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Aesthetics and acceptability of indoor dust

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Dust deposits have a significant aesthetic impact on interiors, and lead to the loss of the evidential value of objects and surfaces. Increasing emphasis on open display has led to the greater monitoring of dust deposition on objects and surface. However, the means of assessing the impact on visitor perception are less developed. We have used questionnaires to collect over five hundred responses from seven properties (Chastleton House, Calke Abbey, Osterley Park, Eltham Palace, Brodsworth House, Hampton Court Palace, Kensington Palace) run by three different institutions (National Trust, English Heritage, Historic Royal Palaces) as a way of exploring public responses to dust deposition on objects within specific display contexts. Visitors were asked to characterise rooms according to darkness, historicity, dustiness, cleanliness, cosiness, beauty, and level of furnishing. These responses were related to visitors' perceptions of objects and their desire for further cleaning. Light coloured, shiny objects such as ceramics and giltwood were perceived to be clean despite evident dust deposits, whilst dark or textured objects such as textiles or unpolished wood were judged to be dirty, even though the level of soiling was light. This has revealed that the nature of the displayed material has a dominant influence on whether the public perceive it to be dusty or not, rather than the level of dust deposits. When the public were asked to decide which objects within a set required further cleaning, they felt most did not. However, for this remaining group, visitors still desire more cleaning. Conservators did not always agree with this ranking, thus leading to a difference between conservation needs and public satisfaction. A point of view. This paper will suggest that public opinion should not necessarily be the dominant influence on the frequency of cleaning.

1 National Trust, 2 University of East Anglia, 3 Historic Royal Palaces, 4 English Heritage

Assessing Roles in Cleaning Historic Interiors

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Focus groups were used to investigate the roles of different groups in setting cleaning cycles and standards in historic interiors. The views of curators, conservators, conservation assistants, house stewards, room stewards, conservation advisers and property managers were collected in nine groups. Broad themes of perceptions, consequences and control debated in each group. Whether dust was seen as damaging, or contributing the 'spirit of place' depended on the role of the group. Thus, conservation assistants engaged in the routine removal of dust focussed on its destructive potential, while property managers and curators were interested on how dust could be managed to influence visitor experience. Individual views about dust addressed areas of historic house management beyond those normally anticipated to be within the control of conservation staff. The work revealed the need for standards, yet difficulties of applying universals to specific places or objects. It exposed how perceptions were filtered as information is passed between different staff groupings, and raises issues of how communication is best fostered within historic house teams. We will explore ways in which this research leads to a range of management options for historic interiors.

1 National Trust, 2 University of East Anglia, 3 Historic Royal Palaces

Accumulation and cementation of dust indoors

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Coarse and fine dust indoors is often considered a nuisance and a burden on house staff, but if allowed to accumulate can become more strongly bound to surfaces, which requires more aggressive and potentially damaging approaches to cleaning. We have been investigating the accumulation of dust on horizontal surfaces such as bedspreads and the tops of books. Humidity seems an important factor in the cementation of dust and fibres to surfaces, although both biological (formation of biopolymers) and chemical (cementation) changes may account for the development of cements. Our understanding of the composition of these cements remains limited, but the work suggests some features of cleaning regimes, such as timing and frequency, that might be appropriate for historic houses.

1 University of East Anglia, 2 Historic Royal Palaces, 3 British Library, 4 National Trust, 5 English Heritage

Nitrogen oxides and material damage indoors

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Nitrogen oxides deposit onto surfaces where there are a number of reactions that can lead to the production of nitrites and nitrates, and subsequent acidification and “nitration” of the surface. We present analyses that show nitrite appears as a component of a number of materials such as leather, wool, gypsum and concrete. Kinetic studies suggest that nitrite is stable under alkaline conditions, but in more acidic regimes may degas or be oxidized. These processes have relevance to the degradation of materials indoors and can affect the chemistry of the indoor atmosphere.

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