

Small wins and wicked problems

In an important and timely new book, John Schofield suggests that archaeologists have the superpowers necessary to address some significant global challenges faced by society: climate change, environmental pollution, crime and conflict, social injustice, health and well-being.



RACHAEL KIDDEY

How archaeologists can change the world

Using language from policy sciences, psychology, physics, and economics, my new book defines what are meant by wicked problems and how archaeologists can address them, through a small wins framework, and by using creative approaches and working across disciplines.

This is not just an academic ideal. Archaeologists can do this as easily in the field, and in museums.

Archaeology as a lens

Archaeology is not only about the past. It is a lens through which our lived experiences enable us to question and explore the contemporary world.

This world includes all of those places, objects, memories, traditions, and stories that have survived into the present from the past, but not forgetting that we continue to create all of these things ourselves, today.

Archaeology is, therefore, as much about the present, and the future. It is also, fundamentally, about people.

Archaeology is the only subject that studies humans and their relationships with the world from a deep-time perspective.

When our world's future is at stake, this perspective feels important, if not essential.

In his new book, *Wicked Problems for Archaeologists*, he examines some of the creative ways that we can use archaeology to help directly address some of the global challenges that threaten both human and planetary health.

Here, he summarises some of the main points of the book, while other authors describe successful examples of 'small wins'.

Defining wicked problems

A product of the Cold War era, 'Wicked Problems' emerged from research in the late 1960s to devise ways of using outcomes from USA's NASA-funded space programme to help resolve urban problems, such as crime and poverty.

The definition of wicked problems as those that are 'complex, intractable, open-ended, and unpredictable' captures both the scale of these problems, and the difficulties that they entail (see box).

Right: A teddy bear that has been washed up or dropped on a beach

Original Wicked Problems

List of the 10 characteristics of wicked problems, as defined by Rittel and Webber in their defining 1973 paper:

- There is no definite formulation of wicked problems;
- Wicked problems have no stopping rule;
- Solutions to wicked problems are not true or false, but good or bad;
- There is no immediate or ultimate test for solutions;
- All attempts to solutions have effects that may not be reversible;
- Wicked problems have no clear solution, and perhaps not even a set of possible solutions;
- Every wicked problem is essentially unique;
- Every wicked problem may be a symptom of another problem;
- There are multiple explanations for the wicked problem;
- The planner (or policy-maker) has no right to be wrong.



We now also have 'super-wicked problems' which introduce the additional dimension of time (or, the lack of time, to be precise).

Here, then, are four additional characteristics to add to the 10 characteristics of wicked problems:

- Time is running out;
- There is no central authority, or only a weak authority, to manage the problem;
- The same actors causing the problem are required to help solve it; and
- The future is discounted radically so that contemporary solutions become less valuable.

Both climate change and environmental pollution are examples of super-wicked problems in which archaeologists have recently become involved. Social injustice, crime, and conflict are widely used as examples of wicked problems.

I first encountered wicked problems on a visit to Australia in 2018. I was a

visiting scholar at the University of Queensland and had the opportunity to meet Professor Brian Head, who has written extensively on wicked problems from a policy perspective.

I told him about my research, and explained that I was struggling to find a focal point given that I had so many different projects and interests.

But he quickly put me straight. "Everything you have mentioned," he said, "has an obvious common denominator: wicked problems."

And that is where this journey began.

Small wins

In my book, I suggest that the only realistic way to achieve success with wicked and super-wicked problems, and ultimately to make a difference, is by adopting a 'small wins framework'.

These 'small wins' (also referred to as 'small gains' and 'nudges') align well with what universities refer to as 'impact', which, for the purposes of

Opposite page: Hassan's T-shirt with a secret pocket sewn into the chest, to hide his passport, Krokum, Sweden, 2019

REF is defined as, ‘an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia’.

Small wins have been defined by theorist Karl Weick as: ‘A series of concrete, complete outcomes of moderate importance [that] builds a pattern that attracts allies and deters opponents. The strategy of small wins incorporates sound psychology and is sensitive to the pragmatics of policymaking.’

Several of the examples included here represent successful small wins, being moderately-scaled projects with limited funding, yet with obvious benefits for their participants.

Even with small wins that are clearly proving successful, we need to be careful. Wicked problems are deeply entangled with one another, meaning that a solution to one problem may exacerbate other problems elsewhere.

Climate change and social injustice are well-known examples of this entanglement (a term borrowed from quantum physicist Karen Barad).

Promoting our successes

Once small wins have been achieved, or a new method has been shown to be effective, as archaeologists we need to find someone who can tell influential people about it, so that our museums and galleries, local services, and archaeology departments are not threatened with closure by people who fail to understand the significance (or the potential) of the work we do.

As climate activist Greta Thunberg said in 2019: “We know that most politicians don’t want to talk to us. Good, we don’t want to talk to them either. We want them to talk to the scientists instead. Listen to them because we are just repeating what they are saying and have been saying for decades.”

For this conversation to happen, those scientists need a voice, meaning spokespeople who are good at communicating and have access to data and projects that deserve to be talked about.

Archaeology needs influencers. As archaeologists we have never been very good at this. It is probably why climate scientists on the IPCC don’t take much notice of us.



RACHAEL KIDDEY

Above: Four of the Made in Migration team at the launch of British Academy Summer Showcase, 2021

Right: The benefits of social prescribing schemes like Archaeology on Prescription are felt by staff members as well as those taking part



YORK ARCHAEOLOGY



Preparing archaeologists for a wicked future

We also need to think about how we manage people, resources, and priorities within our profession.

Management leadership scholar Keith Grint has explained how, across disciplines, academics need to be collaborative, passionate future leaders inspiring an even more collaborative and passionate next generation.

These, he thinks, are essential qualities for creating the structures conducive to successfully addressing wicked problems.

We should also be looking to create (and teach our students to prepare for) some entirely new business models: for example, new board structures that provide opportunities for younger people.

Often, advisory boards and boards of trustees are composed of older people, with more experience.

Younger idealists are often not welcome because they lack real-world experience. But for a world of wicked problems we need to be bold and much more creative.

The old ways have not worked, so we need to try some new ones. The CBA's Youth Advisory Board is an excellent example of what can be done easily and right now. (see pages 62-63 of this issue).

As archaeologists, we should

Above: The Archaeology on Prescription site has revealed interesting discoveries near the city's wall

Right: On the surface, the participants are learning about archaeology, while underneath they're reporting improved self-esteem, confidence, and strength



continue to teach students how to find, research, interpret, and conserve the places and the materials from which we create stories about both the past and the present.

These skills are fundamental to archaeology. But we need to go further. Students also need to learn how to communicate with non-specialists, and how to work with people, often from very different cultural backgrounds, and typically without any archaeology training or knowledge or any formal education, in some cases.

They need to learn more about Indigenous knowledge, about global challenges, and about activism.

Some modules could be far more integrated (a climate change course, for example, with teachers and students from across disciplines).

Students should also be supported in realising their potential to enthuse, empower, and even influence others, to travel through time, and to create rich and inspiring stories about their

travels, through creative writing and film-making.

Wicked problems present a universal threat but, as archaeologists, we have an advantage in the form of a powerful lens through which to view them from the perspective of deep time and human experience.

We should make more use of this lens. In the book, I also refer to it as a superpower.

Climate change and archaeology

by Hana Morel (MOLA)

Archaeology has a unique role in understanding changes to the environment, and the complexities such changes entail, via its reach in studying diverse areas across nature and culture.

On the international platform, there are emerging projects that aim to highlight this role through the importance of local knowledge, and how to value this knowledge as part of



scientific knowledge systems that might enhance understandings of climate thinking, impact, and solutions.

This messaging is at the heart of a recent first-of-its-kind project between UNESCO, the IPCC and ICOMOS, which brought together nature, culture, and climate researchers, practitioners, and knowledge holders from across the world.

In England, one example echoing this message is the Coasts in Mind (CiM) project, which is delving into the value of intangible heritage and how communities can use this knowledge to inform local decisions.

Intangible heritage – such as local knowledge, experience, observations, ways of knowing, and ways of life – offers a wealth of opportunities for key concerns, such as improving accessibility, developing skills and capacity building, and co-creating ways towards community resilience and well-being.

CiM works with young people, older people, and those from disadvantaged groups to explore how their stories, observations, personal collections, and experiences can contribute to decisions related to coastal change, local heritage,

A veteran from the Royal Corps of Signals recovers the eroding remains of a convict from the cliffs of Rat Island, Gosport, as part of Operation Nightingale'

and climate action.

The project also creates a space for different generations to share and connect with each other on a concern that impacts everyone, and create a sense of confidence, inspiration, and passion to ensure they are part of wider decisions that impact their lives and livelihoods.

Through five themes focusing on celebrating memory, creating connections, equipping communities, mapping change, and future-proofing communities, Coasts in Mind is supporting climate action at the heart of coastal communities most vulnerable to climate change impacts, and using archaeology, and its archive, to achieve it.

Archaeology on Prescription

by Amy McKee (York Archaeology)

Satisfaction with the NHS is at an all-time low, and with the pandemic causing a rise in mental health issues across the country it is clear that something else needs to be done to support the population.

This is where archaeology and heritage can step in.

'Social prescribing' refers to the practice of using non-medical interventions to assist with medical needs, whether that be relating to mental or physical health.

Implementing a 'social prescribing' model in archaeology can be a small step in addressing the 'wicked problem' that is health care in the UK.

Archaeology on Prescription is one such project. Taking place in York, it takes local adults with mild to moderate mental health difficulties and uses archaeology and heritage as a platform for supporting their mental health journey.

On the surface, the participants are learning about archaeology, while underneath they're reporting improved self-esteem, confidence, and strength.

Preliminary research from the project suggests that this benefit could also be spread to the staff members and local community surrounding the project.

Furthermore, there have been interesting discoveries from excavating the site, which is located very close to the historic city walls, advancing the knowledge of the area, and developing and preserving the

heritage of the communities who once lived on the site.

There are also plans to create a 'mentor' scheme in which previous participants in the project assist in teaching new participants. This mentoring scheme will create a cohort of amateur archaeologists who are passionate, inspired, and motivated to share the positive benefits of archaeology and social prescribing with the world.

Although the excavation itself is a community project looking at the past, Archaeology on Prescription is helping participants look towards a healthier future. See pages 64-65 for more information on this project.

Environmental pollution

by Raveena M. Tamoria and Estelle Praet (University of York)

Plastic pollution has become one of the most pressing issues facing our planet.

As the world continues to change physically and culturally within what we now call the Plastic Age, this wicked problem is marked by pervasiveness and ubiquity of plastic waste which are increasingly shaping landscapes worldwide, including the most remote locations.

Archaeology has become poised as a uniquely fitting tool for understanding the impacts and implications of the wicked problems of plastics, providing tools to shape various processes of investigation and analysis, and is a crucial platform to communicate climate change impacts.

Contemporary archaeology shifts attention to the recent past and the present, adopting an archaeological lens on plastic pollution that transforms plastics into daily objects, questioning attitudes and consumer behaviours.

Story-writing workshops were organised in Galapagos giving participants the option to recognise in plastic litter traces of its global journey, which offers an engaging way to approach the pollution it causes.

The global scale of plastic pollution shapes new waste landscapes, in areas valued for their unique nature and biodiversity such as Galapagos and seascapes, as in the Great Pacific Garbage Patch.

In relating the issue to everyday human behaviours, archaeology contributes with small wins to understanding the wicked problem of plastic pollution.

In 2024, it is anticipated that a Global Plastics Treaty will come to fruition. Seemingly endless discussions and pressures from powerful opposing lobbyists have hindered advancement of this binding international treaty.

The scale of the treaty contrasts with the small wins to which archaeology has contributed so far. However, instead of seeing them as contrasting, we advocate for the complementary nature of small wins with a binding international agreement.

Heritage for Global Challenges Research Centre

by Emma Waterton (University of York)

Like John's new book, the Heritage for Global Challenges Research Centre seeks to explore how heritage can be used to understand and address a range of global challenges.

Located in the Department of Archaeology at the University of York, and with the financial support of a Leverhulme International Professorship awarded to Emma Waterton in 2022, the centre seeks to challenge the systems, structures, and institutions of power that have hitherto shaped the field of heritage.

Led by Emma and deputy director Hayley Saul, the centre is comprised of an administrator, three research fellows, and eight PhD students whose work aligns with the following research 'axes': (1) Inclusions/Exclusions; (2) Colonial Afterlives; (3) Mobilities and

Materialities; (4) Anthropocene Encounters; (5) Cultures of Survivance; and (6) Biophilic Relations.

With case studies in the UK, Canada, Bermuda, Macau, Australia, and the Hindu Kush Himalaya, and with methods drawing from geography, ecology, food sciences, design theory, acoustics, and art (to name a few), the centre's researchers are actively contributing to culturally, politically, and environmentally sustainable communities and places in the regions in which they are based, where they undertake research, and where they host events, and other knowledge-sharing activities.

The centre's work spans local, national, and global scales. At the local scale, the centre is conducting research with individuals and communities about specific heritage places, foods, objects, practices, and memories.

At the national scale, researchers are undertaking a comprehensive survey of the British public's interests and participation in heritage, as well as exploring the heritage that resides at the intersections of agroecology, farming knowledge, and climate change action.

At the global scale, the centre is undertaking research across heritage sites connected by their colonial legacies, addressing food insecurities, and recording traditional water technologies in order to propose culturally appropriate ways to protect biocultural knowledge and materialities.

The Coasts in Mind team in 2023 on a memory walk in the southeast, exploring connections between land, sea and livelihoods through lived memories and coastal change



JESSIE HURFORD/MOLA