

Hunters of the Past – A Study of Demography, Attitudes, and Values among Danish Metal Detector Users

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ABSTRACT

This article presents the results of a questionnaire-based survey on demographic aspects, prevailing attitudes, motivations, and values among members of the Danish hobbyist metal detector community. The objective of the study is to take an initial step towards a scholarly appraisal of the sociological dimension of the Danish metal detector phenomenon – e.g., its practitioners as members of a community with its own specific and often diverging characteristics and dynamics. By this we wish to contribute to shaping a best practice framework, which can be used for interacting and cooperating with detectorists in Denmark and internationally.

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Introduction

In Denmark, as well as in other European countries, hobbyist metal detecting has developed into one of the most prominent ways in which the public engages with archaeological material and the hobby has seen a continuously growing number of active practitioners. In Denmark, the use of metal detectors as a tool to find archaeological items by non-professionals is legal, except on scheduled sites and presupposed landowners' consent. A combination of several factors, including the long tradition of voluntary contribution in archaeology and the legal basis of the Danish treasure trove scheme (Danefæ), have paved the way for a (by and large) constructive cooperation between hobbyist metal detectorists and the professionals.

When dealing with hobbyist metal detectorists, Danish museums focus mainly on the results of metal detecting in the form of finds and sites – in accordance with their obligations as specified in the Consolidated Act on Museums (2006). As a resource for cultural historical research, there is

great evidence of hobbyist metal detector finds having radically altered traditional views and leading to completely new pictures of Danish pre- and protohistory (for examples see: Christiansen 2019; Dobat 2013). On the other hand, when it comes to the social dimension of metal detecting, our knowledge is comparably limited. This is mainly due to the fact that until now no systematic analysis of the detectorist community has been conducted. Archaeologists – and other heritage stakeholders – have shaped their own intuitive understanding of the community and hobby based on practical experience, netnographic studies or personal observations (Bastrup and Feveile 2013; Hansen and Henriksen 2012; Ulriksen 2014). But does this largely anecdotal knowledge among professionals reflect the phenomenon's true complexity? Who are the detectorists? Why are they doing what they do? How do they practice their hobby? And how do they perceive their role?

Like many other questions related to this topic, these questions have until now remained fairly unanswered.





Figure 1. As a community and as individuals, detector users are just one interest group acting within a complex network of other stakeholders, institutions and domains, including museums, legal frameworks, the public and others.

Research Agenda

The objective of the survey presented in this article was to take an initial step towards a scholarly appraisal of the human dimension of the Danish metal detector phenomenon – e.g., not the finds but the finders. This paper is therefore based on data generated through an online questionnaire which was distributed through selected Facebook groups (see acknowledgements).

With the survey and this presentation of the obtained data we would like to gain a better understanding of the metal detector community as a stakeholder group with its own specific characteristics and dynamics. Through closed- and open-ended questions, the survey targeted not only basic demographic data and characteristics but also tried to capture the practitioners' attitudes towards archaeological heritage. Furthermore, we aimed to get an idea of the basic motivations and values underlying their engagement with metal detecting. Beyond that, the survey also tried to address how the individual practitioners perceive their role within the Danish heritage landscape. A landscape which consists of a variety of stakeholders, insti-

tutions, and domains (including museums, legal frameworks, the public, etc.) (Figure 1).

More specifically, the survey touched upon the following topics:

- The demographic data and characteristics of Danish metal detector users (age, gender, education, profession, etc.).
- Practitioner's level of experience and expertise.
- Motivating factors and attitudes concerning metal detecting and the archaeological past
- The significance of the treasure trove payments and the financial incentives for reporting finds.
- The relationship and cooperation between detectorists and between detectorists and the museums.
- The detectorists' view and opinion(s) concerning current and future challenges related to the use of metal detector in Denmark.

The aim of this paper is not to provide a full analysis and contextualization of the data generated through our online survey. Instead, it is our ambition to present some of the results and provide

an entry point to the data for practitioners and the research community (nationally and internationally).

Why study Metal Detector Users?

One might ask why archaeologists and museum professionals should use resources on studying and understanding the sociological dimension of metal detecting.

In response to this, one reason would be that the growing community of detectorists has a profound and very direct impact on the archaeological heritage as it is they who are making most of the archaeological discoveries outside a controlled environment. This alone should legitimize the quest for knowledge of the community, since it is a basic prerequisite for establishing a best practice framework which can be used for cooperating with detectorists. Furthermore, while the community until around the early 2000s was a small and homogeneous group, it has, over the past years, not only become much larger but also increasingly heterogeneous in character. Gaining a basic idea and understanding of the community is therefore also a timely matter.

Most importantly, however, we wanted to talk with metal detectorists instead of talking to metal detectorists. The relationship between, on one hand, museum professionals representing the authoritative heritage sector and, on the other hand, amateur archaeologists is, per se, asymmetrical in character. Hence, mapping attitudes and motivations among detectorists (and acknowledging them) is also a matter of ethics. In the same way as professionals demand of detectorists to respect and act according to their standards and values when engaging with archaeological heritage, members of the professional sector also ought to be empathic towards their amateur counterparts. Not least should professionals be aware of the values and meanings which detectorists project on the archaeological heritage even if they differ or perhaps even conflict with traditional academic approaches.

Across Europe, very much in contrast to the Danish experience, non-professional metal detecting is a subject of great controversy and heritage

professionals' opinions and attitudes towards the subject are often polarized and based on ethical and/or emotive arguments. This is not least due to the fact that we lack reliable data on the scale, the motivations of the practitioners, and the impact of the practice. Especially in countries with restrictive policies, detectorists are often difficult to reach out to and even more reluctant to divulge details about their hobby as they often fear incrimination. In Denmark though, we are in the fortunate situation to be able to establish empirical data due to our permissive context. In light of this, mapping the landscape and establishing knowledge of the metal detecting phenomenon in Denmark can be of global significance and might contribute to current international debates.

Private metal detector use in numbers

A total of 330 participants responded to our survey and 262 completed the survey in its entirety. In light of the 6522 members (status December 2020) in the largest Danish Facebook (FB) group (Detektor Danmark), this number appears to be a comparably small sample of the community. But what is the scale of detecting as a leisure activity? How many active detectorists do we have to reckon with? And how representative is our survey? In order to at least establish a rough estimate on these measures, we must draw on a variety of sources (Figure 2).

In 2016, local museums within Denmark accessed the number of active detectorists within their respective area of responsibility. According to these data, museums reckoned with a total of 1224 detector users (cooperating with museums) in Denmark (Pedersen et al. 2018). Since then, this number has increased considerably. As of February 2020, approximately 3000 detector users have registered themselves as users of the DIME portal which is currently the most widely used tool for the registration of metal detector finds. However, not all registered detectorists in DIME use the system. Furthermore, there is an enormous variation in the numbers of recorded finds between the individual finders. It can, for example, be seen that the vast majority has uploaded less than a hand-

Year	Σ Unique finders*** (who received Danefæ compensation)	Σ treasure finds*	Σ Danefæ compensation (DKK)	Σ members FB group 'Detektor Danmark'	Σ members FB group 'Detektor Danmark' (with detectors)****	Σ Unique finds (sent to the NM for Danefæ evaluation)
2011	202	3,001	?	?	?	?
2012	?	3,412	856,600	100	?	3,061
2013	?	4,367	1,184,373	?	?	4,333
2014	?	5,312	3,044,100	1,000	?	7,176
2015	?	3,516	4,231,775	2,000	?	9,756
2016**	251	5,004	3,661,950	3,000	652	17,055
2017**	379 (?)	9,634	3,160,000	4,000	653	14,364
2018**	447 (?)	21,971	7,680,000	5,066	655	17,385
2019		15,029	4,951,535	5,908	695	8,537
2020	822	12007	8,062,285	6,517	631	7,703

Figure 2. Various sources used here to assess the scale of private metal detecting in Denmark. *Σ treasure finds does not necessarily relate to Σ unique finds but reflects more institutional priorities on Danefæ evaluation (Σ closed Danefæ cases) in a given time interval; ** All numbers are subject to change due to the backlog of the Danefæ treatment at the NM; *** As Danefæ legislation also applies to non-metal finds, an unknown (though very small) part of unique finders are not metal detectorists; **** according to polls conducted among group members.

ful of objects which is contrasted by a small group of 260 users, who each have registered more than hundred artefacts.

Probably one of the most reliable figures concerning the number of active detectorists can be obtained from the Danish National Museum's count of treasure trove transfers. Taking into consideration the comparably broad selection criteria applied by the National Museum (in contrast to more selective criteria in for example England) even detectorists practicing their hobby on a more sporadic level have a fair chance of producing treasure finds. As the clear majority of treasure trove is produced through metal detecting, the number of individual beneficiaries can be taken as an indicative for the number of active detectorists. Somewhat surprisingly, the annual cohort has, until today, been small, adding up to less than 500 people. Only in the latest tally for 2019/2020, the number has risen to 822. However, this low number is aligned with the result of an annual survey conducted by the administrators of the FB group, *Detektor Danmark*, indicating that only a consistently small proportion (around 650 individuals) of the several thousands of members possess a metal detector.

The numbers above suggest that there is a considerable gap between the perception concerning the scale of private metal detecting in Denmark and the actual number of active and find-producing practitioners. Combining all the above indications and figures, we suggest differentiating between three, in reality, overlapping groups:

1. a large number of between 2000-4000 'hang arounds' who may be interested in the

hobby for various reasons. These may own a detector and might occasionally produce archaeological finds;

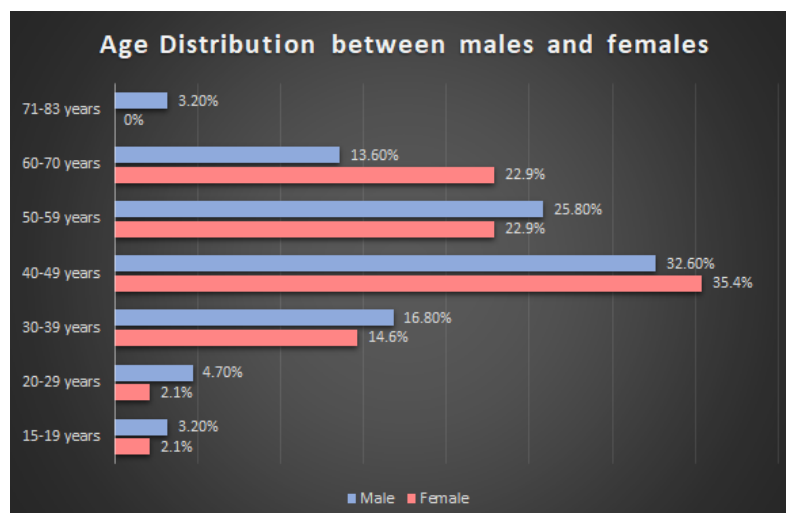
2. an estimated group of between 1000-2000 'regular detector users' who practice metal detecting on a regular basis and who produce archaeological finds;
3. a comparably small group of between 200-400 particularly dedicated and productive 'super users' who produce the majority of archaeological finds registered by museums.

According to these numbers we may be able to assume that the number of people practicing the detector hobby is somewhere between 200-4000 users. In order to determine what would then be an approximate number of responses needed in order for the survey to be representative, a confidence level of 95% has been applied together with a margin of error on 5% and a variance of population at 50%. From this, it has been determined that 150-350 answers are needed (Taherdoost 2017, 237-39; Gill et al. 2010, 130). Thus, with the survey's 330 participants, it may be safe to conclude that this study can be seen as fairly representative of the Danish hobbyist metal detectorist community. However, we have to be aware of the fact that more experienced users, characterized above as particularly dedicated and productive 'super users', most likely are overrepresented in our survey.

Survey Method and Limitations

A number of biasing factors have to be taken into account prior to the presentation of the results.

Figure 3. Graph showing the age distribution for men and women.



Portraying communities through the accounts and information given by the communities themselves naturally carries the risk of a heavy representation bias. This is even more relevant in online surveys where participants might tend to provide selective information. Outspoken members of the metal detector community could be conscious about the communities' image in the public and among professionals. And especially when asked about underlying motivations and attitudes, practitioners, and notably the group of more experienced 'super users', might be aware of what the public and professionals consider to be the 'correct' answers. Therefore, despite the questionnaire being anonymous, it needs to be considered whether only few participants can be expected to have made statements not reflecting the general moral consensus within the detector scene, or among museum professionals.

Metal detectorists, hence, respond from the perspective of what Jackson (2014, 357) has termed respectively the vowed identity and the ascribed identity, framing what respondents think they are and what they believe they ought to be in the eyes of the researcher.

For similar reasons we deliberately chose not to include a number of contentious topics, e.g., irresponsible conduct in the field or heritage crime and/or fraud. Further biasing factors have to be considered when detectorists' willingness to cooperate with the professional sector is concerned as those practitioners who already are inclined to enter a dialogue with museums and professional archaeologists most probably are overrepresented in the pool of respondents.

Survey results

The Danish Hobbyist Metal Detectorists

A central aim of the survey has been to create a demographic overview of the Danish hobbyist metal detectorists. Therefore, the focus of the survey was placed upon age, gender, education, and profession. In connection with this, the survey also included questions in relation to how often the detectorists visit museums and whether they are members of a metal detectorists association.

Overall, the survey showed that the majority of the Danish hobbyist metal detectorists are men (85%) while women are still much less represented (15%). Concerning age, the Danish detectorists are often above 40 years, while only few young people (defined as being under 30) seem to be practicing the hobby. This makes the average age 47.6 (Figure 3). Looking further into gender and age, the survey indicated that men seem to start practicing the hobby at an earlier age than women who seem to be taking up the hobby when they are above 60.

Concerning education, the majority of the detectorists have a vocational (43%) or higher education (35%). Very few detectorists are uneducated (Figure 4).

The survey further showed that almost one fourth of the detectorists are working as craftsmen whilst another big group are represented as academics. Quite a few of the detectorists are either retired or on early retirement (15.4%). Less than 5% are either unemployed, working subsi-

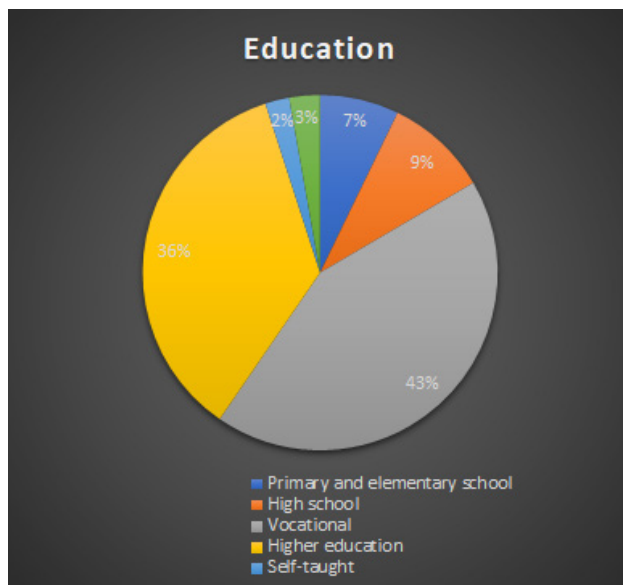


Figure 4. Education level among the Danish hobbyist metal detectorists.

dized jobs or receiving sickness benefits. This is a somewhat lower number than the general Danish population (www.dts.dk n.d.; Hansen 2019) (Figure 5).

The survey also provided information in relation to how often detector users visit museums (with no distinction between the type of museum). A clear majority (75 %) of the participants visit a museum

once or twice a year. 12% stated that they go once or twice a month. Very few (3 %) answered that they do not visit museums and only one person answered that they visits museums 1-2 times a week. Comparing these numbers to the general pattern of museum-use in Denmark (e.g., Bak 2013; www.dts.dk 2019) detectorists as such, are not overrepresented among Danish museum users in terms of number of visits per year. On average, Danes visited museums approximately 2.7 times a year while the majority of the detectorists visit museums once or twice a year (www.dst.dk 2019). This may seem a little surprising at first, since it contrasts the widespread conception of detectorists being museum ‘super users’. Yet, it resonates well with the results being presented below, which suggest that detecting, for many, first and foremost is about being outdoors, finding relaxation, and establishing a hands-on and personal relationship with the past – a dimension which many museums might struggle to provide for a variety of reasons. Despite this, there are very few detectorists who do not visit a museum compared to the average Dane, where, in 2012, between 12-24 % had never been to a museum (regardless of this being an art, cultural or natural history museum) (Bak 2013, 10-19).

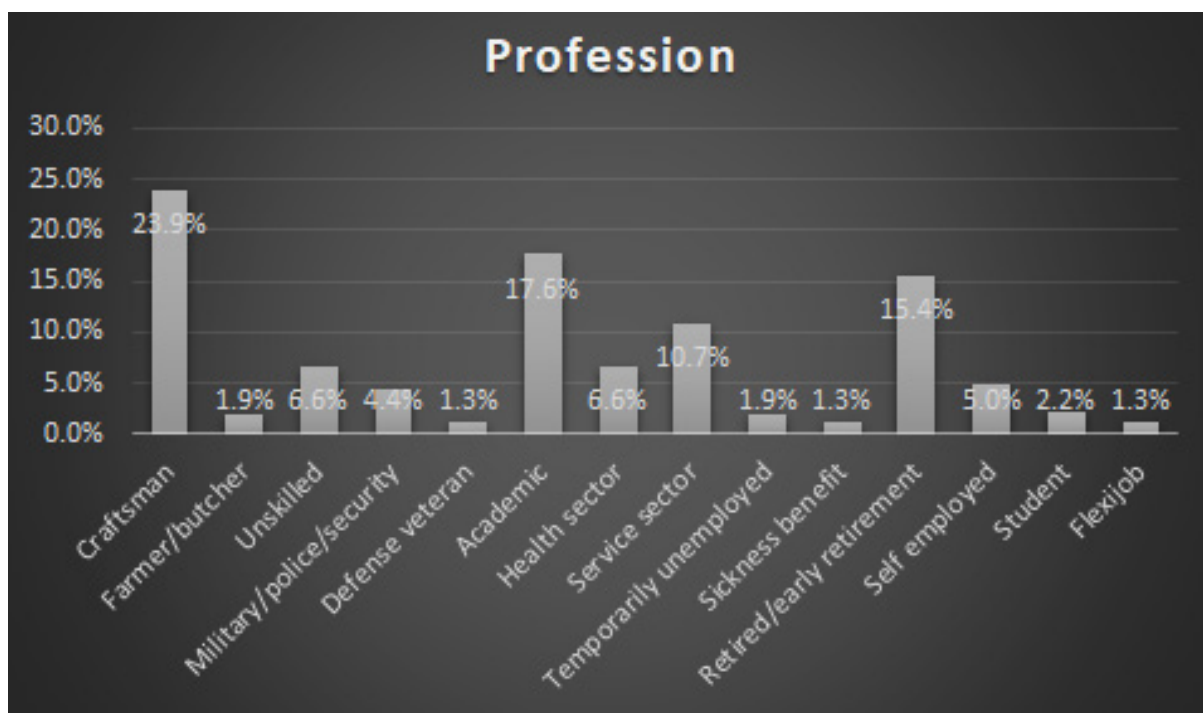


Figure 5. Distribution of the different professions among the Danish hobbyist metal detectorists.

Novices and Super Users

In general, detectorists may be considered to practice the hobby on very different levels depending on personal preferences, priorities, time, possibilities, dedication, and so forth. The survey showed that one third of the survey respondents have been practicing the hobby for 2-5 years followed by 5-10 years or more. These numbers could indicate that more experienced ('serious') practitioners might be overrepresented in our survey. The background for this could be that the growing number of newcomers to the hobby were either not members of the social media fora or the associations where the survey was distributed or that they might not have considered themselves to be a part of the target group (Figure 6).

The fact that experienced users are overrepresented in the survey is underlined by the data on intensity of detecting (during season). The biggest group of participants answered that they tend to be practicing the hobby 1-2 times a week, while around one fifth answered that they are even more active and go metal detecting more than twice a week. Only few people are practicing the hobby on a more irregular basis (Figure 7). This resonates well with the comparably high number of people who have handed over finds to the responsible museum, including treasure trove (Figure 8 and 9).

What's Their Motivation?

Detectorists' motivation is an important element of the debate on hobby detecting among heritage professionals – both in Denmark and internationally (e.g., Ferguson 2016; Hardy 2017; Scheschkewitz 2013). Often, the discussion on this issue is somewhat entrenched in a simplistic dichotomy. On one side, the 'good' detectorists who are motivated by a desire to contribute positively to archaeology and who strive towards professional recognition of their findings. On the other side, the 'bad' detectorists, who are nothing but 'treasure hunters' motivated by financial interests in the form of treasure trove compensation or the income from the sale of artefacts on the antiquities market. While it might be argued that both of the above-mentioned stereotypes do

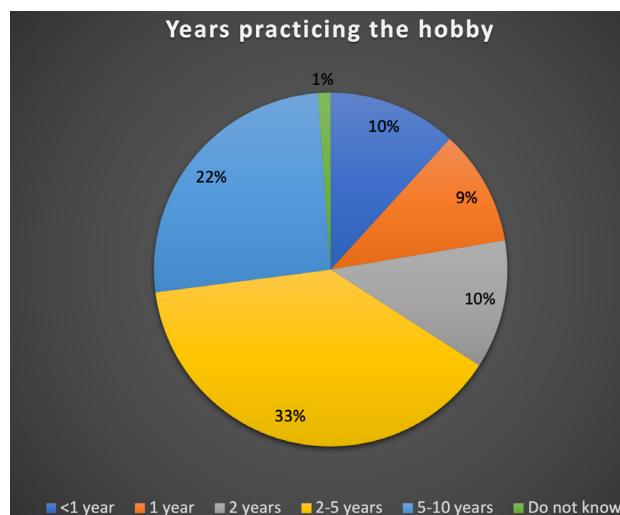


Figure 6. Amount of time the Danish hobbyist metal detectorists have been practicing the hobby.

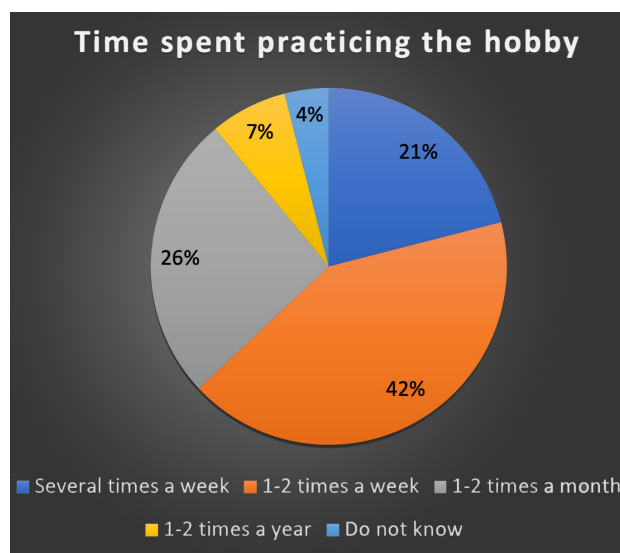


Figure 7. Graph showing how often the Danish hobbyist metal detectorists are out searching in average during a season.

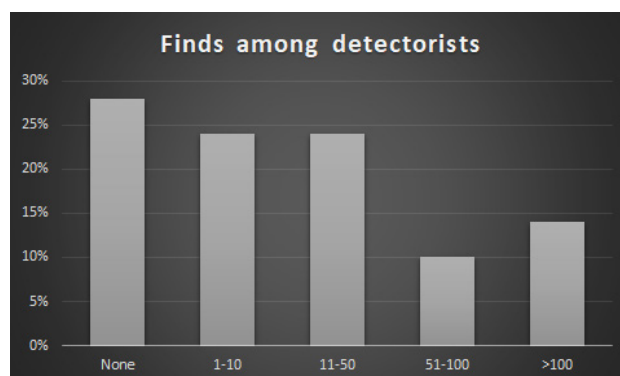


Figure 8. Amount of finds the Danish detectorists have been handing over to local museums the past 12 months.

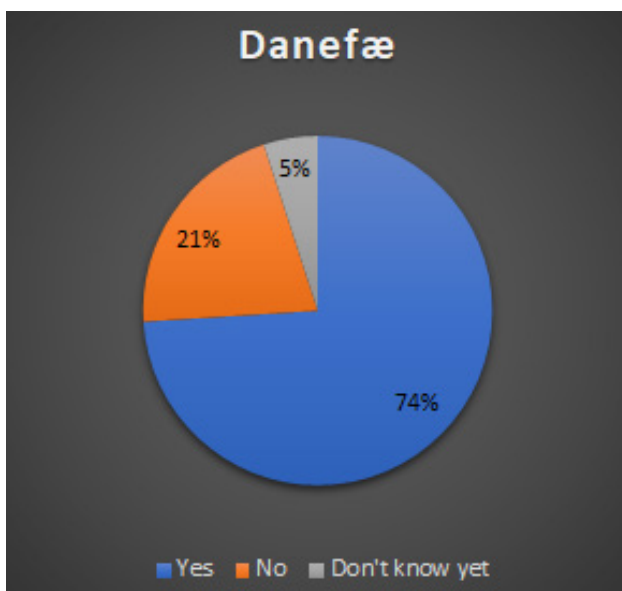


Figure 9. Distribution of whether people have experienced finding Danefæ.

exist, studies have shown that reality is far more complex. Detectorists are a very heterogeneous group with very different motivations for engaging with metal detecting. In order to understand the detectorist's motivation(s) and to provide data for a more qualified discussion, our survey was designed to contain a number of questions which directly – or indirectly – related to the motivations and meanings that the hobby might hold for its practitioners. Concerning the questionnaire, we were aware of the shortcomings of an online



Figure 10. Selection of most common keywords used to describe the meaning of the detector hobby for survey participants.

survey as a method to generate a representative image of such aspects. In Denmark, both public media and heritage professionals routinely portray detectorists as a sort of 'culture-heroes' driven by a desire to rescue our shared cultural heritage and to contribute to the writing of Danish national history. This profile certainly applies to many. However, the community as such has also embraced this positive narrative and made it the central element of their group identity and public image. Hence, the jargon within the community (and the responses given in our survey) may also be seen as a result of an adaptation to professional's expectations and the public perception.

Meaning

Respondents were given the possibility to describe what the detecting hobby means to them using their own words. In order to allow the respondents' personal attitudes to reflect in the survey, the free text field preceded a similar second question with a number of already defined choices.

The more than 230 individual answers to this question, provide a complex and multifaceted picture of the practitioners' motivation(s). Most answers highlight multiple factors concerning the engagement with metal detecting. For most, a clear priority is the possibility of being out in nature, relaxing, being active, and being part of a social community. Many also referred to the excitement of the search for archaeological/historical artefacts. However, the historical dimension of the finds, often expressed as a fascination/interest for local or national history, is only one among many other aspects, which in combination seem to constitute the detector hobby's special appeal to the participants (Figure 10).

When asked to select maximum three items out of a number of predefined categories describing why they have chosen the hobby, the most frequently chosen response-option is the wish to participate and contribute to writing Danish history and secure cultural heritage. An equally large number of respondents indicated that they practice metal detecting in order to enjoy some tranquillity and to

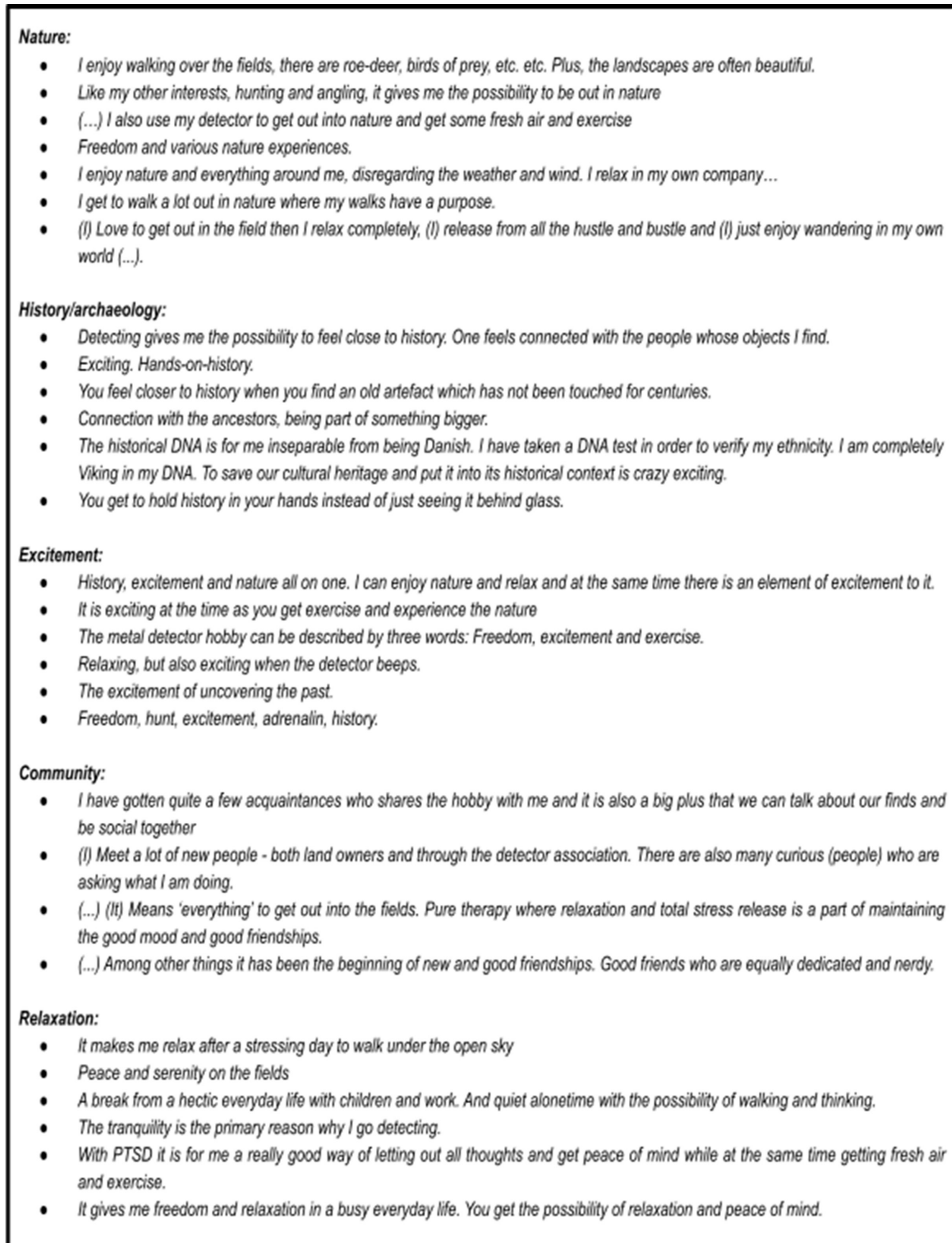


Figure 11. Selected free text responses representative for the five key factors for detectorists' motivation. Responses have been translated and shortened.

calm down. Slightly less answered that they practice the hobby because it offers them a possibility to be out in nature. For one third of the respondents, it is a way to spend time with other detectorists, whilst a bit more than one fifth also seem to be motivated by

the chances of finding something spectacular. Only a small fraction chose the financial compensation for treasure trove as a motivating factor (Figure 12).

By and large, the results of the participant's choice of predefined answers overlap with the free-

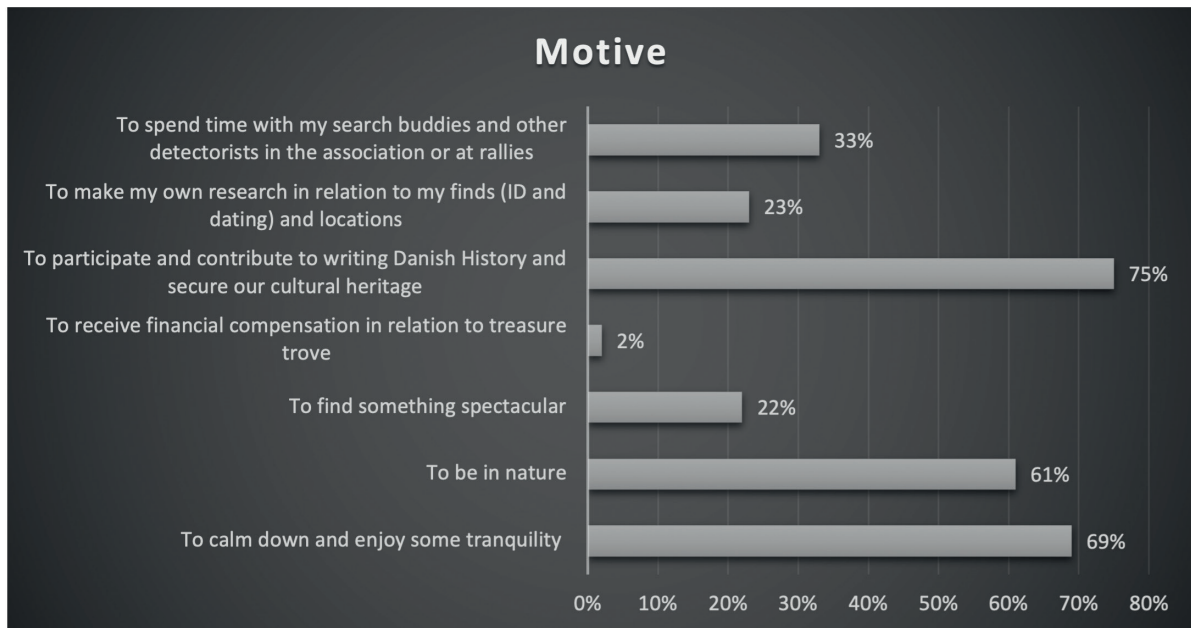


Figure 12. Distribution of what can motivate people to practice the hobby shown in percentage.

text responses. Besides the historical interest/fascination, aspects such as experiences in nature and the possibility to relax together with like-minded people was mentioned as key factors. On the other hand, the more analytical side of the hobby and the possible financial gain in the form of treasure trove (danefæ) compensation are not given high priority as motivating factors (see below for a more detailed discussion of treasure trove).

Closely linked to the motive of finding relaxation and using the hobby as a source of tranquillity, we asked a follow up question as to whether the participants suffer from mental health challenges and if metal detecting has a positive effect on these challenges. Altogether 18% stated that they struggle with psychological challenges. This suggests that mental health problems are slightly more common among the respondents/metal detectorists than the average level in society (Sundhedsstyrelsen 2018). Near all (17%) state that metal detecting has or has had a positive effect for them (in regard to this particular aspect of metal detecting, see Dobat and Dobat 2020).

Detecting Attitudes

In order to get a deeper understanding of the prevailing attitudes within the detector community we also asked participants about other spare time

activities and interests that they might have *besides* metal detecting (once again, providing them with a long list of predefined response options). To this, the majority declared that they engage in a great variety of hobbies. Somewhat unsurprisingly, the most common activity, by far, turned out to be hunting and fishing/angling, followed by an interest in animals or other nature related activities – notably gardening. Other common activities include reading, traveling, and cars/motorcycles, etc. (Figure 13 and 14). 28% indicated that they had *other* hobbies than those mentioned in the predefined categories. This could be hobbies such as fitness or different kind of sports, gardening, knitting, brewing, music, art, theatre, coins, veteran mops, genealogy, geocaching, computers and electronics, archaeology, local history, fossils, mountain biking, and many more (see Supplements).

Hunters and anglers are clearly overrepresented among the participants and the prevalence of outdoor activities resonates well with the emphasis participants place upon nature and exercise in the description of their motivation for practicing metal detecting (see above). Comparably few participants explicitly mention history or archaeology as being one of their hobbies. However, a general historical interest/fascination is reflected in activities/interests such as historical re-enactment, antiquities, and coins. This again resonates well with such attitudes reflecting a desire to connect more

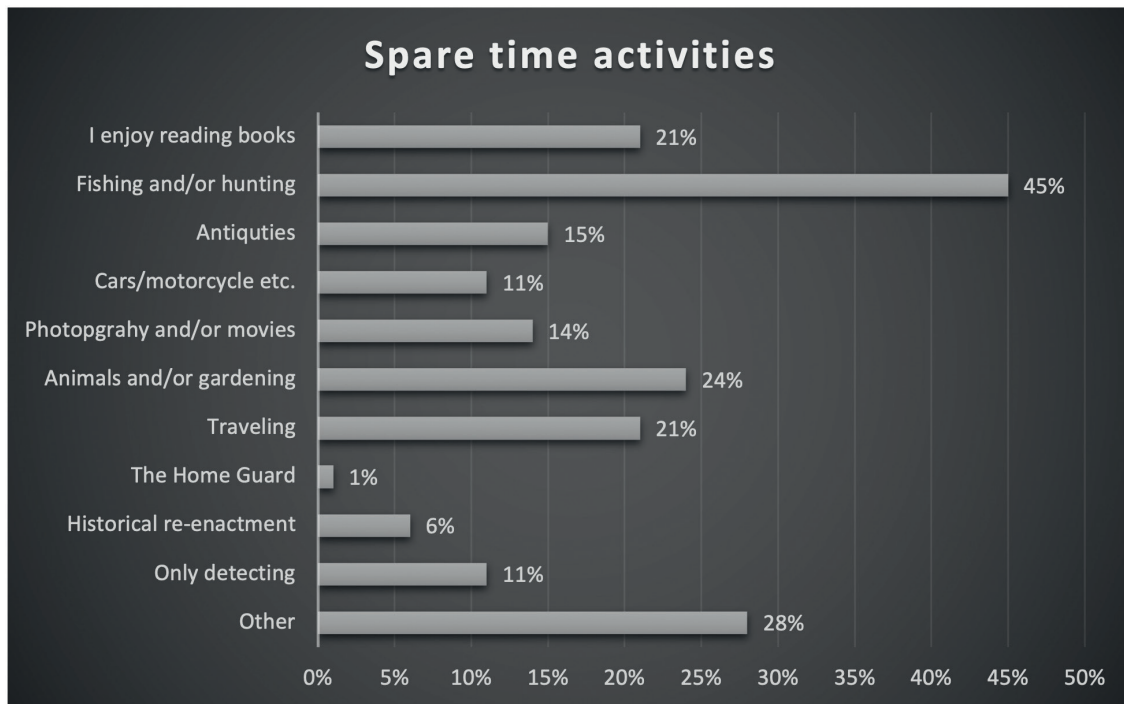


Figure 13. Spare time activities practiced among the Danish Hobbyist metal detectorists (The Detectorists could chose more than one option which is why the numbers are above a 100 %).

directly with history and to engage in a hands-on dialogue with the past.

Treasure Trove and The Financial Incentivment

According to the Danish Consolidated Act on Museums (2006) finders of archaeological artefacts which are deemed treasure trove (*danefæ*) are obliged to hand over their finds to the Danish National Museum. In reality the first contact is with one of the approximately 30 provincial museums who then forward finds and data to the National Museum. It is then, that the National Museum determines whether a find is treasure trove and which compensation is to be paid to the finder.

While the Danish Museum Law stipulates that it is the finder of treasure trove who alone is entitled to receive financial compensation, 19% of the respondents indicated that they share, typically 50/50, with the owners of the land where they have been given permission to detect. Through the free text responses many argue in favour of such a model based on moral considerations, i.e. fairness.



Figure 14. Most common spare time activities among the detectorists (besides metal detecting).

In 2019 and 2020, an average sum of 13.013.793 Danish Kroner has been paid in treasure trove compensation to a total of 822 finders (nearly all of them being detector users). More than half (538) received less than 5000 Kroner and only 15 people received compensation adding up to more than 100.000 Kroner (personal communication with museum curator Rikke Ruhe, at the Danish National Museum). This underlines the fact that at least for the vast majority of practition-

Attitudes and values placed upon the treasure trove compensation

- *A lot, it is a pat on the shoulder and acknowledgement*
- *It means something to be recognised for the work you are doing in relation to documenting and registering treasure trove. Those objects which are not declared treasure trove still hold the same personal significance for me since I do consider them to be of the same historical value.*
- *I am looking forward to receiving a 'danefæ diploma' with a detailed description of the found object. (This is) More important than the compensation.*
- *Like the runner who receives a medal for winning I get a diploma for a cool find*
- *I means that I get covered a part of the expenses for fuel*
- *It means a lot to participate in preserving the cultural heritage - the treasure trove compensation means less, it is the 'danefæ diploma' which is of value especially because a considerable amount of time has been put into describing the find.*
- *The letter from Natmus (the National Museum) with a further description of the finds which one has made is worth gold. The treasure trove compensation helps to buy/maintain one's equipment, batteries and so forth. But it is not the most important.*
- *It provides the energy to defy rain, light frost or scorching sun kilometer after kilometer on the field. Just to participate in making a difference and preserve our history.*

Figure 15. Selected free text responses reflecting prevalent attitudes and meanings placed on treasure trove compensation/danefæ. Responses have been translated and shortened.

ers, the financial gain connected to the detecting hobby is comparably limited and might not even cover the costs of practicing the hobby (involving gear, transportation costs, etc.).

Rather than asking whether the financial compensation is an important motivating factor, we have tried to investigate which meanings practitioners place upon it. According to the responses we received through our survey, it was observed that one needs to differentiate between pecuniary/economic capital and symbolic/cultural capital when trying to understand practitioners' attitudes towards the issue.

In the free text responses, most participants stated that they would register and hand over finds to the responsible museums disregarding whether they were offered compensation. When asked to further elaborate on their attitude(s) towards the treasure trove scheme, many emphasized that they take pride in the National Museum's approval of their find(s) (the danefæ diploma) more than the actual payment (which by some is referred to as a 'a nice supplement') (see appendix). Similar to previ-

ously discussed responses, it is striking to note the emotive language used in relation to the topic, as when participants use terms such as pride, honour, and acknowledgement (Figure 15).

In relation to above-mentioned, the survey participants responded very differently when asked about the possible consequences if certain finds were no longer considered as a treasure trove. While the majority stated for themselves that they would continue to register and hand over (donate) such finds to the museums, only a bit over half of the respondents concluded that they think that other detectorists would continue to do so. The majority further supported the hypothetical claim that such a development would lead to an increased sale of detector finds (Figure 16). Others point out that notably a large number of newcomers, who have taken up detecting in recent years, are indeed motivated primarily by pecuniary interests (and the hope of 'cracking a Danefæ-jackpot'). Hence, even if detectorists may deny or downplay its relevance as a motivating factor, it still is an important dimension of the hobby and

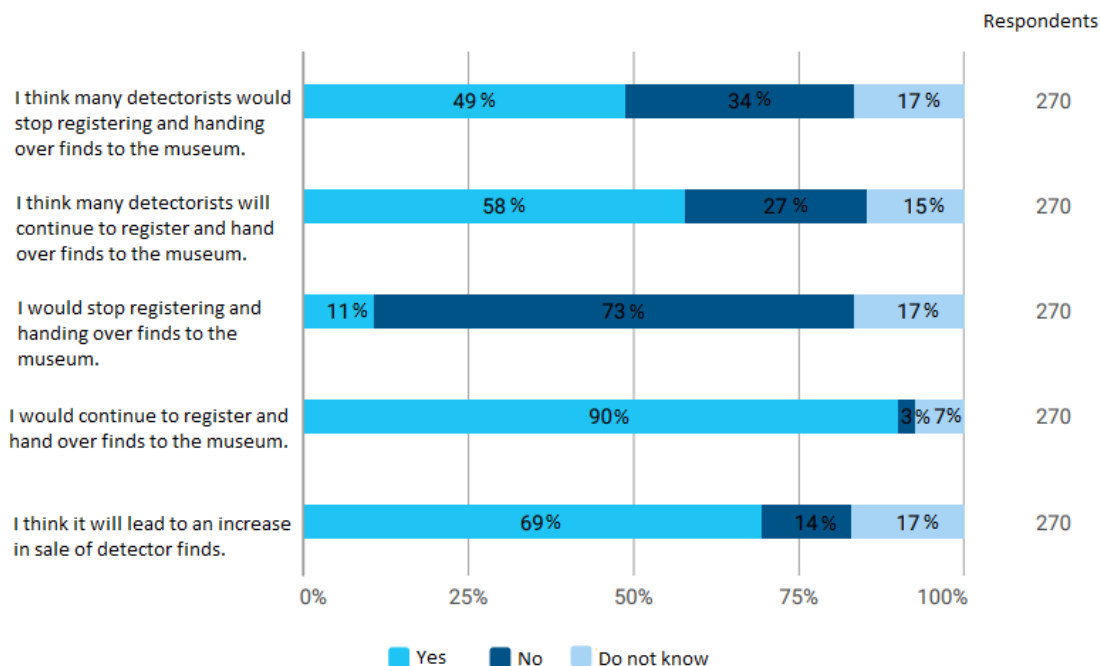


Figure 16. The detectorists view on what would happen if there would no longer be a financial compensation (treasure trove) for certain find categories.

it does mean something for a significant part of its practitioners. In relation to this, many participants also expressed dissatisfaction with the slow treasure trove turnover time at the National Museum.

Associations and Other Detectorists

It is important to take into consideration that metal detecting is also a social arena – both real (the physical meeting with peers at large scale rallies or small search parties) and virtually (the exchange in the context of social media). In the past, local and national associations (e.g., the *Bornholmske amatørarkæologer*, *Harja*, *Tellus*, and *Thy-Mors Detektorforening*) have fulfilled an important role as an institutional link between detectorists and museums and/or other research institutions. They have also contributed positively by shaping a positive culture and responsible attitude towards metal detecting and they play an important educational role; notably by introducing novices to the field. More recently these associations have been supplemented (and to some extent taken over) by social media platforms, which also play a positive formative role. Associations and individual protagonists, however, still fulfil an important

role. In fact, many recent initiatives that aim to introduce novices to the hobby while encouraging and promoting best archaeological practice in the field are in fact initiated from various stakeholders within the detector community and not by the professional sector.

According to our survey, almost three quarters of the participating detector users are members of one or several associations/clubs. Yet, this result probably is somewhat skewed, given that the majority of the respondents are ‘serious’ detectorists/super users who also are more likely to be members of an association.

In connection with the social aspect of the hobby, the majority indicated that they enjoy the company of peers when detecting. Yet, to another similar question, almost half of the respondents declared that they prefer being alone (Figure 17). Thus, the hobby’s social setting seems to be depending on specific situations.

Relation to Museums

It is considered one of the preconditions for the relative success of the liberal Danish model that from the beginning, the museum sector took on a pos-

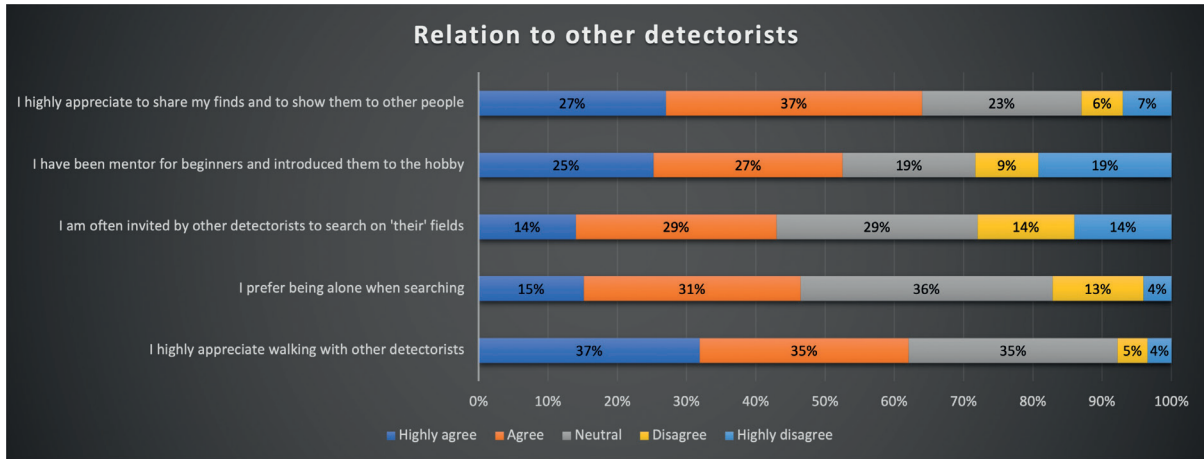


Figure 17. Different relations to other detectorists and the attitudes towards these among the detectorists.

itive attitude towards metal detecting and actively sought cooperation with detectorists, and vice versa. Today, representatives of the Danish heritage sector regularly emphasize the constructive alliance between museums and hobby detectorists (Andersen 2015; Dobat et Jensen 2016). At the same time, museums and museum professionals are responding very differently to the growing popularity of the detector hobby and the continuously growing number of people who wish to engage in it. Some institutions invest considerable resources providing guidance for good practice in the field or arrange regular schooling events for both experienced users and novices (e.g., Hansen and Henriksen 2012; Ulriksen 2014). Others engage more reluctantly with the community and focus first and foremost on the incoming finds (in accordance with the Museum Law). But how do the Danish detectorists perceive their relationship with the Danish museums? What kind of cooperation exists between these two entities? And what are the detectorists' suggestions for improving this cooperation?

According to the survey data, more than half of the detectorists (61%) have participated in a search with a museum, while a bit less than half of the detectorists (48%) has searched on areas being appointed by a museum. Somewhat surprising is the fact that only less than a quarter of the respondents have at some point participated in a course offered by the local museum on detecting and find recording (Question 28). The remainders either note that their museum have never offered such courses or that they have not participated.

Even though Danish detectorists generally look very positively on the constructive cooperation between detectorists and the museums, their evaluation of this cooperation, however, shows that opinions are clearly divided. We can assume that while especially the more experienced protagonists might feel firmly integrated in museum practice, a significant number of less experienced members of the community feel somewhat excluded and not sufficiently acknowledged for their efforts. Such sentiments probably also relate to the growing pressure on available permissions. Cooperation with the museums, hence, can be seen as a potential way of gaining access to fields.

When asked how they would grade the cooperation/relationship with the local museum on a scale from 1 to 10, the score of 7.6 can be taken as indicative of a general satisfaction. The purpose of the grading (which seen in isolation is of limited value) was to motivate respondents to also provide qualitative data and to elaborate further on their grading in the provided free text field. Of the 263 respondents 136 provided more detailed comments. The majority of these touch upon one – or several – of the following three aspects:

- Museums should to a larger degree *include and cooperate with* detectorists – notably in the context of excavations and other types of field work.
- Museums should offer courses on detector archaeology and handling of finds (especially for newcomers).
- Museums (many here explicitly included

the National Museum) should prioritize and speed up the *administrative processing of finds* ('fundbehandlingstid').

Besides the above-mentioned aspects, which are by far the most dominant issues, a significant number of participants expressed the wish that museums should:

- establish a national standard for recording and registration of finds
- use the DIME portal (dime.au.dk) as a standard tool for processing finds
- be more present and proactive towards the detectorist community.

Some respondents also gave air to very personal sentiments, which were in many cases based on feelings of their discoveries and contribution not being sufficiently acknowledged by the museum(s). At the same time, many answers displayed a high level of critical awareness of the varying attitudes and levels of engagement across the museums in Denmark and they also showed understanding for the various challenges (not least in terms of resources) faced by many museums.

Challenges within Danish Detector Archaeology

As one of the last, and maybe most relevant questions we asked detectorists was what they considered to be the biggest challenges within Danish metal hobbyist detecting. Some note that they found that the Danish system functioned well – especially compared to other countries. Thus, expressing an awareness of the hobby's contentious nature in other contexts. However, with over 200 statements, respondents also voiced more critical observations and opinions. While some of these relate to challenges inherent to the detectorist community, others relate to the public view of the hobby as well as the museum sector. Most answers focused on the following themes:

- Other detectorists accumulating 'permissions' (exclusive excess rights) and hence limiting the potential search areas for other detectorists.
- Nighthawks (people detecting on other de-

tectorist's permissions or without the permission of the landowner)

- The media's focus on the hobby and spectacular finds attracting too many newcomers.
- The growing number of newcomers with no or limited knowledge of responsible practice, rules, and regulations (and the self-imposed ethical codes within the community)
- The growing number of treasure hunters with a primary motivation to find treasure/treasure trove (as opposed to contributing to history)
- Misinformed landowners who do not know or who misinterpret the rules and their rights (the fear of archaeological discoveries leading to excavation on the landowner's cost)
- The long turnaround time in the administrative find processing at museums, notably the National Museum ('fundbehandlingstid').
- The lack of resources at the museums

Through the open-ended questions the participants were also encouraged to formulate ideas and (if relevant) suggestions related to the improvement of the current situation. Nearly all the responses focused on the role of the Danish museums and partly duplicated earlier responses in relation to the cooperation between detectorists and museums. Among the most common suggestions were:

- Museums should use detectorists as a resource and increase the level of inclusion and cooperation, notably in the context of excavations and other types of field work
- Museums should inform and guide the many newcomers through courses, information material, presence in social media, etc.
- Museums should implement the DIME portal (dime.au.dk) as a standard tool for registration and processing of finds
- There should be more control of the hobby and its practitioners (specific suggestions were mandatory courses, a license model, mentorships, etc.)
- Museums should prioritize and speed up the administrative find processing ('fundbe-

handlingstid')

- Funding for museums should be increased

Discussion

Metal detecting attracts people of all genders, age-groups from various backgrounds and places in life. However, demographically, a clear majority of the practitioners are men in the age 40-59 years. With respect to educational and professional background, detectorists at large mirror Danish society with the majority being either craftsmen, academics or retired/in early retirement. Linking our demographical data with participants' motivations and attitudes towards the hobby, we can conclude that the typical Danish detectorist is a middle-aged man who likes to be outside with an active purpose. There are a number of obvious resemblances when comparing our data with the results of similar surveys, notably Finland and the UK. Also here, detectorists usually are men in the age group between 30-50 years (Thomas 2012a, 51; Immonen and Kinnunen 2016, 170). Interestingly, a higher educational background is common among detectorists in Finland, resembling the Danish situation, while detectorists in the UK are often represented by the working class (Immonen and Kinnunen 2016, 179).

Those detectorists who responded to our survey are generally highly experienced and practice the



Figure 18. Even though the majority of danish detectorists are men, the number of women joining the hobby is growing (Photo: Allan Faurkov).

hobby on a very regular level. The majority can look back on a long 'career' and have produced a considerable number of treasure trove finds. Our data strongly support the general impression of the Danish detecting community as a very competent and knowledgeable group with a high standard for responsible field practice and recording of finds. Furthermore, there seems to be a strong desire to cooperate with the museum sector and to be included and acknowledged by the professionals.

The most central research question for our survey was asked with the aim of gaining a better understanding of the detectorists' motivation(s) for practicing their hobby. Therefore, the respondents were asked to answer this question by using their own words (which happened to lever some of the most surprising results of the survey). Some of the most central keywords used by the participants were terms and concepts such as: nature, relaxation, being active, being part of a community, and the excitement of discovery. While somewhat in contrast to prevailing expectations among museum professionals, these results resonate well with studies on metal detector use and users in other countries which have shown that practitioners are motivated by many different factors, with terms and concepts such as relaxation, nature, excitement, the social dimension of the hobby etc. being at least as important as contributing to archaeological knowledge and preservation (e.g. Immonen and Kinnunen 2016; Thomas 2012b; Winkley 2016). The hobby's quality as a space for relaxation gains additional significance in light of the 21 % of the respondents suffering from mental health challenges and where 94.4 % consider metal detecting to have a positive effect for them. The result resembles recent studies on the use of metal detecting as a form of self-therapy in Britain and Denmark (Dobat et al. 2020; Dobat and Dobat 2020) and emphasizes the multitude of (partly unexpected) reasons for people to engage with metal detecting. What becomes rather clear is that the archaeological finds and their historical background is only one among many different and completely unrelated values and meanings which participants project onto the metal detecting hobby. Furthermore, only a minority of the participants referred to the more abstract or analytical dimensions of the met-



Figure 19. Our survey underlines that detectorists are motivated by many different factors, with relaxation, nature, excitement, it's social dimension and others being at least as important as contributing to archaeological knowledge and preservation (Photo: Allan Faurskov).

al detecting hobby, e.g., the registration and identification of finds or archaeological research. In contrast, many of the responses, in one way or the other, highlight the personal connection with the past. Being able to hold and touch archaeological artefacts instead of 'merely' seeing them behind glass is explicitly emphasized by some. Others use emotive language suggesting that detecting for them is also about connecting with the past on an emotional level. The desire to enter a hands-on dialogue and to personally/emotionally connect with the past seems to be one of the most important motivating factors for most of the survey participants.

Through our question concerning 'other hobbies besides metal detecting' we attempted to gain insight into the prevailing attitudes among danish detector users. Detectorists obviously engage in many different spare time activities. The prevalence of outdoor activities resonates well with the emphasis participants place upon nature and exercise when describing their motivation to practice metal detecting. However, hunting/fishing overshadows all others, which begs the question of the possible relationship between the metal detecting

hobby and hunting/fishing. Comparing the two practices there are in fact a number of obvious parallels. Both activities involve being outdoors and require the practitioner to master a mechanical device and to 'read' and study the landscape in order to be successful. Both hunting/fishing and detecting have an ultimate price in the form of either a piece of nature (meat and trophy/trophy-picture) or a piece of history (artefact). Like metal detecting especially hunting has a strong social component. For example, the practice of reciprocal hunting invitations has a very direct counterpart in the common habit among detectorists to mutually invite trusted peers to their permissions. On a deeper psychological level, both hobbies require a sense of patience and persistence and have a strong element of anticipation and excitement with long periods of waiting time between actual successes (in the form of a kill/catch/find). Finally, similar to what the detectorists emphasized as being their primary motivation, the true essence of hunting and fishing for many is also first and foremost about finding peace and relaxation.

As might have been expected, only a small fraction of the participants chose the financial compensa-



Figure 20. Detectorists volunteering in an investigation of the spoil-heaps of Moesgård Museum's excavation around Vore Frue church in the medieval center of Aarhus (Photo: Allan Fauriskov).

tion for treasure trove as a motivating factor. On the one hand, this can be assumed to reflect the prevailing attitude among large parts of the community. On the other, it could also mirror what detectorists believe is considered the most acceptable answer among peers and museum professionals. In comparison, the pecuniary dimension within social media fora tend to take up more space in both posts and debates and often sparks heated and emotional discussions. It is a part of the picture that many survey participants explicitly note that especially many newcomers indeed are motivated by the chance of finding treasure and 'making money'. Using the survey data to at least try to understand which *meanings* practitioners place upon treasure trove compensation is a matter of interpretation. However, according to the responses, one needs to differentiate pecuniary/economic capital and symbolic/cultural capital. Participants use highly emotive language when asked to describe what treasure trove personally means to them and typical key words are terms such as pride, honour, and acknowledgement. There certainly are few dedicated and productive 'super users' for whom treasure trove compensation has proven to generate a real source of income either because of high quantities of finds or due to the one special discovery. This, however, does not mean that they are motivated by pecuniary interest. For most dedicated detector users, the data imply that they are indeed primar-

ily motivated by the recognition of their effort – a recognition which in the Danish system happens to be epitomized with a treasure trove diploma and financial compensation.

Conclusions and practice recommendations

It is important to emphasize that the Danish metal detecting community is highly heterogeneous and that the results of our survey are shaped by a number of biasing factors. For most aspects discussed above, our data can only provide a simplistic and schematic picture of a far more multifaceted reality. Concerning other aspects one can question, as it is normal for questionnaires, whether the responses reflect real sentiments or rather what is believed to be the acceptable answers. While many detectorists certainly will recognize their own and others' motivations, some will maybe not see their own personal attitudes and character reflected in this study. However, we do believe that our data reflect some general tendencies and characteristics and that they provide insight into what we have called the sociological dimension of the metal detecting hobby.

One of the focal points of this study was the motivation(s) of Danish detectorists to practice metal detecting and the values and attitudes they pro-

ject upon the archaeological heritage that they engage with through the hobby. One could argue that finders' motivations and attitudes are irrelevant for museum professionals as long as finds are being recorded and handed over whether this be out of a desire to contribute to heritage preservation and archaeological research or pedicular interests. However, the results of this perspective, we want to argue, contain an important lesson for professionals who wish to develop a best practice model for cooperating with detectorists.

For both professionals and hobby detectorists the archaeological material and the stories related to it is obviously important. However, metal detecting is for the practitioners a hobby – alongside other and often closely related vocational activities. Resonating the characteristics of 'serious leisure', as defined by Stebbins (1992), detectorists may act highly professionally and be very conscious (and self-policing) about their irreversible impact on the archaeological heritage. But it is still a vocational activity motivated by a variety of factors. The desire to contribute to archaeological knowledge and preservation is only one of these factors – and not necessarily the primary one.

In their view on the cultural historical dimension of detector finds, professionals typically put emphasis on analytical aspects and the artefacts' wider historical context. Many amateurs take a fundamentally different approach. For them, their finds provide a means of entering into a personal and hands on dialogue with the past and their relationship with the past is not necessarily of an analytical but rather of an emotional nature. We wish to argue that realizing and acknowledging this difference in approach is not only a central prerequisite for cooperation but being empathetic towards these alternative values is also an ethical matter.

The liberal model of Danish metal detector archaeology is widely regarded as a unique and well-functioning example of participatory approaches in heritage management and archaeological research. In combination, the cooperation between detectorists, museums, and the digital infrastructure of the recording portal, DIME, constitutes one of the biggest and most successful (both in terms of participants and number of finds) citizen science and co-creation projects in archaeology worldwide.

This optimistic view of the current Danish model is shared by the clear majority of the survey participants who generally take on a very positive stance on the constructive cooperation between museums and detectorists. However, the survey participants also raised critical issues and pointed at a number of challenges inherent to the detectorist community or relating to the public view of the hobby as well as the museum sector. Many of these issues and challenges are attributed to the increasing popularity of the hobby and the rapidly growing numbers of people who wish to engage in it for various reasons. Many explicitly express frustrations over and blame the excessive exposure of the hobby and spectacular finds in public media. Metal detecting for archaeological artefacts means consuming a non-renewable resource and our survey gives the clear impression that the hobby's recent growth has started to create peer-pressure and competition for productive permissions. When being asked to point out possible solutions, most answered were turned towards the local Danish museums, who, in the eyes of many of the participants, should 'step up' and take greater responsibility for the development of the hobby – be it through inclusion, information, control or other measures.

It would boost the frame of this article to discuss specific possibilities or systemic obstacles faced by Danish museums in this field. However, like the detectorists themselves, many professionals are also growing increasingly worried about the future of the phenomenon and its long-term sustainability in its current form. This survey and notably the inside views expressed in more than 1175 individual free text responses might serve as a source of inspiration towards the necessary development and possibly renegotiation of practices and strategies which acknowledge both the professionals and the detectorists' ambitions.

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