harmful or undesirable to engage in this activity, and thus cannot encourage anyone who may wish to engage in this activity to voluntarily abstain from extracting finds from archaeological sites. Nor do liberal regulations of this activity create any practical barriers that could prevent this activity from happening by actually stopping anyone who wishes to from extracting finds ex situ. Liberal regulation (at least mostly) freely permits the activity, and thus may even be seen as encouraging people to engage in it, rather than having the deterrent effect necessary to achieve a desired outcome of preventing loss of archaeological evidence.

³ Hardly prohibited in this context is to be understood as the extraction of archaeological finds ex situ only being prohibited in certain, comparatively rare, circumstances. An example for this would be if the extraction of archaeological finds is only prohibited on a small fraction of archaeological sites in a country, e.g. only on sites specifically protected by a special administrative act like *scheduling*, as is the (only slightly simplified) case in Wales. In Wales, currently only c. 4.000 archaeological 'monuments' (Schofield et al. 2011, 92) out of at least c. 100.000 known (and at least as many again estimated) archaeological sites (<https://www.archwilio.org.uk/arch/15/1/2019>), so no more than c. 4% of all known sites, and probably about or less than half as many of all probably existing archaeological sites, are actually *scheduled*. Since it is (almost) only regulated on such a small minority of all archaeological sites in the country, the activity of extracting finds ex situ can be considered to be hardly regulated.

Thus, if any of either liberal or restrictive (or prohibitive) regulation of the activity can prevent the loss of archaeological evidence caused by its unreported extraction *ex situ*, it must necessarily be the latter: after all, restrictive (or prohibitive) regulation of this activity completely or at least mostly prohibits⁴ the extraction of archaeological finds *ex situ*, and thus can prevent it, provided people obey these regulations. It also indicates clearly to anyone interested in engaging in the extraction of archaeological finds *ex situ* that doing so is socially harmful or undesirable, thus encouraging voluntary compliance. It normally even threatens – often quite harsh – punishment for non-compliance, thus influencing any cost-benefits-analysis by rational actors towards compliance.⁵ Thus, since restrictive (or prohibitive) regulation (at least mostly) prohibits the activity, it could – at least hypothetically – have the desired deterrent effect of preventing the loss of archaeological evidence.

But that necessarily means that a study attempting to identify, by transnational comparison of the quantity of ‘recordable’ artefacts extracted *ex situ*, what kind of regulation of the extraction of objects *ex situ*, whether more restrictive (prohibitive) or more liberal, is more effective because it better prevents the ‘*loss of archaeological evidence*’ (Hardy 2017a, 42), can ever only come to one of two conclusions: 1) restrictive (prohibitive) regulation of this activity is more effective than more liberal one to prevent the loss of archaeological evidence; or 2) restrictive (prohibitive) and liberal regulation are equally ineffective in preventing the loss of archaeological evidence.

That only these two conclusions are possible is due to the conceptual design of Hardy’s (2017a) research. After all, liberal regulation cannot, not even hypothetically, prevent the extraction of ‘recordable’ (or indeed any) artefacts *ex situ*. At the most, it could, at least hypothetically, encourage reporting of ‘recordable’ archaeological finds after their extraction *ex situ*; that is, prevent loss of archaeological evidence by increasing the rate at which already extracted ‘recordable’ artefacts are reported and thus preserved ‘by record’ compared to the recording rate achieved under restrictive (prohibitive) systems of regulating the activity.

Thus, this ‘reporting rate’ would have to be established (at least mostly) independently of establishing the quantity of ‘recordable’ artefacts being extracted per annum, separately for and based on data from each of the transnationally compared countries. Yet, Hardy does not even attempt to do this, because it simply is not part of his research design. The only thing he does is to extensively debate the British *Portable Antiquities Scheme* (PAS) and the numbers of ‘recordable’ artefacts recorded by it annually (Hardy 2017a, 2-6), and later compares the annual reporting figures of the PAS with his ‘estimation’ of the quantity of ‘recordable’ artefacts extracted *ex situ* by ‘licit’ detectorists in England and Wales, arriving at the conclusion that ‘*perhaps 2,079,394 (96.13% of) recordable objects are not reported*’ (Hardy 2017a, 42) by ‘licit’ detectorists alone. While this, of course, sounds positively

⁴ In symmetry with its opposite, defined in the previous footnote, mostly prohibitive is to be understood as the extraction of archaeological finds *ex situ* only being permitted in certain, comparatively rare, circumstances. An example for this would be if the extraction of finds from archaeological sites is only permitted with special authorisation by a heritage agency, as is, for instance, the case in Schleswig-Holstein in Germany. § 12 (2.2-7) [DSchG-SH](#) (Monuments Protection Law Schleswig-Holstein) subjects virtually all activities associated with the extraction of archaeological finds *ex situ*, and specifically any use of any survey equipment (including metal detectors) suitable for discovering archaeology (unless specifically permitted by other laws), to the requirement of obtaining prior written permission by the state heritage agency for Schleswig-Holstein; on the pain of punishment according to §§ 18-19 [DSchG-SH](#) of up to € 0.5 Million or up to 2 years imprisonment. As a result, all of these activities, and especially metal detecting, are not completely prohibited, since the state heritage agency does issue such permits under certain circumstances, including to metal detectorists. Thus, this regulation of the extraction of archaeology *ex situ* is mostly, but not completely, prohibitive.

⁵ Even though, as studies of the psychology of legal compliance have demonstrated (e.g. Tyler 2006), the threat of punishment usually has very little, if any, deterrent effect; especially if rational actors – who appear to be much less common than we would like to believe to start with – need not truly fear punishment because of enforcement issues; and such enforcement issues definitely exist in the area of regulating archaeological finds extraction *ex situ*.

shocking both in absolute numbers and as a percentage, this is actually meaningless, because it does not tell the reader anything about whether that reporting rate is extremely low, or extremely high, compared to countries with restrictive (prohibitive) finds reporting regulations.⁶

Thus, it is impossible to arrive at the conclusion that liberal regulation could be more effective at preventing loss of archaeological evidence than restrictive (prohibitive) regulation, due to a major conceptual flaw in his research design. That flaw means that his main conclusion – that restrictive (prohibitive) regulation of metal detecting is more effective at preventing the loss of archaeological evidence (Hardy 2017a, 42-43) – is (in effect) already contained in the premises underlying his research design: only if restrictive (prohibitive) regulation of metal detecting has absolutely no deterrent effect and thus does not suppress the activity at all, he could arrive at any other conclusion than the one he ultimately arrives at; and that would still only allow for the conclusion that both kinds of regulations are equally ineffective at preventing the loss of archaeological evidence.

In other words: his whole argument is based on circular reasoning, his conclusions are already contained in his premises. Thus, the conceptual flaw in his research design invalidates his results: results arrived at by circular reasoning cannot constitute reliable proof of anything.

[A quick comparison of finds reporting rates in England and Wales, and Austria](#)

In fact, his results are indeed not just logically unsound due to the circular reasoning. Rather, if one corrects this conceptual flaw in his research design, one may well have to arrive at the opposite result than he does as to what kind of regulation is more effective at preventing loss of archaeological evidence.

I will only demonstrate this in form of a small case study, transnationally comparing archaeological finds reporting rates in England and Wales, and Austria. For the sake of the argument presented here, I will even take the figures Hardy arrives at in his study for the quantities of ‘recordable’ artefacts annually extracted ex situ in these countries to be actually correct.⁷

⁶ Restrictive (prohibitive) finds reporting regulation is to be understood as a general legal duty of finders of ‘recordable’ archaeological artefacts, or even all finds of lost property (if archaeological finds are considered by law as lost property; also see Campbell 2019, 80-81) to report them to the relevant public authorities, as is the case e.g. in Austria. In Austria, there is a specific legal duty for finders to report archaeological finds which fall under the legal definition (in § 8 (1) [DMSG](#) [Austrian Monuments Protection Law]) of the term ‘*Bodendenkmale*’ as per the provisions of §§ 8 (1) or 11 (4) [DMSG](#) (as applicable) to the *Bundesdenkmalamt* [BDA] (the Austrian National Heritage Agency) or any of the specified alternative reporting authorities (in § 8 (2) [DMSG](#), which in turn have a legal duty to report them to the BDA), on pain of penalty of up to € 5.000 per offence according to § 37 (3.1) [DMSG](#). In addition, there is also a general reporting duty (to one of the alternative reporting authorities specified in § 8 (2) [DMSG](#)) for finds of lost property according to § 390 [ABGB](#) (General Austrian Civil Law). Thus, even finds of artefacts erroneously not considered to be ‘reportable’ under the provisions of §§ 8 (1) or 11 (4) [DMSG](#) (as applicable) by their finder must be reported in a way that ensures they will be brought to the attention of the BDA (and thus be ‘recorded’). Given that thus, in Austria, all finds of ‘reportable’ artefacts must compulsorily be reported (regardless of the circumstances of their discovery) by law, the Austrian finds reporting regulations are restrictive (prohibitive): they prohibit the non-reporting of ‘recordable’ artefacts on pain of punishment.

This is in stark contrast to England and Wales, where the reporting of ‘recordable’ artefacts is regulated very liberally, if at all. Under current law, only finds of ‘treasure’ as defined in Section 1, [Treasure Act 1996](#) must be reported under a special legal reporting duty (for details, see Guest 2018). Where all other – that is, the vast majority – of archaeological finds not falling under said definition are concerned, whether ‘recordable’ or not, there is no legal duty to report them to any authorities. Rather, reporting all other archaeological finds to the PAS is entirely voluntary. Thus, the finds reporting regulations in England and Wales are liberal, because they do not prohibit the non-reporting of archaeological finds extracted ex situ in the vast majority of all cases.

⁷ For the record: I do not actually believe that Hardy’s ‘estimates’ are anywhere near correct, neither where Austria nor where England and Wales are concerned. However, to avoid having to debate (again) in detail why I

Hardy (2017a, 40) has estimated that in England and Wales, a minimum of 2,473,521 ‘recordable’ artefacts are extracted by metal detectorists per annum, while in Austria, it is 185,401.

Hardy has also given the figure of 83,795 as the average annual number of ‘recordable’ finds actually reported to the PAS (Hardy 2017a, 42; based on PAS 2016).⁸ This figure amounts to 3.39% of all ‘recordable’ finds estimated by Hardy to have been extracted on average per annum by both ‘licit’ and ‘illicit’ detectorists in England and Wales.

For Austria, admittedly, establishing the number of ‘recordable’ finds reported on average by metal detectorists to the BDA (or alternative finds reporting authorities specified in § 8 (2) DMSG) per annum is much more difficult. This is mainly due to the BDA having interpreted the provisions of § 11 (1) DMSG as completely prohibiting metal detecting by members of the public for at least the last c. 3 decades. It thus applied the law as if it contained such a general prohibition, as well as repeatedly publicly stating it did.⁹ Therefore, it is commonly believed, also by many Austrian metal detectorists, that their activities are strictly prohibited by law. As a consequence of this, metal detectorists reporting their finds to the BDA regardless normally do not admit that they discovered the artefacts they report by metal detecting, but rather pretend in their reports that they were pure ‘chance’ finds.

The BDA in turn is required by law to publish an annual report, the *Fundberichte aus Österreich* [FÖ] (BDA 1920-2016), on all archaeological finds (regardless of the circumstances of their discovery) which have been reported to it within any given year, ‘provided they are scientifically relevant’¹⁰ (§ 11 (7) DMSG). What such ‘scientifically relevant’ finds are is not specifically defined by law, nor has the BDA published any guidance on what it actually considers to fall into this category. Thus, it can only be gathered from the kinds of finds it has actually published in the FÖ in the past. This indicates that it does consider all archaeological finds of any date, up to – at least – the 2nd World War to be ‘scientifically relevant’.¹¹ This, of course, (apart from coins) is a much wider range of finds than what is ‘recordable’ in England and Wales according to the guidance provided by the PAS (<https://finds.org.uk/getinvolved/guides/recordingguidance> [16/1/2019]).

For the purpose of this argument, and taking into account the caveats outlined in the previous two paragraphs, I will now establish a comparable estimate of the average number of ‘recordable’ finds annually reported to the BDA in Austria by metal detectorists. The estimates are based on the last 26 years of reporting, for which there already are published reports (1991-2016).

Over this period, the average number of ‘chance’ finds reports (i.e. not relating to permitted professional archaeological fieldwork) received by the BDA is c. 200. However, of those, only a small minority (e.g. in 2008, c. 16%; Karl 2013, 105) are actually from ordinary members of the public (with another 4% of reports received in 2008 being joint reports resulting from collaborative work by professional archaeologists and ordinary members of the public; Karl 2013, 105). Thus, for simplicity’s sake, we can assume that c. 40 finds reports per annum are received by the BDA related to discoveries in which ordinary members of the public were involved. Of those, again, certainly more than half are from members of the public who certainly (because they are well-known to and have a long history of

do not believe his figures to be correct (in addition to what I already said on this matter in Karl 2018a), I will work with his figures here.

⁸ Though this disregards the fact that many more finds are presented by metal detectorists to PAS Finds Liaison Officers (FLO), which, however, are not recorded and thus were deemed by Hardy as not being ‘recordable’. What ‘recordable’ objects are is defined in Hardy’s paper as objects which ‘would be eligible to be registered in the PAS database’ (Hardy 2017a, 6). I will return to this point later in this paper.

⁹ This interpretation of the law by the BDA is demonstrably unlawful, a point I will also return to later in this paper.

¹⁰ ‘soweit sie wissenschaftlich relevant sind’ (§ 11 (7) DMSG).

¹¹ Regarding the refusal of the BDA since 1985 to publish reports about coin finds it has received (which are likely attributable to metal detectorists), already see Karl 2016a, 282.

collaborating with the BDA) or almost certainly (e.g. because received reports are those of an isolated find of a Neolithic polished axe etc.) did not discover their finds by means of metal detecting. This leaves us with c. 20 finds reports per annum which could at least be assumed to have been submitted by metal detectorists pretending to have made them as ‘chance finds’, rather than by metal detecting.

Finds reports of this category often mention more than one find having been made at the same time (and reported to the BDA after discovery),¹² sometimes even several tens of finds having been made in at least the same field, if not the same part of a field. Such reports about larger numbers of finds in a single discovery, however, usually mostly mention finds of heavily fragmented (only sometimes diagnostic) pottery and rarely report more than a handful of metal finds, thus – even if found during metal detecting – are mostly of finds (also) collected from the surface.¹³ Reports exclusively mentioning metal finds hardly ever mention more than 5 finds, often considerably less. Also, many of the finds reported in this way must be considered to not be ‘recordable’ as per the PAS guidance (<https://finds.org.uk/getinvolved/guides/recordingguidance> [16/1/2019]). Thus, one can estimate that each such finds report, on average, provides information about 5 ‘recordable’ artefacts; this already being a considerable ‘overestimate’ (cf. Hardy’s ‘*secure underestimates*’; [Hardy 2017a](#), 41-42).

We thus, for Austria, arrive at a ‘secure overestimate’ of on average c. 100 ‘recordable’ artefacts reported annually to the BDA by metal detectorists under the restrictive (prohibitive) Austrian finds reporting regulations. This amounts to c. 0.054% of the average of 185,401 ‘recordable’ artefacts estimated by Hardy ([2017a](#), 40) to be extracted by metal detectorists ex situ in Austria every year.

We thus can now compare transnationally whether the liberal regulations in England and Wales for metal detecting are more or less effective in preventing the loss of archaeological evidence by encouraging recording of ‘recordable’ artefacts than the much more restrictive (prohibitive) Austrian ones. And certainly, on that front, the liberal regulations in England and Wales beat the restrictive (prohibitive) Austrian regulations hands down: given that in England and Wales, c. 3.39% of all ‘recordable’ artefacts extracted ex situ by (whether ‘licit’ or ‘illicit’) metal detectorists are being reported to the PAS, while in Austria, it is only c. 0.054%, the liberal regulations in England and Wales seem to be c. 62.78 times as effective in preventing loss of archaeological evidence than the restrictive (prohibitive) Austrian ones.

In itself, this figure is as meaningless on its own as the figures about the ‘estimated’ numbers of metal detectorists active in these countries produced by Hardy ([2017a](#), 22-23) are on their own. Rather, to answer whether overall, the liberal restrictions of metal detecting in England and Wales or the restrictive (prohibitive) Austrian restrictions are more effective in preventing loss of archaeological evidence, we must now combine the results of both sets of ‘estimations’. After all, restrictive regulations would seem¹⁴ to reduce the overall number of metal detectorists actually active in a country compared to countries operating a more liberal system; thus preventing loss of archaeological evidence by reducing the amount of ‘recordable’ artefacts being extracted ex situ by metal detectorists in the first place. Liberal regulations, on the other hand, would (as established just now) seem to be encouraging the reporting of ‘recordable’ artefacts extracted ex situ by metal detectorists

¹² According to § 8 (1) [DMSG](#), reportable finds have to be reported at the latest on the working day following the day they were discovered.

¹³ In this context, it is important to note that ‘chance finds’ falling under the legal reporting duty of § 8 (1) [DMSG](#) must immediately be recovered by their finder according to § 9 (2) [DMSG](#) in case they otherwise might get lost or stolen. Since surface finds, especially of noteworthy artefacts, are obviously likely to get lost and stolen if left in situ, finders thus have a legal duty – again punishable by up to € 5,000 for every offence against this duty according to § 37 (3.3) [DMSG](#) – to immediately remove them ex situ for safekeeping.

¹⁴ For this, again, I am assuming (since I will continue to work with his numbers of active metal detectorists in each of the two compared countries) that Hardy’s ([2017a](#), 22-23) ‘estimates’ are correct for the sake of this argument; despite not believing them to be correct (cf. Karl & Möller [2016](#); [2018](#)).

much more effectively than more restrictive (prohibitive) regulations,¹⁵ thereby preventing loss of archaeological evidence which is being (or has already) been extracted ex situ.

The easiest way of combining these opposing effects into a single overall assessment would seem to be to simply determine how much, per capita, restrictive regulation seems to be more effective in depressing the number of metal detectorists per capita active in the one compared to that active in the other country. That can then be compared directly to the result arrived at above as to how much more effective liberal regulation in that other country seems to be in encouraging reporting of 'recordable' artefacts to the appropriate institution than the restrictive (prohibitive) regulations in the one.

The per capita-'estimates' Hardy (2017a, 22-23) provides us with for England and Wales on the one, and Austria on the other hand are as follows: in England and Wales, there seems to be 1 active metal detectorist per 2,075 residents; in Austria, there seems to be 1 in 4,106. The restrictive (prohibitive) Austrian regulations of metal detecting thus seem to be c. 1.98 times as effective in reducing the number of metal detectorists active in Austria compared to the more liberal regulations in England and Wales.

However, as established above, the liberal regulations in England and Wales are c. 62.78 times as effective in encouraging metal detectorists to report their 'recordable' finds to the relevant institution than the more restrictive (prohibitive) Austrian regulations. Thus, if we simply combine these results by dividing the latter by the former factor, we arrive at the liberal regulations of England and Wales being c. 31.73 times more effective at preventing loss of archaeological evidence than the restrictive (prohibitive) Austrian ones. And that mostly working with Hardy's (2017a) 'estimates', which, as demonstrated above and in my previous refutation of his article (Karl 2018a), are not even reliable but heavily biased in favour of restrictive regulation.

One might also look at the changes to reporting figures since the introduction of the PAS in England and Wales, and the introduction of increasingly restrictive (prohibitive) regulations in Austria. While the precise numbers of 'recordable' artefacts reported in England and Wales to local museums etc. before the introduction of the PAS is impossible to establish, it almost certainly was less than 10.000 per annum, so we'll take that as a starting point. That figure has risen to the 'estimated' average of c. 83,795 (Hardy 2017a, 42) since, giving us an increase of the reporting rate by a factor of at least 8.38. In Austria, on the other hand, following the introduction of more restrictive (prohibitive) regulations in 1990 and 1999, the reporting rate fell by c. 75% (Karl 2013, 106), a factor of c. 0.28. Combined, that gives a relative movement by reporting rates in different directions by a factor of c. 29.93. That would give us a greater overall effectiveness of the liberal English and Welsh regulatory system of c. 15 times that of the restrictive Austrian one.

Naturally, one could also compare these figures differently, and I will also do so here, if only to avoid being accused of unfair bias in favour of liberal regulations. One could, for instance, also compare these efficacy figures in terms of absolute amounts of loss of archaeological evidence prevented by restrictive regulations reducing the scale of extraction of 'recordable' artefacts ex situ as opposed to the increase in recording of extracted objects through more liberal regulation.

If approaching the comparison this way, in England and Wales, the loss of evidence caused by the unreported extraction of 'recordable' artefacts amounts – again, using Hardy's (2017a, 40) 'estimates' – to a whopping 2,288,120 objects per annum. In Austria, that loss amounts to only 185,301 per

¹⁵ Incidentally, I also do not believe this statement to be correct. Rather, I would suggest (roughly following e.g. Campbell 2019, 88) that it is mostly positive engagement between heritage managers and metal detectorists – if you will, a 'collaborative approach' – that is likely to be more successful than either liberal or restrictive (prohibitive) regulation (for one example which may demonstrate this, see the solution apparently operating quite successfully under a quite restrictive regulatory system in Schleswig-Holstein; Weise 2018).

annum. The latter, obviously, is a much smaller number in absolute terms than the former. Even if corrected for population size, to reflect the considerably smaller size of the Austrian population (Hardy 2017a, 23) and therefore multiplying the Austrian 'estimate' by a factor of 6.74, that would still mean that under the liberal English and Welsh regulations, 1.83 times as many 'recordable' finds are being extracted in England and Wales and not reported than are in Austria.

The increased reporting of 'recordable' finds achieved through the more liberal regulations of metal detecting in England and Wales pales into insignificance in comparison: yes, there may be c. 62.78 times as many extracted 'recordable' artefacts being reported, but that still means that over a million (1,039,191) more of them are currently being extracted under the English and Welsh regulatory regime than would be if these countries simply adopted the restrictive (prohibitive) Austrian regulations.

If England and Wales were actually to simply adopt the restrictive (prohibitive) Austrian regulations, one has to assume, though, that reporting numbers of 'recordable' artefacts would also drop considerably. After all, at the moment, c. 83,795 'recordable' finds are actually being reported to the PAS (Hardy 2017a, 42), that is, c. 3.39% of all such finds actually extracted. That number, then, would presumably drop by the factor of c. 62.78 established above, and thus mean that instead of the current average, only c. 1,335 'recordable' artefacts extracted ex situ would still be reported. Thus, 82,460 fewer 'recordable' finds would be recorded then compared to now.

Still, that would leave us with a net gain of nearly one million (956,731) objects whose loss would be prevented by adopting the much more restrictive (prohibitive) Austrian regulations of metal detecting in England and Wales. This would mean that, clearly, restrictive regulation of the practice is much more efficient than liberal regulation.

The 'retention in situ'-fallacy

But would the loss of these c. 1 million 'recordable' artefacts per annum in England and Wales really be prevented by adopting the restrictive Austrian regulations of metal detecting and thus cutting the number of metal detectorists active in England and Wales by about half?

In fact, this brings me to another, even more significant, conceptual mistake underpinning Hardy's (2017a; 2018) studies: he completely ignores the wider context of the general loss of archaeological evidence, of which metal detecting is just one cause. Thus, if one ignores this wider context, one could take the numbers just calculated¹⁶ at face value and argue that this demonstrates that restrictive regulation of metal detecting is, indeed, more effective than liberal regulation at preventing the loss of archaeological evidence.

Yet, sadly, that wider loss of archaeological evidence cannot be disregarded. This is because the recording of already extracted or currently being extracted 'recordable' artefacts occurs in the here and now, preserving them (or at least the information currently being considered to be relevant about them) by record in some (public) archive. The reduction of the number of artefacts being extracted by reducing the number of active metal detectorists (assuming restrictive regulation of the practice actually has this effect) extracting them, on the other hand, leaves these 'recordable' artefacts in situ – that is, in the ground – from where they may be extracted at some unknown point in the future. But leaving them in situ in the ground for future extraction means that until they are extracted ex situ by professional archaeological fieldwork, they are threatened by all the many other dangers that unknown objects in the ground face. Thus, it needs to be established for assessing the efficacy of restrictive regulation aimed at ensuring that metal detectorists leave 'recordable' artefacts in situ what the probability is that, if they are actually left where they currently are in the ground, they will

¹⁶ Leaving aside again for argument's sake that they are unlikely to be correct and are definitely unreliable.

be extracted and recorded in the future by professional archaeologists, rather than simply be destroyed where we left them.

So, let's assume now that with a swish of a magic wand, we could make all metal detecting stop right away. That would mean that from now on, the 2,473,521 'recordable' artefacts currently being extracted by metal detectorists per annum in England and Wales, and the 185,401 suffering the same fate every year in Austria, would not be extracted by metal detectorists. So far, so good. But how long would they stay where they currently are?

I have recently ([Karl 2018b](#)) taken it upon me to create a future projection, based mainly on data collected in Baden-Württemberg and Austria by the respective heritage agencies responsible for these two countries, as a first approximation of what we should expect in this regard. The first rather unpleasant result of this is that, assuming a constant rate of attrition of archaeology currently still in situ at the same speed as has been observed in Baden-Württemberg over the period from 1830-1985, that is, 155 years, all of it would be gone in c. 509 years. What may even be worse is that in the last c. 270 of these years, only less than 1% of the archaeology currently in situ will be left; with less than 10% remaining in situ after only c. 120 years from today. And that is not taking into account that the rate of attrition of archaeology has actually increased considerably since 1985 ([Karl 2018b](#), 28-32).

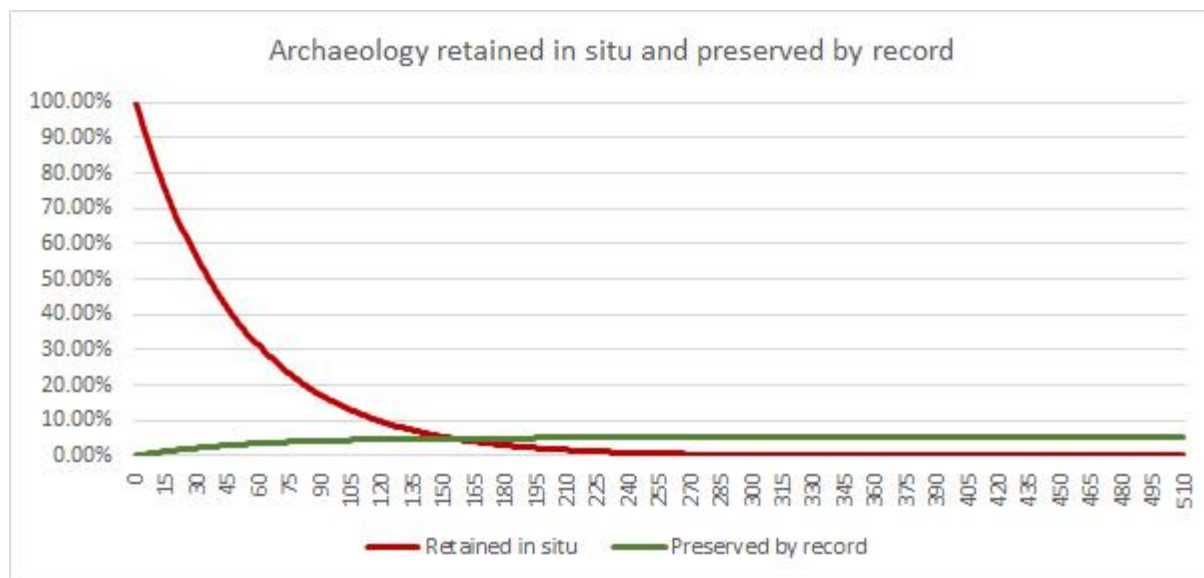


Figure 1: Future projection of archaeology retained in situ and preserved by record at current rates of attrition by all causes and recording by professional fieldwork; from the present to 510 years in the future.

While in itself, this need not necessarily be seen as a problem – after all, one could believe that since professional archaeologists are preserving the archaeology 'by record' by means of its excavation, it will eventually be recovered professionally – it still is if one considers the current rate at which professional excavation takes place. Based on the excavations reports published annually in the FÖ by the BDA (1920-2016), in Austria, one can estimate that annually, less than 0.1% of all of the archaeology currently in situ still present at the start of any year will be professionally excavated and thus be preserved 'by record' ([Karl 2018b](#), 30-31). If one assumes that this rate remains stable into the future, too, this means that, by the time all archaeology currently still retained in situ will have been destroyed (in c. 509 years from now), only 5.19% of it will have been preserved 'by record'. The remaining 94.81%, on the other hand, will have been destroyed unnoticed and (professionally) unrecorded in situ, and thus will constitute total loss of archaeology (Figure 1; [Karl 2018b](#), 31-32).

In fact, the actual attrition of archaeology currently still in situ is definitely considerably higher in Austria than I assumed for these future projections. Based on data collected on the scale of greenfield development by the *Umweltbundesamt* [UBA] (National Environment Agency), in the period 1970-

2015, the amount of built-up land in Austria has roughly trebled, from c. 2% before 1970 to c. 6.25% by 2016 (UBA [2001](#); [2004](#); [2007](#); [2010](#); [2013](#); [2016](#)). This means that on average, per decade, c. 0.92% of the Austrian land is developed. However, only c. 37% of the Austrian landmass is suitable for being developed (UBA [2016](#), 141), because the remaining land is too mountainous. Naturally, with a few notable exceptions,¹⁷ the 'useful' land (for anything other than forestry, high alpine pasture, or skiing and hiking) is also where most of the archaeology is located. Thus, development alone, if it continues at its present rate, will destroy virtually all archaeology in Austria within the next c. 402 years, not figuring in any other threats to its retention in situ.

In this context, we also have to consider current standard practice in the recovery and recording of 'recordable' (or indeed any other) artefacts during land development and its archaeological control by professional fieldwork; especially where the treatment of artefacts still retained in topsoil contexts in situ is concerned. After all, despite the fact that big looting pits are occasionally being dug by metal detectorists to extract artefacts from deeper strata of the ground (e.g. [Karl 2019](#), 2, 11-17), the vast majority of the artefacts they extract ex situ – whether they are 'recordable' or not – come from the topsoil. For establishing this fact, one need not believe the data provided by metal detectorists, e.g. to the PAS.¹⁸ Rather, at least for Austria, this fact is demonstrated by the (scarcity) of stratigraphic evidence for recent looting of subsoil contexts recorded during professional archaeological excavations ([Karl 2019](#)): were even only a significant percentage, let alone a majority, of looting holes being dug into subsoil contexts, there clearly would have to be much more stratigraphically observable evidence for it than there is. Thus, the vast majority of all artefact extractions ex situ by metal detectorists in Austria (according to Hardy's [\[2017a\]](#), 40) 'estimates', on average 657,875 per annum in Austria) must be from the topsoil, rather than deeper strata.

According to the UBA data, during the 1970-2016 period, the average greenfield development in Austria amounts to c. 73 km² per annum. Currently, of those 73 km² of development, an estimated c. 2 km² (c. 2.74%) are subject to at least an archaeological watching brief or more intensive fieldwork, while in 2006, it was only c. 0.43 km² (0.59%).¹⁹

Thus, currently, c. 71 km² of greenfield are being developed in Austria without any archaeological monitoring of the ongoing works, let alone a systematic archaeological survey of the site before the commencement of any works. Rather, standard practice in any such archaeologically unmonitored Austrian greenfield development is to simply remove the topsoil with bulldozers or similar heavy machinery as the first step in the preparation of the site for any subsequent works. Thus, all artefacts contained in the topsoil on such development sites, whether they would be 'recordable' or not, must be considered completely destroyed.²⁰ And even if later in the project an accidental find calls archaeologists to the site, most if not all of them must still be classed as irretrievable. While this may be considered to be mostly irrelevant if taking a purely site-centred approach – presumably, since these 97.26% of all greenfield development are not subjected to any archaeological monitoring, they will be on land from which no significant archaeology is as yet known to the BDA and planning authorities²¹ – it is highly significant if considering the wider archaeological landscape: any information

¹⁷ Like the high alpine prehistoric and historic salt mining industries in and on the *Salzberg* in *Hallstatt* and the *Dürrnberg* near *Hallein*.

¹⁸ Those metal detectorists might after all – at least hypothetically – be lying about the exact circumstances of their discoveries, including location and depth of finds made prior to their extraction; and as such, any such self-reported data is to some extent suspect.

¹⁹ The current estimate has been extrapolated from the data for 2006 provided by Farka (2006, 9).

²⁰ Though actually, they may, with the topsoil, just be redeposited elsewhere. However, since by becoming part of a redeposited topsoil layer, they of course are no longer retained in their original context and no longer in situ from an archaeological perspective. They thus can be considered to have been lost; even if, technically, they may still be recoverable as – even if completely decontextualised – artefacts.

²¹ Though note at this point: most development in Austria – unless it is of a kind that subjects it to an environmental impact assessment (EIA) requirement under the provisions of the [Umweltverträglichkeits-](#)

on wider historical land-use, as may be gathered from recorded accumulations of 'stray' finds in the topsoil between distinct 'archaeological sites', will inevitably be completely destroyed by this unmonitored greenfield development.

So what about standard practice regarding topsoil excavation on the 2 km² of greenfield development currently subject to archaeological development control? There, systematic geophysical surveys may well have been conducted at some point before the commencement of any invasive groundworks on site. However, systematic metal detector surveys of the topsoil before or during its removal by mechanical digger are still rare: in the 2013-2015 period, on average, only 4.69% of all professional fieldwork in Austria made use of a metal detector at all ([Karl 2019](#), 9-11). Some of this fieldwork was metal detector surveys conducted for pure research purposes (i.e., not in the context of development control); and generally, most of the use of metal detectors is in the context of either research excavations or relatively small development control projects, while the use of metal detectors in the context of large rescue excavations is almost (though not completely) unheard of. Even in fieldwork reporting the use of a metal detector, it is frequently used mainly for searching spoil excavated by mechanical digger from subsoil contexts.²² Thus, actually, it is not even in 4.69% of all professional archaeological fieldwork in the context of development control that the topsoil is searched by metal detector for 'recordable' finds, let alone systematically surveyed and precise find spots recorded. Still, one can assume for the sake of this argument that of the development subject to archaeological monitoring, the topsoil is systematically surveyed for 'recordable' finds by metal detector in 4.69% of all cases.

This gives us c. 0.09 km² (or c. 9 hectares) where the topsoil is systematically professionally surveyed by metal detector for 'recordable' artefacts in the context of the development of greenfield sites in Austria per annum. That is c. 0.12% of all the topsoil removed by mechanical digger from the c. 73 km² of annually developed land in Austria. Naturally, all 'recordable' artefacts still retained in situ in the c. 99.88 of topsoil removed unsearched by mechanical digger when this development happens are thus completely lost.

There are, of course, several other threats to artefacts still retained in situ in the topsoil. Of those other threats, particularly farming (and to a lesser extent, forestry) will also take a significant toll on the archaeology currently still retained in situ over time. One can, of course, debate how much and how rapidly artefacts in the topsoil of fields in agricultural use by plough, grubber, natural and chemical fertiliser, heavy machinery etc. are being eroded (crushed, fragmented, dissolved, etc.). However, there can be no doubt they will eventually be destroyed if just retained and not extracted from there, at least unless the agricultural land use is mostly or even completely stopped.²³ Still, for

[prüfungsgesetz](#) [UVP-G] (Austrian Environmental Impact Assessment Law) – does not require any archaeological impact assessment to be carried out. Thus, unless an archaeological site is already known to the BDA and has been registered as a *Fundverdachtsfläche* (finds expectation area) in the *Flächenwidmungsplan* (development plan), planning authorities will not even know, let alone have to consider, that any archaeology might be present on a particular plot of land during planning permission processes. Thus, given that the Austrian archaeological land survey is seriously under-developed – as of 22 May 2018, just 21,730 archaeological sites were known to the BDA from all of Austria (pers. comm. B. Hebert, Head of Archaeology, BDA), which amounts to just 0.21 known archaeological sites per square kilometre – chances are that many archaeological sites are simply bulldozed away without anyone even noticing that they were there.

²² Though luckily, the practice of excavating subsoil contexts with a mechanical digger on development control excavations still seems to be relatively rare in Austria, at least compared to some other European countries, where sampling strategies have to be considered to be the norm and often very sizeable percentages of subsoil contexts are either excavated by mechanical digger and the spoil only cursorily searched by naked eye, or features mostly only recorded in plan and left to unmonitored destruction.

²³ The complete restriction of agricultural land use, or its restriction to farming practices not damaging (or at least less damaging) to archaeology, will ever only be possible on a narrowly restricted number of sites, especially where the topsoil is concerned. After all, such restrictions severely interfere with and thus limit

my argument in this paper, I will not even try to estimate the speed of artefact erosion in the topsoil due to such threats, because given the artefact erosion caused by development, they matter not for the point I am trying to make.²⁴

Artefact retention in situ or preservation by record via their reporting?

This brings me back to the comparison of the relative efficacy of restrictive and liberal regulation of metal detecting, started in the previous chapter. This is because we have to, and now indeed can, figure into this comparison the fact that merely leaving ‘recordable’ artefacts in situ (by stopping metal detectorists by restrictive regulation from extracting them now)²⁵ will not preserve them indefinitely. Rather, it will only retain them in situ until they are destroyed by either their unreported extraction by a metal detectorist or any other threat to their survival at some unknown point of time in the future; and only be preserved by record if extracted, recorded and reported professionally before then.

Using the same figures as above, under the liberal regulations of England and Wales, there are an estimated 2,473,521 ‘recordable’ artefacts being extracted, and 83,795 reported to the PAS, by metal detectorists per annum. In Austria, on the other hand, there are an estimated 185,401 ‘recordable’ artefacts being extracted, and 100 reported to the BDA, by metal detectorists per annum. Thus, under the liberal regulations in England and Wales, 1.98 times as many artefacts are being extracted by metal detectorists than under the restrictive (prohibitive) regulations in Austria, while c. 62.78 times as many ‘recordable’ artefacts are being reported.

Let us look at Austria first, figuring in that only c. 0.12% of all topsoil removed during development is searched by professional archaeologists with a metal detector and assuming that current professional topsoil removal practice during archaeologically monitored and unmonitored development remains unchanged. This would technically allow for the assumption that only 0.12% of all ‘recordable’ artefacts contained in the Austrian topsoil will be discovered and recorded during professional development control fieldwork.

However, this assumption would probably underestimate the percentage of ‘recordable’ artefacts recovered from the topsoil during development control fieldwork: after all, more ‘recordable’ artefacts are to be expected in the topsoil on an actual archaeological site, and development control fieldwork normally is undertaken only in the context of development on known and suspected archaeological sites. On the other hand, since the archaeological land survey in Austria is as bad as it is, it has to be assumed that many developments are not subjected to archaeological control because it is neither known nor suspected that they indeed take place in a location actually containing an

property ownership rights in the land (which, where arable land is concerned, is mainly to farm the land productively and profitably, which necessarily requires at least some level of interference with the fertile topsoil). While property ownership rights are not sacrosanct and can be restricted to some extent by a superior public interest, they are a protected fundamental Human Right and – in countries with a written constitution like Austria – constitutionally protected Civil Right and thus cannot easily be completely voided, not even for the protection of the public good. Rather, if the property rights of the owner are restricted by a heritage agency to an extent that is equivalent in effect to their expropriation, the owner must be fairly compensated, i.e. the land in question must be compulsorily purchased (for Austria, see Art. 5 [StGG](#); Art. 1 1st protocol [ECHR](#); [§ 365 ABGB](#); also see Berka 1999, 399-416; Bazil et al. 2015, 7). Thus, while some restriction of interference with the topsoil for agricultural purposes may be possible in exceptional cases, normally, it is not a realistic option for heritage protection.

²⁴ Though these other threats may well matter very much in the field, where artefact erosion due to them may indeed be considerably more significant and rapid than even the threat for the survival of ‘recordable’ artefacts in the topsoil by development.

²⁵ For this, I am still assuming for the sake of this argument that Hardy’s (2017a) result that restrictive regulation of metal detecting does significantly reduce its incidence and thus the number of ‘recordable’ finds extracted ex situ; despite actually believing his results to be neither correct nor reliable.

archaeological site. So to account for both these factors, I will assume that the percentage of 'recordable' artefacts actually discovered and professionally recorded during development control fieldwork is 10 times higher than what I established above, that is, 1.2%.

Let us also assume that we can completely stop unprofessional metal detecting and all other threats (apart from development) for the retention of artefacts in situ, meaning that the estimated 185,401 'recordable' artefacts currently extracted by metal detectorists per annum will remain in situ until the spot where they happen to lie will be developed. This allows us to estimate that of those, c. 1.2%, that is 2,225 'recordable' artefacts, will indeed be professionally recovered and recorded.

Yet, were metal detecting to not completely stop and Austria instead to adopt the English and Welsh liberal system of regulating metal detecting, we may assume that the rate of – then almost entirely voluntary – reporting of 'recordable' artefacts extracted by detectorists from the Austrian topsoil would increase to the same 3.39% the PAS currently seems to achieve. Thus, instead of 100 as is currently the case, we could expect that 6,278 'recordable' artefacts would then be reported annually to the BDA by Austrian metal detectorists. This means that 2.82 times as many of them would be preserved 'by record' as would if metal detecting were to stop completely in Austria, and 'recordable' artefacts contained in the topsoil only recovered by professional archaeologists during development control fieldwork anymore.

So, let us now look at England and Wales, working with partially different assumptions.

Firstly, let us assume that in England and Wales, much like in Austria, most professional archaeological fieldwork is conducted in the context of development control. Given that this is a perfectly well-known fact ([Aitchison & Rocks-Macqueen 2014](#), 11), this is indeed not much of an assumption. Also, in English and Welsh development control archaeology, metal detectors do not seem to normally be used to survey sites systematically before or during topsoil removal with mechanical diggers; with no evidence that I could find suggesting that systematic metal detecting surveys of the topsoil before its removal would be any more common in England and Wales than in Austria. However, in England and Wales, archaeology is fully integrated into the planning process (Schofield et al. 2011, 88-90); with the archaeological land survey also being much superior to the Austrian one (number of sites known in England: c. 3.07/km²; in Wales: c. 4.81/km²; cf. in Austria: 0.26/km²).²⁶ Thus, one must assume that a considerably higher percentage of 'recordable' artefacts retained in the topsoil would be discovered during development control fieldwork than is likely in Austria. For the sake of this argument, I will assume this to be c. 5.5%, which is (roughly) the 1.2% assumed above for Austria times the higher number of sites known in England, corrected for the difference in geomorphology.

Also, rather than assuming that metal detecting could completely be stopped, as I did for my Austrian calculations, I will be assuming that England and Wales adopt the much more restrictive (prohibitive) Austrian regulations for metal detecting. This allows us to assume that the number of 'recordable' artefacts extracted by metal detectorists would fall considerably, to only 1,249,253 from the current estimated 2,473,521. Thus, 1,224,268 'recordable' artefacts currently being extracted per annum would remain in situ instead.

However, by no means would all of the latter be recovered during development control fieldwork at a later time, but only 5.5% of them. Thus, only c. 67,335 would actually be preserved 'by record' during professional development control fieldwork. The rest would be destroyed, whether by other threats

²⁶ As is evident from these figures, the difference between England and Wales on the one and Austria on the other hand is stark where the quality of the archaeological land survey is concerned. Even if one accounts for the fact that Austria is c. 60% mountainous (as, incidentally, is Wales, even though the Welsh mountains are by no means as imposing as the Austrian ones), there are still nearly 5 times as many sites per km² known in England than in Austria, and even considerably more in Wales (the latter fact indicating that it cannot just be the geomorphology that causes this discrepancy).

before development even starts, or at the commencement of development where no systematic metal detector survey prior to or during topsoil removal by mechanical digger is conducted, or where no fieldwork takes place at all during development because preliminary desktop analysis did not provide sufficient grounds to make fieldwork a planning condition in the first place.

At the same time, due to the adoption of the restrictive Austrian regulations of metal detecting, reporting of 'recordable' artefacts by those metal detectorists who would still engage in the activity would crash through the floor. Rather than 83,795, as are currently being reported to the PAS, only an estimated c. 674 'recordable' artefacts would still be reported on average per annum. You may notice that this figure is even lower than the c. 1,335 I arrived in my calculations above. This is due to the fact that reporting figures would be hit twice: by the reduction in the extraction of 'recordable' artefacts *ex situ* and the reduction of the reporting rate, both caused by more restrictive regulation. Thus, the quantity of 'recordable' artefacts reported to the finds reporting institution would drop by 83,121 compared to now.

Therefore, English and Welsh archaeology would gain an estimated 67,335 'recordable' artefacts recovered and reported during professional archaeological fieldwork, but lose 83,121 'recordable' artefacts no longer reported by metal detectorists: This is a net overall loss of 15,786 'recordable' artefacts actually being recorded compared to now. While this difference would be less dramatic than in Austria, since the decrease would only be by a factor of 0.81, this would still mean an increased loss of archaeological evidence by adopting more restrictive (prohibitive) regulations for metal detecting.

Thus, even if one works with Hardy's (2017a) severely flawed 'estimates' in such a transnationally comparative study, but does not forget to account for the fact that artefacts simply left *in situ* in the present will not necessarily be 'preserved' until they are discovered during professional archaeological fieldwork, it turns out that the liberal regulations of metal detecting in England and Wales may well be more effective in preventing '*loss of archaeological evidence*' (Hardy 2017a, 42) than the more restrictive (prohibitive) Austrian ones. At least if one also does not forget that different regulatory systems may not only (if they do) have different effects on the number of metal detectorists and thus the quantity of 'recordable' artefacts extracted *ex situ* by them, but also different effects on reporting rates of 'recordable' artefacts which are extracted by metal detectorists (whether or not despite the regulations).

And remember, Hardy's (2017a) 'estimates' for **Austria** are of the **minimum number** of metal detectorists which must be assumed to be active in this country. His 'estimates' for **England and Wales**, on the other hand, are those of the **actual number** of metal detectorists he believes to be active in these two, with the latter inflated compared to how he calculated the former by a factor of more than 2 (Karl 2018a, 167-169). Given this is the case, had I calculated the example above with actually comparable figures – after all, the number of metal detectorists actually active in Austria is almost certainly much larger than the one 'estimated' by Hardy (2017a, 23), and thus the likely actual number of 'recordable' artefacts actually annually extracted by them (Hardy 2017a, 40), too; probably by at least a factor of 2 – the results would even more clearly point towards liberal regulation being more effective at preventing '*loss of archaeological evidence*' (Hardy 2017a, 42) overall.

Believing that *retention in situ* (Karl 2018b) is the same as *preservation in situ* is a logical heritage management fallacy; a classical category error. By forgetting, as Hardy (2017a) did in his research design, that artefacts extracted *ex situ* and properly reported are preserved, at least 'by record', in the present, for the future; while those left *in situ* may, but may as well (and will most likely) not, be preserved by record in the (quite possibly quite distant) future; he conflates two completely different things: an actuality with a potentiality. **Retention for a possible** (but not overly likely) **future** is mistakenly conflated with **actual preservation in the present for the future**.

While, admittedly, quite a few people involved in heritage management and its academic study seem to be making this mistake (see Rüscher 2004 for a short discussion of more or less the same problem in

German professional heritage management), it nonetheless constitutes a lethal logical flaw which must not be made. As such, this conceptual mistake in his research design dooms Hardy's ([2017a](#); [2018](#)) work from the start: in the way he proceeds, it is impossible to arrive at a reliable answer to the questions he asks.

Disregard for, or lack of understanding of, the law?

Sadly, the problems with Hardy's ([2017a](#); [2018](#)) studies do not stop there either. Rather, there is yet another very serious problem that needs addressing: Hardy's disregard for, or lack of understanding of, the law. This probably comes to the fore most obviously in a sentence in the first section of his introduction to his more recent paper, where he writes: *'Many practitioners [RK: metal detectorists] follow the poorly-written letter of the law, but not the manifest spirit, or they violate the letter of the law, but are difficult to prosecute.'* ([Hardy 2018](#), 2; emphasis: RK).

That the letter of the law is poorly written is yet another of the more popular mistakes made by quite a few heritage managers and archaeologists alike (also see on this Karl 2018c, especially 138-140). This is not to say that there are no poorly written laws, including some heritage laws; there almost certainly are. However, while there probably are quite some poorly written (heritage) laws, the problems with those laws rarely are those that heritage professionals believe them to be. Because the latter are mostly those that Hardy also hints at in the quoted sentence: that the letter of the law seems to not always perfectly align with (what heritage professionals believe to be) its 'spirit', and that the law often appears to be (for heritage professionals: shockingly) ineffective, particularly where the prosecution of (real or alleged) offences against it (or rather: this 'spirit') are concerned.

Yet, much of this is not due to the laws in question having been poorly written, but to the (legally quite correct way to legislate for the) intention they were written with by the only entity whose will matters in this regard: the political body with legislative powers in the territory for which it has jurisdiction. I will demonstrate this in the following regarding Austria with a few examples relevant for Hardy's ([2017a](#)) original study; not least because he was in contact with me during his research for this paper, and I tried my best to explain to him some of the complexities of Austrian heritage law. Sadly, he appears to have completely misunderstood them, because he misrepresents the situation in Austria quite seriously ([Hardy 2017a](#), 10), which has repercussions for his study.

What are 'recordable' artefacts (in Austria)?

I will start with a point about a term already used ad nauseam in this (and his) paper, 'recordable' artefacts. I believe to understand why he used the term in his study, and why he defined it in the way he did: as objects which *'would be eligible to be registered in the PAS database'* ([Hardy 2017a](#), 6). After all, one obvious aim of his study was to establish that liberal regulation of metal detecting, of which the PAS is obviously the (also international) poster-boy, was ineffective in preventing the *'loss of archaeological evidence'* ([Hardy 2017a](#), 42). Thus, what better way to judge the efficacy of the PAS than on its own terms? After all, the PAS defines what kinds of objects are or at least can be recorded in its database. Thus, if one can demonstrate, as Hardy (believed) he did, that even on its own terms, it is an abject failure, this would most clearly demonstrate that it, and with it liberal regulation, is obviously much less effective at preventing loss of archaeological evidence than more restrictive (or even prohibitive) systems of regulating metal detecting ([Hardy 2017a](#), 42-43). This, in turn, required him to demonstrate that in countries with restrictive (prohibitive) systems of regulating metal detecting, less archaeological evidence was being lost through metal detecting; which required him to come up with (at least apparently) comparable 'estimates'.²⁷ And, of course, shockingly large numbers

²⁷ Of course, the way he calculated these figures so that they would appear to be transnationally comparable, is also a methodical sham: since he simply multiplies his 'low estimate' of the number of metal detectorists he believes to be active in any given with the same number for all countries he compares (a number which he goes to great lengths to determine in a way that creates the appearance of accuracy and reliability; [Hardy 2017a](#), 25-

of ‘recordable’ artefacts being recovered makes both for good headlines and a particular strong effect of his conclusions.

Yet, this completely disregards the fact that in different countries, different (kinds of) artefacts might be ‘recordable’, whether by law, or by general consensus (or at least, dominant opinion) within a particular group of people (e.g. ‘the archaeological scientific community’), and/or even by individual knowledge or understanding. This, obviously, also has consequences for whether a particular kind of regulation of metal detecting has to be considered to be more or less effective, because it can change significantly what, and thus also how many, artefacts extracted ex situ ought to be reported to some reporting authority or organisation for recording.

Interpreting the law: the basics

In Austria, for instance, what finds of artefacts must be reported to the BDA (ideally directly, but at least by a permitted proxy) for – amongst others – the purpose of recording, is defined by law, in § 8 (1) [DMSG](#). Thus, what a ‘recordable’ artefact is in Austria is determined by Austrian heritage law, not the PAS, not Samuel Hardy, not me, nor anyone else. That definition is found in the sentence establishing the reporting duty for such finds:

*‘If under the surface of the earth or water objects, which due to their location, form or properties **obviously** could be subject to the restrictions of this federal law (ground monuments) are found (chance finds), this has to, with due regard to the often high risk that such finds are altered, destroyed or stolen, immediately be reported, no later than the working day following the discovery, to the Federal Monuments Agency’²⁸ (§ 8 (1) [DMSG](#); translation and emphasis: RK²⁹).*

Obviously, the meaning of definition of the term ‘*Bodendenkmale*’ (‘ground monuments’) contained in this sentence is anything but obvious: it must be interpreted, even in the original German.³⁰ But to

39), his ‘secure underestimates’ of the quantity of ‘recordable’ artefacts extracted ex situ in each of these countries are simply a function of the number of metal detectorists he believes to be active in them. In other words, he could as well have said: in England and Wales, I believe there’s 1.98 times as many active metal detectorists per capita as in Austria, so the number of ‘recordable’ artefacts extracted by metal detectorists in the former is 1.98 times as many per capita as in the latter.

²⁸ ‘Werden unter der Erd- bzw. Wasseroberfläche Gegenstände, die infolge ihrer Lage, Form oder Beschaffenheit offenkundig den Beschränkungen dieses Bundesgesetzes unterliegen könnten (*Bodendenkmale*), aufgefunden (Zufallsfunde), so ist dies im Hinblick auf die für Bodenfunde zumeist besondere Gefährdung durch Veränderung, Zerstörung oder Diebstahl sofort, spätestens aber an dem der Auffindung folgenden Werktag, dem Bundesdenkmalamt anzuzeigen’ (§ 8 (1) [DMSG](#)).

²⁹ I apologize for the rather awkward and apparently clumsy translation, but – particularly where the word order in this sentence is concerned – I tried to translate it as literally as possible, rather than changing things around much to improve the sentence’s structure for English readers. While the sentence is somewhat smoother in the original German than my near-literal English translation of it, it is also a quite complicated sentence in German.

³⁰ I have literally translated the term ‘*Bodendenkmal*’ as ‘ground monument’ here because, in the law, it is a legal technical term. This means that its meaning in the **language of the law** is not necessarily exactly, or even only mostly, the same as in the ordinary German language (in which it is hardly used at all) or archaeological jargon. This is particularly important in this context, because the same term ‘*Bodendenkmale*’ is also used in **technical archaeological language**, as a synonym for the terms archaeological find, feature, or site; mostly, but not necessarily exclusively, when talking about finds, features, or sites in a context related to their management. Thus, one can refer to an archaeological site as a ‘*Bodendenkmal*’ but would not usually use that term when just talking about wanting to excavate, otherwise research or even just go for a stroll on it, instead using the more generic term ‘*Fundstelle*’ (literally: ‘find spot’). If, however, the site’s management were concerned – e.g. by a landowner planning to develop it – the site will much more commonly be referred to as a ‘*Bodendenkmal*’, even if the term ‘*Fundstelle*’ could equally be used.

That ‘*Bodendenkmal*’ is a polysemous term, which means different things in the language of the law and in archaeological jargon, is actually quite confusing, especially for archaeologists lacking a detailed understanding of the law, but apparently even for the civil servants working for the BDA. That even the latter are prone to

be able to correctly do so, one must first look back to the opening paragraph of the DMSG, which defines what kinds of things the law is actually applicable to at all; as well as setting out its main aims. After all, a *ground monument* is defined as objects which could be subject to the law; so one must know what objects normally actually are subject to the law. That opening paragraph states:

*‘The provisions contained in this federal law are **applicable to manmade** immobile and portable objects (including their remains and traces of formative human adaptation as well as artificially erected or designed ground formations) of historical, artistic or other cultural significance (“monuments”), **provided their preservation due to this significance is in the public interest.** ... “Preservation” means protection **from destruction, alteration or export abroad.**’³¹ (§ 1 (1) [DMSG](#); translation and emphasis: RK).*

The DMSG thus applies to manmade objects of such significance that their preservation is in the public interest. Whether an object is of such significance is also defined, in § 1 (2) [DMSG](#): a public interest in its preservation exists if – considering it in the wider context of the whole Austrian inventory of monuments – its loss would seriously diminish the Austrian stock of cultural heritage and/or the ability to document (Austria’s) history.

We now know that, according to § 8 (1) in combination with § 1 (1-2) [DMSG](#), a *ground monument* is a manmade object found beneath the surface of the ground or water which is obviously historically, artistically or culturally so significant that it is in the public interest to preserve it. Therefore, aiming at preventing its loss after its discovery, § 8 (1) stipulates that it must immediately be reported to the public authority responsible for heritage administration, the BDA.

Many, if not most, archaeologists and heritage professionals will, at this point, be content that they already know and understand how to correctly interpret this law: after all, it seems to say that it aims at preventing the loss of all significant *ground monuments* by subjecting their discovery to a general reporting duty for finders. Since in archaeological jargon, the term *ground monument* is used mainly as a synonym for archaeological finds, features, and sites (see FN 30), this is how they interpret it. Also, within Austrian professional archaeology, there is a general consensus that, at least, all *diagnostic* archaeological finds, features, and sites are of such significance that their loss would seriously diminish the discipline’s ability to document (Austria’s) history (including prehistory) should be reported. Thus, to professional archaeologists, it appears to be obvious that all diagnostic finds, features, and sites could be manmade objects whose preservation is in the public interest as defined in § 1 (1-2) [DMSG](#). Thus, they believe that the correct interpretation of § 8 (1) [DMSG](#) (if you will, its ‘*manifest spirit*’; [Hardy 2018](#), 2) is that all diagnostic archaeological finds, features, and sites are *ground monuments* which, if found under the surface of the earth or water, must be reported to the BDA within one working day.

Yet, suffice to say at this point, this is certainly not obvious to an ‘ordinary citizen’³².

confuse the different meanings of the term or erroneously believing that they actually mean the same in both the language of the law and archaeological jargon is evident from the fact that the BDA renamed its ‘*Abteilung für Bodendenkmale*’ (‘department for ground monuments’) into ‘*Abteilung für Archäologie*’ (‘department for archaeology’) about 10 years ago.

³¹ ‘Die in diesem Bundesgesetz enthaltenen Bestimmungen finden auf von Menschen geschaffene unbewegliche und bewegliche Gegenstände (einschließlich Überresten und Spuren gestaltender menschlicher Bearbeitung sowie künstlich errichteter oder gestalteter Bodenformationen) von geschichtlicher, künstlerischer oder sonstiger kultureller Bedeutung („Denkmale“) Anwendung, wenn ihre Erhaltung dieser Bedeutung wegen im öffentlichen Interesse gelegen ist. ... „Erhaltung“ bedeutet Bewahrung vor Zerstörung, Veränderung oder Verbringung ins Ausland.’ (§ 1 (1) [DMSG](#)).

³² n.b.: ‘ordinary citizen’ as used here, again, is a legal technical term, and thus does not necessarily mean the same thing as in everyday language. In Austrian law, it is normally used as a benchmark of competence: it describes a fictional persona which is *disinterested* (in the legal meaning of the term, that is: unbiased/objective

Even worse, it is also not actually the '*spirit of the law*'³³.

Interpreting the law: theory

Ultimately, any interpretation of the (Austrian) law must aim at determining the *spirit of the law*, that is, at establishing what the legislator who made a particular law actually wanted to achieve by making it (Walter & Mayer 1988, 49-50). After all, the purpose of laws is to provide those who should comply with them with a clear set of rules to guide their (mostly self-determined) behaviour in a particular direction, that is, the direction the legislator wants. In modern democratic societies based on the fundamental principles of the enlightenment,³⁴ this will is not that of any particular individual (e.g. a king, dictator, etc.) or sub-group (e.g. an aristocracy, class, caste, etc.) within any given society, but the democratically determined will of all its citizens³⁵. As in most other modern democratic societies, Austria is a representative democracy, and as such, the '*will of the people*' is found and expressed by the body consisting of their democratically elected representatives, that is, parliament.

However, since the intent of the legislator is something which forms in his mind,³⁶ i.e. is an '*internal process*', it is not directly observable by others, but '*must be expressed in some way*' (Walter & Maier 1988, 49; translation: RK). This is, of course, mainly the law he writes itself, though neither exclusively nor necessarily most importantly. Thus, if interpreting the law, it is not only the law itself one should and indeed needs to consider, but rather anything which could reasonably allow to determine the *spirit of the law*. Where Austria is concerned, there are usually several kind of sources which can be drawn upon to do so, in addition to the law itself.

Firstly, the context of a law, both of separate provisions within the same, but also analogous, comparable, diverging or even (apparently or actually) conflicting provisions in other laws, and the wider legal context, including possible expressions in law of a 'higher' will (e.g. if a particular interpretation of an ordinary law is impossible because it would conflict directly with a constitutional law), is one such source. Secondly, so is the explanations attached to the government draft of the law tabled in parliament for consideration and discussion before the law itself was actually passed, which serve to clarify the spirit of the law; as well as the stenographic protocols of any relevant debates and any government responses to written questions related to this law in parliament. Thirdly, any international law which might have a bearing on the interpretation of the particular law in question can be considered. Where any such already exists, judicature, especially relevant supreme court judgements (and, where they contain any such, separately highlighted statements on the interpretation of the law) or appellate court judgements are also to be considered, as can be lowest level judicature where relevant. Finally, legal commentary and academic discussions on the matter

in the matter under consideration), *rational*, and *lacks expertise* (the extraordinary knowledge and understanding that only experts have) in both the matter at hand and the law. Effectively, the *ordinary citizen* of the law is a perfectly rational actor, who only knows what any average person would know.

³³ n.b.: '*spirit of the law*' (in German: '*Wille des Gesetzgebers*', literally: '*will of the legislator*') is also a legal technical term. As opposed to the '*letter of the law*', which is the – possibly '*poorly-written*' (Hardy 2018, 2) – words making up the actual text which is the law; its '*spirit*' is the intent of those who wrote it, that is: what the legislator wanted to achieve by making the particular law.

³⁴ That is, that every rational human being is equally capable and entitled to use their own reasoning to determine themselves what is right and wrong for themselves and the common good (Kant 1784, 481), and thus what course of action to take in any particular situation; i.e. self-determination (liberty), equality, and public-spiritedness (fraternity).

³⁵ Though some of its citizens – those determined by law not to be fully competent/rational members of the society (yet), like children or the clinically insane – may be excluded from some or all of the democratic processes; or partake in them partially or fully only by way of legal representatives (like, for most children, their parent or parents).

³⁶ Which complicates matters even further if the legislator is, in fact, not a single individual, but a collective like a parliament, which doesn't even have 'a mind', but consists of many different individual minds who may – and normally do – at least partially disagree with each other.

can also be considered, as appropriate; as indeed can anything written which might help to clarify the *spirit of the law*. Where old laws are concerned, which have, since they were originally been passed, been revised several times,³⁷ this may even require to look at all these sources for several versions of the law, since the will of the original and interim legislators may also be relevant for a 'historical' interpretation.

Given the complexities inherent in identifying the *spirit of the law* from such a complex network of interconnected sources – which, on top of everything, is also constantly changing, as new laws are being made and old ones abolished (and other circumstances also change) – there rarely, if ever, is only one 'correct' interpretation of the law. Rather, there often are several competing opinions on how a law is to be interpreted, which allows those applying a law to choose between them as they see fit (Walter & Maier 1988, 50-51). In well-settled areas of the law, though, there is often one which is the 'predominant' interpretation; which still may be challenged on occasion, but should normally be adhered to, since the courts – in case a dispute arises – are likely to follow it.³⁸ Also, there may be a particular point of the law on which there may already be a 'non-binding' precedent if a supreme court has, in one (or several) of its findings, created a '*legal rule*' on the interpretation of the law. While these *legal rules* are not strictly binding, these are usually complied with by all lower authorities; since the supreme courts usually respect their own precedents and thus are extremely likely find the same in any subsequent case which turns on the same point of law.

However, while normally, there cannot be **the** correct interpretation of a law, its interpretation is not purely a matter of opinion. Rather, there can be – often many – interpretations of the law which are legally impossible and thus necessarily also incorrect. This is e.g. the case if the interpretation is of an ordinary law, but would obviously have required the legislator to intentionally breach a constitutional law to possibly be correct; while a competing interpretation of the same ordinary law does not require to assume this: since the legislative powers of parliament are restricted by constitutional law,³⁹ it must be assumed it did not intend to breach it (Walter & Maier 1988, 54). Such an interpretation of the *spirit of the law* thus is legally impossible; even if it may actually be 'correct' in the sense that the legislator did intend to pass an unconstitutional law. On the other hand, an interpretation which is clearly contradictory to the firmly established spirit of the law, even if it is perfectly consistent with the letter of the law, is also incorrect; because if the spirit of the law is positively known, a divergent ('*poorly-written*'; [Hardy 2018](#), 2) declaration of its will by the legislator does not matter at all (Walter & Maier 1998, 50).

Where the actual act of interpretation is concerned, there are several principles or 'rules' which should, as appropriate, be applied (Walter & Maier 1988, 52-54). The first of these is the '*literal interpretation*'. It consists of both an interpretation of the meaning of the words used – usually their meaning in common, everyday language, though there are exceptions to that where legal technical terms and terms specifically defined in the law are concerned – and the grammatical rules for their use. Secondly, the logical rules of reasoning have to be observed ('*logical-systematic interpretation*'),

³⁷ As is the case with the DMSG: it was originally passed in 1923 and has since gone through 3 major revisions, in 1978, 1990, and 1999 (Bazil et al. 2015, 2-3).

³⁸ Where Austrian heritage law is concerned, *scheduling* is one area of the law which can be considered to be 'well-settled', with a 'predominant' opinion supported by many supreme court cases existing. In the areas of the law which is most relevant for this paper, however, this is not the case, since there is hardly any supreme court judicature on it.

³⁹ Passing an unconstitutional ordinary law would in itself be – and thus also make that ordinary law itself automatically – illegal; and thus just waste parliament's time, since it will not stand if challenged before the Supreme Constitutional Court, which it will inevitably be (unless there is no opposition to it at all, which is highly unlikely to start with and on top of it allow parliament to pass it as a constitutional law, thus keeping it out of the jurisdiction of the Supreme Constitutional Court – a strategy which has occasionally been used by Austrian governments with qualified parliamentary majorities to ensure otherwise obviously unconstitutional laws cannot be challenged).

given that this is necessary for those required to comply with the law for actually understanding what it asks of them. The latter rule also is especially relevant for establishing how separate sentences or provisions in the law are linked with each other. Thirdly, using the two previous rules, the will of the legislator has to be deduced (*'interpretation of the will'*), with particular attention to be paid to the will of the legislator who passed the law (*'historical-subjective interpretation'*).⁴⁰ In addition, if relevant and possible at all, there is the *'teleological interpretation'*, which establishes the aim or purpose of the law as expressed (whether explicitly or implicitly) by the legislator in the law itself. Since many laws have several aims or purposes, this rule of interpretation frequently is not overly useful (Walter & Maier 1988, 52).⁴¹ Also relevant in only some cases is the *'constitution-compliant interpretation'* (technically a sub-type of the *logical-systematic* one), which only – as already mentioned in the example above – allows to exclude some perhaps otherwise possible interpretations of the *spirit of the law* as legally impossible. Finally, even more rarely applicable, is *'analogy'*, where there are obvious gaps in a law: if the legislator appears to obviously have wanted to include something in a law, but forgot to actually put in the words which would have been necessary, it can be used to infer from other analogous provisions he did not forget to include what he would have stipulated on the matter in question had he not forgotten about it (Walter & Maier 1988, 54).

Following these rules of interpretation, using the sources listed before, the law must be interpreted, much like also determined in Art. 31 (1) of the *Vienna Convention on the Law of Treaties* for the interpretation of international treaties by states, *'in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose'* (UN 1969, 12). This has to be done equally, by everyone who has to apply or comply with the law, whether ordinary citizen, expert in a particular subject or the law, or public authority. Each of these has to, in theory independently before taking any action which may be governed by this law, in good faith determine by these means the *spirit of the law*, as given to it by the legislator who passed it. Once established, it is in this spirit, and only this spirit, that the law has to be applied and complied with; nothing else matters from a legal perspective.

Consequences of the 'archaeologists' interpretation' of § 8 (1) DMSG for Hardy's estimates

Before looking more closely at the interpretation of § 8 (1) DMSG, let me quickly establish what the consequences would be for Hardy's (2017a) 'estimates' of the number of 'recordable' finds extracted ex situ in Austria by metal detectorists per annum using the 'archaeologists' interpretation' of the archaeological finds reporting and recording duties established in this law. After all, it is self-evident that the PAS's guidance on what 'recordable' artefacts are is not based on any interpretation of Austrian heritage law whatsoever, and as such, is extremely unlikely to be applicable in Austria.

As already stated above, Austrian archaeologists and heritage managers believe that the *spirit* of § 8 (1) DMSG is that – at least – all diagnostic archaeological finds, features, and sites are *ground monuments* which, if found under the surface of the earth or water, must be reported to the BDA within one working day. As also already stated further above, the BDA has to publish all *'scientifically relevant'* (§ 11 (7) DMSG) finds reported to it in its annual *Fundberichte aus Österreich* [FÖ] (BDA 1920-2016). As also already mentioned, in the FÖ, it has regularly published all archaeological finds, features

⁴⁰ The will of the current legislator, even if clearly diverging from the will of the historical legislator, does not matter until the current legislator changes the law (turning him into the most recent 'historical' legislator): since parliament can change any law that it wishes, (within the constitutional limits) as it wishes, it must be assumed that it agrees with the wishes of the 'historical' legislator until it expresses its own will in the form of changing the law in question. Thus, even if a clear majority of parliamentarians rails against the particular law in parliamentary speeches, unless parliament actually changes it, the – otherwise ever so clearly expressed – will of the current legislator does not matter.

⁴¹ Though in laws with very narrow subject matters, like the DMSG, this is sometimes a different matter, and in the case of the DMSG – which actually explicitly states the purpose the legislator intended to achieve with it in its § 1 (1) – actually is possible and useful (for an example, see [VwGH 23.2.2017, Ro 2016/09/0008](#), which turns on a teleological interpretation of the DMSG).

and sites reported to it of any date, up to – at least – the 2nd World War. Apparently, there are no ‘priorities’ (like those of the PAS; <https://finds.org.uk/getinvolved/guides/recordingguidance> [16/1/2019]; like precision of find spot coordinates; national, regional or local importance of the find; whether it is likely to advance knowledge of material culture (such as typology); etc.) either; with the BDA even officially having declined to rule out any material objects (of any age, kind, or type) from the reporting duties of § 8 (1) [DMSG](#) in formal responses to requests for legal guidance by ordinary citizens (e.g. BDA 13.3.2012, 841/12/2012). Since it has a legal duty to answer such queries both fully and correctly, it thus must be assumed that all finds are ‘recordable’. This seems to be further confirmed by the commentary to the law, which in the first paragraph of its discussion of the definition of the term in § 1 (1) [DMSG](#) highlights that a minimum age is not a necessarily precondition for an object being a *monument* (Bazil et al. 2015, 16).

If this were correct, at least all finds of diagnostic archaeological artefacts, if not even all artefacts, regardless of whether they are diagnostic or not, would be ‘recordable’ under Austrian law, which would have to have been considered by Hardy (2017a) in calculating his ‘low estimates’ for ‘recordable’ artefacts extracted per annum by metal detectorists in Austria. After all, it is not up to Hardy, or the PAS, to determine what is considered to be ‘recordable’ artefacts in Austrian archaeology, but to the Austrian legislator; or, should the Austrian legislator have decided to leave this to the discretion of the BDA or the professional Austrian archaeological community, to either of them, as appropriate.

Thus, quite clearly, the ‘estimate’ of 185,401 ‘recordable’ artefacts extracted in Austria per annum by metal detectorists Hardy (2017a, 39-43) uses in his transnational comparison of the loss of archaeological evidence caused by metal detecting under different regulatory systems, is much too low. Rather, it should be – as before, assuming that the rest of Hardy’s various ‘estimates’ in his paper is correct – be much closer to the 657,875 ‘material finds’ (Hardy 2017a, 40) he ‘estimates’ as being extracted by metal detectorists in Austria per annum, if not even actually that very number.

Given that this latter ‘estimate’ is c. 3.55 times larger than the former, all calculations, both his for the total loss of archaeology caused, and mine above for establishing the relative efficacy of the different regulatory regimes, would have to be corrected accordingly. Naturally, this would shift the results even further towards greater efficacy of the more liberal English and Welsh, rather than the more restrictive (prohibitive) Austrian regulations.

Obvious to ordinary citizens

What we have not at all considered as of yet, though, is *ordinary citizens*, who – as already explained above – also need to independently interpret the law when they have to comply with it.

That they do have to independently interpret the law, incidentally, is especially self-evident in the context of the reporting of ‘recordable’ artefacts: after all, the provisions of § 8 (1) [DMSG](#) apply to all finds of *ground monuments* made, except for those on BDA-permitted, professional archaeological excavations (to which the provisions of § 11 (4 and 6) [DMSG](#) on finds and results reporting apply, which are slightly, but not massively, different to those of § 8 (1)). That, naturally, includes finds actually made purely accidentally (which is not the same as ‘*chance finds*’ as defined in § 8 (1) [DMSG](#)⁴²)

⁴² n.b.: ‘*Chance find*’ (‘*Zufallsfund*’) again is a legal technical term, defined in § 8 (1) [DMSG](#) (see above and FN 30). It is to be understood in conjunction with the finds reporting duties contained in § 11 (4) [DMSG](#) for finds of *ground monuments* made during professional archaeological excavations permitted by the BDA according to § 11 (1) [DMSG](#).

Historically, the DMSG 1923, that is, the original version of this law, did not distinguish between artefacts discovered under different sets of circumstances. Rather, the original § 9 (1) [DMSG 1923](#), which already contained an almost identical general finds reporting duty, applied equally to all finds of ‘*previously unknown objects, which due to their location, form or properties obviously are subject to the restrictions of this law*’, whether found unintentionally or discovered during professional archaeological fieldwork. Thus, these reporting

which are made entirely unexpectedly and unintentionally by their finder. Since such unintentional finders usually are *ordinary citizens* – who usually do not have both a professional archaeologist and an Austrian heritage law specialist tagging along with them wherever they go – they must correctly interpret § 8 (1) [DMSG](#) on the spot as they make the find, to be able to comply with the law as required by it, and thus must do so independently.

While most *ordinary citizens* do not even know (of) the law (let alone the *minutiae* of the interpretation of § 8 (1) [DMSG](#)), that is no excuse: ridiculous as it may seem, even ordinary citizens must know – and thus are presumed by law to actually know – the law, even if they in fact do not.

However, even if one assumes that an *ordinary citizen* actually does know the law (though still most probably not the minutiae of the interpretation of § 8 (1) [DMSG](#)) – as one may well assume in the case of many, if not most, metal detectorists, who after all are searching for metal finds in the fields, meadows and forests of Austria as a hobby and thus, at least hopefully, will have informed themselves as to whether there are laws regulating this activity – it still is anything but obvious as to what – as stipulated – are objects which ‘*obviously could be subject to the restrictions of this federal law (ground monuments)*’ (§ 8 (1) [DMSG](#); emphasis: RK). After all, *ordinary citizens*, including metal detectorists, are – both by legal definition and, in most cases, in practice – not professional archaeologists; that is: are not experts. Thus, again at least by legal definition, it cannot be assumed that they have the specialist knowledge about archaeological opinions or any consensus within the discipline about what ‘recordable’ finds might be. Thus, metal detectorists cannot by law be assumed to, nor will in practice, have any more real or constructive knowledge about what a *ground monument* might be than can be expected of **any ordinary citizen**; that is, the fictional persona already defined in FN 32.

Yet, to be able to actually knowingly and willingly comply with the reporting duty for finds of *ground monuments* of § 8 (1) [DMSG](#), they must be able to independently (that is, ‘*without the guidance of another*’; [Kant 1784](#), 481) recognise and correctly identify a find they have made as – at least likely to be – a manmade object found beneath the surface of the ground or water which is obviously historically, artistically or culturally so significant that it is in the public interest to preserve it. From the perspective of the *ordinary citizen*, it thus only matters what any ordinary Austrian would probably recognise as a *ground monument* when he happened to stumble upon it by pure accident; not what archaeologists or heritage professionals might think or like. If what anybody finds is an object that is

duties – technically – applied equally regardless of the specific circumstances of the discovery, which, on permitted archaeological excavations, is obviously rather inconvenient. After all, any finds of relevant artefacts made must, already according to § 9 (1) [DMSG 1923](#), be reported to the BDA within a single working day after their discovery. Technically, this required archaeologists conducting excavations permitted according to § 11 (1) [DMSG 1923](#) to submit a finds report to the BDA on a daily basis.

To avoid the needless bureaucracy this would have caused if this legal technicality had actually ever been enforced (which, to the best of my knowledge, it hasn’t), the distinction between ‘chance finds’, reportable according to § 9 (1) [DMSG 1990](#), and finds made during professional archaeological fieldwork permitted according to § 11 (1) [DMSG 1990](#), was introduced in the 1990 revision of the law (its so-called ‘archaeological’ revision, Bazil et al. 2015, 3). From then on, also by law (though this, presumably, had been the practice already for quite some time before), finds made during professional excavations, while also having to be reported ‘*analogous to the provisions of § 9*’, only had to be reported to the BDA once per year, at the latest 3 months after the end of the calendar year in which the find was made, according to § 11 (4) [DMSG 1990](#).

Thus, ‘*chance finds*’ of *ground monuments* according to § 9 (1) [DMSG 1990](#) and (now) § 8 (1) [DMSG](#) are not actually only finds made unintentionally, as the term might be understood in everyday language, but are actually **all finds of ground monuments made under any circumstances other than during professional archaeological excavations permitted by the BDA** according to § 11 (1) [DMSG 1990](#) or [DMSG](#). This interpretation (because it is one, too) is further confirmed by the provisions of § 10 (6) [DMSG 1990](#) and § 9 (5) [DMSG](#), both stipulating in identical words that the provisions of § 10 [DMSG 1990](#) / § 9 [DMSG](#) (which determine the duties of finders and the BDA in case of the discovery of ‘chance finds’ according to § 9 (1) [DMSG 1990](#) / § 8 (1) [DMSG](#)) also applies to finds made during excavations conducted in violation of the provisions of § 11 [DMSG 1990](#) / [DMSG](#) (in all cases, respectively).

obviously man-made, and obviously something that, presumably, any ordinary Austrian would recognise as a ground monument meriting preservation, then they must comply with the provisions of § 8 (1) [DMSG](#); if it isn't, then – if any at all – it is the general reporting duties for finds of lost property of §§ 388-401 [ABGB](#) they must comply with, not any of the provisions of the DMSG.

That raises the question: what would any ordinary Austrian consider a *ground monument* (assuming he knows § 8 (1) [DMSG](#) at all, as he must)?

As yet, judicature and legal commentary has mostly simply assumed that this, in itself, is pretty much obvious, mostly based on archaeologists' opinion what any *ordinary citizen* should know: for instance, in their comment to the DMSG, Bazil et al. (2015, 56-7) just state that, due to the word '*obviously*' used in the *letter of the law*, what is to be classed as a *ground monument* has to be objectively determined, with the actual level of knowledge of the finder being irrelevant. The Supreme Administrative Court, in one of its landmark decisions on what can be a *monument* (in the spirit of § 1 (1) [DMSG](#)), has listed many types of archaeological sites and features as – at least potential – *monuments* ([VwGH 22.4.1993, 92/09/0356](#); also see Bazil et al. 2015, 17), while in another landmark case, which actually was on the issue of metal detecting ([VwGH 24.5.1985, 84/12/0213, 3](#)), it stated that any archaeological '*cultural good*'⁴³, including the 8 Roman coins which the metal detectorist in this case had collected, was a *monument*.⁴⁴ However, the new president of the BDA, Erika Pieler,⁴⁵ in a recent contribution stated that because of the term '*obvious*' having been used in the letter of the law, thus requiring an objective determination if a find was or was not a *ground monument*, the benchmark used in any such determination would have to be a rather low one. Thus, she declared, one could probably assume that anyone would recognise a Roman bronze helmet as a *ground monument*, while presumably, matters would be quite different where WW2 finds were concerned ([Karl et al. 2017](#), 111-112).

However, such assumptions, even quite reasonable ones like Pieler's, are quite problematic, since by and large, they set arbitrary benchmarks of what ordinary Austrians should know and recognise as *ground monuments* according to some other party's opinion, while paying no heed whatsoever to what they actually know and might recognise, with not even an attempt being made to find out. The already fictional persona of the *ordinary citizen* is thus assigned an equally fictional level of knowledge and understanding, with the real citizen then judged based on that legal science fiction double feature. Respect for the sovereign – which is none other than the (collective of) *ordinary citizens* – and for fact – which is what must guide all public administration according to constitutional law (Berka 1999, 491-492, 504-505) – this is not.

If one does look at what ordinary Austrians actually do know about and consider to be *monuments* (whether in the spirit of § 1 (1) or § 8 (1) [DMSG](#)), it turns out that the results are rather disappointing, from an archaeological perspective. The results of a survey of an arbitrary sample of 500 Austrians, conducted by some of my students and I during a course at the University of Vienna in late 2013 to early 2014 ([Karl et al. 2014](#)), indicates that a majority of ordinary Austrian citizens do not even know – and thus presumably would also not recognise as *ground monuments* if they find something similar

⁴³ n.b.: '*Cultural good*' ('*Kulturgut*') again is a technical term, defined in § 1 (11) [DMSG](#) as meaning the same as the term *monument* (as defined in § 1 (1) [DMSG](#)).

⁴⁴ Though it did so only in its summary of the lower level jurisdiction on the case, which it ultimately overturned, but not on this point, on which it did not actually comment in any way. Given that in its decision, it cleared the metal detectorist of having committed any offence under the provisions of the DMSG, it thus is indecisive on whether it actually agreed with the argument that Roman coins were indeed, or even only could be, *monuments* in the spirit of § 1 (1) [DMSG](#), and thus also whether they were *ground monuments* in the spirit of § 8 (1) [DMSG](#).

⁴⁵ In office since 1/1/2019; Pieler has completed degrees in both Law and Archaeology, and has most recently worked as a judge in the Federal Administrative Court of Appeals ('*Bundesverwaltungsgericht*') before taking up her new role. I will return to one of her recent judgments in that former role as an appellate judge later in this paper.

– such rather famous archaeological finds like the ‘*cult wagon of Strettweg*’ (Figure 2); or the largest East Hallstatt ‘princely’ barrow, the ‘*Großmugl*’ (Figure 3). While the former was recognised as a *monument* at least by 28% of respondents, in case of the latter, it was only 19% ([Karl et al. 2014](#), 9).



Figure 2: The ‘Kultwagen’ von Strettweg, Styria (image: Thilo Parg / Wikimedia Commons 2013, license: CC BY-SA 3.0).



Figure 3: The barrow of Großmugl, Lower Austria (image: Bwag / Wikimedia Commons 2016, license: CC BY-SA 4.0).

In fact, contra Pieler, objects from WW2 were considered by slightly more respondents as *monuments* (20%) than the *Großmugl*, and WW2 finds may also frequently still be much more recognisable for *ordinary citizens* than older objects. High scores were achieved only by ‘*old burials*’ (73%; so there may be hope for the *Großmugl* in practice, if it is recognised by a ‘*chance*’ finder for what it is), castles (53%), and, where small finds are concerned, Roman coins (58%) ([Karl et al. 2014](#), 9). However, whether many of those considering Roman coins to be *monuments* would actually recognise one correctly for what it is when finding it in situ is quite another question again.⁴⁶ And that is before even considering that by law, the correct interpretation would have to be made by the finder while the find is still in situ, because the provisions of § 9 (1 and 2) [DMSG](#) require finders of *chance finds* to leave the find spot unchanged and only retrieve finds for safekeeping if they might otherwise be lost or stolen. Thus, technically, the finder would ideally have to identify the find while it is still laying in situ, probably only partly exposed, which is something even many professional archaeologists might struggle with.

Thus, considering the difficulties which exist with identifying correctly even only as man-made objects, let alone as man-made objects of such significance that their preservation could be in the public interest, for *ordinary citizens* where chance finds are concerned, even Pieler’s actually very reasonable assumption ([Karl et al. 2017](#), 111-112) would have at least to be qualified. Pieler is almost certainly right in her assumption about the recognition value of a Roman bronze helmet, provided it, when

⁴⁶ While of course, in practice, metal detectorists are considerably more likely to be able to recognise e.g. Roman coins for what they are when finding them than *ordinary citizens*, questions regarding the identification of ‘fresh’ finds asked frequently on both metal detecting internet discussion boards and Facebook groups would seem to indicate that the finds recognition and identification skills of at least a sizeable segment of the community are relatively undeveloped.

found, is reasonably well-preserved, not too clumped in mud, and mostly complete, so that it is still looking like a Roman helmet as people have seen in Hollywood movies or on TV documentaries. If, however, it has been badly damaged, is heavily corroded, or even fragmented, with only – even if sizeable, still randomly broken and badly bent – fragments being discovered by an *ordinary citizen*, whether that would be recognised – even by a relatively experienced metal detectorist – seems more than just dubitable.

From the *ordinary citizen's* perspective, thus, the provisions of § 8 (1) [DMSG](#) appear very different than from that of a professional archaeologist. In fact, only 5% of respondents considered all old things, and only 11% all broken things found in the landscape to be *monuments* in the survey my students and I conducted ([Karl et al. 2014](#), 9). Yet of course, most archaeological finds, even most highly diagnostic finds, don't look like much when found in or on the ground. Thus, while we archaeologists might interpret the law to mean that all diagnostic finds are *ground monuments*, and thus must be reported because they are 'recordable', the *ordinary citizen* most likely hardly considers any find to be even only reportable.

For Hardy's study, that would incidentally mean that the figures he 'estimated' for Austria for 'recordable' finds annually being extracted by metal detectorists would not be, as he believes, a 'secure underestimate' ([Hardy 2017a](#), 41), but a very, very large over-estimate. In fact, the c. 100 finds being reported in Austria by metal detectorists per annum, would be evidence of vast over-reporting: almost all finds which were reported to and published by the BDA in the FÖ (BDA 1820-2016) are run of the mill finds that the *ordinary citizen* would almost certainly not recognise as a *ground monument*; or in some cases as even only man-made objects, for what it's worth.



Figure 4: La Tène weapons looted by metal detectorists from the Förker Laas Riegel in Carinthia (image: RGZM),

There can be no doubt that Austrian metal detectorists sometimes do find artefacts which, even if taking the well-preserved Roman bronze helmet as the benchmark, are definitely reportable (for one such case, which ended with a conviction of the looters; see Fuchs 1991; Figure 4). However, I doubt that it is anywhere near of the 185,401 per annum 'estimated' by Hardy ([2017a](#), 40), let alone the much higher figure that we would need to assume if going by Austrian archaeologists' consensus of what is 'recordable'. Rather, the number of such 'obviously' significant finds may be below the 100 run of the mill finds which are being reported per annum, or at the most be in the (low) hundreds. It may just be that the wrong ones are being reported by their finders: a few run of the mill finds, rather than the truly '*spectacular*'⁴⁷ ones.

⁴⁷ n.b.: '*spectacular find*' is not a legal technical term. It has, however, been used in the negative by the Head of Archaeology of the BDA towards the media to illustrate the fact that during a particular fieldwork project, while archaeology was expected to be found, none of it was expected to be significantly different from what was

Interpreting the law: the spirit of § 8 (1) DMSG

But what is actually the spirit of the law? Is it that all *chance finds* of diagnostic archaeological finds, features, and sites are reported to the BDA for scientific recording if found by *ordinary citizens*, as archaeologists and heritage managers seem to believe, or is it something else?

The aim the legislator wants to achieve with § 8 (1) [DMSG](#), if it is looked at in isolation, independent of the wider legal context in which it is set, is obviously quite simple to establish: the legislator clearly wanted that finds of *ground monuments* be reported to the BDA; because it says so explicitly in its text. It also defines in it what *ground monuments* are, by referring to the definition of the applicability of the law and of *monuments* in § 1 (1) [DMSG](#). That definition, in turn, is equally clear – the law is applicable only to *monuments* as per the definition in § 1 (1) [DMSG](#), that is man-made objects whose *preservation* due to their significance is in the public interest as defined by § 1 (2) [DMSG](#) – and gives us a very relevant further hint at what the legislator actually wanted to achieve with the law: to protect monuments ‘*from destruction, alteration or export abroad*’ § 1 (1) [DMSG](#).

This is particularly essential, because it tells us that, as far as the finds reporting duties of § 8 (1) [DMSG](#) (and also those of § 11 (4 and 6)) are concerned, the legislator is only interested in finds reporting as far as it pertains to or is necessary for ensuring the *protection* of *monuments* from destruction, alteration or export. After all, its explicitly expressed interest is the unaltered *preservation* of man-made objects of a particular kind (namely: *monuments*), meaning that the Austrian legislator has ruled out the possibility of *preserving any monument ‘by record’* as a legitimate method of protecting the archaeological heritage.⁴⁸

From this alone, it already absolutely inescapably follows that the ‘*manifest spirit*’ ([Hardy 2018](#), 2) of § 8 (1) – and thus also § 11 (4 and 6) – [DMSG](#) cannot be what most archaeologists would believe – or rather, want – it to be. Its purpose most evidently is not to ensure that finds of ‘recordable’ artefacts are reported so that they can be preserved by record, but rather must be something else. But what is it?

To establish this, we must look at the legal consequences of finding a ground monument, which are (mainly) defined in § 9 (1-3)⁴⁹ [DMSG](#). Of these, the first provision, § 9 (1) requires of finders that they leave the find spot unchanged for up to 5 working days or until an official of the BDA lifts this restriction, whichever comes earlier. § 9 (2) requires of finders, explicitly contrary to the restriction just stated, to immediately retrieve for safekeeping any portable ground monuments which might

normally found on major building projects in Austria (see written parliamentary question by MPs of the Austrian Green Party [15565/J XXIV. GP](#) and written response by the BMUKK [15235/AB XXIV. GP](#)).

⁴⁸ That it is only the protection of the physical substance of a *monument* (the authentic original itself) which the legislator cares about also is apparent from the provision of § 1 (10) [DMSG](#). This stipulates that its *preservation* cannot be in the public interest if a *monument* cannot be physically retained without altering its substance so significantly that none of its documentation value survives (in the spirit of [Riegl 1903](#), 29-38). A *monument* thus cannot ever be replaced by a record of its destruction: that record would only retain a ‘*memory of the monument*’, not the *monument* itself. This is confirmed in the explanations on the government draft, in which it is stated – *expressis verbis* – that the ‘*ratio legis*’, the *spirit of the law*, precludes the possibility of the existence of a public interest in its *preservation* if the *monument* in question is in such a physical state that it could not imaginably be retained any more ([RV 1999](#), 40).

In addition, there is a plethora of Supreme Constitutional and Supreme Administrative Court judicature which also confirms this: *monuments* are protected because of their inherent value, not for the purpose of remembrance (VfGH 19.3.1964, K 11 – 4/63). Thus, the public interest in the preservation of a *monument* can neither be satisfied by replacing it with a memorial plaque nor a photo ‘*and is not intended by the law*’ ([VwGH 16.1.1975, 1799/74](#); [8.11.1975, 1072/73](#)). Judicature does not come clearer than that: replacing an actual, physical *monument* by a record of its destruction is not a legal *preservation* method; there is only the *preservation* of the object itself, or no *preservation* at all.

⁴⁹ At least as far as is relevant for this paper.

otherwise be lost or stolen. § 9 (3) finally stipulates that all discovered *ground monuments*⁵⁰ are automatically temporarily *scheduled by force of legal presumption*⁵¹ for up to 6 weeks after the submission of the finds report according to § 8 (1) [DMSG](#), or until the BDA removes this restriction any earlier by *official written notice*⁵².

Where the *scheduling by force of legal presumption* of § 9 (3) [DMSG](#) is concerned, the legislator explicitly explains its purpose directly in the *letter* of this particular provision: the BDA has to decide by means of an accelerated scheduling process within these 6 weeks whether the discovered objects remain subject to the restrictions of the DMSG indefinitely. This decision must be in the form of an *official written notice*. If the BDA decides that the indefinite *preservation* of this *monument* is in the public interest, it is then a *scheduled monument* (as per § 3 (1) [DMSG](#)). If, on the other hand, it decides that its *preservation* is in fact not in the public interest or fails to issue an *official written notice* within the 6 weeks, the object in question is (becomes) an ‘ordinary’ object to which none of the restrictions of the DMSG apply.⁵³ As the explanations to the government draft of the 1990 revision of the DMSG, which introduced this provision in its § 10 (3), put it: ‘... *for these finds is applicable that the Bundesdenkmalamt has to decide within six weeks by official written notice whether the objects continue to be scheduled, otherwise they are no longer protected*’ ([RV 1990](#), 19-20).

Due to a plethora of explanations in government drafts to revisions of the DMSG and of Supreme Court judicature (see [RV 1999](#), 31; Bazil et al. 2015, 17-24), such a decision must be found by experts. They must find whether a newly discovered object which might do so actually does meet the only criterion for scheduling which is decisive: whether the significance assigned to the object in question by the predominant disciplinary opinion (regarding the criteria listed in § 1 (2) [DMSG](#)) is such that its *preservation as a monument* is in the public interest (Bazil et al. 2015, 17-18, 22-23). Thus, the experts employed by the BDA for this purpose must be notified of its discovery and be given some time to come to find the correct decision. Therefore, any potentially relevant newly found artefact has to be reported to the BDA according to § 8 (1) [DMSG](#), and is automatically temporarily *scheduled by force of legal presumption* according to § 9 (3) [DMSG](#) for the time the legislator believed sufficient for the BDA to come to a correct decision.

⁵⁰ Whether this automatic temporary *scheduling by force of legal presumption* applies to both portable and immobile *ground monuments*, or whether it is only applicable to portable artefacts, remains unclear. The BDA interprets it to apply to both equally, but this would cause a direct conflict with the limitation of the restriction of § 9 (1) [DMSG](#) to a maximum of 5 working days: after all, once this limitation lapses, the finder is apparently permitted to resume whatever work led to the discovery of the reported *ground monument*, which must necessarily include the permission to alter or destroy whatever remains of any (other) *ground monument* at the find spot. However, if there is a immobile *ground monument* left there, and is automatically *scheduled* for up to 6 weeks as per § 9 (3) [DMSG](#), destroying or altering this *scheduled monument* would still be prohibited by § 4 (1) [DMSG](#) on pain of severe punishment according to § 37 (1-2) (§ 9 (3) [DMSG](#)). Given that the legislator included the 5 day limitation in § 9 (1) [DMSG](#) mainly to prevent bureaucratic inertia from damaging the economic interests of developers (who after all would need to stop any works on the site until the temporary *scheduling* of § 9 (3) [DMSG](#) lapses), it must be presumed that what the legislator intended was for the temporary *scheduling* of (§ 9 (3) [DMSG](#) only applying to portable *ground monuments*, not immobile ones, too. However, the opposite would also be possible within the bounds of fair interpretation, and as such, until resolved through a landmark case by one of the Supreme Courts, it must remain open as to which of the two possible interpretations is to be chosen.

⁵¹ ‘*Kraft gesetzlicher Vermutung*’ (§ 9 (3) [DMSG](#)).

⁵² ‘*Schriftlicher Bescheid*’ (§ 9 (3) [DMSG](#)).

⁵³ Technically, it is even the case that in the event that the find (object) in question is not scheduled by *official written notice* within these 6 weeks, it actually never was protected by the DMSG and none of its restrictions could ever have been applied to it from a legal perspective. Only practically they are/will have been, since the procedure the find went through in the 6 weeks prior to this determination being legally mandated, and thus cannot be retrospectively reversed, it makes no difference (i.e. anyone potentially adversely affected by it – e.g. a developer whose construction work had to be stopped as a legal consequence of the discovery of a ground monument on his site – cannot [normally] claim any compensation of any damages suffered).

The purpose the legislator intended to achieve with the provisions it included in §§ 8-9 [DMSG](#) thus can be firmly established: it wants that finds of *ground monuments* are reported by their finders to the BDA, so that the BDA can come, within 6 weeks, to a legally binding decision as to whether they are *scheduled monuments* and thus indefinitely protected by law as physical objects in the state they were upon their discovery; or whether they are not. Whether this leads to the recording of archaeological artefacts which the academic discipline of archaeology deems to be 'recordable' or not does not matter to the legislator. There is no indication at all of any interest to prevent the 'loss of archaeological evidence' ([Hardy 2017a](#), 42) of finds that do not merit indefinite protection as a physical object because of an overwhelming public interest: from the perspective of the legislator, the preservation of archaeological evidence by record is a problem for archaeologists and the discipline of archaeology to resolve, whichever way they see fit, within the bounds of general law.

In fact, the legislator is not even interested in the protection of *ground monuments* (in the meaning of the definition of § 8 (1) [DMSG](#)) unless they are actually *monuments*, (as per the definition of § 1 (1) [DMSG](#)). This is evident from § 37 (6) [DMSG](#), which stipulates that even in cases where a prosecution for breaches of any of the provisions of the DMSG is already ongoing, it must be dropped if the BDA decides by *official written notice* that the *preservation* of the affected object or objects is not, or never was, in the public interest: if something is not a *monument* which actually merits protection, it is protected by none of the restrictions of the DMSG, no matter what.

This leaves us with just one final point to establish: what is the legislator's intent regarding what kinds of, and particularly how many, *monuments* should be protected because their *preservation* is in the public interest? This, after all, determines whether the archaeologists who believe that at least every diagnostic artefact is a *ground monument* are correct (even if they arrived at the correct result by means of a wrong interpretation of the law); or whether the ordinary citizen who would probably recognise a well-preserved Roman bronze helmet, but little else as a *ground monument* which he would have to report to the BDA, is complying correctly with § 8 (1) [DMSG](#).

Again, on this point, the explanations to the government draft of the currently applicable revision of the DMSG are very clear. It starts its explanations on § 1 (1) with the unequivocal statement that by far not all *monuments* merit protection, which is why the BDA must be very selective in its choice of those it schedules ([RV 1999](#), 37). It then refers to Supreme Court judicature having established a set of criteria for judging what can and what cannot be *scheduled* as a *monument*, giving as examples uniqueness or rarity of an object, that an object is considerably more significant than similar ones of its kind, or a particularly good or well-preserved example of a particular kind of *monuments* ([RV 1999](#), 37; Bazil et al. 2015, 18-20, with extensive references to judicature on these points).

Already in its general explanations, it stated its intent to provide the best possible, rather than an ideal protection to those *monuments* that merit preservation, and to create a law providing the BDA with sufficient powers and sufficient limits, not just to the rights, but also the duties of the Heritage Protection Agency ([RV 1999](#), 30). In the same vein, it declared that the DMSG had always worked on the basis that *monuments* protection must be based on considered academic expert choice, since only on this precondition it could be sufficiently effective, an efficacy which would be lost of too much were *scheduled*. Thus, it considered it as one of the most difficult tasks of the BDA to balance academic necessities of monument protection with what is manageable with available administrative resources ([RV 1999](#), 39).

Stating that from 1923 to 1999, about 14,000-15,000 monuments had been *scheduled*, which was considered to be appropriate, it introduced a sunset clause to automatic *scheduling* of publicly owned real estate according to § 2 [DMSG](#) and its replacement with *scheduling* of a selection of it by *ordinance* according to § 2a [DMSG](#), expecting this to create another c. 15,000 *scheduled monuments* by 2010. The resulting number of c. 30,000 it considered a reasonable benchmark, while accepting that *scheduling* would never come to a complete halt ([RV 1999](#), 38).

Also, in the general explanations on the revision, the government stated that it was a conscious choice to revise the existing rather than pass a completely new law, to ensure that both the judicature and decisions by *official written notice* by the BDA – in both cases, reaching back to 1923 – would remain ‘readable’ (RV 1999, 38). This, at the same time, also keeps the judicature and the *persistent decision-making practice* of the BDA itself applicable, allowing past practice to be used as akin to precedent.⁵⁴ Thus, past *scheduling* practice allows to interpret what can be *scheduled* as a *monument*, and what not. According to its own published figures, by March 2014, the BDA had scheduled 849 archaeological monuments by *official written notice* and another 121 per *ordinance*, in total 970. Of those, c. 2/3rd are settlement sites, c. 1/3rd burial sites, while only a ‘*vanishingly small*’ number of ‘hoards’ and ‘single finds’ had ever been scheduled (Picker et al. 2016, 287).

Also, when asked in a parliamentary question as to why known and probably nationally significant sites along the Roman Amber Road affected by an ongoing road building project had not been scheduled in 2013 (15565/J XXIV. GP), the then minister responded that no significantly different finds than also and already found on many other building projects in Austria were expected there, and thus, *scheduling* any of them was unnecessary. As the Head of the Department of Archaeology in the BDA had expressed it to the media in everyday language, no ‘*spectacular finds*’ were expected to be made there (15235/AB XXIV. GP, 2).

All of this, taken together, indicates that finds of portable artefacts are virtually never *scheduled* in Austria, are not appropriate to or even cannot be *scheduled* if they are not extraordinarily outstanding, with the legislator never intending to *schedule* any of them. From this, it follows that the overwhelming majority of archaeological finds in Austria cannot be *ground monuments* in the meaning of the definition in § 8 (1) DMSG: objects which could be subject to the restrictions of the DMSG, i.e. which could possibly merit *scheduling*. Any run of the mill finds are not *ground monuments*, they are just archaeological finds. Anything badly fragmented or otherwise damaged or corroded, of which there already exist better, or even only equal examples in Austrian museums, anything that isn’t ‘spectacular’, unique or at least exceedingly rare, and isn’t a better or at least better preserved example than already existing ones of that kind, also is no *ground monument*, and thus neither needs to be reported according to § 8 (1) DMSG, nor any of the legal consequences of the discovery of *ground monuments* according to § 9 DMSG be complied with if it is found. Thus, what was said above for what must be reported from an ordinary citizen’s perspective, is how the law is actually to be interpreted: Pieler’s well-preserved Roman bronze helmet (Karl et al. 2017, 111-112), yes, or that fancy Celtic weapons hoard from Carinthia shown in Figure 4, too; but not WW2 militaria, not medieval arrowheads, and not even Roman brooches or coins, and not most prehistoric finds either.

This is the ‘*manifest spirit*’ of the law, not because its letter has been ‘*poorly-written*’ (Hardy 2018, 2), but because that is what the legislator wanted to be law. It is democratically legitimised. It is sensible for *ordinary citizens*, who can actually correctly interpret it even if they do not properly know its details by simply reporting ‘*spectacular*’ finds (15235/AB XXIV. GP, 2) and doing whatever they will with the rest. And it is manageable with the very limited administrative resources that the Austrian government is providing for archaeological heritage management – about 14 academic staff and a budget of only

⁵⁴ While Austrian law, as a civil law system, technically does not rely on precedents for interpreting the law – which as stated above, must be interpreted by anyone before applying or complying with it independently – the *persistent decision-making practice* (‘*ständige Entscheidungspraxis*’) of administrative agencies binds them because of the constitutional principle of equality of all citizens before the law (Art. 7 B-VG, Art. 3 StGG). Since citizens must be treated equally before the law, if the same decision has been found in numerous (nearly) identical cases before, it must also be found in any further such (nearly identical) case (unless there have been significant changes in law or other circumstances legally admissible in the decision) (Berka 1999, 498-521, 537-548, especially 547-548). Thus, the persistent practice of the BDA where *scheduling* of monuments is concerned binds its future *scheduling* decisions, since *scheduling* always limits somebody’s property rights, and thus there is always an affected party which must be treated as any other party was treated before. Similarly, the *persistent judicature* (‘*ständige Rechtsprechung*’) of courts binds the courts in their own judgements.

a few million € per annum to deal with all aspects of archaeological heritage management in the whole country.

We archaeologists may not like it, because it isn't what we would want, but the will of the archaeologists doesn't matter much in a democratic society governed by the rule of law if it diverges significantly from the will of the legislator. The interpretation of the law we would like to be correct simply isn't, because the legislator is not interested nearly as much in preventing the 'loss of archaeological evidence' (Hardy 2017a, 42), or whether 'recordable' artefacts are being recorded, as we are. If we want to ensure our evidence is not lost, we must take care of it ourselves, with very little help by the state, whether we like it or not.

We can of course disregard this fact, and disregard the law while we're at it, but we do so at our own peril: if we want to come up with rational strategies for heritage management, and how to improve regulation of non-professional metal detecting, we need to understand what the laws actually mean, if we want to use them to our advantage, or even only comply with them correctly. Because if we do not, and instead apply them in ways seriously violating their 'manifest spirit' (Hardy 2018, 2), it is us who end up acting unlawfully, and perhaps even committing heritage (or other) crimes.

'Licit' and 'illicit' metal detecting in Austria

While we are on the topic of illegal activity: all that has just been explained about Austrian law has yet another quite significant consequence for Hardy's (2017a) study. After all, in his study, he distinguished between 'licit' and 'illicit' metal detecting in some countries, and 'estimated' separate figures for how many artefacts are being extracted by either group in countries where he did distinguish between them.

It appears that the purpose of this distinction in some countries was mainly to enable Hardy to arrive at one of the central conclusions of his study: that under the liberal regime in England and Wales,

'...licit detectorists ... cause more licit cultural harm in England and Wales ... than ... illicit detectorists commit criminal damage in the somewhat restrictive, restrictive or prohibitive regulatory environments of Australia, Austria, Belgium, Canada, Denmark, Ireland, New Zealand and Northern Ireland ...' (Hardy 2017a, 42; emphasis: RK).

Throughout his study, Hardy (2017a) considers Austrian metal detectorists to generally be acting illegally when engaging in their hobby, or at least when extracting 'recordable' artefacts ex situ. To support this view, he references an older study of mine (Karl 2011), in which I summarized the legal opinion on the correct interpretation of the DMSG of the BDA as applied by it, more or less consistently, since at least 1990. When writing that paper, examining the mostly unintended side effects of the restrictive application of the BDA of its interpretation of the law, I still at least partially assumed that there possibly was some merit to the BDA's legal opinion; not least because at the time, less judicature existed on the finer points of law in this matter than does today. Thus, mistakenly, I did not sufficiently clarify in that paper that this summary was not a full interpretation of what the law actually said, but rather only examined some of the (unintended) consequences of the BDA's opinion on and application of it in practice.

Yet, when Hardy contacted me by email when researching his paper (Hardy 2017a), I tried to explain to him that while that summary (Karl 2011, 111-113) correctly reflected BDA opinion and (attempted) application of the law, the law is actually much more complex, and the BDA was (is) most likely seriously misinterpreting and misapplying it. In fact, I had hinted at the 'pronounced lack of self-reflection on its own (scholarly and administrative) practices' (Karl 2011, 113) of Austrian archaeological heritage management in the paper itself already, and had published several critical articles questioning the BDA's interpretation of the law since (e.g. Karl 2016b). Thus, I warned against simplistically considering metal detecting, even for the purpose of extracting archaeological finds ex situ, to be prohibited or outright illegal in Austria. Collectively accusing the at least c. 2,091 metal

detectorists Hardy ([Hardy 2017a](#), 10) 'estimated' to be active in Austria to be 'illicit' and, even worse, of committing 'criminal damage'⁵⁵ ([Hardy 2017a](#), 42) by extracting 'recordable' artefacts ex situ in an 'estimated' c. 185,401 cases per annum, is thus highly problematic.

So, if the law is much more complex than Hardy ([2017a](#), 10) assumed, how should (must) it actually be interpreted, and what are the consequences of this?

Interpreting the law: § 11 (1) DMSG

The immediately relevant provision in the law for answering this question is that of § 11 (1) [DMSG](#), though as seen above, this also must be read in its wider context to be able to fairly interpret it to determine its 'manifest spirit' ([Hardy 2018](#), 2). Its most relevant first two sentences state:

'Research by altering the surface of the ground or the ground under water (excavation) and other research in situ with the purpose of discovering and examining portable and immoveable monuments beneath the surface of the ground or water may only be conducted with permission by the Bundesdenkmalamt, provided clause 2 and 9 [RK: of § 11] do not stipulate otherwise (research excavation). Such a permission can only be granted to persons who have completed a relevant academic degree'⁵⁶. ...' (§ 11 (1) [DMSG](#); translation and emphasis: RK).⁵⁷

Technically, in German legal jargon, this is at least a '(preventative) prohibition with permission salvo' ('präventives) Verbot mit Erlaubnisvorbehalt'), if not even a '(repressive) prohibition with waiver salvo' ('repressives) Verbot mit Befreiungsvorbehalt') (Krischok 2016, 128-129; cf. Pieroth et al. 2015, 75), and thus, in the spirit of § 8 (1) [DMSG](#), a 'restriction of this federal law'. It restricts, according to its *letter*, the right to conduct research in situ for the purpose of discovering or examining *monuments* by excavation or other research methods to persons with a relevant academic degree, who are graduates of a relevant academic degree course. Thus, using a metal detector in Austria for this purpose is completely prohibited for anyone who does not meet these conditions.

However, even if restricting ourselves to a *literal interpretation* of the ordinary meaning of the words (Walter & Maier 1988, 52) used in its *letter* for starters only, it is immediately noteworthy that these

⁵⁵ 'Criminal damage' ('Sachbeschädigung') is a criminal offence against property according to §§ 125-126 [Strafgesetzbuch](#) [StGB] (Austrian criminal penal code). Causing criminal damage 'to a public monument or property scheduled as a monument' (§ 126 (1.3) StGB), in fact, constitutes *serious criminal damage* ('Schwere Sachbeschädigung'), a misdemeanour punishable by imprisonment of up to 2 years in jail or severe fine. If the damage caused exceeds € 50,000 in financial value, it even constitutes a crime punishable with imprisonment of no less than 6 months and up to 5 years according to § 126 (2) StGB.

Accusing at least c. 2,091 metal detectorists presumably active in Austria of regularly committing such criminal offences – on average c. 89 times per annum ([Hardy 2017a](#), 40) – in an open access publication, available for download all around the world, is inadvisable at best, seriously hazardous at worst. In fact, at least where Austria is concerned, making such an accusation in print as unequivocally as Hardy does – after all, he does not just say that they might be committing this crime in some cases, but emphatically states that they actually do 'commit criminal damage' ([Hardy 2017a](#), 42) with every single extraction of a 'recordable' find – scrapes dangerously close to (at least) *libel* ('Üble Nachrede') according to § 111 (1-2) StGB, a misdemeanour punishable by up to 1 year imprisonment, if not even more serious offences under the Austrian criminal penal code. As such, if one makes such stark claims in print, one better be 100% certain that one is right on the law, since otherwise, one might oneself be committing a crime by falsely accusing others of having done so.

⁵⁶ Such 'relevant' degrees, according to the explanations on the government draft of the 1999 revision of the DMSG, are degrees in Archaeology or Pre- and Protohistory ('Ur- und Frühgeschichte'), provided they contain practical excavation training (an archaeological field school) as a compulsory module ([RV 1999](#), 54).

⁵⁷ 'Die Nachforschung durch Veränderung der Erdoberfläche bzw. des Grundes unter Wasser (Grabung) und sonstige Nachforschungen an Ort und Stelle zum Zwecke der Entdeckung und Untersuchung beweglicher und unbeweglicher Denkmale unter der Erd- bzw. Wasseroberfläche dürfen nur mit Bewilligung des Bundesdenkmalamtes vorgenommen werden, soweit Abs. 2 und 9 nichts anderes vorsehen (Forschungsgrabung). Eine derartige Bewilligung kann nur an Personen erteilt werden, die ein einschlägiges Universitätsstudium absolviert haben. ...' (§ 11 (1) [DMSG](#));.

two short sentences use the word ‘research’ thrice (‘*Nachforschung*’ twice and ‘*Forschung*’ once) and stipulate that a permit according to § 11 (1) [DMSG](#) can only be issued to individuals who have ‘*completed a relevant academic degree*’. This, on its own, hints at this restriction being aimed, not at any search with the purpose of discovering *monuments*, but at academic (archaeological) research with this purpose only.

After all, while the common meaning of the word ‘*nachforschen*’ according to the Duden⁵⁸ is ‘1. *by intensive effort attempting to find out something, to gather precise information, knowledge about somebody or something; to conduct Nachforschungen, investigations*, 2. *(posh) to pursue a matter for the purpose of clarifying it*’⁵⁹ ([Duden Online, lemma: ‘nachforschen’](#) [21/1/2019]), which can also imply just ‘*searching*’ for something, its use for the latter meaning is at least rather uncommon, even in posh circles. The word ‘*Forschung*’, on the other hand, also when used in composite terms like ‘*Forschungsgrabung*’, is practically exclusively limited to academic research as its common meaning⁶⁰ ([Duden Online, lemma: ‘Forschung’](#), [21/1/2019]). Given that these two terms are used in a context which also specifically mentions the need for an ‘*academic degree*’, even if only in the sentence following the one in which the former are used, this strongly implies that what the legislator intended when choosing these, rather than the more generic term ‘*Suche*’ (‘*search*’), to subject at least mainly, if not exclusively, academic research, not any kind of searches, to the restrictions of this provision.

That the legislator was indeed mainly thinking about academic *research excavations* when making this law is also apparent from other sources suitable for elucidating the *spirit* of this provision.

While no archival materials related to or explanations on the [DMSG 1923](#) survive, it is perfectly obvious that § 11 (1) [DMSG 1923](#) was intended by the legislator to allow the permission of *scientific* archaeological excavations⁶¹ to exempt them from the general *cease and desist* requirement in case of the discovery of *monuments* contained in § 10 [DMSG 1923](#). Since the latter equally applied to all discoveries of monuments, regardless of the specific circumstances of the individual case, even fully professional archaeological excavations would have had to be stopped immediately when actually achieving their aims – that is, finding and starting to examine the *monument* – which would have made it impossible to continue to conduct archaeological field research. Since this would have been constitutionally impossible,⁶² the possibility to permit archaeological excavations as provided through § 11 (1) [DMSG 1923](#) thus had to be put into the law to make it constitutionally tenable.

In principle, the same also applies to § 11 (1) [DMSG 1978](#). Even though Norbert Helfgott⁶³ quite explicitly stated in his commentary to § 11 (1) [DMSG 1978](#) that this provision also applied to searches with metal detectors (Helfgott 1979, 83), and the Supreme Administrative Court did not directly disagree with his interpretation regarding this particular point of the law in one of its (already

⁵⁸ The *Duden* is for German roughly equivalent to what the *Oxford English Dictionary* is for the English language: the ‘standard’ (not binding, but most authoritative) source on the (common) meaning of words in the respective language.

⁵⁹ ‘1. *durch intensive Bemühungen versuchen, etwas herauszufinden, sich genaue Informationen, Kenntnisse über jemanden, etwas zu verschaffen; Nachforschungen, Ermittlungen anstellen*, 2. *(gehoben) einer Sache zum Zwecke ihrer [Auf]klärung o. Ä. nachgehen*’ ([Duden Online, lemma: ‘nachforschen’](#) [21/1/2019]).

⁶⁰ ‘1. *das Forschen, forschende Bemühung*; 2. *a. das Forschen, das Arbeiten an wissenschaftlichen Erkenntnissen; Untersuchung eines wissenschaftlichen Problems, b. forschende Wissenschaft*’ ([Duden Online, lemma: ‘Forschung’](#), [21/1/2019]).

⁶¹ Most of which were not yet conducted by professional archaeologists, or even archaeology graduates, since there were hardly any individuals who had completed a ‘relevant’ degree, because hardly any such degrees were already formally taught at Austrian universities at the time.

⁶² Art. 17 (1) [StGG](#) constitutionally guarantees *academic freedom*, including the *freedom of research*, as an *unconditional Civil Liberty* (Berka 1999, 343-347), making any law which voids this freedom completely necessarily unconstitutional and thus illegal itself.

⁶³ The jurist who, as permanent secretary at the Austrian Ministry of Culture, drafted all three major revisions of the DMSG (1978, 1990, 1999).

mentioned) landmark cases (VwGH 24.5.1985, 84/12/0213, 5)⁶⁴, this matters little in this context. After all, § 11 (1) [DMSG 1978](#) did not mention the word ‘research’ (in either of its forms) even once, nor did it restrict the mere possibility of issuing a permit to archaeology graduates only, and has since been superseded by more recent, significant revisions of its text twice. Thus, much like in 1923, the provisions of § 11 (1) [DMSG 1978](#) are, first and foremost, to be seen as a necessary provision in the law to enable academic archaeological field research by excavation.

Where the earlier of these two revisions which were since passed is concerned, that of 1990, this is in fact the one which did introduce the words crucial to its current interpretation; with the change to its *letter* explained explicitly in the explanations to the relevant government draft (almost certainly also written by Helfgott). In these, it is stated on the provisions contained in § 11 [DMSG 1990](#) generally, that these are intended to ‘*regulate the procedure when conducting permitted scientific excavations*’ and that this paragraph ‘*contains ... many provisions for the scientifically required controlled procedure when conducting excavations, submitting reports, etc.*’⁶⁵; while the specific explanations on § 11 (1) [DMSG 1990](#) add that ‘*The use of a metal detector also counts as “research”*’⁶⁶ ([RV 1990](#), 20). Furthermore, the specific explanations to § 11 (1) [DMSG 1990](#) stipulate that ‘*The possibility of being granted excavation permits is subjected to a precondition of having an appropriate preparatory training*’⁶⁷ ([RV 1990](#), 20), given that a requirement of having appropriate training – though not yet necessarily a completed ‘*relevant academic degree*’ – was indeed introduced in § 11 (1) [DMSG 1990](#). Thus, there was clearly a pronounced focus on regulating academic archaeological field research. However, given the specific context in which the law and particularly its § 11 (1) was revised (see on this [Karl 2016a](#), 281-283), it may be assumed that the intent of the legislator still was to actually include all metal detecting, not just that conducted during permitted professional archaeological fieldwork, in this permit requirement; though the opposite interpretation would already be possible.

Yet, in its most recent revision, § 11 [DMSG](#) was further changed, restricting the possibility to be issued with a permit to conduct any ‘*research in situ with the purpose of discovering and examining ... monuments*’ to archaeology graduates only. This is – at best partially correctly – justified in the explanations to the government draft for this revision by stating that issuing permits to non-graduates had become ‘*redundant...: new models under the direction of fully trained archaeologists (or pre- and protohistorians) have since proven their value*’⁶⁸ ([RV 1999](#), 55). However, the rest of these explanations now exclusively deals with professional archaeological excavations (and other field research) and does not even mention metal detecting any more, let alone non-professional metal detecting ([RV 1999](#), 54-55).

While one might argue that non-professional metal detecting was not even mentioned anymore because it was simply assumed – following its (at least possible) inclusion in the previous two revisions

⁶⁴ Though it has to be noted that it also did not necessarily fully agree with this interpretation, since the case in question did not actually turn on this point of the law, but rather on whether the mere collection of surface finds by use of a metal detector could constitute an ‘excavation’ as defined in § 11 (1) [DMSG 1978](#). Since the metal detectorist’s claim in this case to only have collected surface finds (whether this is credible or not does not matter for the legal argument here) was not challenged by the prosecution and not considered at all in the lower court judgements, the VwGH quashed the findings of the lower courts due to the procedural flaw that thus attached to their judgements (VwGH 24.5.1985, 84/12/0213, 5-6). In other words: this case turned exclusively on a legal technicality, not any of its actual merits, and thus does not speak much as to these merits, if at all.

⁶⁵ ‘...regelt § 11 die Vorgangsweise bei der Durchführung bewilligter wissenschaftlicher Grabungen’ and ‘enthält ... viele Bestimmungen, die eine für die Wissenschaft notwendig geregelte Vorgangsweise bei der Durchführung der Grabungen, der Durchführung der Meldungen usw. vorsieht’ ([RV 1990](#), 20).

⁶⁶ ‘Zu den “Nachforschungen” gehört auch die Verwendung eines Metallsuchgerätes’ ([RV 1990](#), 20).

⁶⁷ ‘Die Möglichkeit der Verleihung von Grabungsgenehmigungen wird von einer entsprechenden Vorbildung abhängig gemacht’ ([RV 1990](#), 20).

⁶⁸ ‘...überholt ...: es haben sich neue Modelle unter Leitung voll ausgebildeter Archäologen (bzw. Ur- und Frühgeschichtler) zwischenzeitig bewährt’ ([RV 1999](#), 55).

of this provision – that § 11 (1) [DMSG](#) had ‘always’ included it, this is problematic, since the law must be defined sufficiently so *ordinary citizens*, if they do make an effort to, can actually interpret it correctly. Yet, since archaeologists have persistently argued for decades that non-professional metal detecting is (at least normally) not done for research purposes and is not compliant with academic minimum standards, if it is not specifically mentioned in either the letter of the law nor explanatory material that it is, it cannot be assumed that *ordinary citizens* would still actually be able to interpret a law correctly. After all, the provisions of § 11 (1) [DMSG](#) now apparently are exclusively aimed at regulating professional archaeological fieldwork, making them inapplicable to non-professional metal detecting, which obviously is not professional archaeological fieldwork.

Nor can it be assumed that the legislator still wanted to include non-professional metal detecting under the regulations of § 11 (1) [DMSG](#), not just because he provides no indication whatsoever that he might have had this intent at all anymore. This is mainly for the reason that *academic freedom* (*‘Wissenschaftsfreiheit’*), and especially the *freedom of research* (*‘Forschungsfreiheit’*), is a constitutionally guaranteed, unconditional *Civil Liberty* in Austria according to Art. 17 (1) [StGG](#), Art. 13 of the *Charter of Fundamental Rights of the European Union* ([EU 2000](#), 11), and a *Human Right* guaranteed by Art. 15 (1-3) of the *International Covenant on Economic, Social and Cultural Rights* ([UN 1967](#)). As such, it is an everyman’s right, whose exercise is not dependent on any formal qualifications (Berka 1999, 343). Thus, the Austrian legislator must not pass any *ordinary law*⁶⁹ voiding completely the right of every single one of its *ordinary citizens* who has not completed a particular kind of formal qualification – like an academic degree in a ‘*relevant*’ discipline – because this would strictly be unconstitutional (violating directly the constitutional guarantee of freedom of research) and thus in itself illegal.⁷⁰ *Constitution-compliant interpretation*, however, necessitates – if in doubt – the assumption that lower-level legislation respects, as required, applicable higher-level legislation (Walter & Maier 1988, 54); i.e., in this case, the assumption that the legislator did not intend to pass an unconstitutional ordinary law by restricting permits according to § 11 (1) [DMSG](#) to archaeology graduates only. This makes it *unthinkable*⁷¹ that the legislator wanted to include non-professional metal detecting under this provision.

Nor does it help to argue that the legislator wanted to include non-professional metal detecting regardless, because while not being research protected by *academic freedom*, it was nonetheless in some way sufficiently similar to research to be included in this provision, since this would violate the equality principle of Art. 7 [B-VG](#) and Art. 3 [StGG](#), also (and even more fundamental) constitutional law. This principle not just requires the state to treat all its citizens as equal before the law, but (to ensure this equality not just before, but also in law) also requires the legislator to treat legally identical matters identically and legally different matters differently (Berka 1999, 504). Thus, if not conducted as research and thus not protected by academic freedom exactly like research, non-professional metal detecting is obviously very significantly different from professional archaeological fieldwork, and thus must not be assumed to have been treated identically to it in law: if the legislator had wanted that,

⁶⁹ n.b.: ‘*ordinary law*’ (*‘einfaches Gesetz’*) again is a legal technical term. It means any law which has not been raised to the status of a *constitutional law*, i.e. not specifically put before parliament as an amendment to the constitution and passed with qualified (more than 2/3rd of all valid votes) majority by parliament. *Ordinary laws* must remain within the limits set by the *constitution*, restricting the political freedom of parliament to pass any law it wants to be passed.

⁷⁰ There is even Supreme Constitutional Court judicature on this very point of the law, which states that academic freedom ‘*is an absolute freedom which cannot be restricted by ordinary law or administrative act*’ (Berka 1999, 345).

⁷¹ n.b.: ‘*unthinkable*’ (*‘denk unmöglich’*) again is a legal technical term. It means that under the necessary assumption that the legislator did not intend to pass an unconstitutional *ordinary law*, it is literally impossible to think that a particular interpretation of the law could imaginably be correct (Walter & Maier 1988, 54; Berka 1999, 546-547).

he would have had to explicitly include regulations for non-professional metal detecting in the law and provided differently for them than for professional archaeological field research.

Thus, it follows that since 1999, § 11 (1) [DMSG](#) must be interpreted to include, if at all, only professional metal detecting for research purposes, not any non-professional metal detecting (not even non-professional metal detecting for research purposes). This must be the case, because if it were not, § 11 (1) [DMSG](#) would be unconstitutional, thus in itself illegal, and thus not applicable at all, because an illegal act of parliament cannot create law.

Rather, the Austrian legislator did subject the use of metal detectors for any purpose (other than for permitted professional archaeological field research) to a separate permit requirement, that of § 11 (8) [DMSG](#). Such a permit is required unless the person *intending* to metal detect is permitted to do so under the provisions of § 11 (1, 2, or 9) [DMSG](#),⁷² but can be issued to everyone, irrespective of their archaeological qualifications. However, the applicability of this permit requirement is strictly limited to the use of metal detectors on *scheduled monuments* only. This further strengthens the interpretation that the legislator intended to regulate professional archaeological field research by means of the provisions of § 11 (1) [DMSG](#), while separately restricting metal detecting for any purposes other than professional archaeological field research – the latter on scheduled monuments only – by means of the provisions of § 11 (8) [DMSG](#).

Before moving on to the wider legal context in which § 11 (1) [DMSG](#) must be interpreted, there is another point to consider, the criterion of purposefulness, which must also be met to trigger its applicability. Purposefulness can be read as roughly the same as '*intent*'⁷³, and thus technically requires two things for § 11 (1) [DMSG](#) to become applicable to the planned '*excavations*' and/or '*other research in situ*' by a person. That person must, firstly, want to achieve the stated outcome of '*discovering and examining portable and immoveable monuments beneath the surface of the ground or water*'. And secondly, that person must have the '*reasonable expectation*'⁷⁴ to actually be successful

⁷² Exempt from this general permit requirement for using a metal detector on a *scheduled monument* for any purpose are only persons who are already permitted to do so under the provisions of § 11 (1, 2 or 9) [DMSG](#). Of those, permissions according to § 11 (1) and § 11 (9) [DMSG](#) can only be issued to archaeology graduates, while § 11 (2) [DMSG](#) exclusively permits archaeological fieldwork conducted by the BDA in the exercise of its duties under this law.

⁷³ n.b.: '*intent*' or, rather, (lat.) '*dolus*' ('*Vorsatz*') is also a legal technical term. As opposed to the common meaning of the word intent, which just refers to being '*determined to do something*' or '*wanting to achieve an aim*', in the Austrian (like in the English) legal tradition, *intent* combines both the **will to achieve a particular consequence** with a planned action and the **foreseeability of its (probable) success**. Thus, under the law, one cannot actually intentionally kill (murder) a person by sticking needles into a voodoo poppet: while one may well actually want to kill that person by sticking the needles into the 'voodoo poppet', the person doing so cannot have the reasonable expectation that they will, by this act, actually succeed in killing the person they want to kill; since it is generally assumed that killing people by sticking needles into 'voodoo poppets' does not work (regardless of what some people may believe about the effectivity of voodoo magic).

⁷⁴ n.b.: '*reasonable expectation*' ('*konkrete Vermutung*') is also a legal technical term. It means that the person interpreting the law must have some objective indications (hints) which require them to assume that something is actually the case. This means that in the case that the person wants to search in a particular place for something, e.g. archaeological finds, there must be some objective hints that what they are searching for can actually be found in that particular place; that is, some publicly known or accessible evidence that would lead any *ordinary citizen* to assume that a search for archaeological finds in that place will, at least probably, be successful. Thus, it must, for instance, at least be publicly known that on earlier occasions, archaeological finds were made there.

A pure *suspicion*, like the popular archaeological belief that '*significant archaeology can be found everywhere*', does not rise to the level of a *reasonable expectation*: it is a purely hypothetical statement, no more. That archaeology might indeed be found (almost) everywhere does not give reason to believe that it is at least probable that archaeology will actually be found if searching for it in a particular place, because there might as well be no archaeology in that particular place at all; and where no archaeology is, none can be found.

by conducting the planned action(s) (also see for this, specifically in the context of the triggering of the applicability of § 11 (1) [DMSG](#), [VwGH 23.2.2017, Ro 2016/09/0008](#), RN 17-18).

Where § 11 (1) [DMSG](#) is concerned, this necessarily means that in all places from where no hints are publicly known that at least *ground monuments* are present there, it cannot apply, not even to archaeological research excavations, let alone to non-professional metal detecting. After all, the person planning to conduct archaeological research or even only to metal detect there cannot have the reasonable expectation to find any *ground monuments*, let alone any *monuments* there. Thus, they cannot form the legal intent that is necessary to trigger the applicability of § 11 (1) [DMSG](#).

While this point is not being discussed anywhere in the explanatory reports on the law (though there is Supreme Court judicature on point; [VwGH 23.2.2017, Ro 2016/09/0008](#), RN 17-18), it is still apparent that this is exactly what the legislator intended. After all, it is the bread and butter of parliamentarians to know what intent requires. They also know there are other possible triggers that could have been written into the law would they want so; leaving aside that they could simply have required anyone wanting to use a metal detector to get a permit or license, as is the case in Schleswig-Holstein (see § 12 (2.5) [DSchG-SH](#)). For instance, they could have required a permit for taking any action if the person planning it knows or suspects it will probably lead to the discovery of (*ground*) *monuments*, doing away with the need for the person actually wanting to do so. But that, of course, would have widened significantly the range of activities requiring prior permission, like digging any kind of hole into the ground where *ground monuments* are likely to be found. Thus, the very fact that the legislator chose to make the applicability of § 11 (1) [DMSG](#) dependent on intent suffices to demonstrate that the legislator intended to use this one rather than any other possible trigger.

This allows us to move on to the wider legal context in which § 11 (1) [DMSG](#) must be interpreted. As just established, to fulfil the element of *intent*, the person planning to conduct ‘*excavations*’ and/or ‘*other research in situ*’ must want to achieve the (without the stipulated permission by the BDA) prohibited consequence of these actions; that is, must want to discover and/or examine ‘*portable or immoveable monuments*’ which, at the moment of their discovery, still are located ‘*beneath the surface of the ground or water*’ (§ 11 (1) [DMSG](#); emphasis: RK).

This, incidentally, immediately rules out the possibility that the collection of surface finds – whether spotted by naked eye or by means of a tool (like e.g. a metal detector) – can be subject to the provisions of § 11 (1) [DMSG](#): surface finds, after all, are located on, not beneath the surface of the ground, and thus are simply not covered by this provision (also see [VwGH 24.5.1985, 84/12/0213, 5-6](#); [BVwG 11.9.2017, W183 2168814-1/2E](#)). This was also certainly intended by the legislator: after all, the [DMSG](#) itself states in § 8 (1) that finds of *ground monuments* are usually particularly threatened by alteration, destruction, or theft, and imposes a duty on finders of *ground monuments* to immediately recover them for safekeeping if there is a threat of them being lost or stolen in § 9 (2). Thus, obviously, the legislator wanted finds of portable *ground monuments* not to be left where they are if that exposes them to the threat of being lost. And since surface finds are obviously at risk of being destroyed or stolen, their recovery must be encouraged by the law, rather than prohibited for anyone who is not an archaeology graduate.

This is exactly like if one loses one’s car keys: they could of course, hypothetically, have been picked up by anyone and been put in their pocket. Yet, that doesn’t make it reasonable to believe that any random passer-by one meets in the street will actually have one’s lost car keys in their pocket, just because it could have been that passer-by who could have found and put them in his pocket. Only if there is some objective evidence, like the totally unusual, bright orange name-tag with one’s name on it sticking out of a random passer-by’s pocket, one can have the *reasonable expectation* that this particular passer-by found one’s car keys and put them in their pocket. Thus one might act on this suspicion with reasonable expectation and ask for it back of this one person, but not - just in case - stop and search everyone passing by at some moment in time on any street.

Even more importantly, though, is that the *letter* of § 11 (1) [DMSG](#) speaks of the discovery and/or examination of *monuments*, rather than *ground monuments* or just archaeological finds. This means that the person planning an ‘excavation’ or ‘other research in situ’ must, to trigger the permit requirement of § 11 (1) [DMSG](#), intend to find ‘man-made objects of’ such ‘historic, artistic or other cultural significance’ that their ‘preservation is in the public interest’ (§ 1 (1) [DMSG](#)). Yet, as we have seen in the previous chapter, most archaeological finds, and even most archaeological sites, are not *monuments* whose ‘preservation is in the public interest’. Rather, virtually no archaeological artefacts, and only as much as c. 4.8 % (c. 1,050) of (c. 21,730) known archaeological sites⁷⁵ in Austria are.⁷⁶ Thus, even wanting to discover an as yet unknown archaeological site, let alone an as yet unknown artefact, does not rise to the level of *intent* to discover a *monument* which would trigger the permit requirement of § 11 (1) [DMSG](#).⁷⁷

Regarding the *spirit of the law*, again, we can be certain that the legislator did indeed intent to only subject excavations and other research in situ with the purpose of discovering *monuments* (as defined in § 1 (1) [DMSG](#)) to the permit requirement of § 11 (1) [DMSG](#). For one, this is for the reason that, as already indicated in the previous chapter, the legislator is not even very interested in protecting *ground monuments*, and even less interested in protecting archaeological sites, let alone all archaeological small finds. Even *ground monuments*, he only protects temporarily, and only for the purpose that the BDA can assess them as to whether they merit indefinite protection due to their extraordinary significance. Rather, the legislator is only truly interested in the protection of monuments whose preservation is in the public interest, and for that purpose, they must first of all be discovered and examined, so that their significance can be assessed at all. Thus, to protect anything that is not yet sufficiently well-known and -understood for the BDA to be able to determine its significance from being discovered and examined by archaeological field research would be patently absurd. It would achieve the very opposite of what the legislator wants: that any man-made object, if its significance is actually such that its preservation would be in public interest if it only were known, can never be properly assessed for its significance, thus can never be scheduled, and thus will never be protected.

⁷⁵ As per 20/4/2018, pers. comm. B. Hebert, Head of Archaeology, BDA.

⁷⁶ And this is not even considering that, given the very low numbers of known archaeological sites in Austria compared to e.g. England and Wales, the actual number of archaeological sites in Austria must be much higher than that of known sites; even though there is a good chance that a much larger percentage of the outstandingly significant ones than the not sufficiently significant ones are already known. Thus, the actual percentage of sites which could be *scheduled* because their preservation is in the public interest due to their significance is likely to be considerably lower than these c. 4.8%.

⁷⁷ Nor would this change if we read, in § 11 (1) [DMSG](#), *ground monuments* (as defined in § 8 (1) [DMSG](#)) instead of *monuments* (as defined in § 1 (1) [DMSG](#)), as we have also already seen in the previous chapter. While this would maybe increase the number of cases where the *intent* which would trigger the restrictions of § 11 (1) [DMSG](#) would have formed in the mind of the person planning an ‘excavation’ and/or ‘other research in situ’ slightly, it would still not form in the vast majority of cases where someone just wanted to engage in any archaeological fieldwork. While most professional archaeological fieldwork is at least intentionally looking for or at significant archaeology, and thus could arguably be construed as research with the purpose of discovering and/or examining *ground monuments*, this is much less arguable with non-professional metal detecting. Because even if one were to assume – quite contrary to what many archaeologists and heritage managers would believe – that most metal detectorists are conducting ‘research’ when going out detecting, they may against all odds hope, but certainly do not *intend* (in the legal meaning of the term), to find *ground monuments*, let alone *monuments*. Of course, there may be the odd metal detectorist who is really into well-preserved Roman bronze helmets, and who because of this, specifically picks for his searches known Roman military cemeteries, which would rise to the level of *intent* required to trigger the permission requirement of § 11 (1) [DMSG](#), assuming the legislator just made a mistake in its *letter* by not speaking of *ground monuments* where he wanted to. But that one will be the exception to the rule, and thus cannot be taken to be the ‘average’ metal detectorist.

Also, the fact that the legislator only wants to protect *monuments* is evident from § 37 (6) [DMSG](#). As already stated, this stipulates that even if a prosecution for breaches of any provision of the DMSG is already ongoing, it must be dropped if the BDA decides by *official written notice* that the *preservation* of the affected object or objects is not, or never has been, in the public interest. This is particularly relevant in the context of interpreting the *spirit* of § 11 (1) [DMSG](#), because it demonstrates beyond all reasonable doubt that the term *monument* was used by the legislator in it intentionally, rather than by mistake. This can be shown by running a fictional case as a thought experiment:

Let us assume for the purpose of this thought experiment that

1. a professional archaeologist (PA) wants to conduct an archaeological excavation with the explicitly declared will to discover a *monument* on a well-known, but not *scheduled*, archaeological site which has produced numerous *ground monuments*, triggering the permission requirement of § 11 (1) [DMSG](#);
2. with malice and aforethought, PA conducts this excavation without having applied for and been issued a permit for it by the BDA, thereby violating the restrictions for professional fieldwork as contained in § 11 (1) [DMSG](#);
3. PA discovers in the course of these excavations numerous *ground monuments* and disregards both the reporting duty of § 8 (1) [DMSG](#) and the legal consequences of their discovery according to § 9 [DMSG](#), thus violating all of the restrictions contained in these, too;
4. PA reports himself and the *ground monuments* he discovered and destroyed in situ during his excavations to the BDA on the second working day after he concluded his fieldwork; and
5. the BDA reports him to the prosecuting authorities for his many and outrageous breaches of the restrictions of the DMSG, with the prosecuting authorities opening a case against him.

If that sequence of events had occurred, what would have to happen next?

Given that PA conducted his fieldwork in violation of the provisions of § 11 [DMSG](#), all his discoveries are subject to the provisions of § 9 [DMSG](#) according to § 9 (5) [DMSG](#). Thus, since PA reported his finds to the BDA on the second working day after the conclusion of his fieldwork, the period of § 9 (3) [DMSG](#) starts on that day. This requires the BDA to determine whether any of the *ground monuments* PA discovered are actually of such significance that their indefinite preservation is in the public interest; that is, whether any of them actually are *monuments* (as per § 1 (1) [DMSG](#)). If, within the 6 weeks allowed for this according to § 9 (3) [DMSG](#), it comes to the conclusion that none of the *ground monuments* discovered by PA are actually of such significance, according to § 9 (3) [DMSG](#), the BDA must issue an *official written notice* that their preservation is not and never has been in the public interest. If, however, the BDA issues an *official written notice* that the preservation of the objects discovered by PA is not or never has been in the public interest,⁷⁸ according to § 37 (6) [DMSG](#), the already ongoing prosecution of PA for his outrageous breaches of the DMSG must be dropped.

Thus, if PA discovered only *ground monuments* during his fieldwork which, on assessment by the BDA, turned out not to be actual *monuments*, he could freely violate any and all of the provisions of §§ 8, 9, and 11 [DMSG](#), because none of them applied to his actions due to § 37 (6) [DMSG](#). The commentary on the law, written by the current permanent secretary for heritage at the *Bundeskanzleramt* (the ministry currently responsible for heritage in Austria), remarks that this is misguided legislative policy by the legislator, since it retrospectively legalises an action which at the time of its execution was in violation of the permission requirement of § 11 (1) [DMSG](#) (Bazil et al. 2015, 112). But, of course, it is entirely consistent with the limitation of the applicability of the DMSG as a whole, as stated explicitly

⁷⁸ The same applies if the BDA fails to publish an *official written notice* to the contrary within these 6 weeks, since from a legal perspective, this is the same as stating by *official written notice* that there is no public interest in the preservation of the objects discovered by PA. Thus, administrative inactivity (the BDA simply not notifying anyone of its decision) does not disadvantage PA's defence against the prosecution.

in § 1 (1) [DMSG](#): ‘The provisions contained in in this federal law are applicable to ... (“monuments”), provided their preservation ... is in the public interest’.

The legislator intended to make all provisions of the DMSG applicable only to *monuments* whose preservation is in the public interest. The provision of § 11 (1) [DMSG](#) is one of the provisions of the DMSG. One thus should in no way be surprised that it also is only applicable to *monuments*, as all provisions of this federal law are explicitly supposed to be. Quite to the contrary, if the legislator specifically used the word *monument* in the *letter* of § 11 (1) [DMSG](#), we can be pretty sure that he did not do so by mistake or because the *letter of the law* was ‘poorly-written’ ([Hardy 2018](#), 2), but that this has been fully intentional.

And in fact, particularly in case of the prohibition of § 11 (1) [DMSG](#), it must be the case that its applicability is restricted exclusively to *monuments* whose preservation is actually in the public interest; because otherwise, it would be wholly unconstitutional. After all, both the *letter* of this provision and the explanations regarding it attached to the government drafts of both the 1990 and the 1999 revision of the DMSG are clearly and explicitly aimed at regulating **scientific** excavations and other research in situ ([RV 1990](#), 20; [RV 1999](#), 54-55), not non-research related activities.

Yet, as already stated above, scientific research – obviously including that by means of archaeological excavation or other fieldwork in situ – is a constitutionally guaranteed, unconditional *civil liberty* (Art. 17 (1) [StGG](#)). As such, it cannot normally ‘be restricted by ordinary law or administrative act’ (Berka 1999, 345); and subjecting research to a permit requirement is already, and in fact a serious, restriction of this *liberty* (Berka 1999, 344). The constitutional restriction of the legislative freedom of parliament of Art. 17 (1) [StGG](#) applies particularly to prohibitions which, like that of § 11 (1) [DMSG](#), specifically aim to restrict *academic freedom*, since preventing such state interference in research is the very core of the *spirit* of this *civil liberty* (Berka 1999, 344-345).

The legislator can restrict *academic freedom* only if its unrestricted exercise would seriously endanger another *civil right* or *public good* of equal (= also constitutionally protected) status (Berka 1999, 346). Thus, for the restriction contained in § 11 (1) [DMSG](#) to be constitutional, it must be required for the protection of a constitutionally protected *public good* from serious threats to it by the unrestricted exercise of the *freedom of research*. Since heritage protection is listed as one of the responsibilities of the federal state in Art. 10 (1.13) [B-VG](#), it can be argued that heritage protection is indeed a constitutionally protected *public good*,⁷⁹ and thus can be used to justify restricting *academic freedom*, at least to some extent. However, this allows only to protect objects whose preservation is actually in the public interest, that is, *monuments* (as defined in § 1 (1) [DMSG](#)), against the unrestricted exercise of the freedom of research, since only they are *public goods*. The fact that something could potentially be a *monument* is insufficient to restrict *academic freedom*, since the mere potentiality that something **could** be a *public good* cannot outweigh the constitutionally guaranteed right to **actually exercise** a fundamental *civil liberty*.

⁷⁹ Even though it is noteworthy in this context that Art 10 [B-VG](#) is a constitutional law determining the division of power and responsibilities between the 9 constitutive individual states that make up the Federal Republic of Austria, and the federal state. As such, it does not actually assign any particular constitutional value to any of the diverse areas it mentions, but just determines who has jurisdiction over what matters. Art. 10 (1.13) [B-VG](#), for instance, also assigns jurisdiction to the federal government over scientific and technical archive and library services, matters of artistic and scientific collections and organisations of the federal state, matters of the federal state’s theatres with the exception of construction matters, matters of culture, the population census, etc. Whether this assigns a constitutional value equivalent to that assigned by Art. 17 (1) [StGG](#) to academic freedom to any of these matters – including heritage protection – is already highly debateable; and it could indeed be argued that heritage protection is not a constitutionally protected *common good*, but only a duty of the state listed in a rather obscure part of the constitution concerning, mostly, administrative details of the federal state’s organisation.

Thus, if the provisions of § 11 (1) [DMSG](#) would also apply to mere *ground monuments*, that is, to objects which, according to the definition of this term in § 8 (1) [DMSG](#), only (obviously) could be, but not necessarily actually are, subject to the restrictions of this federal law, the restriction of *academic freedom* caused by this provision would make it unconstitutional. Unless the object in question actually is a *monument* to which the provisions of the [DMSG](#) are actually applicable, that is, unless their preservation actually is in the public interest due to their significance, no constitutionally protected *public good* exists which could justify the restriction of *academic freedom*. And if no equally constitutionally protected *public good* exists which could justify a restriction of *academic freedom*, it cannot and thus also must not be restricted by the legislator by *ordinary law* (or administrative act; Berka 1999, 345).

Since we have already seen that in the necessary *constitution-compliant interpretation*, it must not be assumed that the legislator wanted to pass an *ordinary law* which would violate a *constitutional law* (Walter & Maier 1988, 54), only one possible interpretation remains where the *spirit* of § 11 (1) [DMSG](#) is concerned: only research in situ with the purpose of discovering or examining *monuments* whose *preservation* is actually in the public interest can be subject to the restrictions of this provision. And since this special form of the *logical-systematic interpretation* of § 11 (1) [DMSG](#) (Walter & Maier 1988, 52) is also perfectly consistent with its *literal interpretation*, its general *logical-systematic interpretation*, and its *teleological interpretation* (Walter & Maier 1988, 52), with no reason for even assuming the contrary, this can and indeed must be taken to be the '*manifest spirit*' ([Hardy 2018](#), 2) of this law.

An interim summary: the *spirit* of the archaeological provisions of the DMSG

Thus, we have established that the – not at all '*poorly-written*' ([Hardy 2018](#), 2) – *letter* of the archaeological provisions (of §§ 8, 9 and 11) of the [DMSG](#) very clearly and unequivocally express the *spirit* of this law, that is, the will of the legislator when he made this law. The Austrian parliament wanted to, and did, protect *monuments* whose preservation, due to their significance, is actually in the public interest, as it also explicitly stated in the opening sentence of this law.

This is almost, but not quite exactly, the same as the English and Welsh legislators did when passing their respectively applicable laws ([AMAA 1979](#); [Historic Environment \(Wales\) Act 2016](#)). The main difference is that while in England and Wales, fieldwork (including metal detecting) is prohibited on sites and monuments protected by a separate administrative act (e.g. *scheduling*) only; in Austria, arguably all *monuments* whose preservation is in the public interest due to their significance are protected by the combined provisions of §§ 8, 9 and 11 [DMSG](#),⁸⁰ whether they are specifically protected by a separate administrative act or not.⁸¹

⁸⁰ For the use of metal detectors on *scheduled monuments* in Austria for any purpose, see the permit requirement of § 11 (8) [DMSG](#).

⁸¹ This is a rather significant difference between English and Welsh on the one, and Austrian law on the other hand. While § 1 (4) [DMSG](#) quite explicitly states that the legal protections provided by the DMSG to *monuments* only become legally effective by *scheduling* according to §§ 2, 2a or 3 (or, though not explicitly stated, § 9 (3)) [DMSG](#), this obviously was not intended by the legislator to fully exempt as yet *undiscovered monuments* of such significance that their preservation is in the public interest from all protections of the law.

This should be the case since otherwise, the provisions of – especially – §§ 8 and 9, but also – though to a somewhat lesser extent – §§ 10 and 11 [DMSG](#) – that is, the '*archaeological*' provisions of this law – would serve almost no actual purpose. After all, if the duty to report finds of *ground monuments* of § 8 (1) [DMSG](#) and its legal consequences would only apply on *scheduled monuments*, these regulations would be utterly redundant: after all, the *monument* from which the finds come is already *scheduled* and thus is already legally protected, so why report them so that they can be assessed for their significance all over again, and temporarily *schedule* them by *force of legal presumption* for 6 weeks after their discovery according to § 9 (3) [DMSG](#)?

While technically, the legislator could have intended with this that finds of any lost property made on a *scheduled monument*, which might not actually be part of the *monument* itself and thus are not automatically also

The Austrian legislator attempts to achieve this ‘complete’ legal protection of (extraordinarily significant) *monuments*, first of all, by subjecting all discoveries of what it calls *ground monuments* in § 8 (1) [DMSG](#) – objects which obviously could be, but are not necessarily, *monuments* worthy of legal protection – to the restrictions applicable to what it calls *chance finds*. Where such *chance finds* are concerned, their finders (and possibly, depending on whether they actually know of the chance find, a few other kinds of persons listed in § 8 (2) [DMSG](#)) have a duty to report them to the BDA (or other eligible authorities) according to § 8 (1) [DMSG](#). They also have to leave the find spot of such a *chance find* unaltered for up to 5 working days according to § 9 (1) and have to recover for safekeeping any portable *chance finds* otherwise threatened by loss according to § 9 (2) [DMSG](#). Any such chance finds of *ground monuments*, the law protects by *temporary scheduling by force of legal presumption* from the moment of their discovery until up to 6 weeks after they have been reported (or otherwise become known) to the BDA; for the purpose of the latter deciding within these 6 weeks as to whether the *chance find* is actually a *monument* or not by *official written notice*. However, unless the BDA finds that a *chance find* is a *monument* whose *preservation* is actually in the public interest, it is not protected by law, including retrospectively for the period it was technically *scheduled by force of legal presumption*, due to the provisions of § 37 (6) [DMSG](#).

The Austrian legislator exempted from these general regulations for the protection of *chance finds* of previously unknown *monuments* only four kinds of activities in separate clauses of § 11 [DMSG](#):

- 1) Professional archaeological field research (legal technical term: ‘*research excavations*’), conducted by archaeology graduates with the *intent* of discovering or examining portable or immoveable *monuments* under the surface of the ground or water (whose *preservation* is in the public interest), which it regulated in § 11 (1 and 3-6). Such research must only be conducted with a *written permit* by the BDA according to § 11 (1), can be subjected to appropriate conditions, limitations or restrictions, and is subject to somewhat different reporting duties than *chance finds*; mainly in that reporting can be delayed up until 3 full calendar months after the end of the year the *research excavation* has been conducted.
- 2) *Research excavations* conducted as part of its duties by the BDA itself, which are exempt from most of the restrictions of the DMSG by § 11 (2). The only duty the BDA has regarding these

scheduled – after all, only integral (even if portable) parts of a *scheduled monument* are also automatically *scheduled* according to § 1 (9) [DMSG](#) – this would seem rather far-fetched. While strictly speaking, e.g. Neolithic finds on a site *scheduled* as e.g. a Roman villa are not automatically *scheduled* as they are not integral parts of the Roman villa, it would seem like excessive over-regulation to provide two out of all four archaeological paragraphs in a heritage protection law simply for the purpose of ensuring that in case somebody lost their wallet on a *scheduled monument*, to allow them (or other finders) to retrieve said wallet from there without requiring *scheduled monument consent* according to § 5 (1) [DMSG](#); but still require them to turn Neolithic sherds also found there in to the BDA for an expert assessment of whether they are actually Roman sherds and thus automatically *scheduled* already as parts of the *scheduled* villa, or whether they are not part of it and thus could be removed as ‘ordinary finds’ by their finder (or are significant enough to merit scheduling on their own account).

Thus, it seems rather more likely that what the legislator did indeed want to protect by means of the DMSG are not just *scheduled monuments*, but all *monuments* of such significance that their *preservation* is in the public interest. And this is indeed confirmed by the fact that *scheduling* in Austrian law technically is a determination of the fact that a particular object is actually of a particular kind of historical, artistic or other cultural significance (Bazil et al. 2015, 22-24). If the object is of such significance that a public interest in its *preservation* exists, it must be *scheduled* by the BDA, if it is not of such significance, it must not be *scheduled*; with the BDA having no discretionary powers whatsoever. Thus, the BDA, by the act of *scheduling*, does not **create** a *scheduled monument*, but just **establishes** that something is (and indeed always has been without anyone knowing) a *monument* whose *preservation* is in the public interest. That the protections of the DMSG only become legally effective at the moment of *scheduling*, rather than already before, is due to the fact that until the significance of the *monument* has officially been established, neither *ordinary citizens* nor the state can know that it is indeed of such significance, and thus could not willingly treat it accordingly.

- is to include a report on any scientifically significant discoveries made during them in its annually published finds reports according to § 11 (7).
- 3) The use of metal detectors (or any other technical equipment with the ability to potentially discover or examine *monuments* beneath the surface of the ground or the ground under water) for any *purpose* whatsoever on *scheduled* archaeological *monuments*. This requires a *written permit* by the BDA according to § 11 (8). Such a *permit* can be granted to any person (including legal persons). Persons permitted under the provisions of § 11 (1, 2 or 9) are exempt from this permit requirement. While the law is not entirely clear on this point,⁸² it can be assumed that the same reporting duties apply as if the use of the metal detector has been permitted under the provisions of § 11 (1).
 - 4) *Research excavations* conducted on behalf of or with permission by public authorities exercising judicial oversight over decisions taken by the BDA (e.g. in cases where an appellate or supreme court overturned a decision by the BDA to not issue a particular person a permit according to § 11 (1) [DMSG](#) unlawfully) or having emergency powers in case of urgently necessary works the BDA is unable to conduct are exempt from all permission requirements according to §§ 5, 9 and 11. The start of any such works must be reported to the BDA, and all reporting duties according to § 11 (4 and 6) [DMSG](#) must be met within 6 months of the completion of the fieldwork.

This is the ‘*manifest spirit*’ ([Hardy 2018](#), 2) of §§ 8, 9 and 11 [DMSG](#), that is, what the Austrian parliament, as the duly democratically elected body of representatives of the Austrian sovereign, its people, wants to achieve with the law: it wants to protect only extraordinary *monuments*, whose historical, artistic or other cultural significance is so obvious that even *ordinary citizens* on mere visual inspection recognise that their *preservation* would be in the public interest. Moreover, and equally importantly, it only wants to protect the original *monument* itself; that is, the physical object that the *monument* is, unaltered by intentional human action; in the state it is in the moment it becomes legally protected by being *scheduled*, whether *by force of legal presumption* or *administrative act*.

In fact, the physical protection of exceptional *monuments* is the only protection the Austrian sovereign is interested in: it positively does not recognise the recording of the alteration or destruction of a *monument* as a legitimate means of its *preservation*, since any such record, however well-made, just preserves a memory of the *monument*, not the *monument* itself, and the DMSG does not aim at the protection of *memories*, but of *monuments* ([RV 1999](#), 40; [VwGH 16.1.1975, 1799/74](#); [8.11.1975, 1072/73](#)). Not only are there no ‘*recordable*’ archaeological artefacts ([Hardy 2017a](#), 42-43) in Austria, there are not even ‘*recordable*’ *monuments*, since archaeological recording is not a valid concept under the Austrian [DMSG](#). As archaeologists, we may not like this at all, and I indeed don’t, but that’s what the Austrian legislator wants: keep it as it is, or lose it, with nothing in between.

Illegal and legal metal detecting in Austria

This, of course, has significant consequences for metal detecting, and particularly for whether metal detecting is legal or illegal in Austria: after all, it depends strongly on the particular circumstances of

⁸² This is one point where the archaeological provisions of §§ 8-11 [DMSG](#) are actually ‘*poorly-written*’ ([Hardy 2018](#), 2): § 11 (8) [DMSG](#) does not mention any reporting duties at all. Rather, the reporting duties contained in § 11, which presumably also apply to permitted metal detecting according to § 11 (8), are found in § 11 (4 and 6), and there – at least at first glance – seem to apply only to *research excavations* conducted with a permit according to § 11 (1) [DMSG](#). Thus, it is not absolutely clear as to whether no reporting duties, the reporting duties within a single working day of § 8 (1) (and their legal consequences according to § 9), or the reporting duties no later than 3 months after the end of the calendar year in which the activity was conducted of § 11 (4 and 6) [DMSG](#) apply. However, given that the regulations for non-professional metal detecting for any purposes on *scheduled monuments* has been included in § 11, it seems most likely that the reporting duties for specifically permitted activities in § 11 (4 and 6) [DMSG](#) apply, rather than those for *chance finds* of *ground monuments* in § 8 (1) [DMSG](#).

the individual case whether it is the one or the other. As we have seen above, metal detecting is – at least partially – regulated in Austria, but by no means in such a way that one can simply state that all metal detecting in Austria is illegal, or even only all metal detecting with the intent of discovering ‘recordable’ archaeological finds is illegal (Hardy 2017a, 10). Rather, as Fred Sinowatz, a former Austrian chancellor, famously (allegedly) said: ‘*It is all very complicated!*’.⁸³

In the following, to not even further complicate already quite complicated matters, I will disregard all illegal acts which may be committed by metal detectorists when engaging in their hobby which do not break heritage law, but other (for the purpose of this paper, from now on: ‘*general*’) Austrian laws. Rather, I stipulate here that it is absolutely certain that at least some, perhaps even many, metal detectorists do break at least some *general* Austrian law or laws when engaging in their hobby: they may commit acts of trespass and other offences, misdemeanours, and possibly even crimes, against a third person’s property, and may commit any number of administrative offences. There are even rumours, even if they may be archaeological urban legends, of occasional punch-ups or even shoot-outs between competing gangs of metal detectorists. And in a quite recent case, reported by Andreas Picker at the most recent annual round table of the archaeology department of the BDA, there is even a well-documented case of a (likely) metal detectorist having stolen the SD card out of a CCTV camera installed to spot metal detectorists (pers.comm. A. Picker, 23/1/2019). It is thus taken as read that not all metal detectorists are honest, upstanding citizens, and that quite some of them as blatantly disregard general Austrian law as much as we archaeologists accuse them of disregarding Austrian heritage law.

Rather, I will focus exclusively on whether, or rather, under what circumstances, they actually break heritage law. I will also try to estimate what percentage of metal detectorists is likely to break the DMSG at least occasionally, and how many offences against provisions of the DMSG are likely to be committed in Austria per annum by metal detectorists.

To start with, all metal detecting for any purpose on *scheduled* archaeological *monuments* without a permit by the BDA according to § 11 (8) DMSG is illegal. Since to the best of my knowledge, the BDA at the most very rarely, if ever, has issued § 11 (8) DMSG-permits, and almost certainly would never issue a metal detectorist with one, one thus can assume that all metal detecting in Austria which happens on *scheduled* archaeological *monuments* will be illegal. While there are only c. 1,050 *scheduled* archaeological *monuments* in Austria, this does not mean that there are not many metal detectorists who, at least occasionally, search for finds on at least some of them anyway. After all, there are several large former Roman cities and towns in Austria, which are invariably popular with metal detectorists, which are partially or nearly completely *scheduled*. This includes large parts of the Roman city of *Carnuntum*, a mere c. 40 kilometres from Vienna as the bird flies, right next to the most densely settled part of Austria. It goes without saying that, at least occasionally, many metal detectorists do search there, and as far as I can tell, hardly any of them care about whether the fields they are searching on are indeed *scheduled* or not.

Thus, since their activities are not randomly distributed across all of Austria, the percentage of Austrian metal detectorists who do commit illegal searches on *scheduled* archaeological *monuments* in Austria without the required § 11 (8) DMSG-permit is likely to be greater than the estimated at most c. 0.5% of the Austrian landmass which is *scheduled*. However, there are another over 20,250 archaeological sites in Austria which are known to the BDA, many of which are similarly productive in terms of finds of metal objects to the *scheduled* sites; and almost certainly considerably more again which are unknown to the BDA, but not unknown to metal detectorists.⁸⁴ One may thus assume that

⁸³ ‘*Es ist alles sehr kompliziert!*’ (<https://derstandard.at/1216919085382/Zitiert-Alles-sehr-kompliziert>, 25/1/2019).)

⁸⁴ This is evident from the fact that not entirely infrequently, evidence of metal detectorist activity is discovered on sites which were previously unknown to the BDA; with several such cases e.g. presented by Andreas Picker

while some percentage of metal detectorists, perhaps as many as 5%, will occasionally, and a small percentage of almost certainly less than 1% frequently, illegally detect on *scheduled* archaeological *monuments*, the vast majority of all metal detectorists will not do so and the overwhelming majority of detecting is happening on unprotected land.

It is this detecting on unscheduled land where matters get quite complicated, because metal detecting there can only violate any of the provisions of the [DMSG](#) at all if and when there is an as yet unknown *monument* beneath the surface of the particular spot where the detectorist uses his detector. This means that most non-professional metal detecting in Austria is perfectly legal under the provisions of the [DMSG](#), since as long as it does not affect *monuments* whose *preservation* is in the public interest, none of the provisions of the [DMSG](#) apply to it at all. And given the fact that virtually no portable find has ever been *scheduled* as an archaeological *monument*, and that less than 5% of all archaeological sites in Austria known to the BDA are *scheduled*, the chance that an offence against any of the provisions of the [DMSG](#) can at all be committed is also considerably less than 5%.

But even if an as yet unknown *monument* whose *preservation* is in the public interest is actually present beneath the surface of the ground or water where a metal detectorist is using his detector, and he does indeed successfully locate and excavate it, this does not mean that he necessarily violates any of the provisions of the [DMSG](#) either. Rather, whether he does commit an offence against the [DMSG](#) then depends on the *intent* with which he used his metal detector, whether he reported his find, and whether he could at all have recognised the find as obviously being subject to one of the reporting duties in the [DMSG](#) at the time of its discovery.

Where the *intent* is concerned, unless that was to conduct academic archaeological research, the metal detectorist cannot commit an offence against § 11 (1) [DMSG](#), since – as we have seen above – this provision regulates professional *research excavations* only. Thus, if the metal detectorist did not want to conduct research with the purpose of discovering or examining *monuments*, he did not commit an offence. Also, if there were no publicly known, specific reasons to assume *monuments* actually do exist on the spot where the fieldwork was conducted, he did not commit an offence either, since he could not form the necessary *intent* in the absence of such evidence. And given that it is at least questionable as to whether even the historical interest which motivates at least a significant part of the metal detecting community to engage in this activity rises to the level required of academic research,⁸⁵ in all likelihood, even most metal detecting on known but unscheduled archaeological sites is not an offence against the restrictions of § 11 (1) [DMSG](#).

Finally, even if, during a ‘treasure hunt’, a metal detectorist discovers a *monument* whose *preservation* is actually in the public interest, he still does not necessarily commit an offence against the restrictions of §§ 8 and 9 [DMSG](#), even if he fails to comply with them. After all, for the protection of *chance finds* contained in these provisions to become applicable, the objects discovered must be *ground monuments*, that is, objects which *obviously* could be subject to the restrictions of the DMSG. Thus, unless the *monument* in question is both well-preserved and so ‘*spectacular*’ ([15235/AB XXIV. GP](#), 2)

and Heinz Gruber (both BDA) at the most recent annual round table of the archaeology department of the BDA on 23/1/2019.

⁸⁵ According to Austrian Supreme Court judicature, this level is that of the research being a systematic, methodical search with the purpose of creating new or confirming already existing knowledge, which subjects itself to inter-subjective (‘objective’) scrutiny. Given that its purpose is to create new or confirm already existing knowledge, it requires at least that the one conducting academic research has – by whatever means – acquired the level of knowledge required for recognising the existing level of knowledge and state of the art in the relevant research field (Berka 1999, 343): after all, it is difficult to intentionally confirm already existing knowledge if one does not know what knowledge on the relevant matter already exists; and equally to create new knowledge without knowing what, as yet, is not known.

that any *ordinary citizen* would immediately recognise that its preservation is actually in the public interest, the detectorist need not comply with the restrictions of §§ 8 and 9 [DMSG](#).

Thus, non-professional metal detecting on unscheduled land adds, at the most, a miniscule number of cases per annum which actually must be considered to have constituted illegal activities under the DMSG. Given what is normally discovered in Austria on professional archaeological excavations in terms of finds which, individually, could even only remotely be considered to be *monuments* whose *preservation* is actually in the public interest, one must assume that such cases of illegal metal detecting make up less than 10 cases per annum in Austria.

The archaeological misinterpretation of the *spirit of the law*

For Hardy's ([2017a](#), 10) study, this means that he would have had to consider well over 95% of all non-professional metal detecting activity in Austria to be legal, rather than illegal, and at least 95% of all Austrian metal detectorists as extracting their finds entirely legally from the Austrian ground. That he does not, but rather considers all non-professional metal detecting in Austria to having been conducted illegally ([Hardy 2017a](#), 10, 22-23, 40-43), thus constitutes a major mistake, a mistake which is due to, at least, a fundamental misunderstanding of, if not positively shocking disregard for the law.

Admittedly, though, Hardy is, at the most, only partially to blame for this: after all, I myself (in Karl 2011, 111-113) summarised the BDA's interpretation of the *spirit* of the DMSG as completely prohibiting all non-professional metal detecting for archaeological finds in Austria. And indeed, the BDA maintains, up until today (despite having lost several relevant cases before the appellate courts, see e.g. [BVwG 11.9.2017, W183 2168814-1/2E](#); [19.9.2018, W195 2197506-1/11E](#)), that its interpretation of the DMSG is correct after all. This is a serious problem, not least because the BDA has, as of yet, been unable (or unwilling) to explain why it interprets and thus applies the law the way it does; despite having been asked repeatedly (not least by me) to explain the reasons for its apparent misinterpretation of the law.

Quite to the contrary, it has, in recent official publications, not least its '*Guidelines for archaeological measures*' ([BDA 2018](#)) – which it attaches as binding conditions to § 11 (1) [DMSG](#) – permits it issues – gone considerably beyond even this. In these, it now states that the records created of an archaeological site during its BDA-permitted *research excavation* replace the altered or destroyed ground monument and thus continue to be parts of the archaeological heritage whose *preservation* is in the public interest ([BDA 2018](#), 2). In other words, the BDA argues that *preservation by record* of Austrian archaeological sites is actually in the public interest, even if the physical *preservation* of these *monuments* was not actually in the public interest. This is doubly remarkable since not only is this interpretation obviously contradicted by the extant *letter* and manifest *spirit* of the DMSG, but also has already been ruled out explicitly by the relevant government draft of the DMSG and in several Supreme Court judgements ([RV 1999](#), 40; [VwGH 16.1.1975, 1799/74](#); [8.11.1975, 1072/73](#)). Suffice to say, this interpretation directly violates the provisions of Art. 18 (1) [B-VG](#), the constitutional principle of the *rule of law*, one of the fundamental pillars of the Austrian legal order.

Yet, it is entirely transparent as to why the BDA believes that this interpretation complies with the *spirit of the law* it is tasked to implement, the [DMSG](#): after all, from a purely professional archaeological perspective, that is what the *spirit of this law* should be. Virtually all professional archaeologists⁸⁶ these days agree with the idea that if archaeology cannot be *preserved* (physically unaltered) *in situ*, it must instead be professionally excavated and thus *preserved by record* (e.g. for Germany, explicitly in Kriesch et al. 1997, 24-26). Thus, they interpret the *letter of the law*, if it can be interpreted like this at all, to be an expression of this spirit; whether it is actually the manifest will of the legislator or not. And if, indeed, the *letter of the law* does not seem to express that, but rather a considerably different, *spirit of the law*, they consider it, much like Hardy does, to be '*poorly-written*'

⁸⁶ Including myself.

and not properly expressing what they believe should be, rather than what actually is, the '*manifest spirit*' (Hardy 2018, 2) of the law.

The rest follows: if the law is being misinterpreted as having intended to *preserve* archaeology ideally physically unaltered *in situ*, but if that is not possible, then *by record* of its alteration or destruction, it obviously must prohibit non-professional metal detecting. After all, metal detectorists remove the artefacts they extract from the archaeological contexts in which they still are embedded *in situ* until the moment of their recovery, and only comparatively rarely record these very contexts sufficiently while altering them during the recovery of the extracted artefacts, let alone report them. Thus, by and large, they prevent the preservation of these artefacts and their contexts by professional archaeological fieldwork, causing damage to the *cultural good* that we consider (especially still contextualised) archaeological artefacts to be (Kriesch et al. 1997, 24-26). Thus, interpreting the law with this bias, we also interpret any of its provisions whose *letter* could, in any imaginable way, be interpreted as prohibiting non-professional metal detecting, as actually doing so, whether they actually do so or not.

Thus, what we do as professional archaeologists, at least in Austria, is what Hardy accuses non-professional metal detectorists to be doing (Hardy 2018, 2): we disregard the *manifest spirit of the law*, and even violate its *letter*, because we do not care about what the law says or the legislator wanted, but about the protection of archaeology from non-professional extraction. We misunderstand or even disregard the law as an instrument to allow us to achieve our aims, not the aims the legislator wanted to achieve. From a purely archaeological perspective, that may be fine; but from a legal perspective, this is strictly illegal: it is abuse of the law to achieve the particular interests of archaeologists, not its use to ensure that every citizen is treated equally before the law, as we must. It is putting **our particular, private interests** above those of all others, and especially above the public interest in achieving the greater *common* (cultural) *good*⁸⁷ for everyone.

What is cultural harm? The 'preservation in situ'-fallacy

Which finally brings us back to a yet even greater conceptual fallacy in Hardy's (2017a; 2018) studies: what he considers, throughout, to be '*cultural harm*'. Hardy (2017a, 42), very narrowly, takes the '*cultural harm*' caused by non-professional metal detecting to be equivalent to all unrecorded and unreported extraction of 'reportable' archaeological artefacts from the ground, regardless of the specific circumstances of the extraction event. In fact, in his introduction to his first paper on the topic, he goes even further, stating – in line with currently predominant professional archaeological opinion – that '*archaeological excavation is a destructive process, where the loss of the archaeological deposit is minimised by the preservation of the scientific data*' (Hardy 2017a, 2). This indicates that he even considers the professionally conducted, recorded and reported extraction of archaeology *ex situ* as culturally harmful: it may be far less destructive than non-professional metal detecting, but it still is destructive to at least some extent.

Harming a particular cultural value: *preservation in situ*

The idea that any activity could cause cultural harm presupposes the existence of a particular cultural good: something of (significant) cultural value, whose *preservation* is in, at least somebody's, or – even more importantly – the public interest. If the preservation of this value is indeed in the public interest, it makes the thing in question a *common good*. As such, it merits – at least some degree of – protection against any actions taken by single individuals or groups of individuals for their own particular – that

⁸⁷ In German, this is usually referred to as an '*Allgemeinwohlgut*', that is, something which benefits an unspecified and, where the specific individuals which are part of it are concerned, undetermined collective (a '*public*'), rather than any particular, specified individual or group of individuals (a '*private*' individual or group of individuals) with particular (= '*special*') interests. The *common good*, as such, is always '*the good of everyone*', rather than '*the good of anyone in particular*' who might want something or other.

is, private – benefit which could, foreseeably, lead to a partial or even complete loss of its (cultural) value. The cultural harm done to such *common* (cultural) *goods* thus is the reduction of its cultural value caused by a particular private action adversely affecting it.

As long as there is only a single cultural value which needs to be considered, the cultural harm done by any particular (kind of) activity can relatively easily be determined: however much this (kind of) activity (normally) reduces this particular value is the cultural harm it does. Thus, if the only relevant value is e.g. the scientific archaeological information value contained in any ‘reportable’ archaeological artefacts and their contexts in situ, any activity which reduces this value causes cultural harm. If this is the only relevant cultural value, non-professional metal detecting causes significantly more cultural harm than professional archaeological excavations, since normally, much fewer contextual information is recorded during metal detecting, resulting in greater loss of scientific archaeological data.

Yet, even a professional archaeological excavation, which also always – at the very least – somewhat alters the contexts of any archaeological artefact it extracts, even if it preserves many or most of the information stored in them by record, also always causes some – albeit only much more limited – cultural harm. This has led to the currently predominant professional opinion that ideally, all archaeology should be *preserved in situ*, and only then professionally excavated and the information contained in it *preserved by professional record* if it cannot be *preserved in situ* (e.g. Planck 1991, 21-22; Brunecker 2008, 16; Strobl & Sieche 2010, 264-265).

Naturally, anyone may choose whatever cultural value (or values) they consider to be the only ones relevant for their own considerations of what, for them as private individuals, constitutes cultural harm. Thus, if anyone, as a private individual, personally considers the *preservation* of all of the scientific archaeological information value contained in any ‘reportable’ archaeological artefacts and their contexts in situ to be the one and only cultural value, the cultural harm caused by the extraction (by whatever means) of ‘reportable’ artefacts ex situ can be calculated exactly as Hardy (2017a) does in his original study. Consequently, anyone can argue, in their capacity as a private individual, that all archaeology should be left, forever untouched by any human activity, in situ, to their heart’s content: in their personal, private cultural value system, this is perfectly within their rights.

Determining the *common* (cultural) *good*

However, as a professional archaeologist⁸⁸ or, even more so, an archaeological heritage manager employed by a state or other public authority, one must not: after all, in both cases, one must put the public interest, the *common good*, above one’s own, personal, private preferences and values.

Determining what the *common good* is, however, is not nearly as simple as taking an arbitrarily chosen cultural value – like the scientific archaeological information value contained in any ‘reportable’ archaeological artefacts and their contexts in situ – and declaring it the one and only cultural value which matters. Rather, our society as a whole, or at least the society of each sovereign nation or state, has decided on a complex web of many different cultural values it deems to be important for itself as a whole, with different values assigned partially the same, partially differing levels of significance. Many of these different values of different levels of significance are at least partially, if not completely, contradictory, and most of them are often competing with each other.

Where the *common good* is concerned, it is all these, partially mutually supporting, partially diametrically opposed, cultural values which equally matter. Since they all equally matter, they must be balanced with each other, and especially must be protected against all particular, *private special interests*; including, obviously, the *private special interests* of those who wish the only relevant cultural

⁸⁸ n.b.: ‘professional archaeologist’, in the context of this paper, is understood in the meaning of the definition given in ClfA’s professional practice paper on professional ethics: as a person *selflessly* conducting archaeological work with the necessary skill; that is, working in the public interest (Wait 2017, 3).

value to be the unaltered *preservation* of the scientific archaeological information value contained in any 'reportable' archaeological artefacts and their contexts in situ.

This makes it much more complicated to determine what the greater *common good* is, and what activities cause cultural harm, because it is not sufficient to just determine whether any particular activity is likely to decrease one particular cultural value by a certain amount. Rather, since any particular activity may reduce the (*preserved*) amount of one (or even several) particular cultural value(s), but at the same time increase or even newly create a different amount of another (or even several other) cultural value(s), determining whether any particular activity does more harm than good or vice versa becomes a question of a cost-benefit analysis. And while such a cost-benefit analysis may not need to be fully universal – i.e., may not need to consider all possible losses of all cultural values which might hypothetically be diminished by a particular activity, and also not consider all possible gains of other cultural values which might hypothetically accrue from this activity – it must at least consider all those cultural values that are likely to be significantly altered by this activity.

Thus, if the activity in question – like non-professional metal detecting – is highly unlikely to alter or even only affect the cultural value of preserving human life and health, this value need not necessarily be considered.⁸⁹ But all cultural values which will probably also be altered (or indeed created) by the activity in question must be considered and weighed against the possible archaeological information loss caused by it, with the greater *common good* not necessarily being the activity that maximally minimises the loss of archaeological information, but rather what creates the greatest overall benefit or smallest overall loss to all cultural values affected.

Many of the cultural values humanity as a whole and at least most self-governing, democratic societies cherish are determined in the *Universal Declaration of Human Rights* [UDHR] ([UN 1948](#)), related documents (e.g. [UN 1967](#); [ECHR](#); [EU 2000](#)), and – for each self-governing society which has given itself any – constitutional laws (for Austria, e.g. [StGG](#)). They are determined in such highest-level legal documents because in the final analysis, the value (of any kind) of a thing (a material object or immaterial good) is always a function of its usefulness for humans, whether individually, collectively, or both. Its usefulness, in turn, is directly correlated with the actual use of the thing to create a desired benefit (or benefits) for an individual, a collective, or both. That – in societies based on the rule of law – requires a (highest-level) legal determination of who is entitled (has the right) to any particular benefit or benefits.

The cultural values of archaeologists

Of course, most of the cultural values we are normally actually considering when determining the *common good* in any particular context are not these highest-level values themselves. Rather, they usually are secondary (or even lower-level) values, which are directly or indirectly derived from these top-level values.

For instance, the value(s) we archaeologists particularly cherish, especially that of the scientific archaeological information contained in any 'reportable' archaeological artefacts and their contexts in situ, are ultimately derived from the top-level cultural values determined in Art. 27 (1) [UDHR](#). This article determines that '*everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits*' (Art. 27 (1) [UDHR](#)). Thus, if e.g. the Valletta Convention states explicitly that '*the aim of this (revised) Convention is to protect the archaeological heritage as a source of the European collective memory and as an*

⁸⁹ Even though, in § 11 (8) [DMSG](#), it actually is: while metal detecting for any purpose on a *scheduled* archaeological *monument* normally requires that the detectorist has been issued a permit by the BDA in advance; there is an exemption for urgent works to remove unexpected risks to human life, health and property. Thus, if hints are discovered that e.g. unstable, unexploded ordinance could be present on (buried in) a *scheduled* archaeological *monument*, the BDA (via one of the possible reporting authorities listed in § 8 (1) [DMSG](#)) must be informed immediately of the commencement of the works, but no permit by the BDA is required for them.

instrument for historical and scientific study’ (Art. 1 (1) [CoE 1992](#)), it derives the cultural values it determines directly and indirectly from those of Art. 27 (1) [UDHR](#).

The main (or highest, but still only secondary) value it determines is actually, as is evident from its preamble ([CoE 1992](#)), the benefit that the archaeological heritage provides to ‘*the European collective memory*’. That is important, because it relates directly (and is directly derived from) the universal Human Right of participation in the cultural life of the community and to enjoy, share and benefit from the arts and scientific advancement as determined in Art. 27 (1) [UDHR](#). For being fully able to exercise these universal Human Rights in Europe, particularly that of participation in European cultural life, knowledge of the European past and the emergence of its various cultural traditions is at least extremely useful, if not essential. The archaeological heritage provides at least some of the relevant knowledge for this, and thus is valuable as a source of the European past and the emergence of its cultural traditions, thus being a part of Europe’s ‘*collective memory*’.

However, to actually benefit anyone, that ‘*collective memory*’ must actually be accessible and be accessed. Inaccessible knowledge, after all, is not being remembered, but has been forgotten: there may be a vague recollection lingering on that there was some knowledge which may still be hidden in some kind of storage, but what this knowledge actually is cannot be recalled any more, making it utterly useless. Thus, as a third-level value, making this stored knowledge accessible by means of ‘*historical and scientific study*’ (Art. 1 (1) [CoE 1992](#)) is determined, since this is a necessary precondition for turning the otherwise forgotten into an actual memory. Researching archaeology, in that sense, is an act of remembering, turning knowledge which was inaccessible before into knowledge which becomes accessible and thus benefits the ‘*collective memory*’.

Naturally, to be able to make accessible previously inaccessible knowledge, it is a necessary precondition that the source(s) of this knowledge is (are) preserved at least until it is (they are) made accessible: knowledge which has completely been lost can after all no longer be remembered, since it does not even exist anymore. Thus, as its lowest, fourth-level value, the Valletta Convention determines the protection of the archaeological heritage (Art. 1 (1) [CoE 1992](#)) from alteration and destruction. That value, however, is no value in its own right. Rather, it is there to enable the historical and scientific research of the archaeological evidence, to make it accessible as cultural memory, so that it may benefit all individual Europeans who might wish to exercise their universal Human Right to benefit from culture, the arts, and science as determined by Art. 27 (1) [UDHR](#).

And that does not just apply to Europe. Rather, the Lausanne Charter ([ICOMOS 1990](#)) is based on the same system and hierarchy of values, and claims world-wide applicability, even if not all nations have as yet ratified it. Yet, it is particularly important to remember at this point that the values expressed in both the Valletta Convention and the Lausanne Charter are, first and foremost, the particular values, and represent the particular *special interests*, of archaeologists; and are not necessarily universal values common to all mankind, even if they may very well be supported by many humans, perhaps even a majority of all of humanity.

The cultural values of non-professional metal detectorists

It is, at this point, also very important to remember that non-professional metal detectorists also have particular values, and particular *special interests*. These values and interests are, at least partially, the same as those of us professional archaeologists, but at least also partially, they differ from and compete with ours (see e.g. Campbell et al. 2019).

While the motives of metal detectorists for engaging in the activity are very diverse, and most do not engage in it for just a single, but often a range of different motives (see e.g. Karl 2011, 122), it is clear that at least some, perhaps even a relatively large sub-set of the detectorist community, engages in the activity for the purpose of conducting their own research. While it may be doubted (and sometimes is being doubted, see [Davydov 2017](#), 6) whether that research, in all these cases, rises to the level required to be protected by the constitutionally guaranteed *freedom of research* (Berka 1999,

343), some certainly does. If from nothing else, this is evident from the fact that (at least almost) all German state heritage agencies issue *research permits* for metal detecting to *ordinary citizens*, even if some are more restrictive where attached terms and conditions are concerned than others. Such metal detectorists, who engage, at least mainly, in the activity for the purpose of conducting archaeological scientific research, thus mostly share the cultural values just defined as those of us professional archaeologists, at least mostly.

Yet, others appear to – mainly or also – be searching for archaeological artefacts not for research purposes, but because of a general ‘historical interest’: more often than not, this interest seems to mainly be an expression of an emotional connection of the respective individual to the (or a particular) past; or indeed an attempt to establish such a connection by physically handling and keeping remains of the (or a particular) past. This, perhaps, is most evident in metal detectorists focussing mainly on extracting and collecting WW II ‘memorabilia’, especially such who are affiliated with far-right political groups (a.k.a. Neo-Nazis), who sometimes quite clearly treat finds of WW II artefacts as relics, literally displaying them in ways which can only be described as ‘shrines’. While most evident in this – in my opinion particularly abhorrent – group, the underlying attempt to feel connected to the (or a particular) past appears to be much more widespread, at least as far as can be established by personal communication with many metal detectorists. Of course, such an attempt to establish a personal, emotional link to the (or a particular) past should come as no surprise to anyone: that it allows to create such personal, emotional links with the past is one of the main reasons why heritage in general is so popular and attractive (Tolia-Kelly et al. 2016).

Yet, feeling emotionally connected to the past, and via that past also with others in the present, is certainly also a part of participating in the cultural life of one’s community, and thus is also a secondary value derived from the universal value determined in Art. 27 (1) [UDHR](#). That, as a mainly emotional engagement with the past via its physical remains, it differs significantly from the (at least considerably more) rational engagement with the past characteristic for its academic study, does not mean that it is no cultural value in its own right. It is just a different value ascribed by some to archaeological artefacts, which partially competes with, and may sometimes, or perhaps even almost always, be diametrically opposed to the scientific archaeological information value contained in any ‘reportable’ archaeological artefacts and their contexts in situ.

As such, in determining the *common good*, any increase in this value caused by the non-professional extraction of any archaeological artefact (whether ‘reportable’ or not) ex situ by a metal detectorist has to be considered, too. And indeed, it needs to be offset against the reduction of the scientific archaeological information value of that particular artefact caused by its non-professional (and quite possibly unrecorded and unreported) extraction ex situ. The archaeologists’ loss in this case may well be outweighed by the detectorist’s gain in value.

Even the extraction of artefacts (again whether ‘reportable’ or not) for the purely private financial gain of the detectorist extracting them cannot be seen as an unmitigated, abhorrent evil, as most archaeologists⁹⁰ would (like to) see it. After all, the right to acquire, own, (for private financial gains) transfer, and not arbitrarily be deprived of the ownership in property is also a universal Human Right, enshrined in Art. 17 (and to a lesser extent also Art. 23 (1 and 3)) [UDHR](#), and thus is also a cultural value.⁹¹

⁹⁰ Again including myself.

⁹¹ In fact, it is even arguable that the rights to own property (Art. 17 [UDHR](#)) and to receive just and favourable remuneration for one’s work (Art. 23 (3) [UDHR](#)) are necessary preconditions for being able to exercise the right to participate in the cultural life of the community and enjoy, share and benefit from the arts and sciences (Art. 27 (1) [UDHR](#)). Given that most of us are living in capitalist societies, these rights may even be seen as a precondition for being able to preserve one’s rights to life (Art. 3 [UDHR](#)) and human dignity (Art. 22 [UDHR](#)), since we all have to pay for even the most basic necessities for both.

Thus, from these, a secondary value of extracting financially beneficial, ownerless artefacts⁹² *ex situ*, where they would otherwise just lie in the ground without benefitting anyone, can easily be (and indeed collectively is) derived; from which in turn ‘treasure hunters’ can derive a third-level value of extracting financially valuable ownerless artefacts *ex situ* for their own personal economic benefit. While obviously, again, this is a very different value of archaeological artefacts than those assigned to these artefacts by professional archaeologists and research-interested metal detectorists alike, it nonetheless is undoubtedly a legitimate interest and a significant cultural value.

That we, as professional archaeologists, don’t like this value, does not change the fact that it is a cultural value assigned to archaeological artefacts by humanity as a whole. After all, it is not us who are entitled to conclusively decide what values humanity as a whole assigns to the artefacts we cherish as our academic sources. Rather, only humanity as a whole, by the mechanisms it has given itself for that purpose, is entitled to decide what it values as a whole, and it has decided that one – and indeed, a rather significant one – of its values is private property and fair financial remuneration of a person’s labour.

Thus, in determining the *common good*, any increase in this particular value created by non-professional metal detecting must also be considered. After all, the financial value gained by the extraction of artefacts *ex situ* might well outweigh the scientific archaeological information value of that particular artefact, tilting the balance of what is in the greater *common good* towards its extraction, rather than its *preservation in situ*.

The same even applies to the – at the same time probably most innocuous but also most thoughtless – reason to engage in metal detecting as a ‘hobby’: extracting archaeological artefacts for purely hedonistic (Jung 2010, 22-23) reasons as a leisure activity, or as it is occasionally put ‘*just for the fun of it*’. Because having the opportunity to rest and engage in leisurely activities is also a universal Human Right, enshrined in Art. 24 [UDHR](#), and thus is also a cultural value. Again, enjoying the extraction of archaeology *ex situ* is a second-level value derived from this highest-level value: after all, there are many ways in which humans can enjoy leisure time, of which metal detecting ‘*just for fun*’ is just one possibility. But again, that does not mean it is not a cultural value at all, but again only that it is just one which may not necessarily be one most professional archaeologists would consider to be most significant for them.⁹³

So in determining the *common good*, that leisure value of the non-professional extraction of archaeological artefacts *ex situ* also has to be considered. Again, we as professional archaeologists may not like this, because it does not suit our particular values and *special interests*, but ‘*ripping them out just for fun*’ could create greater leisure value than is lost by this activity of the scientific archaeological information value of the artefacts; and thus, may be the greater *common good*.

⁹² And indeed, many, if not most states do consider at least most, if not all, archaeological artefacts *in situ* to be lost property and thus ownerless goods (*res nullius*), with relatively only few states (England and Wales among those) treating (most of) them as *fruits of the land* (which legally are the property of the landowner). Austria, for instance, treats all portable archaeological finds (whether ‘reportable’ or not) as lost and therefore ownerless property, which thus may be freely acquired by the finder if of insignificant financial value (according to § 397 in combination with § 395 [ABGB](#)). Even financially or otherwise significantly valuable finds (of what is defined as ‘treasure’ in § 398 [ABGB](#) and § 10 (1) [DMSG](#)) are treated as lost property, with ownership falling to both finder and landowner in equal shares according to § 399 [ABGB](#), or (if found by chance by labourers in the employ of and during works commissioned by a third party) to the labourers, their employer, and the landowner according to § 401 [ABGB](#).

⁹³ Even though at least some archaeologists I know do enjoy the extraction of artefacts *ex situ* themselves quite a bit more than may be entirely healthy from a professional perspective.

The common good and private benefits

At this point, it becomes necessary to address what is – in my experience from conversations with many archaeologists – a common misconception: that the *common good* is the very opposite of *private benefits* or interests.

This misconception is particularly relevant in the context of what has just been said on (most of) the cultural values increased or created by metal detecting for archaeological artefacts: after all, most of them – that is, all but the research value at least some detectorists assign to archaeological artefacts – appear to be or even definitely are satisfying apparently ‘purely’ private interests only. Metal detecting to create a personal emotional connection to the past, to gain financial profits, or indeed just for the hedonistic satisfaction of the personal need to have fun in leisure time, after all, appears to only benefit the individual metal detectorist, not the wider public; and thus appears to be a purely self-serving activity.

Our professional engagement with the archaeology, on the other hand, we believe to be in the interest of a wider public, because we aim to *preserve* the archaeology in situ for, and make the results of our archaeological research available to, the wider public. Both, we believe, will ultimately benefit the public, thus making our professional engagement with the archaeology primarily public-spirited, rather than (mainly or exclusively) self-serving.

Thus, we believe that our professional actions, being public-spirited, serve, promote and enhance the *common good*; while those of the metal detectorists, being (mostly) self-serving, threaten and diminish the *common good*. And at first glance, that seems like an entirely sensible conclusion: after all, we give away the fruits of our labour to everyone, by making them – often enough completely freely – accessible to anyone; while they take what we believe to be a communal resource and partially destroy it, partially privatise it, and thus ultimately keep it from (almost) everyone (else).

At some level, this belief is even arguably correct, in the sense that, at least on average, we are indeed much more public-spirited than most metal detectorists in our respective engagement with the archaeological heritage. But there lies the misconception: being public-spirited is not necessarily the same as creating the greater *common good*, and being self-serving is not necessarily damaging to that greater *common good*. While a public-spirited person will normally want their actions to (at least also, perhaps even primarily) benefit others, the intention and the outcome of a particular action need not always be perfectly aligned, and arguably often are in fact not aligned at all.⁹⁴ Conversely, the fact that a self-serving person takes whatever actions they take to (primarily, or even exclusively) gain a personal benefit, does not necessarily mean that the outcome of these actions may not (also, even if only entirely unintentionally) serve the greater *common good*.

While intentions certainly do matter to some extent, they do not necessarily determine the consequences of actions; and where the greater *common good* is concerned, it is the consequences of actions, rather than the intentions with which they were taken, which ultimately matter. Because, as a matter of fact, the *common good* as such does not exist: it is nothing more than a legal fiction, particularly in egalitarian, democratic societies governed by the rule of law, not the arbitrary whims of an absolutist ruler (like a king or a dictator).

As already stated in FN 87, the *common good*, as a legal technical term, means something which (is supposed to or actually) benefits an unspecified and, where the specific individuals which are part of

⁹⁴ Paul Watzlawick (2001) has highlighted quite instructively the pitfalls of wanting what one believes to be ‘*the best for all*’ too much in his little book ‘*Ultra-Solutions*’, which has been published in German under the much more appropriate title ‘*Vom Schlechten des Guten*’. In it, he warns of the risks of, at the same time, being too public-spirited, but also too convinced of the righteousness of one’s own values and beliefs about what the greater *common good* is; and the associated attempts to force this upon everyone else, if necessary even against their express wishes and resistance.

it are concerned, undetermined collective (a '*public*'), rather than any particular, specified individual or group of individuals (a '*private*' individual or group of individuals) with particular (= '*special*') interests. The *common good*, in this sense, is always '*the good of everyone else*', rather than '*the good of anyone in particular*' who might want something or other.

As such, it serves as a means for public authorities to represent the many and highly varied justified legal interests of 'everyone' in legal matters concerning the administration and management of rights and responsibilities of private parties. These many and varied interests of 'everyone', after all, are not otherwise represented in such legal proceedings, since 'everyone' cannot be a party to the proceedings (if only for purely practical, logistical reasons). And whoever is not party to the proceedings cannot represent their individual, private interests in them. Thus, where private actions potentially could or actually do affect justified legal interests of any undefined, unrepresented collective, the weight of the benefits the individual might gain, or burdens he might have to suffer, can be balanced by the public authorities against the weight of any collective benefits gained or collective burdens suffered by 'everyone'. That allows the public authority to represent 'everyone's' interests fairly and evenly in these proceedings, and arrive at a decision which creates the greatest overall benefits or the least overall losses possible; the 'best' outcome for all. The purpose of all this is that any private party cannot, to its own advantage, burden 'everyone else' with massive disadvantages; cannot socialise the costs of its actions while privatising the benefits.

Yet, the *common good* does not exist in and of itself; in fact, most often, it is not even something which actually benefits 'everyone else' in any meaningful sense. After all, most often, it is a fiction representing many and highly varied individual ('private') interests, at least some of which, if not many, are sometimes diametrically opposed to each other.

For instance, to stick with (archaeological) heritage protection, a legally protected *monument* is considered to be a *common good* in proceedings regarding the right to alter or destroy it, e.g. for the purpose of a new development. This is the case even though many particular individuals not party to the administrative proceedings in the planning process (and perhaps even a majority of the electorate of the country in which it is located) may actually positively want the *monument* to be replaced with the planned new development; many others simply may not care about the *monument* at all; some want it to be professionally excavated and made accessible to the public; and yet many others more do not want it to be preserved as it is, but restored to its former glory. Still, the unaltered preservation of this protected *monument* will, in the planning process, be considered to be the *common good* which the planning authorities need to balance with the private interests of the developer to knock it down and replace it with whatever he wants to build there.

But the developer's interests are also part of the *common good* that is balanced against his interests in these proceedings. This is most obvious if we imagine that someone, say I, applied for a fieldwork permit for excavating and restoring the same *monument* at the same time as the developer applied for planning permission to develop it. The developer, in this case, would not be party to the administrative proceedings in the fieldwork permission process. Thus, the public authority deciding the matter would include his interest in replacing the *monument* with his planned development in the *common good*, and balance this *common good* with my interests in excavating and restoring the *monument*. So in this case, my planned archaeological fieldwork is the purely private interest, which must be balanced against 'everybody else's' interests, that is, against the *common good*.

As the fictitious representation of 'the collective interests' that it is, the *common good* also does not create or entail any particular rights for the collective whose many, varied and often contradictory sets of interests it represents. This is for the very simple and obvious reason that no unspecified and undetermined collective could ever meaningfully exercise any rights it might hypothetically have. A collective, after all, is not a real entity capable of taking any action or exercising any rights of and by itself, because it lacks both the body and mind necessary to do so. Rather, a collective can ever only

act or exercise any of its potentially existing rights through real persons, individual humans who are legally entitled to act or exercise rights on its behalf: its duly appointed representatives. Yet, an unspecified and undefined collective like any (or *'the'*) public cannot have specific, duly appointed legal representatives: after all, it lacks both a particular membership which, and legal mechanisms by which this membership, could duly appoint any particular representatives. Thus, this unspecified and undetermined collective cannot have any rights (or interests, or values) itself, but rather represents the sum total of all the private rights (interests, and values) of *'everyone'*.

Thus, the *common good*, in the final analysis, is the sum total of all private rights (interests, and values) of *'everyone'* who is part of the relevant collective (the *'public'*). And since this unspecified and undetermined collective (the *'public'*) cannot represent itself, it must be represented by the state if any particular, private individual (or group of individuals) wants to take any action, or exercise any rights (or pursue any particular interests or values) they may have, which is likely to affect any of the *'public's'* rights (interests, and values). Yet, since the state must – due to the general equality principle (Art. 1 and 7 [UDHR](#); for the European Union: Art. 20 and 21 [EU 2000](#); etc.) – treat everyone equal before the law and must not arbitrarily discriminate against anyone, the sum total of all private rights (interests, and values) – the *common good* – must, if looked at independently from any individual case, literally include those of everyone.

That means that, in our examples from above, the (primarily) self-serving private interest of the developer to replace the *monument* with his planned new development is as much part of the *common good* as is my (primarily) public-spirited, but nonetheless private, interest to excavate it. Whether an interest is self-serving or public-spirited matters not.

This also means that where our interests and values as professional archaeologists and those of non-professional metal detectorists are concerned, it also doesn't matter that our interests may (primarily) on average be more public-spirited than their (mostly primarily) self-serving interests. Rather, our cultural values are as much the particular, private, *special interests* of one particular group of individuals – us professional archaeologists – as their cultural values are particular, private, *special interests* of another particular group of individuals – non-professional metal detectorists – which both are equally parts of the *common good*.

Thus, believing that our particular, private, *special interests*, because they are (primarily) public-spirited, are one and the same as the *common good*, while the equally particular, private, *special interests* of non-professional metal detectorists, because they are (mostly primarily) self-serving, are inimical to the *common good*, is a fundamental misunderstanding; a serious fallacy. Acting as if this were the case is nothing but laying claim to a legal privilege, laying claim to an inherent and absolute superiority of our values, interests, and rights over theirs before the law because of our professional standing. It lays claim to being the *'philosopher-king'* envisaged by Plato, who, since he (believes he) already knows the absolute, incontrovertible, eternal truth about what is *'best for everyone'*, is not just entitled, but morally compelled, to use any means necessary (including outright lies and brute force) to impose it on everyone else, even against their wishes (Watzlawick 2001, 101-103). That is utterly unacceptable in modern, egalitarian, democratic societies. However public-spirited the intentions behind any such claims for the absolute superiority of our values and any actions to impose our preferences on everyone else may be, this is definitely not in the *public interest*, and certainly not beneficial for the *common good*.⁹⁵

⁹⁵ In fact, the *Herrenchiemsee* draft of the German constitution expressed this very clearly in its Art. 1 (1), which stated that *'the state is there for the sake of mankind, not mankind for the sake of the state'* (*'Der Staat ist um des Menschen willen da, nicht der Mensch um des Staates willen'*; quoted in Jarass & Pieroth 2016, 41). In doing so, it directly and intentionally opposed the idea of the total subjection of the rights, interests and values of the individual under the (perceived) needs of the *'collective'* (the state), arbitrarily determined by a particular group of individuals, which had characterised, and enabled the crimes against humanity committed by, the Nazi

Thus, in modern, egalitarian, democratic societies, in determining what the greater *common good* is, both our and their values must be treated and considered equally. It is not that the *common good* is what we believe to be ‘the best for everyone’, except for the metal detectorists and what they want; it is what is actually ‘best for everyone’, including both us (and what we want) and the metal detectorists (and what they want). Ultimately, the greater *common good* is whatever, in a cost-benefit analysis, appears to create the greatest (desired) *private benefits* for any particular individual (or group of individuals) while harming the interests of ‘everyone else’ the least.⁹⁶

The problem with *preservation in situ*

Even one of the main authors of the Valletta Convention ([CoE 1992](#)), which formally enshrined the archaeological preference for *preservation in situ* in European (international) law, the late Willem

regime. The guiding principle of the relation between the individual and the collective propagated by that terror regime had, of course, been that ‘*the individual is nothing, the state (or the collective) everything*’ (Jarass & Pieroth 2016, 41), with the needs of the collective determined not by the members of the collective itself, but by the Nazi party, its leading officials, and especially the Führer himself (i.e.: a particular individual who imposed his beliefs and values on everyone else). The same rejection of collectivist totalitarianism also led the United Nations to create the *Universal Declaration of Human Rights*, as explicitly stated in the second paragraph of its preamble ([UN 1948](#)).

⁹⁶ n.b.: Of course, if any activity creates not just private, but also ‘public’ benefits (i.e. benefits for the collective), these ‘public’ benefits will reduce the severity of any potential harm that ‘everyone’s’ and ‘everyone else’s’ interests might suffer in the overall cost-benefit-analysis. Indeed, such ‘public’ benefits of any (also privately beneficial) particular activity may even result in only benefits accruing, with no significant harm suffered by anyone. This is the point where, in a cost-benefit-analysis of any particular activity, the public-spiritedness with which it may be conducted may be quite significant:

If, like in the case of a professional archaeological excavation of a site, all data considered to be archaeologically significant (and recordable with current technical means) at the time of its excavation is actually recorded, and its results are made publicly accessible, chances are that the ‘public’ benefit created by this particular activity is considerably greater than any harm to anyone’s interests caused by it. Thus, the result of any cost-benefit-analysis of this activity will be that it is greatly beneficial to the particular group of individuals conducting it, but also significantly beneficial to ‘everyone else’, with hardly any or even no harm whatsoever caused to anyone’s interests. Therefore, it will (almost) invariably contribute positively to the and thus create a greater *common good*.

Primarily self-serving activities, on the other hand, are less likely to create such ‘public’ benefits than public-spirited ones, since after all, whether any ‘public’ benefits will result from it is not (normally) considered by the particular individual or group of individuals conducting them. Thus, the unrecorded and unreported extraction of archaeological artefacts *ex situ* by metal detectorists, the results of which are never made public in an appropriate form, will (often) fare much worse in a cost-benefit-analysis, since ‘public’ benefits, if at all, will only accrue accidentally (e.g. because, if the finds are sold to private collectors, the thus created added economic value does, of course, ultimately benefit the ‘public’, too; though probably much less than if the finds in question had been properly recorded, reported, and made publicly available). The harm potentially caused by the unrecorded and unreported extraction of the artefacts *ex situ* for the interests of archaeologists, and possibly also the wider public (provided a particular artefact was actually removed from a significant *in situ* context and/or is itself significant), remains unmitigated. This means that in such cases, in the cost-benefit-analysis, the gain in benefits for the particular metal-detectorist will be offset by some harm to the interests of at least some others; making the specific amounts of value gained and lost much more important. If the result of this cost-benefit-analysis is that the loss for others is greater than the gain for the particular metal detectorist, this reduces overall cultural value and thus creates cultural harm (rather than a greater *common good*).

This does, however, not mean that primarily self-serving activities are necessarily causing cultural harm and cannot contribute to the greater *common good*. After all, even in a case where some metal detectorist extracts artefacts *ex situ* without recording and reporting them appropriately, it may well be that the particular artefacts extracted are insignificant themselves and not in any significant context *in situ* either. Thus, the extraction of them causes no actual harm to anyone else’s interests, leaving just the benefits gained by the detectorist to be considered in the cost-benefit-analysis. Since the metal detectorist will gain some benefits from his activity, but no significant harm is done by it, the result of the analysis will thus be an increase in overall cultural value, with that particular extraction of that particular artefact *ex situ* a greater *common good*.

Willems, explicitly stated in one of his more recent papers that '*preservation in situ is too problematic in several ways to be acceptable as an ethical principle with broad validity*' (Willems 2012, 1). The very principle thus can hardly be considered to have remained unchallenged (also see Karl 2018b).

However, the fundamental problem with *preservation in situ* created by what has been discussed in this paper has not yet been explicated fully, a lacuna I will try to close with the following considerations. This problem with *preservation in situ* is that, in the context of what was just said, it is difficult, if not outright impossible, to argue that it creates any private or public benefits and thus can be considered to contribute to the *common good* at all. As such, in any cost-benefit-analysis to determine whether the unaltered *preservation* of (almost) any archaeological site (including all artefacts and features it consists of) in situ creates greater public benefits than its alteration for any purpose (creating any benefits for anyone's interests) is quite likely to lead to the result that it will not, and thus that the greater *common good* is created by permitting its alteration or destruction.

That this is not only a purely imaginary problem, but a very real and very significant problem, is evident from the fact that, in archaeological heritage management practice, virtually every development which does affect virtually any (kind of) archaeological site is virtually always permitted. By and large, this even is the case if a particular development requires the alteration or even complete destruction of *scheduled archaeological monuments*; that is, sites which have been specifically protected by a separate administrative act because it had been formally positively determined by expert testimony that their historical, artistic, etc., significance is actually so outstanding that they should be *preserved* unaltered in perpetuity. In Austria for instance, where this can reasonably accurately be estimated, the probability that the unaltered *preservation in situ* of any archaeological site (including *scheduled archaeological monuments*) wins out against any development is certainly (considerably) less than 0.1%. That means that any development, however insignificant, of (virtually) any archaeological site in Austria, however significant, is practically always determined to be the greater *common good* than its *preservation in situ*.

And that, in fact, should not surprise us in the least, because the principle of *preservation in situ* is based, ultimately, on almost the same logical fallacy as already discussed above in the context of retention in situ. Once again, archaeologists **erroneously conflate a possibility with a reality**, and that almost necessarily leads to *preservation in situ* losing against virtually any – even entirely self-serving – private interest if the necessary cost-benefit-analysis for the determination of what is the greater *common good* is properly conducted. This should be very evident when considering what actual 'public' benefits the *preservation in situ* of archaeological sites creates.

For this, we first have to look at the normal characteristics of archaeological sites: the overwhelming majority of them is simply invisible to the naked eye, because they lie hidden beneath the topsoil of an otherwise entirely ordinary plot of land. Only a small minority is visible to the naked eye at all, and the vast majority of those is characterised by what, to the *ordinary citizen*, appears to be meaningless humps and bumps in the surface of the ground, most of which again are barely visible at all. Only giant barrows, very substantial banks and ditches, and upstanding (albeit mostly ruined) walls are obviously manmade objects to *ordinary citizens*, and most of those appear to be almost completely insignificant to the casual onlooker, because even their absolute age is not normally apparent. Yes, they appear to be relatively old, because they are just humps and bumps or are obviously ruins. But unless immediately recognisable as the remains of a medieval castle, church, or perhaps Roman amphitheatre or triumphal arc (or something similar), they could be as little as a few decades old, or many millennia, and nobody except archaeological experts has any real clue about their actual age, let alone their former function, their history, etc.

Thus, unless there is a publicly well-known (hi-)story connected to the particular plot of land, or the humps and bumps which may be visible on it, which provides the particular site in question with popular significance, for 'the public', the site is nothing more than a perfectly ordinary field like any

other. Even if it is known as an archaeological site, perhaps even a significant (and therefore *scheduled*) one to the (local) population, no *ordinary citizen* can do much with it from which he can actually benefit, other than perhaps feel a vague pride in it being there, and an equally vague emotional connection with it. Yet, any *ordinary citizen* can feel that very same pride and emotional connection by knowing that the *monument* once had been there, even if it since has been completely destroyed: after all, the plot of land will look hardly any different after than before its removal. Thus, for *ordinary citizens*, there is no significant benefit to be gained from it being preserved in situ: it could as well be replaced by a memorial plaque to have the same (or even greater) beneficial effect.

If *ordinary citizens* – that is, in the context of establishing what the greater *common good* is, ‘everyone’ except professional archaeologists – can gain no (or at best hardly any) discernible benefits out of *preserving* a site *in situ*, neither can we professional archaeologists benefit much from it. Because by just *preserving* it *in situ*, we do not gain any additional knowledge or understanding of the past: to gain any actual benefits from it, we must research it, because only by researching it we will gain any additional knowledge or understanding about it (and thus about the past).

Of course, researching it can, these days, at least partially be done by non-invasive (and thus non-destructive) methods (see also for the recommendation to preferably do so Art. 5 of the Lausanne Charter; [ICOMOS 1990](#)), like geophysical surveys. However, while such non-destructive means can tell us a lot about archaeological sites and particularly the more substantial structures or features they are composed of, such methods are nowhere near suitable to actually properly answer detailed archaeological research questions. Neither can most individual artefacts even reliably be spotted, let alone examined in detail or samples taken from them for scientific analysis, by using such methods. Nor can most individual structures and features be reliably dated, whether typologically or scientifically, by such methods. Nor can stratigraphic relationships normally reliably be established by means of these methods, to at least enable researchers to determine the relative sequence of the construction of individual structures or features. More ephemeral structures, features, or stratifications, let alone micro-stratigraphy, cannot normally even be spotted, let alone even remotely reliably be identified and analysed, using these methods; nor soil samples be taken for scientific analysis. As great as non-destructive survey methods are, their significance for actually gaining a thorough knowledge and understanding of the biography of a site pales in comparison to what can be learnt from actually excavating the site.

Thus, any benefits – and note, these are personal, private benefits first and foremost⁹⁷ – gained by professional archaeologists by conducting non-destructive research on sites *preserved in situ* are quite limited in terms of the cultural value they create, even for us archaeologists. And the public benefits of making the results of surveys available to others – leaving aside the wow-factor of fancy computer graphics and that we can ‘look into the ground’, which wears off rather quickly – again are virtually non-existent.

Thus, the most one can argue for is that, in some undefined and unforeseeable future, non-destructive survey methods may improve so significantly that we may be able to get many of the answers we can currently only get by excavating a site without having to do the latter. Or that, at the very least, our excavation methods could improve so considerably over time that at some unknown point in the future, they will allow us to answer many more questions much more reliably than we could if we excavated the site now, with our current methods. But both of this are mere possibilities, and at that purely hypothetical and utterly unquantifiable ones. Of course, the improvement of our methods – whether non-destructive or destructive – over time may lead to significantly greater benefits than those we could gain by excavating a site right now, but they might as well not. After all, not only is it possible that the (indeed likely) improvement in our methods may never amount to so much that we

⁹⁷ Not least because according to intellectual property law, they are private property of the researcher who conducted the works, as also guaranteed by Art 27 (2) [UDHR](#); Art. 15 (1.c) [UN 1967](#); Art. 17 (2) [EU 2000](#); etc.

really can answer many more significant questions much more reliable than we already currently can with our present methods. It is also possible that the average site simply does not contain any significant additional data that could be gathered with any improved methods of the future, however much these methods improve, or won't exist long enough into that unknown future for those to be invented and successfully applied to it.

In the necessary cost-benefit-analysis for determining which of any available courses of action will create the greatest, or even only the greater, *common good*, pitting such possible benefits of *preserving* a site *in situ* against the current, real benefits of any other currently possible action, *preservation in situ* will (virtually) always come out as the lesser *common good*. After all, the actual, current benefits of preservation *in situ* are (practically) zero, while any other benefit to anyone else's interests which would accrue if another course of action would be chosen is greater than zero. And given that these other benefits to others' interests will most likely be lost, this must be deducted from the value of the benefits accruing from preservation *in situ*, which invariably will lead to a negative sum total, meaning that preservation *in situ* causes cultural harm, rather than enhancing the *common good*.

In fact, *preservation in situ*, in such a cost-benefit-analysis, will also always turn out to be less beneficial than the current excavation of the site: after all, current excavation – even if completely unprofessionally conducted and not recorded and reported – will at least lead to the extraction of artefacts *ex situ*. Recovered artefacts, however, are (or create) a tangible, quantifiable, current benefit: at the very least, whoever extracts them will probably enjoy their extraction, or be paid for it by someone (whether in form of a salary or if the extracted artefacts are sold on to collectors), or at the very least gain some artefacts for their own enjoyment or creation of an emotional connection to the past. Thus, even the completely unprofessional extraction of artefacts *ex situ* creates added cultural value, thereby increasing the *common good*. Professionally conducted, properly recorded and reported scientific *research excavations*, whose results are made publicly available, create an even greater, obvious public benefit on top of all the private benefits they create, adding significant cultural value and thus substantially increasing the *common good*. Therefore, *preservation in situ*, which adds virtually no cultural value, but prevents the benefits that would be created by current excavations or finds extractions from accruing, again leads to a negative sum total in the cost-benefit-analysis, therefore causing cultural harm, rather than enhancing the *common good*.

And however much public authorities tasked with determining whether the *preservation in situ* or another proposed course of action, which would lead to the alteration or destruction of a particular site, (like heritage agencies) might want to consider possible future benefits, ultimately, the state in its administrative function must deal in and justify its decisions with real facts, not hopes for a better future. Similarly, the courts, which exert judicial oversight over administrative decisions, are triers of fact, not of hopes. Thus, when push comes to shove, they decide as they must, based on real facts (e.g. for Austria, see Berka 1999, 159-163, 504-505), and thus (almost) invariably against *preservation in situ*.

As usual, it doesn't matter in this context that (at least most of us) archaeologists may believe this to be wrong, because we believe that in some as yet undetermined future, we will indeed be able to get much more significant information out of archaeological sites with our then vastly improved methods. While public authorities and the courts may and do indeed consider not just current benefits, but also can and do take likely (probable) future benefits of any particular course of action which falls under their jurisdiction into account to some extent, they can only do so to a certain extent, and must remain at least vaguely realistic. The mere possibility that *preserving* some site *in situ* might allow to gain considerable cultural benefits at some point in the future, sadly, is not sufficiently realistic to change much in their cost-benefit-analysis about what course of action creates the greater *common good*, however much we may believe in it. And since it is not us, but them, who ultimately get to decide

what is, in fact, the greater *common good*, and what activity is, or is not, causing cultural harm, we cannot just claim that what we believe to be causing cultural harm actually is.

Whose culture, whose heritage, whose benefits?

In the end, this of course all comes down to the question of whose culture it is that we are talking about, whose heritage, and whose benefits; and who gets to decide what culture is, what heritage is, and what is considered to be a legitimate benefit.

At least where Austria is concerned, this should be pretty clear: what culture is, is what the inhabitants of the Republic of Austria actually do, as long as this is within the bounds of the law; with the bounds of the law determined democratically by its legally competent citizens through the political process. What legally protected heritage is, is determined in pretty much the same way, with the applicable legal definition given already above in § 1 (1) [DMSG](#) (and, less relevant, in a few other laws which need not concern us here). Anything else any inhabitant of the Republic is free to choose for himself, as he sees fit, again within the bounds of, in this latter case, general law. And what legitimate benefits are is also determined in the same way, with the benefits discussed already above all being legitimate, because Austria recognises the fundamental Human Rights as established in the [UDHR](#) fully.

Whose culture any particular cultural object is, is normally determined, where applicable, by general property law. Anything cultural which isn't covered by property (or other general) law, i.e. a *res nullius*, can be freely appropriated or used by anyone as regulated by the [ABGB](#) (and to a lesser extent other general law). Whose heritage any particular protected object is, is normally determined in exactly the same way, though property rights are somewhat restricted by the provisions of, mainly, the [DMSG](#). Anything that isn't protected heritage is ordinary cultural property, and thus the above applies. However, given that Austria has signed and ratified the Faro Convention ([CoE 2005](#)), everyone has some participatory rights in heritage. And whose benefits matter should have become clear from what was said in this chapter on the *common good*: everyone's.

In the context of the questions of whose culture, whose heritage, whose benefits, and who gets to decide, the fact that Austria has signed and ratified the Faro Convention ([CoE 2005](#)) is particularly significant. For one, this convention states, already in its preamble, *'that every person has a right to engage with the cultural heritage of their choice, while respecting the rights and freedoms of others, as an aspect of the right freely to participate in cultural life enshrined in the United Nations Universal Declaration of Human Rights (1948) and guaranteed by the International Covenant on Economic, Social and Cultural Rights (1966)'*. It also states, in its Art. 4 (a), that *'everyone, alone or collectively, has the right to benefit from the cultural heritage and to contribute towards its enrichment'*, and in its Art. 4 (c) that the *'exercise of the right to cultural heritage may be subject only to those restrictions which are necessary in a democratic society for the protection of the public interest and the rights and freedoms of others'*. It also, in its Art. 7 (b), highlights the necessity of *'processes for conciliation to deal equitably with situations where contradictory values are placed on the same cultural heritage by different communities'*; and in its Art. 12 (a) requires parties to *'encourage everyone to participate in the process of identification, study, interpretation, protection, conservation and presentation of the cultural heritage'* ([CoE 2005](#)). Thus, Austria, by ratifying this international treaty, has committed itself explicitly to ensure that the value of cultural heritage for society, that is, the greater *common cultural good*, is actually maximised, for everyone, as discussed above.

Sadly, Hardy ([2017a](#)) has considered none of this in his study, and thus has not built it into his research design. Rather, he has decreed that the extraction of archaeological artefacts which would be 'recordable' as per the guidelines of the English and Welsh [PAS](#) constitutes '*cultural harm*' amounting to '*criminal damage*' ([Hardy 2017a](#), 42). While that, admittedly, makes it much easier for him to transnationally compare different (kinds of) regulatory systems in terms of their efficacy for reducing the '*overall loss of archaeological evidence*' ([Hardy 2017a](#), 42), this, sadly, is no way to go about such a comparison. While it is, of course, entirely sensible to disregard in any transnational comparison of

different regulatory systems any aspects of them which are not pertinent to the research question(s) one tries to answer, one cannot and must not simply disregard relevant aspects of them, just because it is more convenient to compare numbers one has created by taking criteria (and multipliers) from one and imposing them on all others. While the details of the law, and how it is to be correctly interpreted, may not always matter, they matter greatly under Hardy's premises.

What Hardy would have had to do first, if he wanted to establish what cultural harm is being done by non-professional metal detecting in different countries, is to first and foremost establish what each of the countries he actually wanted to compare considers to be cultural harm to start with. Because it is not for Hardy to define what cultural harm is, but for each sovereign nation, within its own social and legal framework, to establish what it – its citizens as represented through the democratic process – considers harmful to its culture and its archaeology. That, then, might possibly have allowed him to establish how much cultural harm was being done in each country by non-professional metal detecting; and that might then have meaningfully been transnationally compared to establish what regulatory system is more effective than others to achieve its own, stated aims, more effective at actually achieving compliance with its '*manifest spirit*' (Hardy 2018, 2).

And incidentally, the Austrian regulatory system, while apparently not very effective, if at all, in reducing the number of non-professional metal detectorists active within the country (Karl & Möller 2016; 2018), appears to be very effective in preventing cultural harm. Not because it drives down the extraction of archaeological artefacts *ex situ*, of course, but because the Austrian legislator, in stark contrast to Hardy, seems to have understood that it is neither its only, nor its primary, nor even only one of its more significant functions to legislate for suppressing non-professional metal detecting, but rather to legislate to create the greatest possible *common* cultural *good*. And it has also understood that this greatest *common* cultural *good* is not that there is as little metal detecting as imaginably possible. Rather, it is that everyone of Austria's inhabitants can enjoy those cultural values, and engage in and contribute to culture as they, as humans '*endowed with reason and conscience*', '*born free and equal in dignity and rights*' (Art. 1 UDHR), see fit.

Futile advocacy for archaeologists' private interests

To conclude, the main problem in the debate about how to engage (or deal) with non-professional metal detecting is not how many artefacts are extracted by how many metal detectorists from the ground, whether they are reported to archaeological authorities or finds reporting organisations or not. Rather, it is that much of the debate, as exemplified by Samuel A. Hardy's recent contributions to it (Hardy 2017a; b; 2018), is not actually interested in finding sensible solutions which might actually work (within the existing legal framework of any particular country), but is extremely ideologically biased advocacy for archaeologists' private *special interests* and legal *privileges*.

That bias shows very clearly in both the serious methodological (see Karl 2018a), and even more so in the extremely serious conceptual flaws in Hardy's (2017a; 2018) research design. These flaws demonstrate that he is not actually interested in transnationally comparing the efficacy of regulatory systems, but rather in 'proving' that restrictive regulatory or prohibitive systems are more effective than liberal ones. They clearly demonstrate that in fact, he actually wants to show that the liberal regulatory systems in the USA and England and Wales, and in the latter, particularly the voluntary reporting system established through the PAS, are seriously failing compared to more restrictive or even prohibitive regulatory systems in other countries.

His whole research design, all the many premises (assumptions) underlying it, and his whole methodology, how he in- and deflates data in different directions, and even the arithmetical mistakes he made, all work together seamlessly to produce this result. Anything which could fundamentally change this – whether consciously or subconsciously – desired outcome, on the other hand, is either not considered at all, wilfully disregarded, or even the very possibility of arriving at any contrary result already excluded through his choice of premises (see pages 77-79).

Added onto this is a serious disregard for (the complexities of properly interpreting) the law(s) of the different countries he compares (see pages 90-117), and an utter lack of even only attempting to find out what, in each of these countries, is actually (or indeed has to be by law) considered to be cultural harm (121-135). This is a fundamental problem, because what the law in a particular country actually prohibits, requires an official permission for, or freely allows, obviously has serious consequences. After all, this determines which non-professional metal detecting practices must be considered to be certainly illegal, certainly fully legal, and what may fall into a potentially existing grey area in between (and thus might be deemed to be dubious or ‘illicit’). And it also determines what must be considered to be cultural harm, and the greater *common* cultural *good*, in any particular country. To know and properly account for both would be essential for arriving at valid results under the premises of his study;⁹⁸ yet, he does not even consider it.

Instead, he sets – entirely arbitrarily – as the benchmark for his ‘*secure underestimates*’ (Hardy 2017a, 41) of ‘artefact erosion’ the PAS’ recording priorities for its FLOs (Hardy 2017a, 2-6);⁹⁹ priorities which have no binding force even in England and Wales for (virtually) anyone, let alone being applicable in any of the other countries he uses them for. And he then simply takes his ‘estimates’ of the number of unreported ‘recordable’ artefacts extracted *ex situ* by non-professional metal detectorists and declares this to be the ‘*cultural harm*’ (Hardy 2017a, 42) caused by this activity. He does so regardless of the specific circumstances of this extraction, of other threats which might lead to the unobserved and thus unreported and unrecorded destruction of those artefacts *in situ*, and whether any of the countries he compares would actually consider the extraction of these artefacts to be harmful at all.

Of course, the particular bias this shows – that any extraction of artefacts *ex situ* under (virtually) any circumstances by non-professional metal detectorists is necessarily harmful to human culture, and thus should be completely prohibited (and thereby prevented) – is not at all uncommon amongst archaeologists. After all, this bias necessarily follows from the *authorized heritage discourse* [AHD]. Given the authority assigned by the AHD to the superior academic knowledge and understanding of experts (like academically trained archaeologists) in both determining what valuable (archaeological) heritage is and what anyone may do with it; and the self-assigned duty of these experts to act as ‘*stewards*’ of ‘*the past*’ on behalf of everyone else for the benefit of ‘*future generations*’, for whom this past must be preserved unaltered by these experts (Smith 2006, 29-34), no matter if there is any possibility of achieving this aim, even if preventing some present dangers just now; it inescapably follows that anything a heritage expert considers to fall into their domain must not be altered before at least having been assessed by, or even better turned over to the direct control of, someone with sufficient expertise in the relevant academic domain.

Coupled with the traditional loss aversion of heritage experts (Rüsch 2004, 4; Holtorf 2015), also characteristic for the AHD, this leads to the – whether consciously held or subconscious – belief that

⁹⁸ n.b.: This is in stark contrast to what was required in the much more limited, deductive hypothesis-testing study of Möller and I (Karl & Möller 2016; 2018). Given our much narrower research question – whether the ratio of likely active metal detectorists per capita between countries with differently restrictive or liberal regulations of the practice supports or refutes the hypothesis that the former significantly reduces uptake of the practice compared to the latter – the specific details of the laws in the countries we compared do not matter, nor does it matter whether the practice causes cultural harm or indeed must be considered to be enhancing the greater *common good*. Rather, it sufficed completely for our purpose to determine the relative restrictiveness of the respective regulatory regimes; which is why we chose three countries for our comparison where we have a well-developed understanding of the relevant legislation (in the drafting of parts of some, or more recent revisions of some, I was even personally involved to a greater or lesser extent).

⁹⁹ Guidelines which do not even rise to the level of a semi-definitive list of what could or should be recorded; are priorities necessary, at least mostly, because the PAS has insufficient capacity (staff time) to record all artefacts which are actually shown (reported) to it; and are neither a priority list which is generally accepted (or has even only been discussed properly) by the archaeological disciplinary community in England and Wales, nor legally (or morally or in any other way) binding, not even in England and Wales.

total heritage protection is necessary, rather than just **selective heritage protection** (the latter being the only form of heritage protection which is actually possible in reality, of course). That leads to exactly the equation that Hardy (2017a, 42) makes, that any unrecorded and unreported extraction of any 'recordable' artefact¹⁰⁰ ex situ causes 'cultural harm': precisely as Cornelius Holtorf (2015, 406-408) has argued, it is the loss of currently existing heritage which Hardy tries to avoid, while he disregards completely the possibility, and in many cases even the likelihood, that this loss may well be easily outweighed by gains in other cultural values. As I have argued elsewhere (Karl 2015), this loss aversion has led so far that archaeology, as a discipline, now exhibits all the diagnostic symptoms of *compulsive hoarding disorder* (APA 2013, 247-251); a medically recognised, pathological mental disorder.

That this expresses itself in a particular bias like the one evident in Hardy's (2017a; 2018) work thus cannot come as a surprise; rather, it is actually to be expected. Since Hardy wants to prevent the 'loss of archaeological evidence', which is, in his AHD-dominated value system, the same as 'cultural harm' (Hardy 2017a, 42) to the cultural value he cherishes most, he must indeed come to the result that restrictive or prohibitive regulation of non-professional metal detecting is more effective than liberal regulation of the practice; because of these options, only the former can imaginably reduce the numbers of, and thus the loss caused by, non-professional metal detectorists and their activities.

The biggest problem with all of this, however, is not even that this invalidates the results of his work, even though it does. Rather, the biggest problem is that while believing to be a 'selfless' (Rüsch 2004, 2), public-spirited defender of the *common good*, who acts only in the public interest, Hardy (and many other an archaeologist or heritage manager) acts as an advocate of his own (and admittedly, also 'expert' archaeologists' as a particular group of individuals) private, *special interests* and values; and as an advocate for special (legal) privileges for both himself and archaeology as a profession. And that is tragic, on two separate levels:

Firstly, it is tragic because I believe that, like (virtually) all archaeologists, Hardy does actually want to be selfless, public-spirited, and to serve, to the best of his abilities, the greater *common good*. Not only is this also evident from the bias which invalidates the results of his works, but it is indeed part of the 'selflessness-ethos' (Rüsch 2004, 2) which pervades the heritage (*preservation*) profession, since it is also inherent to the AHD. After all, the explicit aims of the AHD, and of the heritage profession as a whole, is to protect the heritage, not for itself, but for '*present and future generations*' (Introduction, ICOMOS 1990) as a collective resource.

Yet, like Plato's '*philosopher-king*', he wants what he believes to be the greatest *common good* too much (Watzlawick 2001, 101-105), but seems to have forgotten that he does not positively know what is 'the best for all', that not everyone necessarily shares his values, and that his hierarchy of values is neither absolute nor universal. He seems to erroneously believe that what he holds true and dear, everyone else also must, and if they don't, they must at least be educated about it, or, if necessary, be forced to accept and submit to the eternal truth, even against their will (Watzlawick 2001, 102). He seems to mistake what he wants for what everyone wants, and thus, instead of serving the best interests of all others, like he probably actually wants, his actions work towards forcing everyone else to serve his best interests. And that is certainly anything but in the public interest.

But secondly, and even more significantly, it is tragic because advocacy like this will ultimately always be futile, at least as long as we continue to live in reasonably functioning, egalitarian democratic societies based on the rule of law and, especially, the principles enshrined in the *Universal Declaration of Human Rights* (UN 1948) and our respective constitutions (e.g. for Austria, the StGG). And at least I would rather prefer that to living under any totalitarian regime, even if it were a totalitarian heritage

¹⁰⁰ I.e. an artefact which is, especially as long as it is retained in its 'original' contexts in situ, archaeologically valuable and thus archaeological heritage; and thus must be preserved unaltered from anyone but archaeological experts.

protection regime. In egalitarian, democratic societies based on the rule of law and Human Rights, the total heritage protection Hardy seems to want is and will always be unachievable, because achieving it would require to void at least several, if not many, constitutionally guaranteed Civil and Human Rights. Even more so, the legal privileges Hardy seems to want to institute for archaeologists are impossible to achieve, because they are incommensurable with the equality principle and the prohibition of any discrimination between any different kinds of citizens, particularly on grounds like professional standing alone. No parliament in any egalitarian democracy may pass laws which would create total heritage protection and legal privileges for archaeologists, and if it would anyway, any such law would be struck down, at least eventually, by the Supreme (Constitutional) Court of the country.

Indeed, parliaments, and the courts if push comes to shove, also don't have the luxury to enforce on everyone the set of values that Hardy apparently would like them to; but rather will always have to consider the values of all particular sub-groups of their actual sovereign, the citizenry of their country. That, of course, does not mean that they cannot impose more restrictive, or even (partially) more prohibitive, regulations on non-professional metal detecting than currently are in force in the US, and England and Wales: that would certainly be possible, and might even be quite sensible.¹⁰¹ Indeed, I personally would be in favour of introducing a *prescriptive*¹⁰² regulatory system for metal detecting in England and Wales, something that might indeed be achievable within the bounds of the law in these jurisdictions. But any such regulatory system, if it is ever introduced, will at best allow to trim the edges of what is protected and what is not. It may change slightly the way how some archaeological evidence is protected by law, and may even change what archaeological evidence is protected or not, but never result in all archaeological evidence being protected.

Because, ultimately, to achieve the kind of archaeological heritage protection that Hardy (and indeed many archaeologists) seems to want, a fundamental legal principle would have to be broken: that only what can be known by anyone who has to apply the law can compel them to comply with the law. *Assumed or actual foreknowledge*¹⁰³ that a legally prohibited result of an action will be achieved by

¹⁰¹ While I do not think that restrictive or even prohibitive regulation of non-professional metal detecting is very successful, if at all, in reducing the number of active metal detectorists, but that other factors play a much bigger role in how many of them there are in any given geographical area; I do think that having virtually no regulations for recording and reporting duties for finds of probably archaeologically significant artefacts and features, but relying instead on a voluntary reporting system alone, as is currently the case in England and Wales, is at least not helpful, nor sensible at all. Thus, I do not argue that there should be no regulation at all of non-professional metal detecting, but I argue that we have to think more carefully about what we want, and how to best achieve that (whether with or without legal regulation).

¹⁰² For the purpose of this paper, the term '*prescriptive*' regulatory system is to be understood as a system that, in principle, allows metal detecting in most places (with the exception of specifically protected areas like scheduled monuments, sites of special scientific interest, etc.), but compels those engaging in the activity to comply with minimum standards regarding the extraction of artefacts *ex situ*, recording, and reporting. A prescriptive regulatory system, in the way it is understood here, allows the activity to be conducted (mostly) freely, provided it is conducted in a manner that ensures that any damage to the archaeology is minimised, and any potential benefits which might accrue from its conduct maximised, as much as possible. This sets a prescriptive regulatory system apart from both 'liberal', 'restrictive' and 'prohibitive' systems: it shares similarities with 'liberal' regulatory systems in that it does not restrict or prohibit the activity *per se*; but also with 'restrictive' systems in that it restricts how the activity may freely be conducted; and with 'prohibitive' systems in that it prohibits completely any conduct of the activity which falls below the prescribed minimum standards of conduct. In simpler terms: it prohibits to conduct the activity in a manner which is harmful, but mostly freely allows it if conducted in a generally beneficial manner. I have discussed how such a system could be implemented and work in Austria already (see for a short summary, '[Not whether, but how?](#)', especially pp. 183-5).

¹⁰³ n.b.: *assumed or actual foreknowledge* is used here as a technical term to describe all possible modes of culpability, with the exception of *strict liability*, in Common Law systems. Culpability only attaches to a guilty act (*actus reus*) if the offender has at the very least *negligently* disregarded a significant risk that his planned actions

conducting it (*mens rea*) is a necessary element of guilt in any crime, unless it is a *strict liability* offence.¹⁰⁴ However, it will only ever be reasonably foreseeable for *ordinary citizens* that significant ('recordable') archaeology will be discovered during metal detecting if it has already been determined by *experts* that such archaeology exists and will likely be discovered in a particular place. Thus, if metal detecting is not defined as a *strict liability* offence – that is, all metal detecting is prohibited regardless of the foreknowledge of the metal detectorist of what they are likely to find when engaging in it – a *mens rea* test will always be required; inevitably making any case '*difficult to prosecute*' (Hardy 2018, 2) even if an offence should actually have been committed. Making metal detecting a *strict liability* offence, on the other hand, runs into the problem of proportionality: state action (like a prohibition by law of any action) must always be proportionate with any restriction of human rights or civil liberties caused by it (see Art. 29 (2) UDHR). And given that there are literally billions of archaeological finds, and millions of archaeological sites, in the ground in any country the size of England and Wales, or Austria, but only thousands of archaeologists who could professionally excavate them; and metal detecting has other uses than finding archaeology, too; a complete ban on metal detecting cannot ever be proportionate with the restrictions of other human rights and civil liberties it would cause.

Thus, introducing legal restrictions or prohibitions by means of any law, heritage law or other, which protect all 'recordable' artefacts from being extracted *ex situ* by non-professional metal detectorists, is impossible. Whether an artefact is 'recordable' can, as a rule, only be determined after it has been found; at which point it is too late from an archaeological point of view, because it already has at least been exposed, if not already been extracted, and its *in situ* contexts, whatever they were, already been significantly altered. Any protection provided by the law by means of restrictions or prohibitions can ever only reasonably successfully apply to sites that are already known, and regarding which it has already been determined by professional archaeologists that any discovery and extraction of artefacts contained in it is thus likely to cause significant damage to archaeology whose preservation is in the public interest. What we do not know, the law cannot reasonably protect; and as yet undiscovered artefacts, whether they would have to be deemed to be 'recordable' (Hardy 2017a, 2-7) with the benefit of hindsight or not, by definition, are unknown.

Thus, 'estimating artefact erosion', as Hardy (2017a) does as a means to argue for more restrictive or even prohibitive regulation of metal detecting, is a fallacy: however large the numbers may be that are estimated to be extracted per annum, and however shocking they may seem to archaeologists (and possibly others), they cannot fundamentally change how the law works. Nor does it significantly change how much '*cultural harm*' (Hardy 2017a, 42) is caused by the extraction of 'recordable' artefacts *ex situ* if we just ramp up the restrictiveness of the law. Because even if we do that, assuming that this would have any effect at all (which is not all that likely, see Karl & Möller 2016; 2018), we will soon run into legal obstacles which stop us from ramping it up far enough to have any significant effect.

Yet, the more we argue, in as flawed ways as Hardy has done, that ramping up that restrictiveness is 'necessary', the more we expose that in fact, it is not the public, but just our own private interests that we are advocating for. And that, in the final analysis, in any egalitarian, democratic society based on the rule of law, which aims to guarantee all its citizens the same fundamental rights and liberties, will hurt our goals, and indeed our interests, much more in the long run than it will benefit them, even only in the short run.

will lead to a prohibited result. *Negligence*, in this context, means that while the actor did not actually foresee that his actions would lead to the prohibited result, any reasonable person, in the same circumstances, would have foreseen that it likely would. Thus, this is identical to how '*intent*' (*dolus*) is defined in the Austrian Civil law tradition, which requires at least a '*reasonable expectation*' that a planned action will lead to a prohibited result (cf. FN 73, 74).

¹⁰⁴ n.b.: a *strict liability* offence is one where an action itself is prohibited, with the mental state of the actor being irrelevant for whether a crime has been committed by executing that action.

Bibliography

Aitchison, K., Rocks-Macqueen, D. 2014. [Discovering the Archaeologists of the United Kingdom 2012-14](#). N.p.: Landward Research [17/1/2019].

APA 2013. *Diagnostic and statistical manual of mental disorders*. 5th ed., Washington, DC: American Psychiatric Publishing.

Bazil, C., Binder-Kriegelstein, R., Kraft, N. 2015. *Das österreichische Denkmalschutzrecht. Denkmalschutzgesetz & Kulturgüterschutzrecht, Durchführungsvorschriften, Unionsrecht*. 2nd ed., Wien: Manz.

BDA 1920-2016. *Fundberichte aus Österreich. Band 1 (1920/33) – Band 55 (2016)*. Wien: Bundesdenkmalamt.

BDA 2018. [Richtlinien für archäologische Maßnahmen. 5. Fassung – 1.1.2018](#). Wien: Bundesdenkmalamt (28/1/2019).

Berka, W. 1999. *Die Grundrechte. Grundfreiheiten und Menschenrechte in Österreich*. Wien & New York: Springer.

Boghossian, P., Lindsay, J. 2017. [The Conceptual Penis as a Social Construct: A Sokal-Style Hoax on Gender Studies](#). *Sceptic*, 19/5/2017 [14/1/2019].

Brunecker, F. 2008. Faszination Schatzsuche: Von Ausgräbern und Raubgräbern. In F. Brunecker (ed.), *Raubgräber, Schatzgräber*, 14-39. Biberach: Theiss.

Campbell, S. 2019. Legislation and Persuasion; Portable Antiquities and the Limits of the Law: Some Scottish and British Perspectives. In S. Campbell, L. White, S. Thomas (eds.), *Competing Values in Archaeological Heritage*, 77-89. New York: Springer.

Campbell, S., White, L., Thomas, S. (eds.) 2019. *Competing Values in Archaeological Heritage*. New York: Springer.

CoE 1992. [European Convention on the Protection of the Archaeological Heritage \(Revised\)](#). European Treaty Series 143, Valletta: Council of Europe.

CoE 2005. [Council of Europe Framework Convention on the Value of Cultural Heritage for Society](#). European Treaty Series 199, Faro: Council of Europe.

Davydov, D. 2017. „Jeder kann graben“? – Archäologisches Erbe im Spannungsfeld zwischen Partizipation und Gefahrenabwehr. In U. Recker, D. Davydov (eds.), *Archäologie und Recht II. Wohin mit dem Bodendenkmal?* Fundberichte aus Hessen, Beiheft 11, [Early View](#) [29/1/2019].

Deckers, P., Dobat, A., Ferguson, N., Heeren, S., Lewis, M., Thomas, S. 2018. [The Complexities of Metal Detecting Policy and Practice: A Response to Samuel Hardy, 'Quantitative Analysis of Open-Source Data on Metal Detecting for Cultural Property' \(Cogent Social Sciences 3, 2017\)](#). *Open Archaeology* 4, 322–333 [14/1/2019].

EU 2000. [Charter of Fundamental Rights of the European Union](#). *Official Journal of the European Communities* 2000/C 364/01.

Farka, C. 2006. Die Abteilung für Bodendenkmale des Bundesdenkmalamtes. Jahresbericht 2006. *Fundberichte aus Österreich* 45, 9-10.

Freudenstein, A. 2016. [Rede zum Kulturgüterschutzgesetz in der Wahlperiode 18, 155. Sitzung des deutschen Bundestages, 18.2.2016](#). *Plenarprotokoll* 18/155, Berlin: Deutscher Bundestag.

- Fuchs, M. 1991. Der latènezeitliche Waffenfund vom Förker Laas Riegel, Bezirk Villach, Kärnten. *Archäologie Österreichs* 2/2, 19-24.
- Guest, A.G. (with the assistance of P. Matthews) 2018. *The Law of Treasure*. Oxford: Archaeopress.
- Hardy, S.A. 2017a. [Quantitative analysis of open-source data on metal detecting for cultural property: Estimation of the scale and intensity of metal detecting and the quantity of metal-detected cultural goods](#). *Cogent Social Sciences* 3 [14/1/2019].
- Hardy, S.A. 2017b. [corrections to quantitative analysis of open-source data on metal detecting for cultural property](#). *Conflictantiquities* [14/1/2019].
- Hardy, S.A. 2018. [Metal-Detecting for Cultural Objects until 'There Is Nothing Left': The Potential and Limits of Digital Data, Netnographic Data and Market Data for Open-Source Analysis](#). *Arts* 7/3 [14/1/2019].
- Holtorf, C. 2015. [Averting loss aversion in cultural heritage](#). *International Journal of Heritage Studies* 21/4, 405-421.
- ICOMOS 1990. [Charter for the Protection and Management of the Archaeological Heritage](#). Lausanne: International Council on Monuments and Sites.
- Jarass, H.D., Pieroth, B. 2016. *Grundgesetz für die Bundesrepublik Deutschland. Kommentar*. 14th ed., München: C.H. Beck.
- Jung, M. 2010. "Heimathirsche". *Hobbyarchäologen zwischen Hedonismus und Professionalisierung*. Münster: Waxmann.
- Kant, I. 1784. [Beantwortung der Frage: Was ist Aufklärung?](#) *Berlinische Monatsschrift* H. 12, 481-494 [18/1/2019].
- Karl, R. 2011. On the highway to hell. Thoughts on the unintended consequences of § 11 (1) Austrian Denkmalschutzgesetz. *The Historic Environment – Policy and Practice* 2/2, 111-133.
- Karl, R. 2013. [Der Weg zur Hölle ist mit guten Vorsätzen gepflastert. Archäologische Denkmalpflege und die ungeliebte Öffentlichkeit in Österreich](#). *Archäologische Informationen* 35, 99-111.
- Karl, R. 2015. [Every sherd is sacred. Compulsive hoarding in archaeology](#). In G. Sayeh, D. Henson, Y.F. Willumsen (eds), *Managing the Archaeological Heritage: Public archaeology in Europe*, 24-37. Kristiansand: Vest-Agder-Museet.
- Karl, R. 2016a. [Archaeological Responses to 5 Decades of Metal Detecting in Austria](#). *Open Archaeology* 2, 278-289.
- Karl, R. 2016b. The Freedom of Archaeological Research: Archaeological Heritage Protection and Civil Rights in Austria (and Beyond). *Public Archaeology* 15/1, 23-39.
- Karl, R. 2018a. ['Estimating' numbers? A response to a paper by Samuel A. Hardy](#). *Archäologische Denkmalpflege* 1, 163-175 [14/1/2019].
- Karl, R. 2018b. [Against retention in situ. How to best preserve archaeology for 'future generations'?](#) *Archäologische Denkmalpflege* 1, 21-51 [16/1/2019].
- Karl, R. 2018c. Judgement Day in Heritage Hell. Heritage Practice, Policy and the Law in Austria (and Beyond). *The Historic Environment - Policy and Practice* 9/2, 128-149.
- Karl, R. 2019. [An empirical examination of archaeological damage caused by unprofessional extraction of archaeology ex situ \('looting'\). A case study from Austria](#). *Archäologische Denkmalpflege* 2, 1-34 [17/1/2019].

Karl, R., Burin, B., Frana, Z., Gufler, V., Hörhan, J., Medek, A., Rechberger, T., Rokita, K., Trausmuth, T., Unterweger, S., Vonkilch, A., Wallner, M. 2014. [Archäologische Interessen der österreichischen Bevölkerung. Bericht und Analyse einer Umfrage, November 2013 – Jänner 2014.](#) Bangor Studies in Archaeology, Report No. 8. Bangor: Bangor University School of History, Welsh History and Archaeology.

Karl, R., Möller, K. 2016. [Empirische Untersuchung des Verhältnisses der Anzahl von MetallsucherInnen im deutsch-britischen Vergleich. Oder: wie wenig Einfluss die Gesetzeslage hat.](#) *Archäologische Informationen* 39, 215-226.

Karl, R., Möller, K. 2018. [An empirical examination of metal detecting. Per capita numbers of metal detectorists in a British-German comparison.](#) *Archäologische Denkmalpflege* 1, 129-139.

Karl, S., Koch, I., Pieler, E. 2017. [Revidierung der gesetzlichen Vorschriften zu archäologischen Funden und Schätzen in der österreichischen Monarchie zwischen 1834 und 1846. Mit einem Ausblick auf die heutige Situation.](#) *Österreichische Zeitschrift für Kunst und Denkmalpflege* LXXI/1, 86-119 [19/1/2019].

Kriesch, E.G., Eberl, W., Bielfeldt, D., Wegener, H.-H. 1997. *Gegen die Raubgräber*. 2. Aufl., Bonn: Deutsches Nationalkomitee für Denkmalschutz.

Krischok, H. 2016. *Der rechtliche Schutz des Wertes archäologischer Kulturgüter*. Beiträge zu Grundfragen des Rechts 17; Göttingen: V&R unipress.

Laufer, E. 2000. [Raubgräberei – ein Kavaliersdelikt?](#) Unpubl. thesis, Frankfurt/Main: Verw. FHS Wiesbaden.

Neuman, W. L. 2003. *Social Research Methods. Qualitative and Quantitative Approaches*. 5th ed., Boston: Allyn and Bacon.

PAS 2016. *Annual archived statistics [1st January 2003-31st December 2015]*. London: Samuel A. Hardy, retrieved from <https://finds.org.uk/database/statistics/annual/datefrom/2003-01-01/dateto/2015-12-31/>.

Peirce, C.S. 1931. [Pragmatism and Pragmaticism](#). In C. Hartshorne, P. Weiss (Hg.), *The Collected Papers of Charles Sanders Peirce, Vol V*. Harvard/Mass: University Press [15/1/2019].

Picker, A., Hebert, B., Ployer, R., Pollak, M. 2016. [Braucht Österreich ein Unterschutzstellungsprogramm für seine archäologischen Denkmale?](#) In G. Grabherr, B. Kainrath (Hg.), *Akten des 15. Österreichischen Archäologentages in Innsbruck, 27.Februar–1. März 2014*, 285-8. Innsbruck: University Press [20/1/2019].

Pieroth, B., Schlink, B., Kingreen, T., Poscher, R. 2015. *Grundrechte. Staatsrecht II*. 31st ed., Heidelberg: C.F. Müller.

Planck, D. 1991. Rettungsgrabung und Forschung – Archäologische Denkmalpflege heute. In H.G. Horn, H. Kier, J. Kunow, B. Trier (eds.), *Archäologie und Recht. Was ist ein Bodendenkmal?*, 11-30. Münster: Westfälisches Museum für Archäologie / Amt für Bodendenkmalpflege.

Riegl, A. 1903. [Der moderne Denkmalkultus. Sein Wesen und seine Entstehung.](#) Wien & Leipzig: Braumüller [20/1/2019].

Rüsch, E. 2004. [Vergangenheitsfalle oder Zukunftsentsorgung? Folgen einer Denkmalpflege ohne Gegenwartsbewusstsein.](#) *Kunsttexte.de* 1/2004, 1-5 [17/1/2019].

RV 1990. [Regierungsvorlage. Bundesgesetz vom XX.XXXXX, mit welchem das Bundesgesetz betreffend Beschränkungen in der Verfügung über Gegenstände von geschichtlicher, künstlerischer oder kultureller Bedeutung \(Denkmalschutzgesetz\) geändert wird.](#) 1275 der Beilagen zu den Stenographischen Protokollen des Nationalrates XVII. GP [20/1/2019].

- RV 1999. Regierungsvorlage. Bundesgesetz, mit welchem das Bundesgesetz betreffend Beschränkungen in der Verfügung über Gegenstände von geschichtlicher, künstlerischer oder kultureller Bedeutung (Denkmalschutzgesetz – DMSG) geändert wird. 1769 der Beilagen zu den Stenographischen Protokollen des Nationalrates XX. GP [20/1/2019].
- Schofield, J., Carman, J., Belford, P. 2011. *Archaeological Practice in Great Britain. A Heritage Handbook*. New York: Springer.
- Smith, L. 2006. *Uses of Heritage*. London & New York: Routledge.
- Strobl, H. & Sieche, H. 2010. *Denkmalschutzgesetz für Baden-Württemberg: Kommentar und Vorschriftensammlung*. Stuttgart: Kohlhammer.
- Tolia-Kelly; D.P., Waterton, E., Watson, S. (eds.) 2016. *Heritage, Affect and Emotion. Politics, Practices and Infrastructures*. London: Routledge.
- Tyler, T.R. 2006. *Why People Obey the Law*. 2nd ed., Princeton: University Press.
- UBA 2001. Sechster Umweltkontrollbericht. Wien: Umweltbundesamt [17/1/2019].
- UBA 2004. Siebenter Umweltkontrollbericht. Wien: Umweltbundesamt [17/1/2019].
- UBA 2007. Achter Umweltkontrollbericht. Wien: Umweltbundesamt [17/1/2019].
- UBA 2010. Neunter Umweltkontrollbericht. Wien: Umweltbundesamt [17/1/2019].
- UBA 2013. Zehnter Umweltkontrollbericht. Wien: Umweltbundesamt [17/1/2019].
- UBA 2016. Elfter Umweltkontrollbericht. Wien: Umweltbundesamt [17/1/2019].
- UN 1948. The Universal Declaration of Human Rights. General Assembly resolution 217 A, Paris: United Nations.
- UN 1967. International Covenant on Economic, Social and Cultural Rights. New York: United Nations.
- UN 1969. Vienna Convention on the Law of Treaties. Vienna: United Nations Organisation [19/1/2019].
- Wait, G. 2017. An introduction to professional ethics. Reading: Chartered Institute for Archaeologists [28/1/2019].
- Walter, R., Mayer, H. 1988. *Grundriß des österreichischen Bundesverfassungsrechts*. 6th ed., Wien: Manz.
- Watzlawcik, P. 2001. *Vom Schlechten des Guten; oder: Hekates Lösungen*. 8th ed., München: Piper.
- Weise, J. 2018. Die Detektorgruppe Schleswig-Holstein. In R. Karl, H. Frey (eds.), Professionelle (Hobby?) Archäologie. Festschrift für Pascal Geiger zum 30. Geburtstag, 13-16. Archäologische Denkmalpflege, Kleine Schriften 1, Bangor: <https://archdenk.blogspot.com/> [16/1/2019].
- Wessel, G. 2016. Raubgrabungen. Das schmutzige Geschäft mit der Antike. *Deutschlandfunk Kultur*, 6.9.2016 [15/1/2019].
- Willems, W.J.H. 2012. Problems with preservation in situ. In Bakels, C., Kamermans, H. (eds.), *The End of Our Fifth Decade*, 1-8. *Analecta Praehistorica Leidensia* 43/44, Leiden: Leiden University [30/1/2019].