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Detecting Empowerment, Sustaining Commitment: How archaeological metal detecting can underpin enduring health benefits for military veterans

Aja Smith, Stephen D. Humphreys and Andres S. Dobat

While a still young but growing body of literature has begun mapping the positive effects that engagement in archaeological activities is proving to have on mental health and general wellbeing (see e.g. Everill and Burnell [2022](#); Sayer [2023](#)), the literature on the positive effects of metal detecting as archaeological practice is so far scarce. This scarcity stands in stark contrast to the self-reported positive experiences of practitioners in e.g. Denmark (Dobat *et al.* [2022](#); Dobat and Dobat [2020](#)) and the UK (Dobat *et al.* [2020](#); [2022](#); Winkley [2016](#)). In this article, we contribute to this burgeoning field by comparing two programs that engage military veterans in archaeological metal detecting activities; the American Veterans Archaeological Recovery (AVAR) and the Danish VETEKTOR Buddy program. The aim is both to point to the distinct potential of archaeological metal detecting in general, and more specifically to its particular relevance and value for veteran communities. Focusing on veterans' own experiences, we show how archaeological metal detecting holds a unique potential for empowering practitioners and inducing enduring health benefits. Our argument is that the realisation of this potential, especially for veteran communities, depends on crafting programs or frameworks that foster both a sense of independence and commitment. Moreover, while the comparison of these two programs points to the necessity of taking national traditions and structural frameworks into account when designing similar initiatives, our intention is also to push the archaeological community's understanding of the role avocational archaeological metal detectorists may play in engendering good archaeological field practice within the detectorist community, and underscore the value of engaging veterans in archaeological practices in general.

1. Introduction

Metal detecting for archaeological finds remains a relatively diverse field of archaeological engagement internationally — both in terms of the structural and legal frameworks and national traditions as well as in terms of the motivations of non-professional practitioners (Thomas [2012](#); Thomas *et al.* [2015](#); Lykkegård-Maes and Dobat [2022](#)). Also, professional attitudes towards the phenomenon differ significantly. Regardless of these differences, however, there seems to be a similarity in the kinds of positive effects on their sense of wellbeing experienced by detectorists during their activities, and many of those who struggle



with mental health issues even point to how searching for archaeological finds inspires a sense of betterment (Dobat *et al.* [2020](#); [2022](#); Dobat and Smith [2023](#)).

Correspondingly, in the course of the past decade, metal detecting as a practice that enhances wellbeing has become an integral element of several community archaeology initiatives; for example, the [US American Veterans Archaeological Recovery](#), The UK [Wings to the Past](#), [Archaeology on Prescription](#) and the research project and charity organisation [Waterloo Uncovered](#). The value of these and similar initiatives lie in their dual function as classic and applied research; they serve both to uncover archaeological discoveries and enhance participants' mental health. In fact, not only are the classic research agendas of such programs of benefit not just to professionals and archaeological science, knowing that they contribute to the greater cause of documenting history also enhances detectorists' sense of worth (Dobat *et al.* [2020](#); [2022](#)).

Interestingly, several of these initiatives have especially been targeted to national veteran communities (Bennett [2022](#); Ulke [2022](#); Waters-Barham and Humphreys [2022](#)). Regardless of national variations in terms of veteran law and organisation, studies have shown that engagement in archaeological projects in general, and metal detecting specifically, is particularly relevant and useful for improving the mental health of this particular demographic (Dobat *et al.* [2020](#); Everill *et al.* [2020](#); Finnegan [2016](#); Nimenko and Simpson [2014](#)). These studies point to the similarity between military service and archaeological activities, both in terms of the technical skills and mindset required, as well as the identification with causes of national importance (Waters-Barham and Humphreys [2022](#)). Not only is engagement in archaeological activities beneficial for the general wellbeing and mental health of veterans, this overlap also means that veterans are particularly well suited as workers and volunteers on archaeological projects. However, despite the documented positive short-term effects on veterans' mental health (and other participant groups included in archaeology and wellbeing initiatives), there is still a need to identify ways of securing more long-term effects (Dobat *et al.* [2022](#); Waters-Barham and Humphreys [2022](#)).

In this article we compare two different initiatives developed with the explicit ambition to ensure such long-term betterment; the US [AVAR](#) and Danish [VETEKTOR Buddy](#) mentoring programs. Both initiatives engage veterans who struggle with either diagnosed or undiagnosed mental health issues to take part in metal detecting practices, and both do so with the aim of improving these people's health and general well being. However, whereas AVAR employs veterans to work on commercial contracts (primarily in rescue- or development-led archaeology), the VETEKTOR Buddy mentoring program depends on the voluntary engagement of both veterans and the hobbyist metal detecting community. Both programs point to how engaging such veterans in metal detecting archaeology results in them experiencing an alleviation of symptoms and enhanced wellbeing. We focus below on detectorists' own perception and experience of the effects of their engagement in archaeological metal detecting activities, and draw on studies with this explicit focus. The article, then, does not claim to provide clinical medical evidence of the effect of archaeological metal detecting. Yet, the key characteristics of detectorists' experience resonate well with clinically recognised pathways for enhancing mental health; physical exercise and mindfulness, time spent outdoors, connection to others and to purposes beyond oneself (see e.g. [UK National Health Services](#)).

The value of comparing these two programs is not just to strengthen and develop an experientially based understanding of the health benefits of metal detecting. Rather, what becomes clear through the comparison is that both initiatives succeed owing to their ability to both foster empowerment and inspire continued engagement — however, by rather different means. Where AVAR secures this through their strength-based approach, training and employing veterans as valuable workers in a community of labourers and by providing long-



term contracts, VETEKTOR in contrast creates a framework characterised by independent choice and informal social communities. Owing to the disparate national traditions and structural frameworks in which each program functions, it is exactly this difference in their approach that enhances the probability of long-lasting effects on health and wellbeing. Yet our aim in the article is also to point to the potential of engaging avocational metal detectorists as valuable agents and partners in the archaeological endeavour to secure cultural heritage in other national contexts and archaeological communities. Furthermore, we also hope to inspire a view of the relevance and value specifically of engaging veterans in this shared pursuit, on the one hand making use of their particular well-suited training, skill- and mindset for archaeological activities and, on the other, assisting their path to recovery.

Beginning with an overview of the documented effects of archaeology as health promotion, the article moves to the specific issue of veteran engagement in such archaeology initiatives, before it delves into the two foremost specific models that aim to secure long-term mental health benefits for engaged veterans, AVAR and VETEKTOR. Comparing the insights to be drawn from the literature and these programs, the article discusses the role avocational archaeological metal detectorists may play in engendering good archaeological field practice within the detectorist community, and the value of engaging veterans in archaeological practices in general.

2. Linking Health with Archaeology and Metal-detecting with Therapy

Across archaeological cultures in Europe and globally, the use of archaeology as a path to increased wellbeing and happiness has become a mainstream perspective, picked up by practitioners, academics and policymakers alike (for an updated summary see Everill and Burnell [2022](#); Sayer [2024](#)). While the linkage between archaeology and health is well established, relatively little attention has been paid to avocational metal detecting as a way of using archaeology to improve wellbeing.

When it comes to avocational metal detecting, the desire to enter into a hands-on dialogue and to personally and emotionally connect with the past seems to be one of the most important motivating factors for its practitioners. However, at least equally important is finding some relaxation, being outdoors and experiencing nature, being active, etc. (see, for example, Thomas [2012](#); Winkley [2016](#); Immonen and Kinnunen [2017](#)). Another important factor is the hobby's social dimension, providing a space to meet and engage with other practitioners, both physically in the field and virtually in one of the many topical social media groups.

In the UK and Denmark, two European countries with the longest tradition of liberal metal detecting, practitioners with mental health impairments such as PTSD (Post Traumatic Stress Disorder) or other diagnosed or undiagnosed psychological problems consciously use metal detecting as a tool for self-therapy and believe that the hobby contributes positively to mental health and general wellbeing — some feel that metal detecting specifically alleviates their psychological issues. The perceived beneficial effect of metal detecting (whether grounded in evidence or not) is a well-established concept within metal detecting communities. This has been demonstrated in a number of survey-based investigations. Considering the data and testimonies generated through these surveys the perceived positive and, for some, even perceived mitigating effect of metal detecting can be explained as being based on a number of recurring themes (compare Dobat *et al.* [2022](#)).

- The relaxing and anti-stressful quality of metal detecting ('peace of mind'): Participants often refer to the motoric, sensory and mental experience of the actual practice of detecting, which they describe as highly meditative, engaging the body's



entire sensory apparatus, while at the same time shutting off internal and external disturbances.

- Outdoor life and nature: Being in nature is associated with a huge positive effect, and many participants link the relaxing quality of the hobby of metal detecting directly to being outside in nature.
- Physical exercise: The actual practice of metal detecting involves hours of walking in lines, from one end of an open field to the other; eyes fixed on the detector's digital display. This highly uniform and meditative movement may be one of the reasons why practitioners suffering from PTSD or anxiety disorders perceive detecting as anti-stressful and relaxing.
- Detecting as a social arena: As a social arena, the detector hobby enables practitioners to practise their hobby in community with others, without necessarily having to interact with others to an overwhelming degree, as one would normally search alone and in one's own world (behind the mental 'safe-space' of the headphones). The safe space of the detector's headphones and the potential retreat into the open landscape constitute a specific social context that allows people suffering from fears of social situations to connect with other like-minded people.
- Thrill of history: Detectorists often refer to the historical dimension and the thrill and excitement of finding historical artefacts as one of their primary motivations for engaging in metal detecting. Metal detecting obviously evokes a sense of excitement, adventure and even magic, which many explicitly link with its perceived mitigating effects. For others, metal detecting is about entering into a creative and hands-on dialogue with the past. This resonates well with more general theories of the potential of archaeological practice as a source of wellbeing and happiness, and as a catalyst for a sense of belonging and a feeling of being alive (Sayer [2015](#); Schaepe *et al.* [2017](#)).
- Self-esteem: The notion of self-esteem is a recurring topic in practitioners' testimonies. Here, it is related to success in finding something, the recognition from other detectorists and the public, and the feeling of making a positive difference to cultural heritage and archaeology. Metal detectorists often see themselves (or are portrayed in popular culture) as 'culture heroes' and custodians of the past, helping to protect the national heritage, thereby contributing to a 'bigger cause'. This can make metal detecting a source of cultural capital and thus also a growing sense of self-esteem.

The majority of these key factors identified in surveys and interviews resonate well with the New Economics Foundation's (NEF) 'Five Ways to wellbeing' concept (Aked *et al.* [2008](#)). There is a high level of correspondence between the key actions identified as generally improving people's wellbeing and the basic characteristics of metal detector archaeology, as described by survey participants. In accordance with other work on archaeology's potential as a source of wellbeing (Sayer [2015](#); Finnegan [2016](#); Everill *et al.* [2020](#)), metal detecting obviously enables people to connect, be active, take notice, learn and give, all of which are believed to be the building blocks for greater wellbeing and personal happiness. In this light, the detector has real potential to enhance and positively influence wellbeing and personal happiness, in particular for people suffering from mental health problems such as PTSD, depression and/or anxiety disorders.

As military veterans are more likely to experience common mental health problems such as anxiety disorder and depression, as well as specifically PTSD (Bashford *et al.* [2015](#); Kang *et al.* [2019](#)) and a focus on engaging this group in archaeological practice holds significant potential, there are also other good reasons to engage veterans in archaeological activities, as we shall now see.

3. Why Engage Veterans in Archaeological Activities?



Military service in the United States is highly regarded by civilians and service members alike, and while veterans enjoy greater public recognition in the US than has historically been the case in Denmark, both political and public support for the military has risen remarkably in Denmark in the post 9/11 era (Pedersen [2021](#); Jakobsen and Ringsmose [2015](#); Waters-Barham and Humphreys [2022](#)). Yet, while leading Danish politicians and military commanders in the course of the past decade have successfully cultivated the image of Danish soldiers as heroic (Sørensen and Pedersen [2012](#); Pedersen [2017](#); Daugbjerg [2019](#)), Danish as well as US media also has a tendency to victimise veterans (Pedersen [2021](#)), depicting them as psychologically vulnerable groups or, specifically in the US, as 'broken heroes' (Waters-Barham and Humphreys [2022](#)). This is unsurprising, as it is widely acknowledged that veterans are more likely to experience common mental health problems than comparable age groups in the general population, and that those who have experienced combat in particular are more likely to develop PTSD — even years after they have left active service (Bashford *et al.* [2015](#); Kang *et al.* [2019](#)). Yet, while this portrayal may assist in mobilising political and public support to veteran communities and associations in both the US and Denmark, the depiction of veterans as psychological vulnerable also poses challenges to veterans' sense of worth and to their transition to civilian life (Waters-Barham and Humphreys [2022](#)). In stark contrast to this version of the veteran as vulnerable or broken, stands the dominant idea of a soldier as a strong, disciplined and self-reliant person and therefore the prevailing self-perception of military personnel and veterans as necessarily not in need of psychological assistance. While it could be argued that many resources are allocated to the mental health issues of this relatively small percentage of the population, this self-perception along with the stigma surrounding mental health challenges in general in both the US and Denmark, often pose a significant barrier for veterans, delaying or even preventing them from seeking assistance (Møller *et al.* [2020](#); Waters-Barham and Humphreys [2022](#)). Afraid to be considered unemployable, weak, or unreliable by family, friends, the broader public and potential employers, veterans often struggle with their challenges alone (Langford *et al.* [2013](#); Møller *et al.* [2020](#); Vogt [2011](#); see also Waters-Barham and Humphreys [2022](#)). While veterans' perception of the negative impact that the stereotype of the broken or psychologically vulnerable veteran might be exaggerated, their perceptions shape their self-confidence regardless, and has been shown to impact veterans in the classroom (Motl *et al.* [2022](#); Hooyer *et al.* [2020](#)) as well as in a fieldwork environment (Waters-Barham [2023](#)). These complications make programs and initiatives that offer a different path to recovery than traditional psychological treatment highly relevant for veteran communities. Archaeological programs that are not necessarily couched in psychological terms, nor focused on treatment *per se*, but rather offer employment, engagement in meaningful avocational activities or a possibly enduring hobby, offer an avenue to betterment that might sidestep some of these obstacles and veterans' unease related to seeking therapeutic assistance.

Military veterans as well as service members have a long history of engagement with archaeological fieldwork (Waters-Barham and Humphreys [2022](#)). In fact, modern methods of archaeological field management have been argued to owe at least some of their origins to the styles of 19th- and early 20th-century military officers turned archaeologists (Evans [2014](#)). But the development of archaeology programs with the stated purpose of improving mental health within the veteran community specifically originated with the UK Operation Nightingale in 2011. Research on this and initiatives to follow in its wake, have unanimously pointed to the positive impact engagement in archaeological activities has had on the veterans' mental health (Dobat *et al.* [2019](#); Everill *et al.* [2020](#); Finnegan [2016](#); Nimenko and Simpson [2014](#)). On the one hand, the nature of the activity of searching for archaeological artefacts with a metal detector has, as described above, the potential of easing psychological difficulties and improving wellbeing for people regardless of their training and professional background. On the other hand, the history of engagement between military veterans and service members and archaeology seems to point to a kind of



kinship between the two practices and disciplines that makes engagement in archaeological activities of particular relevance to military veterans. So what elements does this kinship more specifically consist of?

For one, the overlap between the technical skills and intellectual competencies required in the field of archaeology and that of military service makes the training veterans received during that service highly relevant in the context of archaeological projects. Having been trained in reading the landscape, operating in foreign environments and in having a highly efficient and disciplined approach to tasks, veterans possess abilities that are highly useful in archaeological projects (Waters-Barham and Humphreys [2022](#)).

Moreover, the ways work is structured is similar across the two professions; the defined hierarchy, chain of command and clear work schedule that characterises the structured environment of archaeological excavations, are familiar and generally highly appreciated elements of work that veterans often miss in civilian contexts (Waters-Barham and Humphreys [2022](#)). In a similar vein, what Humphreys refers to as 'mission-focus', i.e. the 'real-world scientific mission' of a given archaeological project, is not only a familiar set-up for veterans, it also provides veterans with the sense of yet again contributing to greater causes, notably, causes of national importance, such as documenting national history (Waters-Barham and Humphreys [2022](#) see also Dobat *et al.* [2020](#); [2022](#)). The sense of meaning and self-worth which such contribution inspires is also related to the feeling of being tangibly connected to the past by virtue of the engagement in archaeological projects and activities (Waters-Barham and Humphreys [2022](#) see also Dobat *et al.* [2022](#)).

In certain domains the overlap is even more concrete, almost material; the technical gear and physical activities involved in searching for archaeological artefacts with a metal detector closely resembles those involved in specific military campaigns. In fact, metal detectors are well known to most Danish, US and veterans of other nationalities deployed in either Iraq or Afghanistan, where very similar devices were used to search for Improvised Explosive Devices (IEDs) (Dobat *et al.* [2022](#)). Such knowledge and the embodied experience of searching for IEDs can be imbued with difficult memories, and searching for archaeological artefacts with a metal detector may therefore trigger traumatic experiences (Dobat *et al.* [2022](#)). However, testimonies also point to how such overlap can make veterans appreciate anew the relevance of their skills and training, inspiring a sense of meaning or of the value their abilities continue to hold — also in civilian contexts. As one veteran with a history of deployment in Bosnia and responsibility for searching for IEDs expressed it: 'I have translated searching for mines into searching for history'. Regardless of the possibility of such positive translation of skills and corresponding sense of relevance and worth, this specific overlap points to the need to be acutely sensitive to this and other potential risk factors, and to make this an essential component of such intervention projects (Dobat *et al.* [2022](#)).

A related concern is that of the sustainability of the archaeology initiatives and their abilities to foster long-term betterment for participating veterans. Since the positive impact Operation Nightingale and similar initiatives had on participating veterans' mental health began to be documented (Dobat *et al.* [2020](#); Everill *et al.* [2020](#); Finnegan [2016](#); Nimenko and Simpson [2014](#)), public and commercial interest in such programs have grown (Waters-Barham and Humphreys [2022](#), 212). Along with the academic sector's current emphasis on public outreach and societal impact, this has led to what Treva Waters-Barham and Stephen Humphreys refer to as 'a proliferation of archaeology programmes advertising mental health benefits for participating veterans' (Waters-Barham and Humphreys [2022](#), 212). Despite good intentions, the fact that social archaeology initiatives depend on external funding and political good-will means that they often only run for a limited period of time (Dobat *et al.* [2022](#), 159), and many veteran-orientated initiatives seem mainly to foster short-term



mental health benefits (Waters-Barham and Humphreys [2022](#) , 212). While such interventions may help participants cope with symptoms, possibly reducing problems for a period and creating a sense of positivity that in some cases may even continue beyond the actual intervention, having left the supportive environment of the project, participants often fall back into maladaptive coping patterns (Dobat *et al.* [2022](#) , 159). Since a continued engagement in archaeological projects in general and excavations in particular has been shown to have an often negative impact on mental, physical or financial wellbeing (Waters-Barham and Humphreys [2022](#) , 213; Chase [2021](#)), the solution is not, as Waters-Barham and Humphreys point out, to secure continued employment for veterans on excavation projects — even if this is economically possible. But how then might we ensure that the initial mental health benefits of engaging veterans in archaeological activities translates into long-term experiences of betterment? The AVAR and VETEKTOR Buddy programs represent two related but rather different responses to this question, each developed with this long-term effect in mind, but tailored to the different national traditions, legal and structural frameworks of the US and Denmark respectively, and as such presenting divergent models for how to underpin this aim.

4. Aiming for Long-term Effects

Denmark and the US represent two rather different legal and structural contexts with equally divergent traditions for the engagement and inclusion of non-professionals in archaeological metal detecting. While archaeological activities in the US are privatised and run by commercial agencies that employ labourers for their metal detecting and other fieldwork activities, avocational detectorists dominate the field in Denmark. These hobbyists account for enormous amounts of new archaeological finds and discoveries and the majority act using highly professional standards for field practice. While they practise detecting as a spare time activity and as completely autonomous agents, they do so in close cooperation with the official heritage sector. This situation is possible owing to the legal basis of the Danish treasure trove scheme (*Danefæ*), together with the nation's long tradition of voluntary participation in archaeology, which works in parallel with the constructive cooperation between hobby metal detectorists and professionals (Henriksen [2005](#); Dobat [2013](#)).

Where AVAR has run for almost a decade and developed into a well-proven concept, the VETEKTOR Buddy program is still in its early stages. Regardless of their respective levels of maturity, however, both programs are by design highly situational and flexible, allowing them to integrate emerging practical knowledge and research in their set up as it develops.

4.1 AVAR: Strengths-based approach and long-term contracts

AVAR incorporated as a 501(c)(3) non-profit organisation in early 2016. AVAR focuses on adapting fieldwork, and engagement with the field more generally, so as to maximise the benefits (vocational training, wellness, social cohesion, etc.) while minimising negative factors (stress, physical wear-and-tear, negative social interactions, etc.) and providing bespoke support. At an organisational level, AVAR's goal is to showcase the unique strengths and talents veterans bring into the field of archaeology (Waters-Barham and Humphreys [2022](#)) because research and veteran feedback indicates that this is the best way to help veterans transition into civilian life. Conflict archaeology provides an ideal platform to engage veterans in a way that does this and, fortuitously, the metal detection survey toolset enhances many positive features of archaeological fieldwork while minimising many of the negatives.

As stated above, American veterans face a stigma in the workplace despite enjoying widespread support. Countering this damaging stereotype requires a program that establishes and upholds high standards for professional conduct and adherence to best



practices in the field. Setting this high bar is possible in part because of the incredible size of the American veteran support sector; while there are 19 million American veterans, there are also a reported 45,000 veteran-and-service-member-orientated non-profit organisations operating in the United States of America. This allows a program as specialised as AVAR to focus on providing support tools to a very specific subset of the veteran population (e.g. those motivated to carry out professional-quality archaeological fieldwork alongside other veterans for sustained durations of 2+ weeks) while referring others to agencies more appropriate to their interests or needs.

AVAR's goal is to provide a *supported opportunity to excel* in the field of archaeology. The unique support the program provides is most apparent on projects in the provision of a Mental Health Clinician, our mentoring program termed the Modular Archaeological Progress System (MAPS) and one or more Crew Support Specialists; less immediately obvious is project leadership that emphasises open communication and a desire to develop and include *all* participants selected to attend projects. The transitional challenges facing American veterans are increasingly understood to extend beyond mental and/or physical disability alone (Shepherd *et al.* 2021; Wadsworth 2021), and our approach is meant to accommodate the often more impactful cultural differences that hinder participant progress. It should also be noted that AVAR utilises a rigorous selection process that includes interviews with a Mental Health Clinician and an Occupational Therapist as well as a review of veterans' discharge paperwork. These steps are intended to help ensure 1) that we place individual veterans onto projects that will give them the greatest possible opportunity to engage enthusiastically with the archaeology and with other team members, and 2) that veterans are ideologically compatible with the program's goals.

Of the 26 projects AVAR has directed or partnered with as of November 2023, 13 have consisted partially or entirely of systematic metal detection survey carried out by trained veteran participants. Comparing these projects has suggested the following advantages of metal detection surveys for programs of this type:

1. **Clarity of method and goals.** Metal detection survey benefits from relatively straightforward methods and objectives (i.e. 'dig and record all hits in this 5x20m transect'). Progress is easily observable, which builds team morale as well as facilitating smooth project management and communication. The use of ArcGIS Online to manage the finds database means that spatial trends can be communicated in real-time to the entire team using a tablet or smartphone. This simplifies talking through the field decision-making processes at a high level of resolution, which is critical in terms of developing veterans' awareness of the 'big picture' rather than treating them merely as a labour force.
2. **Teachable tools.** Metal detection survey requires each participant to be trained on the detectors and the efficient use of pinpointers, recording, finds identification, and overall methodology. Unlike excavation, it is simple for a more skilled detectorist to assess the performance of beginners by simply sweeping behind them with a detector to note any finds they may have missed. This allows for instant feedback, which is again critical in building a program focused on quality results.
3. **Reduced physical impact.** There is currently little or no published research on the physical impact of archaeological fieldwork, although AVAR has been collecting physical health data on veteran and civilian program participants since 2021 in preparation for publication. Nevertheless, our observations suggest that metal detection survey teams experience reduced fatigue and fewer aches and pains than similar teams undertaking excavation. Fatigue has a profound impact on social dynamics so this does not just impact health and field output, but also morale. It is relatively simple for the 3-person metal detection teams AVAR typically utilises to rotate tasks during the day, further reducing the chance of injuries from repetitive



motion and ensuring veterans become familiar with detecting, digging, and recording hits.

4.2 VETEKTOR Buddy: informality and independence

The basic idea of VETEKTOR was conceived very unintentionally, as a result of user surveys and interviews with members of the Danish metal detector community. Despite our primary aim being to acquire data on the potential users of a recording scheme for metal-detected finds, we also learned that many practitioners joined in the hobby not only to contribute to archaeological knowledge, but also to find relief from stress, or even mitigate mental health challenges. In fact, for many this self-therapeutic aspect of the hobby was indeed the primary motivation. This was the case, notably among Danish military veterans who suffered from mental health challenges owing to traumatic experiences during their deployment in the Balkans, in Iraq or in Afghanistan. This realisation gave rise to several exploratory projects, investigating this unexpected dimension of the detector hobby, both generally but also specifically targeted veteran communities (Dobat and Dobat [2020](#); Dobat *et al.* [2020](#)). However, it also made us ask the obvious question: if this works for some, why not make it available for more?

While a contentious issue in many European countries, metal detecting in Denmark is endorsed by the official heritage sector. Although they operate very much independently, detectorists generally cooperate well with the Danish Museum sector, and they adhere to basic principles of good archaeological practice. This, seen in combination with the well-established volunteering culture in Denmark as well as the strong sense of civic engagement, seemed the ideal backdrop for an 'archaeology and wellbeing' project centred around a mentor-mentee approach.

As such the existing VETEKTOR Buddy program serves to introduce veterans with mental health issues to metal detecting archaeology as a hobby, by providing them with the necessary technical gear and by pairing them with mentors from the Danish hobby archaeology community. The mentors serve to instruct veterans in best practice, regulations and responsibilities as well the practicalities of gear handling and artefact identification. Before being paired with a veteran, the mentors are given an introduction to their role and responsibilities. Part of this introduction involves information on how PTSD and similar mental health issues may affect people in general and veterans especially, and hence what to expect from and how to approach their mentorship with participating veterans. As part of their role, the mentors are also expected to bring their mentees along with them on searches and as such provide both access to lots and practical experience with searching techniques and the equipment. To the extent that veterans are showing interest in the social dimension of the hobby, the mentors are also expected to introduce their mentees to the community of archaeological detectorists, offline and online.

As it is well-known that many veterans, despite struggling with mental health issues, are not clinically diagnosed or only become so after years of suffering from such issues, a clinical diagnosis is not part of the program's inclusion criteria. Rather, it is the veterans' own experience of mental health challenges that serves as the sole inclusion criterion. Recruiting veterans through local veteran associations and with the assistance of veteran coordinators in the municipalities, makes it possible to identify also those veterans who might not yet be part of the formal mental health care initiative and hence to engage those who might otherwise remain unassisted in these matters.

Presently, the program runs in association with a couple of local veteran organisations as well as with about ten active veterans, either still engaged in the original mentorships or in self-made arrangements. With the recently started research and innovation project, funded



by Krogager Fonden and based at Århus University, VETEKTOR Buddy has been given a framework that can support and further develop the program. The aim is to both upscale the program and to implement measures to make it relatively self-sustainable in the future. This involves not only developing the program into a well-defined concept, with educative materials and a clear manual for best practice, but also ensuring anchorage at local veteran and hobby archaeological associations as well as at the relevant organs in the Danish municipalities.

The plan is that the program will host yearly assemblies for mentors and mentees, offering participants and potential future participants an opportunity to meet, socialise, network and together search plots of land of particular archaeological interest. The yearly assemblies are further conceived as an opportunity for both potential future partners to be introduced to the program and learn from the experiences of already involved anchor-associations.

In contrast to the medical monitoring involved in formal mental health programmes, metal detectorists remain largely autonomous and independent actors with little need for professional facilitation and guidance. With the appropriate permission from landowners, they can engage in their hobby at any time, anywhere. In contrast to being dependent on civic systems or the assistance of professional therapists, the hobby then enables veterans to engage in self-therapeutic practices whenever they feel a need. As one veteran puts it: 'Sometimes I wake from a dream and don't know whether I am in Iraq or at home with my wife... And then I know I need to go out, searching with the detector...'. Veterans and other detectorists who use the hobby as a self-therapeutic measure find this independence crucial; they feel empowered to take charge of their own health and wellbeing, a feeling that inspires a heightened sense of worth (Dobat *et al.* [2022](#)). Rather than being enrolled in formal structures and feeling as burdens on society, they once again experience the ability to contribute to this society by documenting its history, as self-reliant actors. In fact this patriotic aspect of the hobby seems to be part of the reason why so many veterans find that the hobby contributes to their sense of worth; it seems to be connected to the dominant military identity, one aspect of which is patriotism.

5. Conclusion: Scaffolding Commitment and Empowerment

While these two programs present rather different models for how to engage veterans in archaeological activities with the aim of inspiring long-term mental health benefits, they have certain aspects in common that might prove instructive for similar programs.

For one, while in rather different ways, each program works to ensure conditions that inspire a sense of empowerment in the engaged veterans. AVAR's strength-based approach, with its focus on developing and supporting veterans' opportunity and abilities to excel in the field of archaeology is based on employment opportunity and a formalised support system. The formalised support system of Mental Health Clinicians, the mentoring program, the Crew Support Specialists and empathetic and inclusive leadership all ensure the essential support needed for the community of veterans is engaged, and the focus on ability and skill, along with the veterans' status as valuable employees, inspire a sense of self-confidence and empowerment in those participating.

In the context in which VETEKTOR is employed, the conditions that allow empowerment are instead centred around the informality and independence that the hobby and the traditions accompanying it in Denmark provide. The opportunity to go searching with the detector that the hobby offers whenever the need for a self-therapeutic activity arises, means that the veterans are able to take a certain measure of control of their own betterment. This ability to be self-reliant inspires confidence and a sense of empowerment.



Secondly, commitment has proven to be key for securing the desired long-term health benefits in both programs. AVAR works explicitly and with dedication to secure a work environment that both allows veterans to continue on this new career path in the long run and secures commitment in the short. This is done through AVAR's highly formalised support system. The Mental Health Clinician, the mentoring program, Modular Archaeological Progress System (MAPS), the Crew Support Specialists and the empathetic and inclusive leadership on projects all contribute to this.

Commitment in the context of the VETEKTOR Buddy programs is, on the other hand, secured by virtue of the informality of both the program by design and a hobby by definition. While veterans initially have to be recruited and introduced to the hobby, and the hobby of course is not appealing to all — veteran or not — it is more the veterans' own identification with, interest in and sense of betterment from the hobby that underpins commitment rather than the formal aspects of the program. The flexibility that is built into the program, as it can be implemented either at anchor points such as veteran associations as these best see fit or as it is translated into individual mentor-mentee relations, is modelled exactly to support this beneficial informality. Further, the yearly gathering and joint searches hosted by VETEKTOR are also designed to spur interest and commitment.

Taken together, we see how both programs ensure conditions that underpin the veterans' sense of empowerment while at the same time inspiring commitment. These two aspects are then shown to be essential elements when aiming to foster long-term mental health benefits for this particular population. In the context of AVAR this is referred to as a strength-based approach, as we saw above. In the VETEKTOR program, these conditions come in the form of the informality and independence that are characteristic of the hobby *per se*, supported by the well-established traditions of the Danish hobby archaeology milieu and further supported through the design of the program. Where AVAR forms a strong framework that supports empowerment and commitment, VETEKTOR rather serves as a facilitating body that underpins the nature of the hobby, not least by virtue of the program's flexibility, which secures the essential informality and independence of the hobby.

5.1 Metal detecting therapy, good archaeological practice and veteran potentials

The opinions and attitudes of archaeologists towards (and against) hobby metal detecting are often polarised, while legal and policy approaches differ greatly across jurisdictions, ranging from liberal or even supportive (such as in the USA, the UK or Denmark) to highly restrictive, with many nuances in between. The plunder of heritage sites by illegal or irresponsible detectorists in search of artefacts for their own personal collections or for sale is an enormous issue in many countries, notably around the Mediterranean or in Eastern Europe (Lecroere [2016](#); Ganciu [2018](#)).

Hence, the basic idea of the support programs presented here may be a challenging concept for many heritage professionals. Against the backdrop of this 'dark side' of detecting, handing out detectors and encouraging members of the public to engage in the hobby simply seems like a bad idea, and very much at odds with the professional ethos of archaeologists. The VETEKTOR program introduces participants to the basic principles of responsible metal detecting, initially through instruction from the professional program coordinator, but first and foremost through the hands-on supervision and coaching participants receive from their mentor. In this way, veteran participants go through a process of acculturation that (ideally) fosters an awareness and understanding of good archaeological field practice and shapes positive attitudes towards cooperating with the professional archaeology sector.

We believe that there is a unique potential in avocational metal detecting as an element of wellbeing projects on archaeology, not only in terms of improving the lives of participants,



but also in terms of promoting responsible metal detecting and the principles that underlie it. This is valid not only in countries where metal detecting is already well established, but also, and maybe particularly, in countries that struggle with the phenomenon. Many newcomers to the detecting hobby are indeed inspired by beguiling media accounts of golden treasures and the unrealistic yet widespread dream of achieving economic independence. In contrast to this, the professional guidance and supervision (be it from a professional or a mentor) that is provided within the framework of a wellbeing project such as VETEKTOR allows the archaeological sector to shape the participants practice and attitudes. And it (ideally) creates a community of potential ambassadors of responsible metal detecting. This, we would argue, is a good reason to start taking metal detecting seriously as a potential tool for wellbeing projects in archaeology.

In a related line of argument, both the experiences from VETEKTOR and AVAR, point to the value of reconfiguring our understanding of the part veterans suffering from mental health issues may play in archaeological wellbeing projects. Although veterans who suffer from mental health issues may require special conditions, they are trained in working in a structured and disciplined environment, their skills in handling technical gear and their often keen interest in issues of national importance, such as national history, make them valuable resources in archaeological projects. The conditions needed to engage psychologically vulnerable veterans can be diverse. But the comparison of the AVAR and VETEKTOR programs points to how it is essential to ensure conditions that both allow empowerment and facilitate commitment, and that are tailored to the particular national frameworks and traditions.

Bibliography

Aked, J., N. Marks, C. Cordon, and S. Thompson 2008 *Five Ways to Well-being: A Report Presented to the Foresight Project on Communicating the Evidence Base for Improving People's Well-being*, London: NEF. <https://neweconomics.org/uploads/files/five-ways-to-wellbeing-1.pdf>

Bashford, J., Collins, C., Hasan, S. and Patel, K.K., 2015 *Call to Mind: A Framework for Action. Findings from the Review of Veterans and Family Members Mental and Related Health Need Assessments (Final Report, October 2015)*, London: Community Innovations Enterprise on behalf of the Forces in Mind Trust and NHS England. <https://www.fim-trust.org/wp-content/uploads/jhna-england-call-to-mind.pdf>

Bennett, R. 2022 'How do interventions using heritage-based activities, impact on mental health and wellbeing? An analysis of Breaking Ground Heritage and Operation Nightingale outcomes' in P. Everill and K. Burnell (eds) *Archaeology, Heritage, and Wellbeing: Authentic, Powerful, and Therapeutic Engagement with the Past*, Abingdon: Routledge. 197-207. <https://doi.org/10.4324/9781003182184-16>

Chase, D.Z. 2021 'Archaeology, the academy, and women: Finding one's own path'. *Heritage* 4, 1725-1736. <https://doi.org/10.3390/heritage4030096>

Daugbjerg, M. 2019 'Heroes once again: varieties of Danish 'Activism' in conflated commemorations of the war in Afghanistan and the Prusso-Danish War of 1864', *Ethnos* 84(1), 160-78. <https://doi.org/10.1080/00141844.2017.1396232>



- Dobat, A.S. 2013 'Between rescue and research: an evaluation after 30 years of liberal metal detecting in archaeological research and heritage practice in Denmark', *European Journal of Archaeology* **16**, 704-25. <https://doi.org/10.1179/1461957113Y.0000000041>
- Dobat, A.S. and Dobat, A.S. 2020 'Arkæologi som terapi: Metaldektektor hobbyen og mental sundhed i Danmark', *Arkæologisk Forum* **43**, 11-24.
- Dobat, A.S. and Smith, A. 2023 'Case study 2: searching for archaeological artifacts, finding paths to wellbeing: how hobby-archaeology and metal detectors may improve quality of life' in A. Greenwood (ed) *Arts for Health: History*, Leeds: Emerald Publishing Limited.
- Dobat, A.S, Wood, S.O., Jensen, B.S., Schmidt, S. and Dobat, A.S. 2020 "'I now look forward to the future, by finding things from our past..." Exploring the potential of metal detector archaeology as a source of well-being and happiness for British Armed Forces veterans with mental health impairments', *International Journal of Heritage Studies* **26**(4), 370-86. <https://doi.org/10.1080/13527258.2019.1639069> *Open Archaeology*, 182-193. <https://doi.org/10.1515/opar-2016-0014>
- Lykkegård-Maes, M. and Dobat, A. 2022 'Hunters of the past: a study of demography, attitudes, and values among Danish metal detector users', *Danish Journal of Archaeology* **1**, 1-22. <https://doi.org/10.7146/dja.v1i1.125546>
- Møller, S.O., Forsberg, O.K., Sørensen, H.J., Enemark, M.H., Lyk-Jensen, S.V. and Madsen, T. 2020 'Help-seeking behavior among Danish veterans with self-reported mental problems - a 22 years register-based follow-up study', *Nordic Journal of Psychiatry* **74**(1), 51-59. <https://doi.org/10.1080/08039488.2019.1669072>
- Motl, T.C., George, K.A., Gibson, B.J., Mollenhauer, M.A. and Birke, L. 2022 'Stereotyping of Student Service Members and Veterans on a University Campus in the U.S.', *Military Psychology* **34**(5), 604-15. <https://doi.org/10.1080/08995605.2021.2025012>
- Nimenko, W. and Simpson, R.G. 2014 'Rear Operations Group medicine: A pilot study of psychological decompression in a Rear Operations Group during Operation HERRICK 14', *Journal of the Royal Army Medical Corps* **160**, 295-297. <https://doi.org/10.1136/jramc-2013-000196>
- Pedersen, T.R. 2017 *Soldierly Becomings: A Grunt Ethnography of Denmark's New 'Warrior Generation*, Doctoral dissertation, Copenhagen: Department of Anthropology, University of Copenhagen.
- Pedersen, T.R. 2021 "Breaking bad? Down and dirty with military anthropology", *Ethnos* **86**(4), 676-93. <https://doi.org/10.1080/00141844.2019.1687550>
- Sayer, F. 2015 'Can digging make you happy? Archaeological excavations, happiness and heritage', *Arts and Health: An International Journal for Research, Policy and Practice* **7**(3), 247-60. <https://doi.org/10.1080/17533015.2015.1060615>
- Sayer, F. 2024 'Healthier Societies through Heritage: Heritage, Happiness, and Human Rights' in F. Sayer *Heritage and Wellbeing: The Impact of Heritage Places on Visitors' Wellbeing*, Oxford: Oxford University Press. 169-195. <https://doi.org/10.1093/9780191914539.003.0007>
- Schaepe, D. M., Angelbeck, B., Snook, D. and Welch, J.R. 2017 'Archaeology as Therapy: Connecting belongings, knowledge, time, place, and well-being', *Current Anthropology* **58**(4), 502-533. <https://doi.org/10.1086/692985>



- Shepherd, S., Sherman, D.K., MacLean, A. and Kay, A.C. 2021 'The challenges of military veterans in their transition to the workplace: a call for integrating basic and applied psychological science', *Perspectives on Psychological Science* **16**(3), 590-613. <https://doi.org/10.1177/1745691620953096>
- Sørensen, B.R. and Pedersen, T.R. 2012 'Hjemkomstparader for danske soldater - ceremoniel fejring af krigeren og den krigsførende nation', *Slagmark* **63**, 31-46. <https://doi.org/10.7146/sl.v0i63.104082>
- Thomas, S. 2012 'Searching for answers: a survey of metal-detector users in the UK', *International Journal of Heritage Studies* **18**, 49-64. <https://doi.org/10.1080/13527258.2011.590817>
- Thomas, S., Wessman, A., Siltainsuu, J. and Perttola, W. 2015 'Understanding metal detecting and archaeology in Finland', *Cuadernos de Prehistoria y Arqueología de la Universidad de Granada* **25**, 185-97. <https://doi.org/10.30827/cpaq.v25i0.5365>
- Ulke, D. 2022 'From Nisarouin to Hougoumont: A comparative study of the impact of two veteran-focused archaeological initiatives on the mental wellbeing of military personnel and veterans' in P. Everill and K. Burnell (eds) *Archaeology, Heritage, and Wellbeing: Authentic, Powerful, and Therapeutic Engagement with the Past*, Abingdon: Routledge. 183-197. <https://doi.org/10.4324/9781003182184-15>
- Vogt, D. 2011 'Mental-health related beliefs as a barrier to service use or military personnel and veterans: A review', *Psychiatric Services* **62**(2), 135-42. https://doi.org/10.1176/ps.62.2.pss6202_013
- Wadsworth, K. 2021 'Profoundly changed: the homecoming of veterans from Iraq and Afghanistan', *Journal of Community Engagement and Scholarship* **13**(4). <https://doi.org/10.54656/nkiz8380>
- Waters-Barham, T. 2023 *Facilitating Veteran Reintegration Through Rehabilitation Archaeology: A Phenomenological Study*, PhD dissertation, University of the Cumberland, Williamsburg, Kentucky.
- Waters-Barham, T. and Humphreys, S. 2022 'American veterans archaeological recovery: a strengths-based approach' in P. Everill and K. Burnell (eds) *Archaeology, Heritage, and Wellbeing: Authentic, Powerful, and Therapeutic Engagement with the Past*, Abingdon: Routledge. <https://doi.org/10.4324/9781003182184-17>
- Winkley, F. 2016 'The phenomenology of metal detecting: insights from a unique type of landscape experience', *Papers from the Institute of Archaeology* **25**(2). <https://doi.org/10.5334/pia.496>