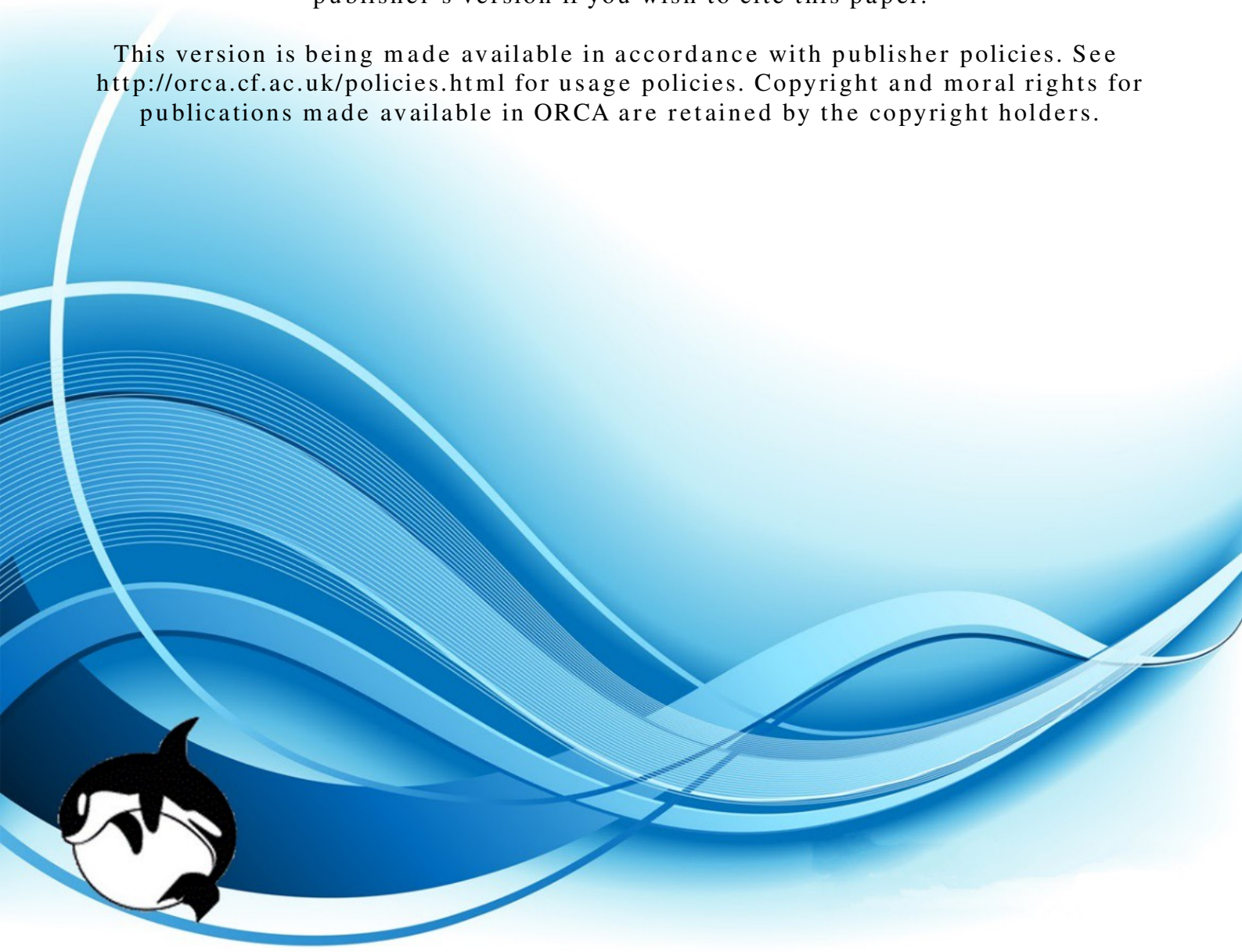

Begin with benefits: reducing bias in conservation decision-making

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Abstract
The National Trust for Scotland has undertaken a radical revisioning process via a collections and interiors review to protect significance whilst broadening support for conservation. This project reframes the consequences arising from a selection of current and possible uses of collections within an historic building. It creates a lifetime risk approach against which short-term activities can be benchmarked to inform decision-making at a local level. Instead of framing consequences from operation or more intense visitor patterns in terms of tangible change the project jointly conceives benefits across the mission of NTS allowing a direct comparison between benefits and consequences. A representative selection of current and possible use scenarios are being generated by staff of Newhailes House, Edinburgh. A framework is presented in which the anticipated benefits from proposed activities will be identified and roughly quantified. Results of these assessments will be manipulated to create effective communication visuals. Psychology suggests that this will enable a more informed and balanced stakeholder engagement. This project fundamentally shifts the conservation discussion from permissive vs conservative conservation approaches, replacing that 'I am a no touch' or 'I am a please touch' conservator with an evidence-informed and bias-reduced decision-making strategy.

Introduction
The National Trust (NTS) for Scotland has been going through a radical revisioning process, ensuring that their strategies to protect do not become strategies to embalm. A critical feature of this process has been a Collections and Interiors Review (2017) and new policies (2019) to protect significance whilst broadening support for conservation. This strategy is adopted by the organization nationally and will be implemented within properties by property managers interpreting the policy. As part of the revisioning process NTS has begun to focus on optimizing value for visitors under a 'use it or lose it' banner. Within the overarching strategy all those working for NTS are charged to serve 'several core connected commitments' and be 'caring brave, curious, inclusive, and vibrant' in their practices (Our Values & Behaviours, NTS 2018).

Newhailes House
Newhailes House, near Musselburgh, is an intriguing property managed by NTS. Acquired in 1997, the property was in the ownership of the Dalrymple family who had owned and lived

there continuously for almost 300 years. The point of acquisition was a special one, architectural historians who visited the property were entranced by the 'patina' of the property, which had received only essential maintenance and contained evidence of many of the occupants and their passions written on the surfaces and structures of the buildings. At the outset, this sense was the focus of preservation with an attitude to restoration was 'as much as necessary as little as possible' (Gow and Meredith, 2014)

'The interiors and collections at Newhailes combine to create the important aesthetic quality of 'mellowness', a feeling of entering a place that has a lived-in feel, with a deep patina and layers of continuity of occupation up to the present. This is considered one of the key experiences of Newhailes.' (Hickling, Paper to NTS Council, 21st April 1995. NTS)

Newhailes won a Europa Nostra conservation award 'for the well-researched and cautious conservation of an important 17th century country house using best practice.' (Newhailes Statement of Significance, NTS 2005). In order to minimise damage to fragile surfaces (Croft, Paper to NTS Council 2nd February 1996) and in anticipation of a 'difficulty in appreciating some of the presentation' and the property's 'peripheral location' (Paper to NTS Council, 1995) a decision was taken to restrict visitor numbers to a maximum of 200 per week. This series of decisions represents both an exciting approach and a challenge. With significantly capped visitor numbers there are revenue and sustainability challenges in the longer term and the preservation of patina (Figure 1) has been interpreted by some visitors as if the NTS were conserving neglect.

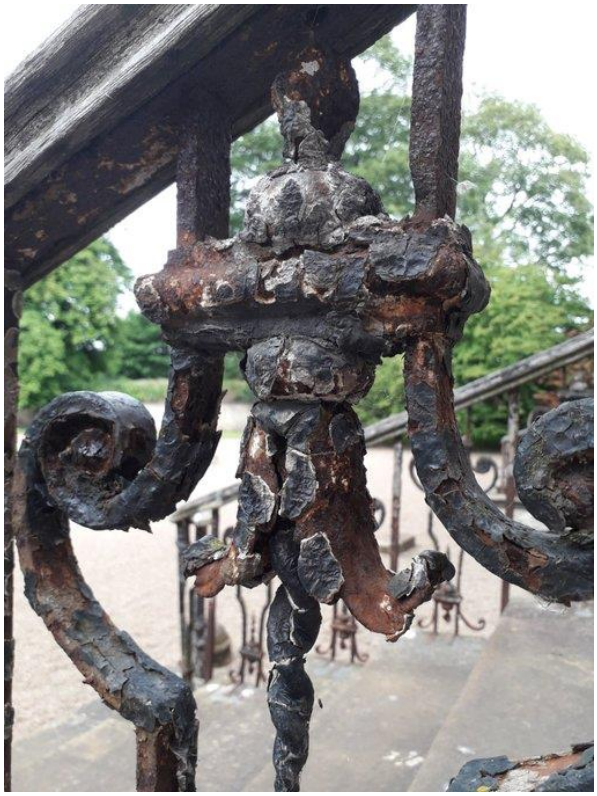

Figure 1. Preservation or neglect? The conservation and presentation of a curtain (left) and iron railing (right)

The implementation of the vision has been somewhat contradictory. Although the commitment to conserve without visible intervention is honoured in the preservation of corroded railings or the non-replacement of wallpaper panels, conservation interventions have occurred including the installation of sprinklers, environmental monitoring systems incorporating conservation heating radiators, sensors, blue wool dosimeters, pest traps, and so on. These practices are visible, and indeed are reported by house staff as being of interest to the visiting public. Visitor numbers have been low by many standards (2016-17 visitor numbers to the House were 5425).

The characterization of conservation and access as opposed

A perennial feature of managing conservation is the proposal that there in an inherent conflict between conservation and access. The simplistic foundation being that if examined in close focus, each visitor walking on a floor causes wear; each lux hour of illumination causes wall finishes to fade; each hand on the railings adds a miniscule quantity of moisture and oils. This conflicted relationship is fed by the differing focus given to staff in different directorates, some tasked with caring others with delivering access. This means the responsibility for the wear, fading and corrosion become the daily challenge for one team but for others tasked with access, the visitor numbers, viewers and tactile experiences are their achievements.

When a macro focus is taken the conservation versus access paradigm does not hold. A building which has no visitor income has no conservation budget, an interior that is not experienced is not valued and a sense of place requires people to connect. Without the financial and emotional value of connection, a building will have no future negating all preservation goals. And yet the myth of conflict persists. The direct micro experiences are presented at the front of people's consciousness because we are more influenced by direct experience and emotional responses (as may be generated by a broken ceramic) than we are by statistical summaries of general experience. Furthermore, the way that discussion and decisions are framed are psychologically rigged to support these different perspectives.

Bias and judgement in managing use of historic buildings

The field of behavioural economics, largely pioneered by Kahneman and Tversky and their colleagues has established that decisions are influenced, sometimes dominated, by emotional factors. These factors have been shown to affect conservation-related decisions through a diverse set of heuristics (rules of thumb) and biases (Henderson and Waller 2016).

The way that conservation is managed in historic properties fosters systematic bias. Researchers have shown the impact of the 'Endowment effect' which proves that people offer different values to something that they already have over something they don't. In the context considered here persons can 'own' a perceived level of preservation or a degree of public engagement. Another factor stems from Prospect Theory that demonstrates we tend to value losses more than we value nominally equivalent gains. Further, risks perceived as increasing from zero are known to arouse a greater loss aversion response through what is known a the

'zero risk bias'. The result of this for heritage conservation is that one group (conservators) perceives a change as a major loss of something they had whilst others, perhaps running an education experience regard a similar change as a substantial gain. These perspective framing biases increase the chance, and degree, of disagreement about all concepts and measures of acceptability of change. In addition, one party is measuring the situation on one scale (losses of tangible aspects of an object) whilst others are measuring it on another (visitor experience gains).

The distinction between close focus – i.e. wear of a staircase and macro focus – visitor income and engagement can be equated to a concept core to comprehensive risk management: multiple 'modes of failure'. Lack of comprehensiveness in risk assessment is both a cause and an effect of focussing on more immediate, hence more vivid, modes of failure over the more existential but ultimately more catastrophic modes of failure such as complete loss of funding.

Better alignment of perspectives can be achieved through broad framing, that is focusing on a higher-level goal, by framing problems in equivalent ways (losses or gains), and by and agreeing on assessment methods for new opportunities. That is by focusing on benefits.

Optimize higher not lower level system goals?

The first question to consider then in resetting the base line is what is wanted in a given situation. To start the discussion by asking 'so what we want to optimize?'. With commitment to optimizing a high-level institutional goal must come commitment to sub-optimizing all lower level goals. If benefitting society writ large is a high-level goal then the set of lower-level goals, such as preserving, educating, inspiring, and so on, cannot themselves be optimized. This means all participants in a decision involving lower level goals need to enter the collective decision-making process prepared to compromise their goals to the benefit of the greater good.

Benefits through transformative change

Examples of transformative change at NTS properties include the repurposing of Souter Johnnie's Cottage, Kirkoswald, in 2016 as an arts and crafts gallery. Previously, the Cottage had been a traditional pay-to-enter Trust property with very low visitation despite an upturn in visitor numbers to the village. The decision to give the property an alternative focus and to remove the admissions charge was a risky strategy but both visitor numbers and overall income increased, the Cottage now has a higher media profile, and positive ratings. In short, it is more sustainable. Another example is the reinterpretation of Brodick Castle in 2019 which has doubled visitor numbers and significantly increased income in the first year since re-opening and, again, received very positive feedback. In short, these properties are now more sustainable – risk of partial or complete abandonment has been reduced.

Examples of past risk-related events

Even where changes have not been made to the conservation and presentation of collections, risks have been realised. In January 2018, a fire started in a lower room at Craigievar Castle, Aberdeenshire. Fortunately, the electrical fire was contained within a single room and damage to the collections and interiors was limited. Moth infestations are not uncommon across Trust

properties but staff at Newhailes House, Musselburgh, noticed a sharp rise in the 'webbing clothes moth' (or common clothes moth) in 2016 and have been managing the problem with localised treatment and targeted deep cleaning. Clothes moth numbers, and damage, have continued to increase and the organisation implemented a major freeze programme in 2019 to protect the Newhailes collection. Also at Newhailes, parts of the House were damaged in February 2018 when a sprinkler activated in part of the attic, flooding the two floors below. There was water damage to paintings, wall surfaces, furniture, carpets and textiles resulting in the closure of the building for most of the 2018 season. Therefore, there are risks associated with keeping things the same as well as making changes.

Different futures for Newhailes

A discussion about 3 possible future scenarios of use of Newhailes – including the 1) as is model, 2) a typical historic house free flow visitor option and 3) as an events space option'. This project reframes the differing consequences arising from a selection of current and possible uses of collections within an historic building.

There is a need to instigate change at Newhailes (made clear in guidance for property managers such as in 'Experiencing Things' 2018) but it should be possible to avoid falling into a preservation versus access debate. To do this, changes in practice must be modelled against shared goals with the benefits and impacts for experience and conservation measured against the same ultimate goal. Within the organization different individuals and groups can feel aligned to distinct commitments / goals. Finding a way to make goals commensurate is the challenge. Each party tends to be held to account for their specific operational area so this service to their own target areas is not irrational, but could be framed by a clearer agreement of all on institutional mission, or by a reduction in the distinction by different parties in the sense of responsibility for specific parts of the objectives.

Risk Modelling in conservation

A common tool for modelling risk in heritage management is the CPRAM risk model (Waller 2003). This identifies and defines specific risks within a set of generic risks based on agents of change and frequency of occurrence. Using this model, it is possible to represent the risks associated with different activities. It reduces perception bias by capturing both the immediate and visual outcomes as well as impact on broader risk concerns. This paper does not rely on a complete risk assessment but uses the concept of generic risk to qualitatively explore the impact of changes in use on selected risks. Choices are available: the property could continue with current low level of use or increase use such as in the proposal described here. which is commonly perceived to result in problems for conservation (conservation versus access). Figure 3 depicts two scenarios – continuing with the current low usage through only controlled visiting and compares it with an example proposed alternative. Using reasonable assumptions informed by a combination of past historical property risk assessment as well as experience across properties owned by NTS, it demonstrates that both pathways will increase some risks for some agents of deterioration, decrease others and be relatively neutral for others. This structured depiction demonstrates that there is no simplistic relationship between use and risk, in contrast, both uses and risks must be evaluated across the board.

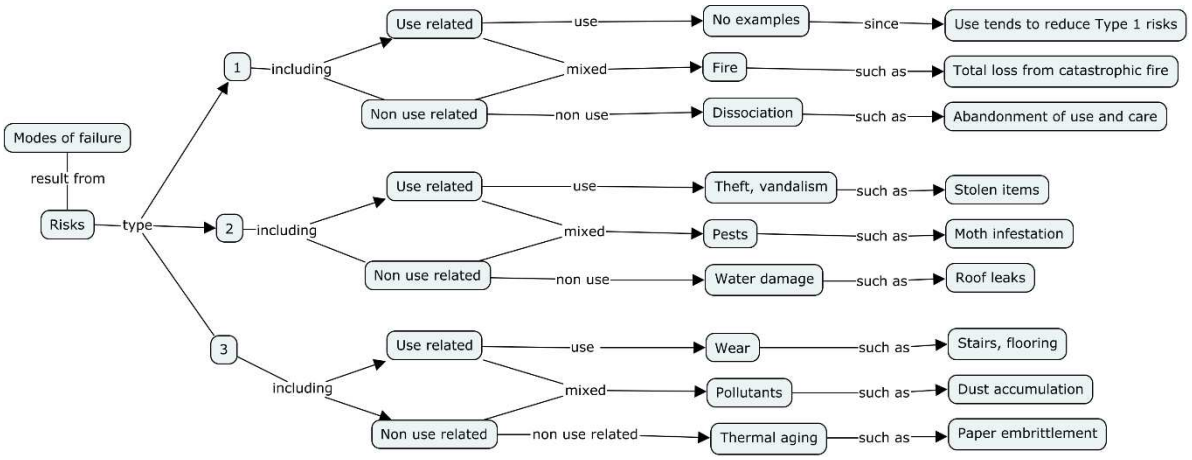

Fig 2 Examples of risks increased or decreased by use or non-use. Depiction is illustrative not comprehensive.

Consider type 3 risks. Some specific risks, such as thermal aging (weakening and/or embrittlement) of materials, will continue to progress at similar rates with or without use whereas others, such as wear (physical erosion), will increase with use. Still others, such as particulate pollution (dust accumulation) may increase with visitor circulation or decrease with dusting frequency. In that case it is not immediately clear whether use will increase or decrease risk to the property and collection. Of particular interest is the use related impact on type 1 risks (rare but potentially catastrophic events). Life safety concerns for facilities with high visitor populations tend to demand and effect reductions in both life and property safety from major hazards like fire, severe weather, and earthquake.

Benefits Modelling in conservation

In order to make equivalent assessments for benefits the model is reproduced again showing the impact of increased or decreased use on the benefits. Figure 4 is a tentative proposal to begin to frame decisions on an equivalent basis to the incremental risks depiction shown in Figure 2.

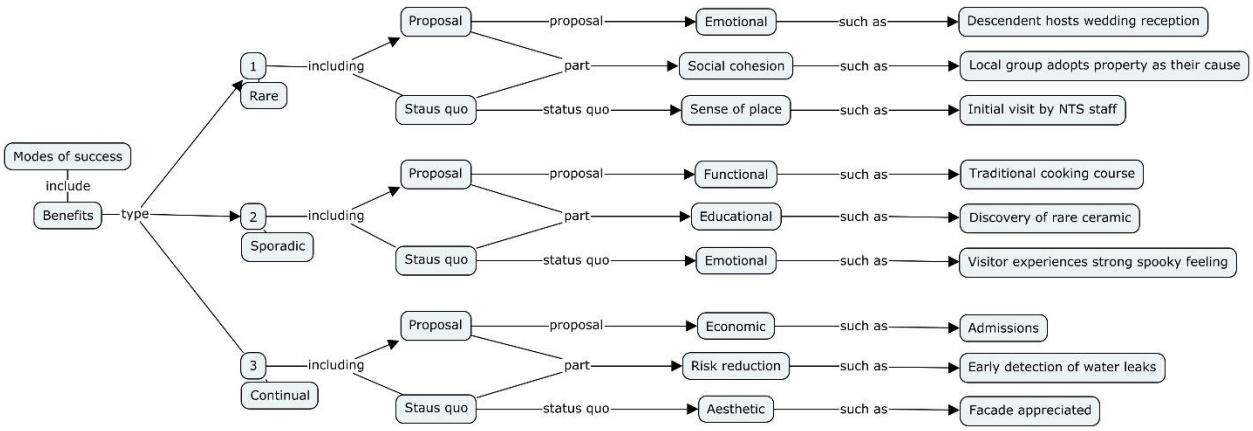

Figure 3. Examples of benefits increased or decreased by use or non-use. Depiction is illustrative not comprehensive.

Type 1- 3 risks span a spectrum of frequencies of occurrence ranging from 1) rare events, through 2) sporadic incidents, to 3) continual processes. A parallel representation of benefits through visitor experiences was established. Types of experience include: 1) once in a lifetime opportunity that may contribute to self-actualization or be truly transformative for an individual or group; 2) a perfect moment standing in a house with no one around you with a beautiful view and the quality of the moment is remarkable and memorable; and 3) the general sense of well-being that heritage lovers feel walking through an historic house enjoying the ambience created by the ensemble of artefacts, fittings, structure and vistas that a building offers.

The combination of these equivalent approaches is expected to support discussion of proposals with fewer biases and a greater focus on optimization of an appropriately high-level goal.

Re-framing the options

Instead of focusing solely on changes that may occur from handling, operation, or more intense visitor patterns, bias will be decreased if the current more familiar and perceived as safer options are modelled in comparable manners. The ability for all parties to acknowledge and describe their concerns on an equal basis will decrease the perception of lack of control. By framing all consequences as a combination of 'gains and losses' described individually, no one option is discriminated over others. The psychological benefits of presenting risk as an increase on a known sum, rather than emerging from a no risk situation will reduce the impact of loss aversion. In addition, when the pros and cons of a proposed activity are presented they can be evaluated as a combination of the benefits and change in risk over a foreseeable future. Consistent strategies can be applied at the levels of landscape, building, and collections in a way that is consistent with the NTS view 'The landscape provides the villa and its collections with a grand setting: each of the key elements was in effect designed as one, in harmony with one another.'

Conclusion

A multitude of affective and cognitive considerations come into play as heritage management teams consider costs and benefits of alternative patterns and degrees of use of heritage resources. In setting a stage for success it is important to consider how information is organized and presented in either a positive or a negative frame. This work reported here is being undertaken in support of the NTS examining practical ways to reframe discussions about impacts of alternative use scenarios. The goal being to ensure that experiencing, caring for, and benefiting from heritage is discussed with a view to offering better informed and chosen strategies for management of interrelated sites, buildings, and collections.

Disclosure statement

No potential conflict of interest was reported by the authors.

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