



HOW ADAPTION OF HISTORIC LISTED BUILDINGS AFFORDS ACCESS

Journal:	<i>International Journal of Building Pathology and Adaptation</i>
Manuscript ID	IJBPA-11-2018-0093.R1
Manuscript Type:	Original Article
Keywords:	Accessibility, Inclusion, Dementia, Building Conservation

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ABSTRACT

Purpose: Providing accessible and inclusive environments fulfils legislative obligations and creates financial benefits. Historic listed buildings rely on heritage tourism for continued financial support. This research aims to investigate how historic listed buildings adapt to afford access to People with Disabilities (PwD), through physical and non-physical interventions.

Design/methodology/approach: Using a case-study approach of an historic property, research comprises of: an observational visitor survey, determining visitor demographic regarding visible disabilities; an access audit, determining current accessibility; interviews with the property's Access Team and desktop-based research.

Findings: Results depict the complexity, challenges and barriers in making historic buildings accessible for PwD. Through alternative training and inclusive initiatives, findings reveal how historic buildings may support the multiplicity of individuals' access requirements.

Research limitations/implications: Further research incorporating longer surveying periods, wider demographic of interviewees and multiple case study analysis would provide richer, comparable data in understanding the intrinsic complexities involved in creating accessibility within historic buildings. Implications of this research could transcend management, conservation and adaptation of listed buildings in identifying the defined barriers and solutions to overcome them.

Originality/value: The originality of this paper relates to the use of alternative services creating access when physical changes are deemed 'unreasonable'. A conceptual framework is developed depicting the complexity, challenges and barriers in making historic buildings accessible for PwD.

Keywords: Accessibility, Inclusion, Dementia, Building Conservation

INTRODUCTION

Evolved over the last century, historic conservation is an active process sustaining and protecting heritage sites through preservation and/or enhancement; regulated through international heritage and conservation treaties as well as stringent UK management and maintenance legislation (Historic England (HE), 2018a). These Acts provide specific protection, from harmful human practices for buildings and conservation areas of 'special interest' including parks, gardens, battlefields, scheduled monuments and wreck sites (Ikedi et al., 2010; DCMS, 2010; HE, 2018c). Protection in England, 'Listing', is regulated through the National Heritage List for England (NHLE), containing approximately 400,000 listed sites (HE, 2018b). Merits such as rarity, state of repair, age, aesthetics and national interest are judged and awarded Grade I, II* or II. Grade I buildings have exceptional significance and make up 2.5% of all listed buildings; whereas 92% are Grade II listed (HE, 2018d).

Some argue listing buildings puts them in potential risk, as intervention is only justifiable if the benefits outweigh the resultant harm, relative to the severity of damage (Lamprakos, 2015). Bloszies and Hardy (2011) states if agreement between change and preservation cannot be achieved, buildings of historic significance may be abandoned, left to decay and become irretrievably damaged (Francis et al, 2011). Therefore, conservation intervention must be conducted in a timely manner, monitored and recorded so the effects of change are available to inform future decisions (Weaver, 1997). It is not the intention for all heritage assets to have total physical preservation but to remain in active use through development, considered maintenance and management; granted from the local planning authority through 'listed building consent' (LBC) (HE, 2017).

Inclusion of accessibility whilst maintaining heritage conservation are important topics for society, especially with an ageing population and rise in registered disabilities (WHO, 2011b). Extant literature within this field focuses on topics such as, creating accessibility in buildings (Andani et al, 2013; Zahari et al., 2016), how legislation deals with heritage buildings and access (Smith 2006;

Marsin et al., 2014; Plimmer et al., 2006) and defining what accessibility is (Persson et al., 2014). However, little has been considered regarding alternatives when physical access is impossible, despite most listed buildings never being designed with access in mind. 40% of all current building stock was built prior to 1945 and buildings less than 30 years old are not generally considered for the NHLE (National Refurbishment Centre, 2012; DCMS, 2010). Additionally, legislation mandating reasonable and practicable provisions for PwD was not introduced until the Chronically Sick and Disabled Persons Act 1970 (Department of Health, 1970). Therefore, creating a dignified barrier-free environment for individuals in listed buildings, especially if physical changes are deemed unreasonable, is challenging (Equality Act 2010; Equality and Human Rights Commission, 2011). Furthermore, any adjustments to listed buildings must conform primarily with heritage legislation opposed to the Equality Act (Wilson, 2013).

The aim of this study is to investigate how historic listed buildings are adapting to afford access to PwD and how this is being achieved in the context of highly complex and interdependent legislative, technical, financial and social considerations. Adopting a case study approach, focuses on Knole, a National Trust, Grade I listed country house located in Kent, UK. Whilst the study concerns an historic building in the UK and associated legislative context, many issues highlighted are likely to be shared in other international regions.

THE DEVELOPMENT OF CONSERVATION VALUES AND PRINCIPLES

Heritage is the living legacy previous generations have preserved and passed down to modern society, which society wishes to hand on to the future (HE, 2017; Hewison, 1989). Conservation as a philosophy in Great Britain was slow in development, with no formal manifesto delivered until The Society for the Protection of Ancient Buildings manifesto in 1877 (Stubbs, 2009; Powys, 1981). This manifesto became instrumental in the development of the philosophy of building conservation, heavily influencing successive guidelines including the International Charter for the Conservation and Restoration of Monuments and Sites (Venice Charter 1964) (Earl, 2003); with consecutive charters evolving this philosophy.

The Venice charter used the 'materials-based' approach, focusing on tangible assets and authenticity of the architectural fabric (Vakhitova, 2015). Pursuit of preservation of the fabric, however, meant destruction of intangible traditional knowledge. In 1981 the Australian ICOMOS guidelines for conservation of places and cultural significance ("Burra Charter"), encouraged a values-based approach, redefining cultural significance as "aesthetic, historic, scientific or social value" preserving tangible and intangible heritage (ibid). The 2013 Burra Charter further protected spiritual value, preserving the fabric of a building, local traditions, customs and stories (Australian ICOMOS, 2013). This values-based approach has been adopted worldwide by countries and international organisations such as the Getty Conservation Institute and UNESCO World Heritage Centre making it the most widespread approach (Vakhitova, 2015). Thus, conservation has become a global importance, creating a common responsibility for safeguarding and preserving intrinsic and intangible qualities, values and cultural artefacts to endure for future generations and for communities to build their cultural identity (Vecco, 2010; Stubbs, 2009; Weaver, 1997).

The UK established Historic England (HE), a statutory adviser, to protect the historic environment. Incorporating the values-based approach HE produced the Conservation Principles, Policies and Guidance Document, promoting sustainable management, transparency and encouraging community involvement.

It is argued that successful conservation programmes can only be sustained by recognition and community involvement, in part, due to reliance on donations and cultural tourism (ICOMOS, 1987; Australian ICOMOS, 2013). The 1983 English Heritage Act requires listed sites to be self-sufficient, meaning public and policymaker's opinion of a site's significance is vital. Therefore, the

effectiveness of heritage valorisation depends on the ability to produce conditions favourable for its continuation. As society allocates only a certain amount of resources for conservation, financial expenditure is heavily weighed against loss to society when considering conservation (Greffé, 2004; Conejos et al., 2017).

Conversely, by appealing to public expectations of what historical buildings should provide, some scholars have questioned whether this family-friendly heritage is “threatening” the authenticity of the historical narrative (Harvey, 2001; Sables, 2017; Md Ali et al., 2019). As the perceived significance of our heritage alters, due to the dynamic process in which history is interpreted, conflict can arise when proposing changes. Therefore, the importance given to heritage values throughout decision-making processes should be comparable to the significance of the place and impact of the intended change (Stubbs, 2009; Dury and McPherson, 2008). Risks these sites now face is balancing expectations of the public for their support whilst protecting the authenticity of these buildings and history they embody. One of these issues is creating accessibility.

FACTORS AFFECTING ACCESS TO LISTED BUILDINGS

Disability is a complex phenomenon, where conditions are degenerative or caused by a single event (Yau et al., 2004). Within a social context, disability can be measured by the negative interaction between an individual and their barriers (Zahari et al., 2016; Marsin et al., 2014). Yau et al. (2004) identified three main types of barriers: environmental, interactive and intrinsic. For PwD, physical barriers i.e. level changes, lack of tactile clues and inappropriate horizontal circulation, are some of the biggest problems regarding access (Veselinova, 2013). Restricting access to the labour market and social and leisure activities, creates disparities generating segregation and consequently, reducing opportunities for social inclusion (Plimmer et al., 2006; Vale et al., 2016). Foster (1997) advocates disability is society’s failure to remove architectural disability (Smith, 2006a), rather than a consequence of the individual’s impairment. Removing these barriers through inclusive designs allows the internal and external environment to be accessible by all. Producing empowerment through inclusion, independence, freedom of movement and integration, allows PwD to become active members within society benefitting them and the economy (Marasin et al., 2014; Sawyer and Bright, 2014; Persson et al., 2014).

Legal responsibilities

In line with the Human Rights Act 1998, disability legislation safeguards PwD rights such as dignity, independence, privacy, choice and respect (Sawyer and Bright, 2014; Veselinova, 2013). The Equality Act 2010 established a legal framework protecting the rights of individuals and equality for all. The Equality Act influences the design, accessibility and management of buildings and environment (Sawyer and Bright, 2014). It states, if a physical feature substantially disadvantages a PwD, ‘reasonable adjustments’ must be made (Equality Act, 2010). However, the onus is not on the building, but on the service provider and the discrimination of the service provided (Goodall et al., 2004). If a service can be provided without discrimination, the building would not require alterations to comply with the Act (Smith, 2006a). The main barriers to PwD by a service provider include the attitude of personnel, lack of awareness of an individual’s needs, cost and the physical and operational changes required to improve access to comply with regulations (Veselinova, 2013; Goodall et al., 2004). This is especially difficult when access legislation conflicts with existing legislation (Goodall et al., 2004).

The term ‘reasonable’ has faced contention as legislation is not absolute. Persson et al. (2014), argues, if providing access is too difficult or costly, the service provider can disregard the law. Plimmer et al., (2006), contests this indicating the term ‘reasonable’ is tested using multiple factors including the nature of the service provided, business size and resources, proof of alternative inclusion and defence for why full inclusion cannot be achieved.

Guidance and policies such as the National Planning Policy Framework, Building Regulations Part M and HE's 'Easy Access to Historic Buildings' guidance, assists with compliance to the Equality Act. These policies focus on creating a safe and accessible environment to buildings requiring planning permission and to existing buildings open to the public and spaces of work (Sawyer and Bright, 2014).

Legislation protection for historic sites, such as the Planning (Listed Buildings and Conservation Areas) Act 1990 could intervene with physical modifications required by the Equality Act 2010 as it does not take precedence over planning laws (Goodall et al., 2004; Andani et al., 2013). This creates division, especially when creating access requires an object of historic importance to be removed. HE provides guidance on how to incorporate modifications for greater access to those with mobility, hearing and vision impairments, recognising everyone should be able to enjoy the historic environment, encouraging the building's continual existence and ongoing conservation work (Ribeiro et al., 2012; Goodall et al., 2004).

Magnitude of people with disabilities

Some service providers view creating accessible facilities for occasional use a costly expenditure (Andani et al., 2013). To aid in better judging the cost benefits of improving access, removing physical and social barriers, it is necessary to understand the magnitude of PwD within society. The Family Resources Survey 2016/17 estimates 13.9 million PwD (physical, sensory or cognitive) live in the UK, representing 22% of the population (Department of Work and Pensions [DWP], 2018). This is an increase of 3% from 11.9 million in 2013/14. The disability prevalence within each designated age group: state pension age, working adults and children is 45%, 19% and 8% respectively (ibid). Furthermore, the percentage of people aged over 65 years in the UK is 18%, approximately 11.8 million. By 2046 this is expected to rise to 24.7% or 18.8 million relative to the expected population increase (Randall, 2017). These figures are extremely important especially for the UK economy as the DWP estimates the spending power of PwD is £294bn per annum (DWP, 2016). In terms of UK hospitality and leisure (H&L) income, tourism contributes a turnover of £127.4bn or 7.1% of GDP for the economy, of which, 20% is generated by over 65s (Tourism Alliance, 2017). The combined issues of rapid growth of an ageing population and rising number of PwD makes a powerful argument for creating accessibility in the H&L industry (Domínguez Vila et al., 2014; Lyu, 2017).

Heritage tourism

The heritage sector is a major tourism resource contributing £17.5bn to the industry in 2015 with 192 million estimated trips by domestic and international visitors (Oxford Economics, 2016). Although, PwD feel such activities must be sacrificed due to physical, mental and social barriers (Yau et al., 2004). Therefore, continuation of tourism growth depends on well-maintained, high-quality, inclusive and universally accessible historic environments addressing factors constraining or preventing participation (Goodall, 2004; Lyu, 2017).

Audit

To understand the current level of accessibility and inclusion within a building it is advised to perform an access audit (Andani et al., 2013). Access audits identify and determines the magnitude of physical and communication barriers, operational, organisational and administrative practices and extent to which this affects access to a broad range of potential users (Plimmer et al., 2006; Andani et al., 2013). The report identifies and prioritises recommendations for improvements to access and maintenance including removal, alteration or creation of alternative solutions. For instance, tours at historic tourist attractions are mostly self-guided with independent movement, but with a controlled route and entry to the building (Sawyer and Bright, 2014). If an alternative route is required, recommendations offered must provide the same dignified and independent movement for PwD delivering as much as possible an equal customer experience.

To understand the customer journey, guided walks can be used alongside the access audit (Dischinger, 2000). These promote social inclusion, providing a platform for PwD and representatives from disability groups to participate, provide feedback and suggest improvements (Ribeiro et al., 2012). For listed buildings this feedback could act as evidence for conservationists to make change.

Access to listed buildings

With regards to public access, other modern regulations must be adhered to such as fire safety. It is argued by Plimmer et al. (2006) if acceptable adaptation can be provided for safety regulations, equally sympathetic results for accessibility should be possible. Whilst conservation is a key consideration when adapting a listed building, the historic importance of a site is not an acceptable reason alone as an obstruction to change (Goodall et al., 2004; Smith, 2006a). For many stakeholders, the definition of improving access means major, costly physical adaptations, to accommodate wheelchair access in turn destroying the historic value and significance of the building (Plimmer et al., 2006). This opinion remains even though only 9% of PwD use a wheelchair, (Disabilitysport.org.uk., 2018) of which only two thirds are regular users (NHS England, 2018). However, the range of disabilities to accommodate remains challenging as they vary from visible to hidden, acute to mild or chronic to recurrent, which can lead to solutions being contradictory (Goodall et al., 2004; Plimmer et al., 2006).

Andani et al., (2013), argues in the interest of conservation, change must benefit the majority whilst maintaining the harmony of the historic fabric. Less intrusive solutions i.e. installing induction loop systems, improving information and signage and improving staff awareness through training such as guiding visually impaired people, lip speaking, and basic British sign language can be a cost-effective way to provide support and develop inclusion (Smith, 2006a; Sawyer and Bright, 2014). Additionally, it is argued, not every listed building can provide fully integrated and independent access, as the inherent design and purpose of some buildings, such as castles, are resistant to any type of access (Andani et al., 2013; Goodall et al., 2004). For tourist sites such as historic monuments, innovative technology can bridge the gap when physical access is impossible. Audio-visual tours, use of photographs, models and props can provide information about inaccessible areas and deliver a much richer experience for those that have been segregated (Goodall et al., 2004; Plimmer et al., 2006).

Continued inadequate access could reduce interest in the property and lead to less funding (Sables, 2017). Graffe, (2014) suggests initially implementing low-cost inclusive services and highlighting the valorisation of these to encourage more involved services. Proof that an alternative but inclusive service is in place, when cost or ability to make physical adjustments is too great, can act as a defence for complying with regulations (Smith, 2006a).

RESEARCH METHODOLOGY

The research was embedded within a qualitative paradigm, using case study methodology and qualitative data collection techniques. Use of the qualitative paradigm, formed a 'reality' so the research was studied within the context of the surroundings (Robson and McCartan, 2016). Conservation is subjective to contemporary personal and societal ethics. Use of a qualitative paradigm produced a deeper understanding of the social constructivism, reasons and perceptions of the situation and generated new theoretical ideas by answering 'how' and 'why' access was or was not achievable within a listed building (Fellows and Liu, 2015; Goodson and Philimore, 2004, Harrison et al. 2007).

A single-case study design was adopted to facilitate opportunities to explore the subtleties and particularities of the complexities involved, enabling in-depth analysis of the relationships and

processes, which may have wider implications to the study of access within historic listed buildings (Willis, 2014; Denscombe, 2011). Case studies promote comprehensive investigation, by utilising multiple data collection techniques, capturing specific details other methods can overlook. A pragmatic approach to data collection was undertaken (Lamont and Swidler, 2014), based on Yin's (2014) recommended sources of evidence, comprising documentation, interviews, direct observations, and physical artefacts as shown in Figure 1. These sources of evidence, as well as converging collated data (Figure 2), which collaborated the same findings, allowed for triangulation of the evidence. This helped to validate findings and create accuracy and completeness of the evidence collected (Yin, 2014; Denscombe, 2011; Proverbs and Gameson, 2008; Kumar, 2005).

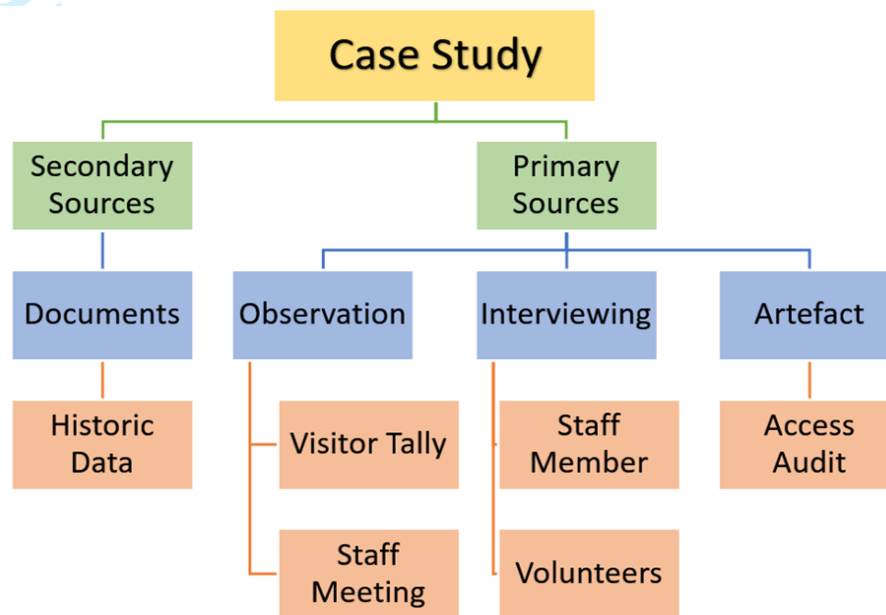


Figure 1 - Visual Representation of the Data Collection Techniques used.



Figure 2 - Convergence of Multiple Sources of Evidence. Based on Robson and McCartan 2016:121)

Research Methods

A brief account of the methods used to elicit this evidence now follows.

Documentation

Extant data concerning Knole, such as access statements, visitor data and room layouts were analysed collaborating other sources of evidence. Repetition of precise information makes documentation a stable data collection technique. However, bias and reliability can be hard to judge (Yin, 2014) and access to some documents were withheld, such as previous access reports.

Observation

A non-participatory survey was conducted on visitors to Knole based on their physical mobility disabilities. Taken over four days in 1-hour blocks, the survey measured visitors who were visibly able, those who required mobility aids i.e. walking sticks, wheelchair users and visitors with prams, based on research by Andani et al., (2013). This helped to establish the mobility of visitors who pay to enter the property. The second observational source of evidence was the 'Knole Access Team (KAT) Meeting', which offered an opportunity to witness how the team communicates and implements potential resolutions to access issues (Kumar, 2005). Any unknown factors revealed during the meeting was followed up during the interview stage. A potential issue was reactivity of the KAT members, where behaviour changes under observation (Robson and McCartan, 2016). Explaining the observation was of the meeting, rather than personal observations, helped to put participants at ease, however this cannot be confirmed.

Interviews

Based on availability of participants with knowledge regarding access within Knole, two volunteers and a staff member from the KAT were interviewed. A semi-structured interview technique allowed for predetermined discussion topics to create structure, whilst retaining flexibility to the order. This technique provided opportunities for additional follow up questions to gain further in-depth knowledge and clarification of responses (Kumar, 2005). Questions were based around requirements for an audit, i.e. current access provided, business aims, funding, training and support, as well as the diverse needs of PwD and technology, to determine how Knole incorporates these in current and future planning. The listed status of Knole meant access was an underlying theme throughout, however, collaboration between creating access and conservation was considered specifically. Volunteers were recorded together as a group, but separately to the staff member. The group interview supported the social and psychological features of group dynamics i.e. the interpersonal processes (Forsyth, 2018; Denscombe, 2011). It added depth to questions answered, reducing repetition and used the limited time to gain fuller understanding. Additionally, splitting the volunteers and staff may have facilitated more honest responses and allowed the staff member to keep sensitive information confidential.

The small number of interviewees is acknowledged as a limitation, reducing the depth of data collected and could be seen as potentially biased, due to the single source i.e. KAT participants. To mitigate this bias, interviewees were selected on the basis of age (over 65) and being disabled. This created a small yet diverse group. Future studies should incorporate a much wider selection and demographic of participants including visitors and conservationists.

Artefacts

A high-level access audit of Knole was conducted. A physical assessment of access improvements implemented and shortfalls within the building and technical operations added evidence behind the reasoning and justification to modern access achievements and limitations within the property (Guides.nyu.edu., 2018).

Ethical Considerations

This research relied heavily on participation from Knole staff and the National Trust. Open communication and honesty throughout the research process were key to mitigating and eliminating risk of harm and deception, to create trust and collaboration (Morton & Wilkinson, 2008; Resnik, 2015; Lamont and Swidler, 2014). The guidelines help safeguard the participants, researcher and research validity. To facilitate informed consent, participants were made aware of the process, when volunteering and prior to the interview. Participants were entitled to anonymity, confidentiality and privacy where possible. Ethical standards for copyright, patenting and data sharing policies, authorship and peer review confidentiality rules protect the researcher and intellectual property of all researchers to encourage collaboration (Fellows and Liu, 2015; Resnik, 2015). All information presented was clearly referenced to signpost the source. Lastly, the validity of the research was held to an appropriate ethical standard as a robust research methodology was applied, the results and report is free of bias and correctly reported, and the details of the study have been presented to enable readers to judge the ethical quality of the study (Lamont and Swidler, 2014; Kumar, 2005).

THE CASE STUDY – RATIONALE FOR CHOOSING KNOLE

Located on the outskirts of Sevenoaks, Kent, Knole House, was chosen for this case study as one of Britain's most significant and complete historic houses (Hlf.org.uk., 2018) and because of its local and national historical significance in mapping "*the changing mood of the nation for over 600 years*" (Ravilious, 2018). Information obtained via a desktop study revealed the listing includes the principal building (internal and external), fixed objects and additional buildings within the House's curtilage (HE, 2018c). The listing does not act as a preservation order, however, due to Knole's outstanding merit, LBC is required in addition to planning permission prior to any demolition, alteration (even minor), or extension that would affect the character or special architectural or historic interest of the building (Planning Portal, 2018; HE, 2018c).



Figure 3 - Photo of Knole House by the Author

With most listed properties, conservation relies heavily on grants and donations. Knole was awarded £7.75 million by the Heritage Lottery Fund (HLF) towards a £20 million conservation project, which commenced in 2012 (hlf.org.uk, 2018). The grant helped towards major construction works within the main house, as well as providing a new visitor centre (VC), café, shop, conservation studio (CS) and the Hayloft learning centre (Hayloft). Its aided community programmes, creation of the KAT, who presented opportunities to create accessibility during renovation, and reintroduction of the Community Engagement Officer (CEO). The CEO focuses on organising training and providing an interface between volunteers and the NT.

RESULTS AND FINDINGS

The showrooms in the Main House and the Gatehouse have an entrance fee but are mostly inaccessible for those with mobility issues especially wheelchair users. The visitor observation survey undertaken shows 96% of visitors were visually abled bodied, i.e. individuals had no obvious physical signs of disability, with visibly disabled visitors only representing 2% (Figure 4). As most visual disabilities are mobility related, 9% use wheelchairs and a greater number use walking aids, Figure 4 indicates individuals with mobility disabilities are underrepresented in these findings. This could be due to limited access to the upper floors of the property, making cost/reward too great.

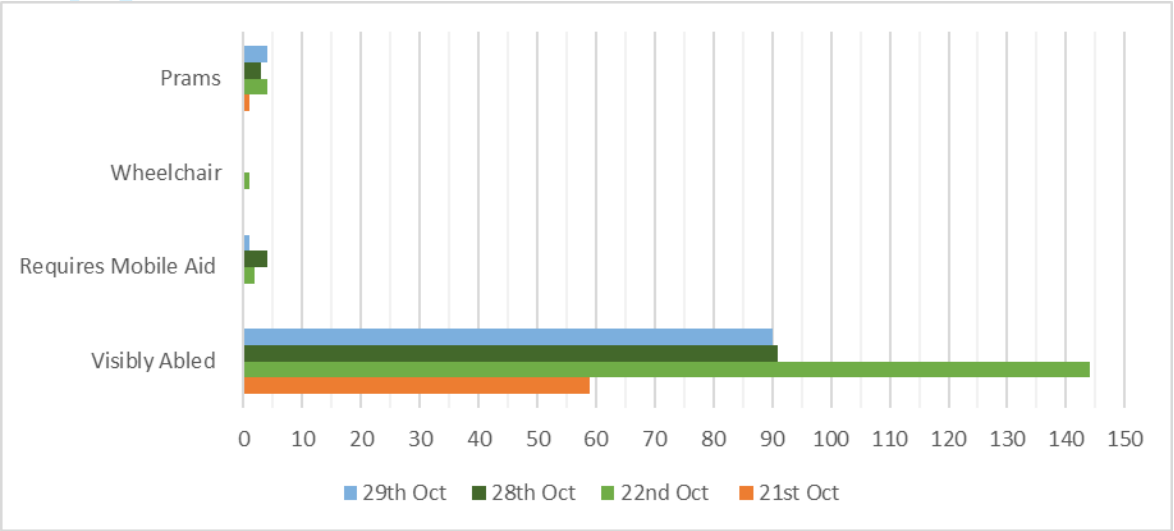


Figure 4 – Visitor Demographic According to Visual Disabilities Taken Over a Four-Hour Period Spanning Four Days

Creating an Inclusive Environment

Knole has seen positive changes towards inclusiveness and accessibility with the introduction of the KAT. Initially to determine what access was required, the KAT performed guided walks with a variety of individuals with different disabilities e.g. blindness and cognitive challenges, and with charities such as Mind. This provided valuable information highlighting the need for physical and non-physical alterations. Physical inclusion led to internal and external alterations to the property’s tangible assets. This was surveyed using an access audit checklist. Due to the scale and accessibility of Knole, not all areas were surveyed, however, all accessible public spaces at the time of the research were studied.

The main alterations were to the:

- Car Park: Dedicated disabled space and drop off zone.
- External Areas: Pathways are defined and firm.
- Entrances and Doorways: Manual doors remain open during trading hours or open automatically with sensors and signage is clearly defined.
- Reception Areas: Logically placed within the CS and VC with sufficient manoeuvrability, suitable desks, lighting and seating available.
- Corridors and Passageways: Distinct floor and wall colours, low reflectivity, with plain patterns.
- Stairs: Suitable handrails, riser going measurements and clear landings in all areas, with improved lighting within the Painted Staircase. The stairs in the CS have contrasting noisings.
- Horizontal Circulation: Suitable spacing provided between displays.
- WC Facilitates: New/updated Doc M facilities installed providing requirements for a variety of disabled users.

- Introduction of temporary ramps and installation of a platform lift, and passenger lift provide further access.

Non-physical alterations were implemented where improvements to physical access was impossible. Examples include providing volunteers as guides, audio-visual displays and digital media on tablets, installing T-Loops, and providing a mobility scooter. Within the showrooms sensory tours are available as well as prop bags. Prop bags are predominately aimed at visually impaired visitors, allowing them to touch objects, listen to sounds and smell aromas from the past providing a richer experience. Additionally, Knole produced an Access Statement downloadable from the NT website to help plan visits.

The Kent Mental Health Association provided a comprehensive report about the problems faced by people with mental health issues. This report inspired KAT volunteers to become Dementia Champions, who to date, have trained 160 staff and volunteers making Knole the only dementia friendly NT property in Kent. This was possible through the Alzheimer's society who provided grants and free training as well as the HLF awarding additional funding. The training applies in general to many other mental health issues enabling those trained to assist a broad demographic of visitors. It was requested that this training is taught to all at Knole, showing all Knole personnel are invested in becoming dementia aware. Additionally, 15 guides were trained to provide visually-impaired tours, another non-physical addition to provide inclusiveness.

From this training, ad-hoc health and well-being days were run providing activities such as Tai Chi, laughter therapy and advice for those living with dementia, family and carers. Due to the success of these days, Forget-Me-Not dementia cafés and reminiscence sessions were introduced. These monthly two-hour cafés provide talks and activities promoting health and wellbeing aligned with the Dementia Alliance guidance, as well as presenting stories about Knole. These cafes help promote inclusiveness within the community, welcoming people who may not have been able to engage with Knole previously and makes the property work in line with the Equality Act 2010, without any physical alterations.

Use of Technology

Technology has created virtual alternatives to overcome some physical barriers. Videos on iPads within the Great Hall are a positive form of inclusion to visitors who are not able to ascend stairs. The KAT are considering introducing interactive audio-visual tours. A potential system could include a "Google Street View" style interface of the house creating a walkthrough for the user to view the showrooms and artefacts at their own pace. By using the current video for those that may not enjoy using technology concurrently with a hands-on interactive system will bring further accessibility to the property. Other less obvious improvements introduced include changing the spotlighting to LED bulbs. Incorporating lighting in a sympathetic way whilst keeping the aesthetic of the period, helps those with visual impairments whilst reducing damage to paintings from traditional bulbs, showing change through technology can be symbiotic.

Management

Findings from the interviews determined access management can be viewed from two different perspectives. From a staff perspective the process is very formal through the recommendations from audits, the advice from the access guide book and feedback through formal discussions. From the perspective of the volunteers interviewed, the KAT meetings are the only formal aspect of the process. The meetings give volunteers a formal opportunity to speak to staff members, in the form of "*an easy discussion*" and minuted as audit evidence for the premises team. The perceived informality of the process may not be because the volunteers are unaware of the formal process, but because they understand the limitations of their requests, such as financial impact, which creates more flexibility within the confines of the processes. For instance, adding photos to provide visual cues to the trail guides alongside text was instantly approved as the cost was negligible. Additionally, volunteers are encouraged to research and present their ideas prior to consideration. This shows a strong relationship where the paid staff take on the responsibilities of their role through a formalised

process, with the volunteers creating and actioning potential changes through a less formalised process.

People management of volunteers and visitors was also considered. Volunteers at Heritage sites are generally older and with older age comes age related disabilities. Aware of age discrimination, management initially ascertains the individual's needs and support required from Knole i.e. schedule fewer volunteering hours, place them in departments they feel comfortable in or provide additional support from other volunteers. The aim is to keep these individuals included for their own health and wellbeing and because the NT recognise that any time volunteered is beneficial to the charity.

Similarly, visitor management is created through personal tours for visually impaired visitors and providing 'buddies' for the forget-me-not cafes attendees. As expressed during an interview, it's working with the people who visit and volunteer at Knole, being flexible with their needs and giving a "plus one service", otherwise they wouldn't return.

Balancing conservation with access

Through the introduction of the KAT a balance between access and conservation was achieved with an estimated 90% of the KAT initiatives incorporated. On reflection, this was due to: realistic expectations, balancing changes with the aesthetic of the property; providing solid reasoning for the change to aid conservationist to determine plausibility; and changing perceptions to embrace creating accessible environments. For example, chairs were carefully blended in to the showrooms by the curator so not to detract from the aesthetics whilst providing seating. The work so far has won Knole the Dementia Friendly Organisation/Company Award 2017 from Dementia Friendly Kent.

Physical limitations

Even with the current changes there remains physical barriers preventing inclusion. The key areas noted for improvement were:

- Car Park: Unclear signage, no walkway, no demarcation of the disabled bays, no lighting.
- Footpaths: Uneven paving within the green and stone court. Insufficient space outside the gatehouse entrance. Gradient of path is steep with no rest stops.
- Entrances and doorways: Height differences for thresholds into the VC and Main house. Uneven flooring between the staircase and ballroom threshold. Coir matting used instead of ribbed matting.
- Reception areas: Alternative storage for signage should be sought to keep the desk area free.
- Corridors and Passageways: Significant light change between the Great Hall and Painted Stairwell. Uneven flooring in the Great Hall. No manifestations in the Kings Room. No handrails in CS.
- Stairs: Steep stairs for the exit (Lead Staircase), which reduces in width due to handrail. Stairs from Kings Room into Cartoon Gallery has no definition. Most stairs have no contrasting nosings. No tactile surfaces on external steps. Hand rails in most areas are not appropriate for use.
- Temporary Ramps: Angle is too acute, and length is too short for most practical uses. There are no handrails or upstands on the sides of the ramps.
- WC facilities: At the main house the WC doubles as a baby changing facility. No shelf, single sheet toilet roll dispenser or standard height hand basin available. An alarm is available (not tested) which is wrapped around a handrail, potentially reducing functionality. Lacking visual contrast within the room.
- Additional improvements could be made to the audio-visual display in the VC and the audio estates office exhibit area.

Furthermore, limitations for making change came in financial, legal and business terms. Financially, as a charity, Knole is constrained by grants and funding received. Legislation and ownership create legal constraints; i.e. installing a lift within the showrooms was abandoned due to inadequate fire

escape routes as required by Fire Regulations. Alternative routes are limited as the NT does not have full access to the entire property.

Limitations of change in business terms is in part due to being part of a much larger organisation. Knole must conform to NT templates, creating cohesion for all sites. As such, Knole cannot fully promote the improved accessibility initiatives on the NT's website, as space is restricted by the template. Social media and the Access Statement are used as additional space. Advantages of being part of a large organisation, however, is that financial constraints which prevent some PwD accessing can be partially reduced by special membership schemes.

Future Plans

With the conservation project still ongoing and funding still available, Knole is continuing to improve accessibility and inclusion by purchasing a six-seater shuttle buggy, increasing advertising of the forget-me-not cafes, upgrading digital media, installing new ramps, improving the car park and increasing the variety of guided tours.

TOWARDS A FRAMEWORK OF THE COMPLEXITIES IN MAKING HISTORIC BUILDINGS ACCESSIBLE TO DISABLED PEOPLE

The aim of this research was to investigate how historic listed buildings adapted to afford access to PwD. With disability on the rise due to an aging population, addressing the complexity and multiplicity of disability requirements can provide economic benefits. Regarding listed sites this suggests a multifaceted process as evaluated at Knole. Two key points emerge through this research; (i) implementing change is dependent on multiple factors and (ii) most disabled individuals are not wheelchair dependant.



Figure 5 - A Framework to Depict the Complexity, Challenges and Barriers in Making Historic Buildings Accessible to Disabled People

Figure 5 provides a framework to depict the complexity, challenges and barriers encountered at Knole. The heritage sector is recognised as being underfunded, with most properties relying on private grants, which can cause inertia for creating access (Plimmer, 2006). Knole's HLF grant was integral to their access initiatives. In Dec 2017, the HLF announced extensive cuts reducing grants from £435M in 2016/17 to £135M in 2018/19 (Maintain Our Heritage, 2017). As conservation takes precedent over accessibility, reduction in grants will create barriers to access.

According to a report by Staniland (2010) attitudes towards disabled people have improved in the UK. However, over three quarters of those surveyed still believed PwD had full or partial caring requirements, considered them to have lower capabilities than non-disabled people, and felt less comfortable with people with learning disabilities or mental health conditions. Appropriate training helps break down preconceived ideas of those with disabilities, allowing for better interaction.

Whilst businesses may meet legislative requirements, accessibility is not part of their main objectives (Barclays, 2015). However, investing resources into creating inclusiveness for all visitor demographics and providing better experiences has multiple benefits such as increasing visitor figures, repeat visitation, and increases advertisement of the facilities (Darcy et al., 2011).

As people are motivated by the impact their work has on the well-being of others, having a motivated team creates enthusiasm to exceed expectations. Hu and Liden (2014), states prosocial motivation within teams increases their performance and effectiveness, with low voluntary turnover. The enthusiasm and motivation from the staff and volunteers at Knole, due in part by their experience being respected and utilised meant the access and inclusion initiatives went beyond the legislative requirements.

It is estimated almost 91% of individuals with a disability are not wheelchair dependent. However, the onus for accessibility is put on wheelchair users, and as a focus for many researchers and guidelines such as the HE Easy Access to Historic Buildings guide, predominantly focusing on the physical features of the property. As Knole has shown, access and reasonable alternatives have been provided through sensory tours, use of mobility scooters for the grounds, digital media for those that cannot gain full access and integrating Knole as a community hub for individuals living with dementia. Therefore, Knole suggests inclusion and equality does not necessarily have to be measured through physical adjustments, but through reasonable adjustments suitable for the property as per the Equality Act 2010.

CONCLUSIONS

This report discovered that most extant literature focuses on altering the physical make up of a property to create access. Whilst appealing to a wide demographic, physical changes are not always achievable, especially in heritage sites. Access provisions which cause irretrievable damage of these finite resources would not be granted LBC as heritage legislation takes precedence over the Equality Act 2010. However, conservation charters, such as the Burra Charter, recognises conservation evolves with changes undertaken sympathetically retaining the cultural significance of the property. This research indicates that inclusiveness in heritage properties may possibly be provided for most PwD without the need for drastic physical alterations; through alternative training and inclusive initiatives. Additionally, non-physical changes providing accessibility for the majority, could prove to be significantly cheaper, reducing the need for funding and legislative implications.

As discussed, physical and legislative barriers are not the only challenge for creating access. Funding, public perceptions, lack of training and support, disparity between access and business aims, and lack of motivation or enthusiasm are all factors creating barriers to access. By removing, altering or mitigating these negative factors, could produce a cohesive, accessible and inclusive environment. These monuments give society a sense of purpose, grounding and place within history, which should remain available and open to all. Therefore, continued compromise must be made, creating inclusiveness for as many people as possible, whilst preserving our rich and varied historic heritage.

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Knole House. Photo by the Author

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