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Cold White of Day: White, colour, and materiality in the twentieth-century British hospital

Abstract

The built environment is central to modern history. However, scholars have paid much more attention to buildings' architecture, appearance, and layout, than to their interior decoration, materiality and sensory qualities. There is great opportunity for historians in these latter areas of study. This article makes a case for the value of putting colour at the centre of research, as a material part of the making of modern Britain. It focuses on the uses of 'white', or rather surfaces and objects in many shades of white, and takes the case study of twentieth-century British hospitals to do so. It shows that whiteness stayed important in modern British hospitals as part of an expanding colour palette, rather than being replaced or relegated with the rise of the pastel-colour welfare state, particularly as a symbol of hygiene but also as a continued part of creating 'modern' and 'humanistic' hospitals. This article also suggests that historians might productively use material concepts to understand relationships between continuity and change, rather than adhering to the traditional political periodizations that dominate modern British history.

Colour is a crucial part of the everyday activity of British hospitals. From the coloured uniforms that mark out different jobs to the National Colour Coding Scheme that sorts hospital waste, colour is a crucial part of creating structure and order in hospital life. Wall and floor colours help with navigation and spatial organization, as well as with hygienic practices and attempts to improve the hospital environment. These colour choices have rarely been made unthinkingly; each colour is often carefully selected for a combination of practical and symbolic reasons. This article shows how close attention to colour, and particularly a material- and object-based approach to colour, can help historians to rethink modern

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British history. It focuses on the uses of 'white', or rather many shades of white and off-white, and takes the case study of twentieth-century British hospitals to do so.

There are 'big narratives' of modern British history with which stories of colour change in hospitals can connect. The first section of this article shows that the decline of whiteness in favour of alternative colour palettes—first pastels in the post-war period, and then brighter shades at the end of the twentieth century—aligns neatly with some common stories told about twentieth-century Britain, such as the rise of post-war social democracy and then the neoliberal turn. However, this article goes on to show that such neat narratives can be complicated in interesting and productive ways by a more material and multi-sensory approach. It shows that by putting material history at the forefront of analysis—instead of social, cultural, or political ways of structuring time—it is possible to trace areas of continuity as well as change in the modern built environment. Overall, this article rejects a superficial story of colour that assumes the welfare state to be a turning point, and treats buildings as stable, finished products. In so doing, it offers an alternative way of conceptualising continuity and change. Taking inspiration from its subject matter, the article shows how, like the history of colour itself, change over time more broadly might be usefully understood as the addition of richly textured layers of meaning, rather than as journeys, stories, roads, lines of change or 'turns'.

In relation specifically to whiteness, this article shows that it was never replaced in hospitals. In the early twentieth century, white served a wide range of functions that often overlapped: it could represent hygiene, modernity, control, and 'humanistic' care or reassurance for people in hospitals. The colour palette expanded over the course of twentieth century, adding layers of meaning: some of these colours took on the earlier meanings of white (modernity and humanization), but white maintained other qualities such as those of hygiene, cleanliness and—in certain contexts—care or control. Whiteness did not always *lose* its earlier qualities in these transitions, though its role shifted in the decline of 'all-white' spaces. Whiteness existed in relation to new layers of paint and meaning, helping to enhance them; the new colour palette of 'modernity', for example, was an expanded one that included white rather than replaced it. Overall, white maintained its importance over the course of the century, functioning increasingly in relation to new, brighter hues but never replaced by them. The historical story here, then, is one of palimpsest or layers of meaning in ongoing dialogue with each other, rather than linear change.[1]

[1] As Andreas Huyssen notes 'the trope of the palimpsest is inherently literary and tied to writing, but it can also be fruitfully used to discuss configurations of urbans spaces and their unfolding in time without making architecture and the city simply into text'; Andreas Huyssen, *Present Pasts: Urban Palimpsests and the Politics of Memory* (Stanford, 2003), 7.

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There is, of course, already some excellent work in relation to the material culture of colour. Much of the leading scholarship in this area has emerged from fields such as art history and archaeology, with their close attention to pigments and materiality.[2] Film studies scholars have also long argued that viewing colour is a multi-sensory act, and scholars of architecture have often taken a material approach to the colour of buildings.[3] The implications of such work for other aspects of modern British history remain largely unexplored, with the notable exception of the history of empire.[4] Despite extensive literature on the histories of twentieth-century British built environments, including hospitals, some key aspects of building design have been neglected in scholarship.[5] Scholars engaging with material culture in the history of British built environments have rarely focused on colour, or rather it has been considered an *element* of a particular object or design rather than a focal point in its own right. Historians have paid much more attention to buildings' architecture, appearance, and layout, than to their interior decoration, materiality and sensory qualities. Even when colour has been discussed in such historiography, it is rarely central and almost never 'material'.[6]

[2] Natasha Eaton, *Colour, Art and Empire. Visual Culture and the Nomadism of Representation* (Stanford, 2013); Diana Young, 'The Colours of Things' in Chris Tilley *et al.*, eds, *Handbook of Material Culture* (Thousand Oaks, 2006), 173–85; Chris Horrocks, ed., *Cultures of Colour: visual, material, textual* (New York and Oxford, 2012); Carlos Rodríguez-Rellán *et al.*, eds, *A Taste for Green: A Global Perspective on Ancient Jade, Turquoise, and Variscite Exchange* (Oxford, 2020).

[3] There are many examples that could be given here. I offer one from each field as a sample of extensive scholarship: Sarah Street, *Colour Films in Britain: The Negotiation of Innovation 1900-1955* (London, 2012); Fiona McLachlan, *Architectural Colour in the Professional Palette* (London, 2012).

[4] For example, Jordanna Bailkin, 'Indian Yellow: Making and Breaking the Imperial Palette', in Martin Jay and Sumathi Ramaswamy, eds, *Empires of Vision: A Reader* (Durham, 2014), 91–110; Anne McClintock, *Imperial Leather: Race, Gender, and Sexuality in the Colonial Contest* (London, 1995); Natasha Eaton, 'Excess in the City? Consumption of Imported Prints in Colonial Calcutta, c.1780-c.1795', in Jay and Ramaswamy, eds, *Empires of Vision*, 159–88.

[5] Examples are extensive including Ed DeVane, 'Pilgrim's Progress: The Landscape of the NHS Hospital, 1948–70', *Twentieth Century British History* (2021); Catherine Flinn, '"The City of our Dreams"? The Political and Economic Realities of Rebuilding Britain's Blitzed Cities, 1945–54', *Twentieth Century British History*, 23 (2012), 221–45; Otto Saumarez Smith, 'The Inner City Crisis and the End of Urban Modernism in 1970s Britain', *Twentieth Century British History*, 27 (2016), 578–98; and Sam Wetherell, 'Freedom Planned: Enterprise Zones and Urban Non-planning in Post-war Britain', *Twentieth Century British History*, 27 (2016), 266–89. See also Sam Wetherell, *Foundations: How the Built Environment Made Twentieth-Century Britain* (Princeton, 2020).

[6] The important fields of design history and material culture studies, including studies of design and decoration, are too rich to represent in full here, but for a useful summary of the history of material culture see Serena Dyer, 'State of the Field: Material Culture', *History* 106 (2021), 282–92. Undoubtedly every claim has its exception. For example Tom Fisher takes a material approach to colour in 'A World of Colour and Bright Shining Surfaces: Experiences of Plastics after the Second World War', *Journal of Design History*, 26 (2013), 285–303. However, it is broadly accurate to note that colour as a *material* phenomenon has rarely been the focus of work in these fields. Even the scholarship that does exist in these fields notes this same point. For example Regina Lee Blaszczyk notes that the 'history of colour in design

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It is very rare to see whiteness, in particular, treated as more than a material absence or an erasure outside of architectural history. In colour categorization, white sits at the top of a scale of light/dark and is not a colour at all because it has no 'chroma' or 'hue'.[7] This may well be true in terms of 'pure' white, but in practice this shade is rare. Under the heading 'white' the book *The Secret Lives of Colour* includes 'Lead White, Ivory, Silver, Whitewash, Isabelline, Chalk and Beige'.[8] Even 'pure' white walls rarely appear completely white to the eye, as they reflect the light and colours around them. Shades of 'off-white' or very light ivory, in different materials, are not pure 'white' but can carry the *qualities* of whiteness. As Kenya Hara notes in the opening to *100 Whites*, 'white is not a color, but a sensibility or mentality'.[9] White should be understood through the analytical lens of colour, rather than simply as an absence or a shade. If white is taken as the colour equivalent of 'silence', it must only be done in the spirit of understanding silence as a 'complex acoustical practice' and whiteness as a complex visual-material practice.[10] A material history of colour goes beyond the surface, and offers a way to reappraise traditional narratives of the twentieth century.

From White to Bright? A Brief History of Hospital Colour

Colours are seen differently through different eyes, and have historically and culturally specific meanings. To quote one article from *Architectural Journal* on colour in 2004, 'there is no defined communality of experience'.[11] White is no exception to this rule. In many countries, particularly in East Asia, white has long held an association with misfortune, misery, and death. In Europe, traditionally white was associated more with purity and cleanliness. As an extension of this, white was associated with money and power, particularly when only the wealthy could afford to keep their clothing white. Whiteness was also associated with purity in the context of the marital ceremony, with cleanliness in restaurants, and with religion in the form of a white dove. As Kassia St Clair argues, even the idea of the existence of a 'pure' white implies some kind of 'transcendant, religious quality'.[12] These meanings have also long been evident in hospitals. Whiteness was important in European plague hospitals, in the

practice is an overlooked area in design history', and material approaches to colour are even less common; Regina Lee Blaszczyk, 'Chromophilia: The Design World's Passion for Colour', *Journal of Design History*, 27 (2014), 203.

[7] Nuffield Provincial Hospitals Trust, *Studies in the Functions and Design of Hospitals* (London, 1955), 110.

[8] Kassia St Clair, *The Secret Lives of Colour* (London, 2017).

[9] Kenya Hara, *100 Whites* (Baden, 2019), i.

[10] Karsten Lichau, 'Soundproof Silences? Towards a Sound History of Silence', *International Journal for History, Culture and Modernity*, 7 (2019), 840.

[11] 'Bright Ideas', *Architects' Journal* [*AJ*], 14 December 2004, 43.

[12] St Clair, *The Secret Lives of Colour*.

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form of white boats, stone and symbols on clothing.[13] In the nineteenth century there was great interest in ensuring hospitals were bright environments, filled with sunlight and clean fresh air, most famously in the work of Florence Nightingale. Susan Barclay even argues that Nightingale's interest in colour has been over-stated by some historians, when actually she advocated 'pale pink walls' and had a strong preference for 'shiny white surfaces'.[14] In the early twentieth century, there were new associations between whiteness, modernity and hygiene, which built on and extended these meanings.

With the growing influence of germ theory and in the wake of a Spanish flu epidemic, hygiene became a driving force for hospital design and for modern architecture more generally.[15] Modern and modernist buildings advocated new forms of lightness. Walls were no longer designed to hide dirt, but to *show* dirt—or rather the absence thereof. The newly 'all-white' hospital offers a valuable case study for historians interested in modernity and the built environment. Wil Gesler *et al.* argue that white clinical spaces were key sites for representing the so-called 'white heat' of modernity, with its emphasis on scientific and technological order.[16] The architectural shift in British hospital design connected to wider international trends in modern architecture, in which the 'white wall' was particularly important at this time under the influence of Le Corbusier.[17] The rise of 'all-white' hospitals was a common trend particularly across Europe and in the USA. One of the most famous examples of classic modernist healthcare buildings, which inspired British hospital design, was in Finland: Alvar Aalto's Paimio Sanatorium (completed 1933), depicted in Figure 1.

In Britain, some old hospitals responded to these new trends with a fresh coat of paint or the addition of white tiles. Some new hospitals went further and borrowed the architectural principles of modern architecture. One example is the 1937 'modern movement' style of Kent & Canterbury Hospital designed by architect Cecil L. Burns and

[13] Jane L. Stevens Crawshaw, *Plague Hospitals: Public Health for the City in Early Modern Venice* (London, 2016).

[14] Susan Barclay, *When it's not the Main Game: Art in Hospitals* (PhD Dissertation: University of Western Sydney, 2015), 70.

[15] Theodora Philcox, 'The Sink in the Hall: How pandemics transform architecture', *Psyche* <https://psyche.co/ideas/the-sink-in-the-hall-how-pandemics-transform-architecture> accessed 12 August 2021.

[16] Wil Gesler *et al.*, 'Therapy by Design: Evaluating the UK Hospital Building Program', *Health & Place* 10 (2004), 120. On the link between hospitals and modern city design see Jonathan Hughes, 'Hospital-city', *Architectural History* 40 (1997), 268.

[17] The idea that modernism was 'all-white' is broadly accurate but should though be treated with some caution; see, for example, Barbara Klinkhammer, '"Creation of the Myth:"White" Modernism'." *92nd ACSA Annual Meeting, Miami, FL*. 2004. Proceedings <https://www.acsa-arch.org/proceedings/Annual%20Meeting%20Proceedings/ACSA.AM.92/ACSA.AM.92.58.pdf> accessed 8 June 2022.

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Figure 1.
Paimio Sanatorium by Alvar Aalto in Finland. Image by Leon Liao, reproduced under CC BY 2.0.

seen in Figure 2.[18] The sense of a modern hospital was created through a light exterior and the shapes and recognizable structures of other modern architecture, including curves, light-drenched balconies, and dramatic entrance gates. In 1941 the *Nursing Times* reported on this hospital as a 'model to copy' for its 'modern style of architecture which combines beauty with efficiency, comfort and ease of performance'.[19]

There were a few similar hospital 'models' built in interwar modernist style; for example, in proximity to the Kent & Canterbury Hospital were the spiral ramp of the white-trimmed Kent and Sussex Hospital in Tunbridge Wells (1934), and the curved glass-and-white Lister wing of the Benenden Chest Hospital (1937). Around the same time, routes to hospital were rebranded with a turn to white as the dominant colour for ambulances, ensuring that people's first encounter with the hospital—from the ambulance to the car park—was an impression of clean, crisp, white modernity.[20] Light colours require maintenance and these buildings undoubtedly lost some of their impact over time as they weathered. This decay tended to draw attention to whiteness.[21] By the 1970s, deteriorating white hospital exteriors may have fed into wider anxieties about national decline, which may be part of the reason for such colour schemes becoming less common.

[18] RIBA Library, 'Kent and Canterbury Hospital, Canterbury: The Main Entrance', <https://www.architecture.com/image-library/ribapix/image-information/poster/kent-and-canterbury-hospital-canterbury-the-main-entrance/posterid/RIBA23618.html> accessed 25 May 2021.
[19] 'A Model to Copy', *Nursing Times*, 18 June 1941, 528–9, with thanks to Mark Kerr, Clinical Librarian of East Kent Hospitals University NHS Foundation Trust for sharing this article.
[20] 'Police, Fire Brigade and Ambulance Services', <http://www.igg.org.uk/gansg/00-app1/pfa.htm> accessed 25 May 2021.
[21] Mark Wigley, *White Walls, Designer Dresses: The Fashioning of Modern Architecture* (Cambridge, 2001), xvii.

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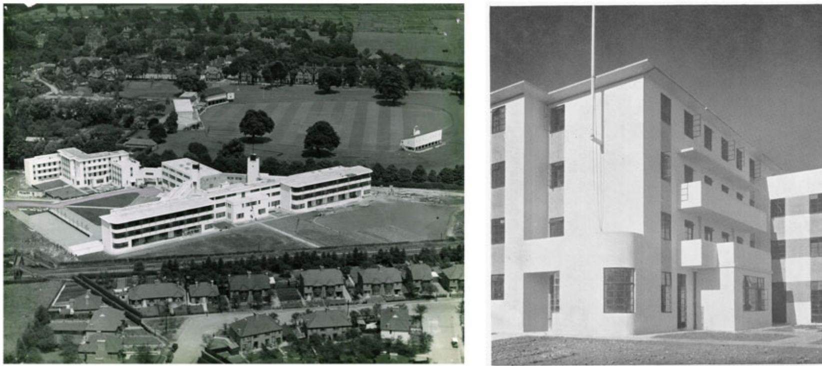

Figure 2.
Kent & Canterbury Hospital Exterior and Nurses' Home Exterior. New Kent and Canterbury Hospital Archives and souvenir brochure July 14th 1937. © Photograph courtesy of East Kent Hospitals NHS Trust. The particular symbolism of white in Kent is worthy of note. In 1981, Hospital Development *noted that 'white weatherboarding' was 'characteristic of traditional Kent architecture' and—for that reason—had been used for a new Maidstone hospital. The 1930s hospital such as that depicted in Figure 1 was clearly part of the 'modern movement', with smooth rather than weatherboarded exteriors, but the fact that white was also common in Kent domestic properties means that it might not have been an unusual colour in the landscape. In this part of the country, at least, the homely and the hygienic were not incompatible. Anon., 'Roundabout',* Hospital Development [HD]*, 9 (1981), 10.*

The early twentieth-century turn to 'all-white' hospitals was also evident in hospital interiors. In 1962, the *British Medical Journal* summarized the recent history of hospital colour schemes as follows: before 1918, there were 'whitewashed walls above dado height and dark brown below'; in the 1920s, white gloss often replaced the whitewash 'and below dado height some sombre dirt-concealing colour—a dark green or brown'; then, in the early 1930s, 'all-white became a vogue and in the more progressive hospitals white-tiled walls to dado height replaced the sombre colours'.[22] The language of 'progressive' white next to 'sombre' darker colours here is deliberate and significant, highlighting the apparently superior moral and medical qualities of inter-war whiteness. Figure 3 turns to the inside of the Kent and Canterbury Hospital in 1937, to show how white walls combined with other elements to create the spatial qualities of efficiency, modernity and hygiene.

White surfaces, walls, and ceilings combined with large windows, fresh air, light, white linen, white doors, white chairs, wipe-down bedframes and clean, shiny floor-tiles. The *Nursing Times* described how the

[22] D.W.A. McCreadie, 'A Hospital Colour Scheme', *British Medical Journal* [*BMJ*], 16 June 1962, 1687.

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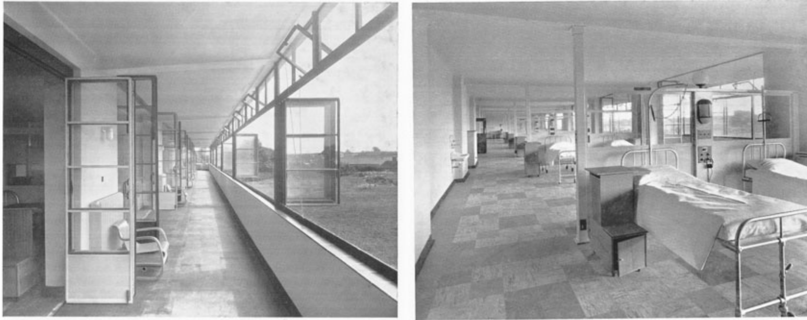

Figure 3.
Kent & Canterbury Hospital Interior: Ward Solarium and Surgical Ward. New Kent and Canterbury Hospital Archives and souvenir brochure July 14th 1937. © Photograph courtesy of East Kent Hospitals NHS Trust.

hospital's modern and efficient feel was brought into being through a range of sensory design elements that created 'a sense of space, order and almost silent activity'.[23] The article highlighted rubber flooring, extensive windows, an absence of 'superfluous' design elements, widespread use of anti-glare glass, and carefully directed lighting systems.[24] The use of white was therefore one component in a sensory arrangement that helped to create a feeling of a modern, efficient, light and spacious hospital.

The all-white aesthetic of modernist hospitals—inside and out—was intertwined with the idea of a 'machine for healing'. Stuart W. Leslie notes that this idea was fundamental to modernism: 'just as Le Corbusier considered a house a machine for living ... so he envisioned a hospital as a carefully controlled machine for healing'.[25] This issue of control, and its relationship to whiteness, is crucial for understanding how the all-white hospital has been understood and represented. As Mark Wigley notes, Le Corbusier's extremely influential buildings of the early twentieth century had whiteness at their core: 'the whole moral, ethical, functional and even technical superiority of architecture is seen to hang on the whiteness of its surfaces'.[26] Other scholars of modernist architecture have similarly identified the moral values imbued in white walls. For Lucas Crawford, 'hygiene' itself is part of control and surveillance: 'from the white city to white walls and to white toilets, white operates ... as a technology of

[23] 'A Model to Copy'.
[24] 'A Model to Copy'.
[25] Stuart W. Leslie, 'Rise of the Modern Hospital: An Architectural History of Health and Healing, 1870–1940 by Jeanne Kisacky (review)', *Bulletin of the History of Medicine*, 92 (2018), 392.
[26] Wigley, *White Walls*, xvi.

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vision, control, hygiene'.[27] Whiteness, control, and hygiene were inextricably interwoven in these buildings.

In post-war Britain, the architectural symbol of modern efficient hospitals shifted towards high-rise buildings and white walls fell out of fashion as they had done in modernism more generally.[28] There was variation depending on factors such as the age of patients to be treated, but in broad terms there was a trend in the early NHS towards soothing colours such as pastel blues and greens.[29] For interior decoration, there was increasing interest in the international field of colour psychology, which developed some earlier theories—such as those found in First World War 'colour' wards for Officers—about the effects of specific colours on the mental and physical health of the unwell.[30] There was a growing emphasis on the need for hospitals, and hospital colour schemes, to fulfil an emotional need and therefore to turn away from white. This trend connects to wider post-war history, in which Lynda Nead notes that 'colour was the language of the project of modernization' and of 'progress' after the Second World War.[31] The colour shift was also evident in other public buildings of the post-war period, such as schools, and the growing interest in colour design in workplaces including factories and offices.[32] There was even a shift towards colour in art galleries around the same time, in a turn away from the 'didactic, focused seriousness' that was implied by the 'white cube'.[33] In the 1980s and 1990s, there was another change with the rise of brighter, more stimulating shades in hospitals and wider architecture alike.[34] Over time, the relationship between colour and 'modernity'

[27] Lucas Crawford, *Transgender Architectonics: The Shape of Change in Modernist Space* (London, 2015), 143.

[28] Jonathan Hughes, '"The "Matchbox on a Muffin": The Design of Hospitals in the Early NHS', *Medical History*, 44 (2000), 21–56.

[29] These colour schemes are not the focus of the article, therefore they are not discussed here in depth, but the change in colour fashions over the late twentieth century can be tracked in published literature such as *Hospital Development* magazine from this period. Some scattered examples include 'covers in green, brown and orange were chosen as being cheerful-looking' in 'Pel Furniture', *HD*, 5 (1977), 19; 'A Pleasant Sage-green was used for Walls and Ceilings' in 'Installations: Grimsby Maternity Hospital. Cladding', *HD* , 8 (1980), 19.

[30] Anon., 'Colour Character', *Daily Mail*, 28 September 1917, 5. Wellcome Library, London, 'International Contacts', ART/AFH/A/9/9 shows that the organizations Arts for Health collection international literature about colour throughout the late twentieth century, including works by the famous US colour psychologist Faber Birren.

[31] Lynda Nead, *The Tiger in the Smoke: Art and culture in Post-War Britain* (New Haven, 2017), 134–35. On modernity and colour beyond Britain, see also Nicholas Gaskill, *Chromographia: American Literature and the Modernization of Color* (Minneapolis, 2018).

[32] Nuffield Trust, *Studies in the Functions and Design of Hospitals*, 111; 'Colour in Factories', *AJ*, 5 July 1961, 17; see also the Dockers' Paint advert in *AJ*, 'Putting Colour to Work?' (24 June, 1954, xxxii), which refers to the important of colour for 'soothing, guiding and classifying' in office buildings, hospitals, schools, and factories.

[33] Melanie Bühler, 'Why the white cube is no longer white', <http://www.metropolism.com/nl/features/39062_colour_critique_reflections_17> accessed: 16 August 2021.

[34] 'In September 1987 ... the first phase of the West Dorset General Hospital, as it was then called, was opened ... [there were] reservations about "excessive red paint" by Prince

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shifted, but hospitals were consistently using what might be seen as 'modern' colours—from white in the early twentieth century, to pastels in the post-war period, and more vibrant and bright shades by the 1980s and 1990s.

This history of hospital colour could thus be told as part of changing ideas about 'modernity' in modern Britain. It could, alternatively or additionally, also be slotted into a narrative of the 'rehumanization' and then commercialization of post-war hospital environments.[35] It is perhaps no coincidence that white became less fashionable when the National Health Service was launched, as the welfare state brought with it a new philosophy of healthcare and a theoretically democratic healthcare system in which the patient's voice was more important. According to an article in *Hospital Development* in 1983, the principle of 'humanisation' was first articulated 'by a few concerned people in the 1960s' and was in full bloom by the early 1980s.[36] The rise of person-centred colour schemes in the 1960s and 1970s, focused on homely and humanistic pastels, aligned with this trend. At the same time as this article about 'humanisation' was published, in the mid 1980s, there was also a subtle shift taking place. Making patients feel 'welcome, at ease and optimistic' came to be newly aligned with commercial culture; to quote another *Hospital Development* article from around the same time, there was increasingly a goal to make hospitals feel 'like a hotel'.[37] This trend can be aligned with the rise of more vibrant, commercial colour schemes and artworks. White came increasingly to be viewed not only as impractical or unexciting, but as actively dehumanizing and sterile. In 1993, junior health minister Tom Sackville commented that 'traditionally, people have thought of hospitals as firstly functional and secondly clinical—complete with very efficient long passages which are often a rather dirty off-white all the way down'.[38] Research on cancer hospitals published in 2013 showed that some patients were vocal in sharing their thoughts on hospital spaces that were thought to be overly white, describing them as 'too clinical, too clean … too cold'.[39] Whiteness was thus situated firmly in opposition to the 'human'.

This narrative has appeal because it connects to so many other ways of framing modern British history, particularly in terms of the chronology. The history of the NHS aligns with other stories about post-war social

Charles. The lively details and bright materials in the design … shot it to fame in the world of NHS building', in Peter Scher, 'Dorset County Hospital, Phase 2', *HD*, 28 (1997), 19.

[35] For post-war interest in 'dehumanization', 'rehumanization', and the meaning(s) of these terms, see Victoria Bates, '"Humanizing" Healthcare Environments: Architecture, Art and Design in Modern Hospitals', *Design for Health*, 2 (2018), 5–19.

[36] Anon., 'Viewpoint', *Hospital Development*, 11 (1983), 6.

[37] Susan Black, 'Interior Design Trends', *Hospital Development*, 10 (1982), 24.

[38] Anon., 'Sackville Hits out at "Depressing" Hospital Care Environments', *HD*, 24 (1993), 13.

[39] Connie Timmermann *et al.*, 'Cancer Patients and Positive Sensory Impressions in the Hospital Environment–A Qualitative Interview Study', *European Journal of Cancer Care*, 22 (2013), 117–24.

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democracy, which was entwined with the principles of the welfare state, followed by the rise of 'neoliberalism', consumerism and individualism. This chronology is often accepted as a temporal backdrop to a range of social, political, economic, medical and architectural histories.[40] This timeline is broadly true, and connects in important ways to the history of hospitals. The rise in post-war patient activism over the course of the 1960s and 1970s was part of a much bigger picture, for example, of many marginalized groups calling for their voices to be heard in this era. Alex Mold notes that the 'patient-consumer' shifted from the 'margins to centre-stage' after Margaret Thatcher's *Patients First* paper (1979).[41] The shift from white shades associated with hygiene, to pastel shades associated with the soothing of emotions, and finally to more vibrant shades that echoed consumer design, could be seen as a way of articulating and reinforcing shifts in NHS philosophy that mirrored those in wider society. Other histories of the NHS align its trends with those outlined above: to quote Martin Gorsky, 'One explanatory framework sets this arc of change against the sweep of social transformation in Britain, from post-war collectivism to fully-fledged consumer society ... The meta-narrative might be described as one of "church to garage" or "communitarianism to marketisation".'[42] Each stage of this meta narrative has its own colour palette.

These ways of framing the history of hospital colour do, in broad terms, hold up. Hospitals, like much other modern architecture and public buildings, did become more colourful places over the course of the twentieth century. This trend represented a desire for hospitals to stay looking fresh and modern, often on a budget or while renovating old buildings. Changing colour schemes in hospitals articulated wider changing ideas about 'modernity' in Britain. They also represented shifts in social and political thought under the welfare state. In some

[40] For example, see Alistair Kefford, 'Housing the Citizen-Consumer in Post-war Britain: The Parker Morris Report, Affluence and the Even Briefer Life of Social Democracy', *Twentieth Century British History*, 29 (2018), 225–58; Julie MacLeavy, 'Neoliberalism and Welfare', in Simon Springer *et al.*, eds, *The Handbook of Neoliberalism* (London, 2016), 252–61; Frank Nullmeier and Franz-Xaver Kaufmann, 'Post-War Welfare State Development' in Francis G. Castles *et al.*, eds, *The Oxford Handbook of the Welfare State* (Oxford, 2010), 81–101. On the influence of this chronology—and some arguments against it, discussed further below—see: Aled Davies, 'Pension Funds and the Politics of Ownership in Britain, c. 1970–86', *Twentieth Century British History*, 30 (2019), 81–107; Emily Robinson *et al.*, 'Telling Stories about Post-war Britain: Popular Individualism and the 'Crisis' of the 1970s', *Twentieth Century British History*, 28 (2017), 268–304.

[41] Alex Mold, 'Making the Patient-Consumer in Margaret Thatcher's Britain', *The Historical Journal* 54 (2011), 509–28.

[42] Martin Gorsky, 'The British National Health Service 1948–2008: A Review of the Historiography', *Social History of Medicine*, 21 (2008), 440–41. On concerns about the rising threat of neoliberalism to the NHS in the 1980s see also Jennifer Crane, '"Save our NHS": Activism, information-based expertise and the 'new times' of the 1980s', *Contemporary British History*, 33 (2019), 52–74.

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other ways, however, the above history of hospital colour can be seen as problematic and overly simplistic. First, the sweeping story told above assumes much more order and consistency in decorative processes than was the case. While it is useful to identify trends in colour schemes, hospitals varied significantly in practice. Few records exist of how and why colour schemes were chosen, but there was clear variation across sites. Some hospital colour schemes were chosen by professional interior decorators, others by estates teams; some were chosen for their aesthetic qualities, others were chosen for economy and practicality.[43] These were not, of course mutually exclusive, but it does warn against making too much of shifts in colour trends as being neatly divided into: white, hygiene and modernity; pastels, emotions, and patient-centredness; bright colours and commercialization. Some colour choices did fit this narrative, while others were simply driven by the shades available in the NHS product catalogue or the paint cans that a maintenance department could easily lay hands on.

There is also a danger, with this way of framing the history of colour, that change is emphasized and important areas of continuity are missed. Colour had never been absent from modernist buildings.[44] Inside the Kent & Canterbury Hospital discussed above, white walls were also combined with coloured flooring: a 'lovely blue' in the entrance, with different colours for each department as part of ordering the space.[45] This use of colour is in line with that found in the most famous international examples of modernist hospital design; Paimio Sanatorium used white alongside carefully deployed colour and experience-centred design including white walls with yellow flooring in stairwells, with hints of

[43] There are many examples from local archives that show the range of practices at work in the selection of hospital colour schemes. In Bristol, for example, there are records of a Senior Building Officer choosing colour schemes in ward kitchens, in consultation with the wards; Bristol Archives, Bristol, 'Bristol General Hospital Canteen Catering Committee Minutes', 40530/A/1/a/34. In other locations, there is evidence that practical decisions drove paint selection when working on a budget, for example with requesting basic paint that did not need to go through the hospital colour scheme approval (such as white) to do small maintenance jobs; The Keep, Brighton, 'Minutes of the Building and Works Sub-committee', HH 15/37. In others, though, there was clear architectural thought and adherence to permitted hospital colour schemes. These approaches are most often evident in journals such as *Hospital Development*, and generally in archival records on new-build hospitals or wards; for example, see the extensively detailed colour palette outlined in Kresen Kernow, Redruth, 'Capital Schemes', AHA/141, which used official colour codes and was decided in consultation with staff and the architect. Other records show the use of interior decorators 'to co-ordinate the colour schemes and furnishings', for example Guy's Hospital in the early 1960s; London Metropolitan Archive, London, 'NGH 4 Notes of the First Meeting of the Evaluation Committee', A/KE/I/01/24/004.

[44] Again see Klinkhammer, 'Creation of the Myth'. See also Brian Abel-Smith on the turn towards the so-called 'gay colours' of green and cream in some 1930s hospitals, in *The Hospitals 1800-1948* (London, 1964), 403.

[45] 'A Model to Copy'.

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yellow flooring also visible in Figure 1 above.[46] Such use of colour was a precurser to what has become known as 'wayfinding' measures, in which coloured flooring in different areas of the hospitals helps people to navigate the spaces. While it remains true that white dominated in these spaces, they were not entirely soulless 'white cubes'. It should not be assumed that modernist qualities such as whiteness, control, and hygiene were purely technological values, and that it was the NHS that put the 'human' back into hospital design. The examples given in this paragraph alone show that all-white hospitals often carefully considered human experience. Other famous examples include Lubetkin's Finsbury Health Centre, which opened in 1938 and used light and brightness carefully to create a space that was both modern and 'cheerful'.[47] Some of the key white healthcare buildings of the 1930s might be thought of as precursors to the NHS, rather than in opposition to it.

A growing interest in colour in the post-war period, similarly, does not mean that white was abandoned completely. The uses and shades of white were rethought under the NHS, as part of creating welcoming and restful environments. There is evidence that some hospitals resisted new colour palettes and even changed them back. In 1950, for example, the Liskeard Hospitals' House Committee visited one local hospital and noted that 'we would suggest that … the walls should be painted a more pleasing tint than the present green. We would suggest, perhaps, a warm cream'.[48] Despite its apparent connection to nature and its acceptance as a soothing colour by colour psychologists, green remained a somewhat controversial colour in post-war hospitals.[49] In other hospitals, proposals for brighter colour schemes had been rejected straight away. In 1962, one Edinburgh hospital representative wrote to the *British Medical Journal* noting that a patient—an architect, who spent a prolonged period in bed—grew 'tired of staring up at uniformly grey or white ceilings' and had submitted the idea of 'a series of rectangles of different colours'; despite hoping to implement the suggestion when a ward was redecorated, 'the hospital house committee … for various reasons, turned it down'.[50]

[46] Sophie Crocker and David Leatherbarrow, 'The Closed Loop: Ninety years of health care architecture', *Design for Health*, 2 (2018), 24; see also Paul Overy, *Light, Air and Openness: Modern Architecture between the Wars* (Hoboken, 2007).

[47] See 'Finsbury Health Centre', *Municipal Dreams* <https://municipaldreams.wordpress.com/2013/04/09/finsbury-health-centre-nothing-is-too-good-for-ordinary-people/> accessed 1 February 2022; and '100 Buildings 100 Years: Finsbury Health Centre' <https://c20society.org.uk/100-buildings/1938-finsbury-health-centre-london#dismiss-cookie-notice> accessed 1 February 2022.

[48] Kresen Kernow, Redruth, 'Liskeard Hospitals' House Committee. June 1950 visitor's report', AHA/372.

[49] On the ambivalent attitudes to green, see Susan Black, 'Interior Design Trends', *HD*, 10 (1982), 24, which notes that green was patients' favourite colour but it was 'much maligned by many hospital staff!'.

[50] James A. Ross, 'Correspondence: Hospital Colour Scheme', *BMJ*, 4 August 1962, 342.

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It is important, therefore, not to generalize about large philosophical shifts based on 'best practice' examples in architectural and design journals.

A 1955 book by the Newcastle Regional Hospital Board, *The Use of Colour in Hospitals*, shows that—for this Hospital Board at least—the finishes, and tones, of white paint remained an important part of hospital design and often used with great care. The book recommended that white was used in specific rooms and spaces; it suggested keeping white ceilings in wards and white walls around windows, for example, but never in the form of 'pure white' and with specific paint finishes to reduce glare (see Figure 4). Colours such as 'broken-white, off-white' and 'pale cream or ivory' were viewed as 'less frigid'.[51] This emphasis on 'warm' and 'cold' shades of white demonstrates that it was not a homogeneous entity, and shows the growing interest in the multi-sensory aspects of colour. White was *part of* the trend towards an embodied and emotional model of colour, rather than in opposition to it.

The brighter colours of the late twentieth century were used *with* specific shades of white, rather than *instead of* white. For example, in 1988 *Hospital Development* reported on a staff-driven redesign of 'dingy Victorian buildings' in which they wanted a main entrance to 'smile' and be positive. They did not eliminate white in order to do so, but used it extremely carefully: 'a lightweight colonnade was built in dazzling white' to divert attention from the 'dingy' buildings, supplemented by new glass doors and shrubs to make the space feel welcoming.[52] In 1995, Newcastle Women's Hospital used brickwork topped with white cladding, which Peter Scher described as 'like foam on a glass of lager, noting that 'the white head lends the dull building a little cheer'.[53] On other sites, some of the brickwork itself was actually painted cream, providing a balance between the 'human scale' of brick and the hygienic clean, light shades.[54] In another example, from 1984, architects chose 'vibrant' blues, greens, and oranges for a new psychiatric wing of St Mary's Hospital in Paddington that 'reflect off the white walls of the corridors giving subtle nuances of colour' to create a 'homelike' feel.[55]

In a final point of caution about the above narrative, it is quite literally a superficial one because it is based entirely on the premise that colour is a visual entity. This approach is just one way of understanding the history of colour, and presents only part of the story. To quote Diana Young, writing on colour in the *Handbook of Material Culture*, 'the idea of colour as

[51] NRHB, *Colour in Hospitals*, 14 and 40; Nuffield Provincial Hospitals Trust, *Studies in the Functions and Design of Hospitals*, 111.
[52] Anon., 'Changing the face of Patient Care', *HD*, 16 (1988), 23.
[53] Peter Scher, 'Urban Rebirth: Liverpool Women's Hospital', *HD*, 26 (1995), 19.
[54] Fiona McWilliam, 'Care in the Community', *AJ*, 28 October 2004, 4.
[55] 'Roundabout: St Mary's Hospital, Paddington', *Hospital Development*, 12 (1984), 6.

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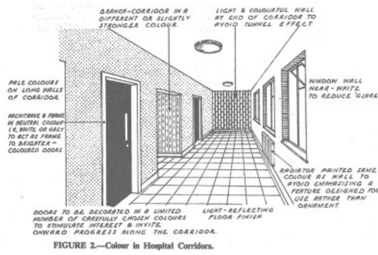

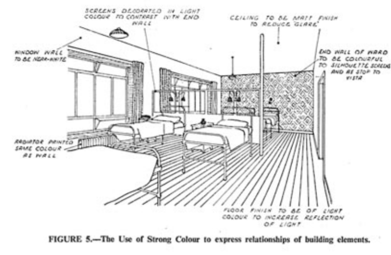

Figure 4.
Newcastle Regional Hospital Board, The Use of Colour in Hospitals (NRHB, 1955), 11 & 24. The publishers have made every effort to contact all copyright holders.

involving only the visual is ... a limited and culturally bound conception'.[56] The following sections of this article take a more multi-sensory and material approach to colour, showing that this approach can be valuable in challenging assumptions grounded in visual and cultural models of meaning. They show that the many meanings of whiteness were relational and unstable, and brought into being in part through cleaning rituals, textures, and hygiene practices in hospital environments throughout the twentieth century. They also show that white was not phased out as a symbol of hygiene over the course of the century, but nor were 'hygienic' and 'humanistic' mutually exclusive categories. There was—in short—no neat transition from hygiene, to humanism, and then to consumerism.

This article firstly looks at white paint, then at white objects, and finally at people in relation to whiteness. Each of the sections below considers the twentieth century as a whole, in order to avoid starting with—and structurally reinscribing—assumptions about the NHS as a clear turning point. It asks how the chronology outlined above might be disrupted by focusing on continuities, as well as changes, in relation to the use of white in hospitals. This approach also speaks to bigger themes in modern British history, but in a more complicated way than the chronology outlined above. A material approach to white challenges the idea that white was abandoned in the post-war period, as part of the growing post-war interest in people's experience of hospitals and then the rise of the patient-consumer. It shows that the hygienic and humanistic have never been in opposition, and that white can be seen as part of a long tradition of British hospital design that bore patients' concerns and experiences in mind. In so doing, it also raises questions about the chronologies that we use as the basis for modern British history; new perspectives are made possible when chronologies

[56] Young, 'The Colours of Things', 182.

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are developed from studies of material change, rather than starting with social or political frameworks.

This disruption of traditional chronologies, particularly those that emphasize the post-war period as one of rupture and transformation, connects to broader social and political narratives. As Emily Robinson *et al.* have recently shown in their work on post-war Britain, alternative methodological approaches can complicate the kind of clear-cut periodization that is so commonly found in relation to the history of twentieth-century Britain.[57] In the case of Robinson *et al.*, it was 'individual narratives and testimonies' that disrupted traditional periodization, by showing that individualism had far deeper roots than previously realized. In this article, it is a material approach to colour that does so. It thus addresses what Matthew Hilton *et al.* describe as 'a wider issue in contemporary British history . . . Perhaps more than any other period, post-war British historiography is dominated by a periodization and narrative structure taken from political history'.[58] They point to the dominance of frameworks such as 'Thatcherism', 'neoliberalism', 'social democracy', and the 'postwar consensus' as ways of conceptualizing post-war history.[59] Without denying that healthcare was intertwined with politics throughout the twentieth century, and particularly in the post-war period, it is important to consider alternative 'periodisation and . . . analytic categories' to those found in politics.[60] By putting material approaches at the front and centre of hospital history, it is possible to rethink our chronologies of twentieth-century history and 'cut across' traditional, politics-based periodization.[61] Instead of a story of rupture, transformation or 'turns', change over time might be more productively understood as the addition of richly textured and co-existing layers of meaning.

Layers of Meaning: Paint

In the early twentieth century many white walls—particularly interiors—were added over old colour schemes. New white paint on existing walls, floors and ceilings was an act of adding layers, rather than just eliminating the old. Even the 'fresh' paint of new, modernist hospitals must be understood as a material addition rather than an absence. As Mark Wigley emphasizes, on modern architecture: 'white is a layer . . . this white layer that proclaims that the architecture it covers is naked has a very ambiguous

[57] Robinson *et al.*, 'Telling Stories about Post-War Britain'.
[58] Matthew Hilton *et al.*, 'New Times Revisited: Britain in the 1980s', *Contemporary British History*, 31 (2017), 148.
[59] Hilton *et al.*, '*New Times* revisited', 148.
[60] Hilton *et al.*, '*New Times* revisited', 148.
[61] This quote is an adaptation of the framework of 'cutting across' the century in Robinson *et al.*, 'Telling Stories about Post-War Britain', 268.

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role'.[62] White paint is less comparable to nudity, Wigley argues, and more comparable to clothing: white paint is like wearing white fabric, as a marker of cleanliness, hygiene and social hierarchies. This conceptualization of the act of painting, and of white paint in particular, is important for historians. It encourages us to examine the act of painting more closely, as the *addition* of meaning rather than its removal.

The white walls of many early twentieth-century hospitals were materially very varied. In some hospitals, shiny new modern blocks could sit awkwardly along older ones that needed 'beautifying', a contrast that could reveal the difference between the 'whiteness' of these buildings.[63] A coat of fresh paint in an old hospital might reveal lumps, bumps, and textures of old walls and previous coats of paint. As Kenya Hara notes in *100 Whites*, a book primarily on the different meanings of 'white' in Japan, walls are never completely flat; this point applies to all walls, but particularly to old ones. Hara argues that 'to see is to observe not only shape but light' in terms of how the light falls on white walls, exposes its textures and blemishes, reflects off its surfaces, and how this might differ from day to day and hour to hour because of the atmospheric conditions.[64] How paint layers and wall textures reflected light also varied according to the nature of the paint, the lighting design of rooms, the position and size of windows, and the direction in which people tended to look. As one article in the *Architects' Journal* noted in the 1950s, the perceived reflection of surfaces changed when patients' beds were moved from facing windows to being parallel.[65] White walls were dynamic, three-dimensional surfaces.

To view white hospital walls as pure, white, controlling spaces is to misunderstand the act of painting as an end-point rather than the start of an ongoing process. White walls are—in Sarah Bennett's words—'memory archives' that continue to be reshaped and 'wounded' by the daily activities of the hospital.[66] The freshly painted white wall of the early twentieth-century hospital would have continually evolved in feel and appearance, sometimes revealing older layers where it is bashed and bruised. White walls were also never entirely covered up, even when they fell out of fashion. Figure 5 shows a layer of cream underneath a later layer of hospital green—seemingly peeling paper—at an abandoned

[62] Wigley, *White Walls*, xviii.

[63] On hospitals as a 'layered landscape' of old and new see also Alice Street, 'Affective Infrastructure: Hospital landscapes of hope and failure', *Space and Culture* 15 (2012), 44–56. Thank you to Anna Harris for alerting me to this work. On 'beautifying' hospitals see Jeremy Hugh Baron and Lesley Greene, 'Art in Hospitals', *BMJ*, 22–29 December 1984, 1731.

[64] Hara, *100 Whites*, 12–13.

[65] Richard Llewellyn Davies, 'Furniture and Fittings', *AJ*, 29 July 1954, 147; 'Lighting', *AJ*, 21 February 1952, 255

[66] Sarah Bennett, 'Re-forming the Institution: The Wall as Memory Archive', *Journal of Media Practice*, 11 (2010), 199–214.

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Figure 5.
'Wall-wound (found) DCH-4' (2010). Bolt hole at the old Exe Vale Hospital, formerly known as the Devon Mental Hospital and Devon County Lunatic Asylum. 1845–1987.
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old hospital for mental health patients, revealed by the passage of time and the removal of an old bolt. Hospitals in use have commonly had similar 'wall wounds' in white paint, revealing the historical colour palette beneath or being visibly patched up. By taking paint and the wall itself as an archive, or a form of palimpsest, the historian can better understand how paint and its meaning evolved over time. As Serena Dyer notes of twelve layers of wallpaper held at the Museum of Domestic Design and Architecture, 'the wallpaper sandwich acts as a material time-capsule'.[67] Additionally, the existence of multiple layers of paint (or wallpaper) at any given time was a part of making its meaning; the layers did not just mark the frozen years of a 'time capsule', but continued to exist in relation to each other at any given point in time because the paint underneath was often exposed through wear and tear. The meaning of hospital white walls was built in relation to the colours below, and above, the white paint; a white wall that had been painted over a darker Victorian colour as an act of 'beautification' of old infrastructure, for example, carried different symbolism to a 'fresh' white wall in a new modern hospital.

'Wall wounds' also act as important reminders that white walls were dynamic and evolving, rather than consistently clean markers of a germ-free environment. This is particularly significant in relation to the 'all-white' modernist hospitals, which would rarely have stayed this neat and

[67] Serena Dyer, 'Masculinities, Wallpaper, and Crafting Domestic Space within the University, 1795-1914', *Nineteenth-Century Gender Studies*, 14 (2018), np.

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clean; the challenges of maintenance and of keeping white walls clean was partly why many hospitals moved to more practical solutions, such as textured or speckled paints in mid-century, as discussed further below. For historians it is useful to conceptualize the act of painting, and the painted wall, as an ongoing process of damage and repair. It is very restrictive to focus on neat, clean images of white walls presented in hospital design journals and photographs. White walls were constantly damaged and patched up, and carried visible 'scars' or 'wounds'. Paint also changed independently of 'wounds', for example under the influence of sunlight and dirt; as Diana Young notes, such 'a colour change might . . . be thought of as the transformation itself not just as symbolic'.[68] These kinds of changes are rarely possible to find in the archive, especially if walls have been cleaned, repaired or replaced and the wall itself cannot act as evidence. However, there are occasional references to damage and disrepair buried in hospital records; the causes ranged from plaster failure due to underlying heating, poor plastering work that created rough surfaces, knocks and bashes from trolleys, and patches where dado rails were removed.[69] In general, it seems reasonable to claim that many people would have encountered dirty, faded, or bashed white walls rather than the gleaming white paint found more often in archival images.

The type of white paint that hospitals used was also an important material change over time to hospital walls, whether it was fresh or layered over old paint. David and Beverlie Sloane argue that 'using white paint on walls replaced whitewashing walls . . .. but the effect was the same'.[70] I argue, instead, that such material differences should be seen as equally important to the colour. White walls looked and felt different when they were formed by whitewash (a thin coat of lime and water) and white gloss paint, which was shiny and showed up the texture of walls. Later, as discussed below, there was a further shift with the use of semi-gloss or textured paints. Although Sloane and Sloane are right in noting that all of these 'white walls symbolized cleanliness', there were subtle differences in *how* they symbolized cleanliness and whether they actually were as clean as they appeared. This distinction became particularly evident when hospitals started to distinguish between the paint finishes required for 'real' hygiene, and those that could create the appearance of hygiene. White walls that *looked* clean and white walls that *were* clean were often conflated, and this distinction was sometimes used knowingly in hospital design.

[68] Young, 'The Colours of Things', 180.

[69] London, London Metropolitan Archives, 'Wall Surfaces (St. Bartholomew's Hospital)', A/KE/I/01/06//001-003.

[70] David Charles Sloane and Beverlie Conant Sloane, *Medicine Moves to the Mall* (Baltimore, 2003), 108

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King Edward's Hospital Fund for London (hereafter 'The King's Fund'), in the early 1960s, did some experiments on wall surfaces at St Bartholomew's Hospital that illustrated the division between 'real' and 'felt' hygiene.[71] They trialled 59 types of wall surface for the new Central Sterile Services Department at the time. The names brought into being the paint's materiality and hygienic qualities, reflecting and bringing into being its purpose: 'Dulux hygienic enamel' in vanilla or white, fungicidal gloss, 'Bactol' gloss and tiles.[72] In addition to new colour schemes, many of these were shades of white, though very rarely what might be considered 'pure' white. The report indicated that texture and paint finishes could be used to create a *sense* of hygiene and cleanliness, rather than necessarily to control dirt. The report's conclusion stated:

> The appearance of dirtiness is not correlated with the actual amount of dirt present. There are some areas where attractive general appearance is the main requirement coupled with ease of maintenance and less frequent cleaning than 'hygiene' areas.[73]

The report continued to recommend light-coloured wipe-down surfaces, such as gloss paints, tiles, and plastic sheeting for areas where hygiene was a key consideration. It noted, though, that textured paints and those with slightly darker 'broken or stippled colour' could give the *feel* of a clean environment with a lighter maintenance schedule because they gave 'little evidence of the actual dirt adhering'.[74] A careful balance was negotiated, through colour and texture, between hygienic practices and the portrayal of an area of the hospital as hygienic. Figure 6 shows some examples of flecked white paints and textured off-white wall coverings, from this study, that kept the feeling of a white space without needing regular cleaning.

White paint was used strategically, and in combination with materiality, as part of creating the sense—if not the actual cleanliness—of hygiene for staff and patients. Though this particular study was for the CSSD, which was not a patient-facing department, its principles could apply more widely. The fact that the King's Fund did this research at all is worthy of note. In the early years of the NHS, research conducted by the charity was crucial to understanding the experiences of all those who used and worked in hospitals. This charity was not new, but it was reinvigorated by the NHS and supported the NHS goal of a more person-oriented hospital. The King's Fund treated people's comfort and the hospital environment as a key part of achieving this aim. Their work ranged from research on mattresses to noise, and they undertook a range of surveys

[71] 'Wall Surfaces'.
[72] 'Wall Surfaces'.
[73] 'Wall Surfaces'.
[74] 'Wall Surfaces'.

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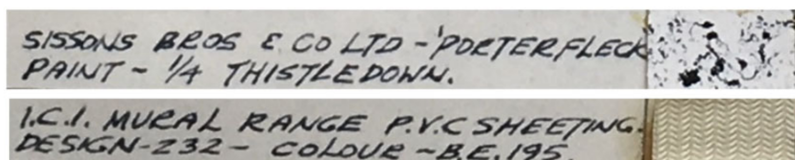

Figure 6.
Paint and PVC Sheeting Samples. King Edward's Fund Wall Coverings A/KE/I/01/06/002 © Reproduced with permission of the King's Fund.

with staff and patients.[75] Their studies of wall surfaces and paint was part of this wider agenda, not only to improve the hygienic practices of hospitals but to improve people's experiences of hospitals.

White paint can thus be situated not in opposition to the more 'humanistic' rise of pastels at this time, but as part of creating environments that reassured patients. Implicitly, in the very existence of this research and the nature of the recommendations made, there was a belief that patients wanted to *perceive* the hospital as clean and that white walls continued to be an important part of achieving this goal. There are some, limited surveys of patients' experiences of hospitals in the archive, which indicate that the King's Fund was correct in believing this to be the case. In surveys conducted across a range of London and Yorkshire hospitals in 1967–68, patients who commented on the ward atmosphere commonly linked the concepts of lightness, air, and cleanliness: comments included 'light, airy and clean', 'clean and airy', and 'open, bright & light'.[76] Some of this 'lightness' was about windows as much as wall colour, and occasionally patients complained that they wanted more vibrant colours as—to quote one respondent—the 'egg-shell white room with the pink window trim was terribly dreary and institutional looking'.[77] These latter comments were generally rare though, and it is unclear from the archive whether they related to the same ward as the other more positive feedback. In general, these surveys indicate that responses to hospital design remained highly personal and there was demand for brighter colours and patterns at this time. There was *also* an enduring, positive connection made by many patients between lightness, 'modern' spaces, and cleanliness. This combination of continuity and change was complementary, rather than in tension.

There is evidence that some hospital staff resisted the use of textured surfaces in spaces where true hygiene was required. Kresen Kernow

[75] On the King's Fund's noise surveys, for example, see Victoria Bates, *Making Noise in the Modern Hospital* (2021).
[76] London Metropolitan Archives, London, 'Completed Patient Questionnaire Forms', A/KE/I/01/059/017-22.
[77] 'Completed Patient Questionnaire Forms', A/KE/I/01/059/017.

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archive holds a particularly interesting example from the Cornwall and Isles of Scilly Area Health Authority, relating to a pharmacy extension in 1976.[78] A member of staff pushed back against the ceiling covering specifically on the basis that it was Artex and therefore not 'easily cleaned' or 'washable'. This complaint was in direct opposition to the architect's claim that 'this treatment gives a hard, washable surface well within the requirements of a type B finish', which was chosen because of its resistance to cracking.[79] Based on practical experience and with the support of the Medicines Inspector, the member of staff in question wrote in firm opposition to this claim that Artex was 'washable'. Significantly, the main area of concern was the Aseptic Suite, in which it was then proposed to put a painted ceiling board over the Artex. The use of textured surfaces to create a feeling of hygiene was, then, only strategically possibly in certain parts of the hospital and not in those that required true asepsis.

Rooms such as the operating theatre also required genuine asepsis, which could not be satisfied with any strategic use of textured paints or stippled colour. It is actually this requirement that led to a move away from white in the early twentieth century, in favour of green in the operating theatre. White was—in Jeanne Kisacky's words—'literally a pain in the eyes for doctors' causing eyestrain in the operating theatre.[80] In relation to seeing blood spots on clothing or surfaces, it was also increasingly accepted that a red/green colour contrast was more visible than red/white. By mid-century, then, it was already known that white was not always the most practical wall covering or material in hygiene terms. However, it remained the dominant spatial and social signifier of cleanliness.

In other parts of the hospital, particularly patient-facing areas that were not '"hygiene" areas', the materiality of paint became an important part of creating the illusion of cleanliness. The aforementioned 1955 book by the Newcastle Regional Hospital Board, *The Use of Colour in Hospitals*, noted that matt surfaces were difficult to clean and were not advised beyond ceilings. The book recommended semi-gloss paint, which created a 'restful atmosphere' in wards because 'the slight lustre … gives room interiors a more lively and a cleaner appearance than that resulting from entirely matt surfaces'.[81] It is significant, however, that the book also emphasized that semi-gloss surfaces were not the most hygienic paints in

[78] Kresen Kernow, Redruth, 'Capital Schemes: Pharmacy Extension Royal Cornwall Hospital (Tresilke)', AHA/142.

[79] Kresen Kernow, Redruth, 'Capital Schemes'.

[80] Jeanne Kisacky, 'Blood Red, Soothing Green, and Pure White: What Color is Your Operating Room?', in Marilyn DeLong and Barbara Martinson, eds, *Color and Design* (London, 2013), 118–24. On hospital green see also David Pantalony, 'The Colour of Medicine', *Cmaj*, 181 (2009), 402–3.

[81] Newcastle Regional Hospital Board [NRHB], *The Use of Colour in Hospitals* (Newcastle-upon-Tyne, 1955), 31.

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practice. Gloss paint was the most effective for hygiene purposes due to 'the resistance of the hard smooth surface ... to the collecting of dirt and dust and to the wearing effect of constant washing-down'.[82] However, the 'dazzle' from this surface negatively affected patients trying to rest, and its reflective sheen highlighted imperfections on wall surfaces. The careful use of paint, even just for plain white surfaces, tells an important story; carefully deployed semi-gloss white paint was not purely an instrument of hygienic control, but was used to create a 'cleaner appearance' for those using the spaces.

Hospital administrators grew increasingly frustrated over time with the distinction between 'real' and 'apparent' cleanliness. This is most evident in discussions over hospital flooring which, although rarely white, carried some of the same properties as the paint discussed to date. In the 1980s, one article in *Hospital Development* observed the ongoing conflation in relation to floor cleaning: 'The "if it's shiny, it must be clean" syndrome is still very prevalent.'[83] A similar complaint was made in 1985, when an author observed that 'the high cost of keeping up this level of *apparent* cleanliness is not justified in terms of *real* cleanliness because light reflection and true cleanliness are totally and absolutely unrelated'.[84] The difference between 'apparent' and 'real' cleanliness was thus commonplace, whether in the form of shiny polished floors or textured white walls. In theory this could only have been for the benefit of patients, who would have been reassured and comforted by the illusion of hygiene. That said, by 1985 there was also a growing sense that this was no longer true: the *Hospital Development* article also observed that highly polished floors made for a 'cold, institutional atmosphere' and could be difficult for elderly patients to walk on.[85] The same might have been true for white paint by this time, as noted above, as it was being increasingly used to enhance or reflect bright colours by the 1980s and 1990s.

A careful study of white paint challenges some assumptions about the purpose of white walls and surfaces in hospitals. White walls were probably never as consistently clear, white and controlling in the early twentieth-century 'machine for healing' as is often assumed; they were also not incompatible with person-centred design in the NHS. The careful curation of white paint in hospitals indicates that it was used not entirely for practical purposes, but also to reassure and comfort people. Even when 'all-white' walls fell out of fashion, hospitals continued to use white paint carefully—including considering factors such as the reflective qualities of gloss paint—to meet the needs of patients for rest and care, rather than only for the purposes of maintaining hygienic environments. The

[82] NRHB, *Colour in Hospitals*, 32.
[83] Susan Black, 'Interior Design Trends', *HD*, 10 (1982), 24.
[84] Anon., 'Hospital Floor Maintenance Costs', *Hospital Development*, 13 (1985), 33.
[85] Anon., 'Hospital Floor Maintenance Costs'.

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hygienic and humanistic were often intertwined throughout the twentieth century, rather than in opposition.

A Clean Bill of Health: Sheets and toilets

White walls became less common in hospitals over the course of the twentieth century, but white objects, fixtures, and fittings remained a feature. They represent another form of continuity amidst change, in two ways. Firstly, these objects were kept as symbols of hygiene, even as there was a shift towards brighter colour as the marker of 'modernity'. Secondly, they show that this association between whiteness was—throughout the twentieth century—materially unstable. White objects represented hygiene *because* they showed dirt so easy, but this depended on regular and often visible cleaning routines. This section focuses on these cleaning practices in relation to two types of white objects in hospitals, which were materially different: white linen and white toilets.

It has always been extremely difficult to keep surfaces white, a fact too rarely acknowledged in histories of the hue. Hospitals either sought to hide this problem, through the careful use of colour and texture, or needed to engage in constant, visible rituals of cleaning and maintenance as part of keeping the sense of order. Where white surfaces were designed to show dirt, rather than to hide it, it was important that dirt was rapidly tackled in order to maintain the reassuring feel of a sterile environment. White was partly important as a symbol of hygiene precisely because it got dirty easily. In essence, white linens only operated successfully as symbols of hygiene and control when they were kept white.

In 1947, *The Lancet* published an article on Birmingham Home for the Elderly in which it noted that 'White bedspreads, though they look rather bleak, have been deliberately chosen, because the first signs of soiling are easier to detect on white than on coloured materials.'[86] Although this specific article relates to a 'home' for the elderly rather than a hospital, its comments about white linens are equally relevant to hospitals and particularly to so-called 'geriatric' wards. The 'bleak' white bedspreads might have represented a cultural shift in the meanings and experience of white in healthcare, but they might also have been 'bleak' *because* they showed soiling. In this sense, there was something of a paradox: the hygienic value of white walls or materials in practical terms could undermine the perception of a space as hygienic. In addition to the problems of soiling on a day-to-day basis, bedding would be discoloured through repeated washing. In a 1966 report by the British Launderers' Research Association on 'Chemical Disinfection of Hospital Woollen Blankets', the problem of 'real' versus perceived hygiene was raised yet again. The

[86] 'Modern Care of Old People', 5 July 1947, *The Lancet*, 30.

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process of disinfection through boiling meant that blankets became discoloured, as they needed to be repeatedly boiled in brass machines.[87] In a trial of mattresses by the King's Fund in the early 1960s, extensive tests were conducted to evaluate how mattress covers responded to the cleaning required in hospitals; some reports focused entirely on issues of discolouration and staining, irrespective of the outcome in sanitation terms.[88] The commitment not only to hygienic practices but to keeping linens *white* is significant here. Even off-white would have served the practical purposes outlined above, indicating that there was a symbolic factor to these concerns as much as a practical one.

White coats provide another symbolically important white linen in the hospital, for which cleaning and germ control is relevant. In experience terms, encounters with the white coat have always been complex, as it can operate as both a marker of power and of care. As Gesler noted in *Healing Places*, the white coat is also highly personal; for some people, for example with Alzheimer's, the 'white coat may remind one of medical crises' from their past.[89] For others, it represented authority in a way that might have been reassuring.[90] The infamous white coat was phased out in the UK—as it was in many other places including North America—in the early 2000s, ironically in part because its cotton and/or polyester material was thought to be 'a harbinger of infection'.[91] It is significant that the white coat was kept for so long despite its known impracticality, especially with the decline of on-site NHS laundries. Kenya Hara in *100 Whites* also emphasizes that the whiteness of the white coat is a very specific shade of white: 'not even a vague, unbleached white . . . a fastidious, bright white . . . Perhaps the whiteness forces the wearer to take pains to stay as clean as possible'.[92] This point is an important reminder that different shades of white could serve different functions, and that the brightest shade was designed to hide no speck of dirt.

Though white linens usefully showed dirt quickly, as with white walls it was not always desirable for them to do so. Unlike white paint, however, there was no possible turn to a textured or 'gloss' linen that gave the

[87] J. C. Dickinson and R. E. Wagg, 'Chemical Disinfection of Hospital Woollen Blankets in Laundering', *Journal of Applied Bacteriology* 29 (1966), 357–64. It is a reasonable conclusion that the blankets were white were based on the reference to 'white fluid' and because in another publication by the same the blankets are described as 'white, all wool, plain weave hospital blankets'; J. C. Dickinson *et al.*, 'Residual Bactericidal Action of Wool Blankets Laundered with Formaldehyde: A Hospital Trial', *Journal of Applied Bacteriology* 33 (1970), 566–73.

[88] London Metropolitan Archives, London, 'Plastic Foam Mattresses', A/KE/I/01/002.

[89] Wilbert M. Gesler, *Healing Places* (Lanham, 2003), 97.

[90] Anon., Doctors 'should wear white coats', 13 May 2004, <http://news.bbc.co.uk/1/hi/health/3706783.stm> accessed 1 February 2022.

[91] Clare Murphy, 'Death of the doctor's white coat', 17 September 2007, <http://news.bbc.co.uk/1/hi/health/6998877.stm> accessed 1 June 2021.

[92] Hara, *100 Whites*, 100.

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impression of hygiene without the labour of cleaning. However, these linens were kept throughout the twentieth century; the bright white coat, as an example, was seemingly kept for symbolic rather than hygienic reasons. As with many of the white objects and materials discussed above, then, white linens can be situated in a history of patient-oriented hospitals as much as they can be viewed as mechanisms of power. They also demonstrate that whiteness was never static. The hygienic qualities of white linens and uniforms were brought into being through a range of cleaning practices, rather than being stable or consistent.

Objects of sanitation provide another example of fixtures that stayed white into the late twentieth century, and which required regular cleaning.[93] Although colourful toilets were becoming more popular in the mid twentieth century, with coloured bathrooms arguably reaching their zenith in 1970s homes, there is no evidence that hospitals followed this trend.[94] White porcelain toilets and sinks—or even white seats on stainless steel bases—carried the visual qualities of hygiene, and ensured that spaces continued to feel clean even as other decorative features changed over time.[95] They also met the material requirements of hygiene, as noted in an article in *Hospital Development* in 1977: 'Cleanliness is of paramount importance in hospitals, therefore surfaces must be capable of regular cleaning, and materials used which will not harbour germs. Most of these requirements are met by tiled, metal or plasted coated surfaces'.[96] This article was actually written about 'noise control' by an acoustic consultant, who noted that such surfaces also reflected sound. A hygienic space thus implicitly came with a soundscape, again emphasizing the value of thinking beyond the visual. The reference to 'regular cleaning' here is crucial to understanding how white objects functioned as symbols of hygiene. As with white walls and linens, they got dirty and were not simply neat 'end points' in the making of a hygienic atmosphere. Hygiene was not a stable built-in part of hospitals, created by white fixtures and fittings. It was also produced as a

[93] See Richard Llewellyn Davies, 'Furniture and Fittings', *AJ*, 29 July 1954, 143–47.
[94] It is rare for hospital archives or journals to refer specifically to the colour of bathroom fittings, but the fact that there is no reference to colour at all implies that they were considered unremarkable; this points towards the fixtures being classic 'white' rather than fashionable shades. There is also evidence that hospitals that chose colourful palettes often still kept white decoration, such as white tiles, in the bathroom areas, and it is likely that this extended to the toilets and sinks; see, for example, Anon., 'BUPA Medical Centre: Manchester', *Hospital Development*, 8 (1980), 20. Images we have of wards with sinks (such as Figure 7) generally show them to be white. It is possible that some hospitals used stainless steel, as these were increasingly popular in public infrastructure at this time, but white porcelain toilets have long dominated. There has also been a growing use of dark seats with white bases over time, partly to help patients with dementia.
[95] On the history of the toilet, including the materials with which they were made, see Sıdıka Mine Aytaç, 'The Social and Technical Development of Toilet Design' (MA Dissertation: Izmir Institute of Technology, 2004).
[96] J. F. Bridges, 'Noise Control', *HD*, 5 (1977), 30.

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spatial quality through the act of cleaning these objects, and the witnessing of this act.

The glossy white surface of a toilet has always shown dirt and staining extremely quickly. As they were used regularly, toilets only operated as symbols of hygiene if their whiteness was also maintained regularly.[97] Surveys conducted by the King's Fund in the late 1960s revealed toilet cleanliness and hygiene to be a recurrent concern, despite the regularity with which cleaners tackled them: 'whilst the baths and toilets were regularly cleaned', one patient complained, 'by virtue of the numbers using them they quickly became soiled.'[98] Historical sources from the perspective of hospital cleaners are extremely rare, but more recent works show the importance of routine to them. One cleaner, who has worked in NHS hospitals since the 1980s, spoke in a recent interview about the need for constant maintenance of particular objects—including white and wipe-down ones—such as toilets: 'how many times I go round with my toilet? Four times a day, I go around. In the morning, after my break, after my lunch and before I go.'[99] This ritual of the regular cleaning of white surfaces in which dirt is constantly reintroduced and highly visible is not a new one. The routine of cleaners and their schedule is also significant here, being predominantly focused on daytime when there is more activity in the hospital and when the light makes dirt more visible. Hygiene was—and is—a temporal spatial quality, with the clean gleam of white most important in bright light.

The meaning of the clean, white toilet was also created through its visual opposition to other objects. Items were 'colour-coded': in deliberate and direct contrast to the white of the toilet, 'the bits for the toilet and bucket is red', while 'high dusting is colour blue . . . They got green bucket in [the kitchen]'.[100] This colour coding is in itself a hygienic practice and ritual of separating and sorting different types of contaminant. It is significant that none of the cleaning products mentioned are white, which thus maintains its status as uncontaminated and pure. The precise sorting system discussed here is relatively new, likely introduced as a consistent NHS system as part of the 2007 National Colour Coding Scheme to control harmful bacteria. However, colour sorting in hospitals had a much longer history and was often practised in a more localized way. There are articles in medical journals from the 1970s and

[97] Satisfaction ratings for NHS toilets have dropped in recent years as they have been perceived as increasingly dirty. On this issue—and many others related to cleaning, soiled sheets, and toilets—on an international level, see Sjaak van der Geest and Shahaduz Zaman, '"Look under the Sheets!" Fighting with the Senses in Relation to Defecation and Bodily Care in Hospitals and Care Institutions', *Medical Humanities*, 47 (2021), 103–11.

[98] 'Completed Patient Questionnaire Forms', A/KE/I/01/059/017-22.

[99] Teresita P. Interviewed by On the Record & ScreenDeep for 'The Texture of Air', <https://www.thetextureofair.uk> accessed 1 June 2021.

[100] Picasso interview.

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1980s that do not mention specific colours, but note that there was a colour-based sorting scheme in place in British hospitals for contaminated objects and linens.[101] There is also a long history in pharmacies of using coloured bottles or labels to mark out dangerous substances. Colours such as dark black, red, green, or blue—along with ridged, shaped, or textured bottles—were introduced to avoid accidental 'poisoning' in the nineteenth century.[102] Clear and smooth bottles represent safety and purity. The use of colour in these contexts was not purely practical. The specific colours that were chosen reinforced social, cultural, moral, and spatial hierarchies about the superiority of whiteness or clarity as the marker of purity.

White objects were never abandoned in the modern hospital. They remained a key and active part of the material making of space throughout the twentieth century, and—as with white walls—their whiteness should not be dismissed as an 'absence'. White objects lingered as an important symbol of hygiene in healthcare settings, long after white walls were replaced by brighter colour schemes. This section has also indicated that it is useful to think more closely about exactly *how* white operated as a symbol of hygiene and the ways in which it was sometimes undermined. In some parallels with the 'wall wounds' discussed above, white objects were often soiled or damaged, and required maintenance and cleaning. The meaning and effects of white objects—and the power that they held as symbols of hygiene—were thus temporal and unstable, depending on whether they were clean. The qualities of whiteness were also created through the act of cleaning itself, and perhaps by the witnessing of this ritual, as part of an ongoing and repeated part of hospital life.

Care and Control: People

White walls, sheets, coats, toilets, and sinks did not simply exist. They needed to be maintained, repaired, washed, cleaned, worn, viewed, and felt. The meanings of whiteness were co-produced with hospital staff, visitors, patients, and services users as part of an ongoing process. This section moves on to the different people in hospitals, and how they could shape the meanings and experience of whiteness. It explores factors such as age and race, and the concepts of care and power, to show that whiteness was a relational concept rather than a monolithic one.

[101] For example, Isolation System for General Hospitals', *BMJ*, 6 April 1974, 41–44; Lynda J. Taylor, 'Segregation, Collection and Disposal of Hospital Laundry and Waste', *Journal of Hospital Infection* 11 (1988), Supplement A, 57–63.

[102] Peter Bartrip, 'A "Pennurth of Arsenic for Rat Poison": The Arsenic Act, 1851 and the Prevention of Secret Poisoning', *Medical History* 36 (1992), 53–69; W. A. Campbell, 'Oxalic Acid, Epsom Salt and the Poison Bottle', *Human Toxicology* 1 (1982), 187–93; Ralph Tapping, 'Poisonous Substance', *Australian Journal of Pharmacy* 96 (2015), 4–5.

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The early twentieth-century 'all-white' hospital can be viewed differently when we put people in the room. Figure 7, for example, shows a new clinical block from Great Ormond Street Hospital from 1939. This room not only had wipe-down white walls and tiles, but also many other white objects. Symbols of hygiene included white lights, sinks, bedding, tray support, and bed-frame, combined with extensive glass and mirrors, and wipe-down tiled floor-coverings and shiny fittings. Significantly, there is also a child in the bed; this image thus differs from many of those available in architectural journals, and from some of the other images present in this article such as the 1937 ward shown in Figure 3.

Though this room presents at first glance as a highly sterile environment, the presence of a person tucked into soft white sheets in bed, the activity of reading books, and the glimpse of flowers in the corner of the image are important reminders that the ward was inhabited. Colour was brought in through other elements and objects, perhaps chosen by a child or their parents. Missing from the image are other elements that might have contributed to the 'hygienic' quality of this room, from sunlight through the window to the white uniforms of doctors and nurses. Constance Classen reminds us that objects are never just looked at; she notes that by putting 'artefacts' in museum cases, they are 'abstracted from a dynamic context of multisensory uses and meanings and transformed into static objects for the gaze'.[103] Photographs, such as Figure 7, risk doing the same. This photograph is a staged image of a room that, in practice, was dynamic. The child would have been interacting with surrounding objects, for example by using the sink and splashing toothpaste on tiles, or spilling food on the white linens. The white objects and shiny fittings were not necessarily static and clean. Again, a material and relational approach to white objects challenges ideas that whiteness in hospitals always represented order.

Figure 7 also raises questions about the different people who used hospitals, and what white objects meant to them. It is difficult to know whether a child would have felt and embodied the ward as an environment of hygiene, and if so whether that was positive for a young person. In general children's hospitals had long veered towards the brighter end of the colour spectrum for distraction and a sense of 'homeliness'. In the late nineteenth century, painted picture tiles had offered a colourful and hygienic form of decoration for children's wards in British hospitals.[104] In the image above, such distraction was offered through other objects and forms of entertainment, while the colourful picture tiles were replaced

[103] Constance Classen, 'Foundations for an Anthropology of the Senses', *International Social Science Journal* 49 (1997), 403.
[104] Barclay, *When it's not the Main Game*, 118; John Greene, *Brightening the Long Days: Hospital Tile Pictures* (Coventry, 1987).

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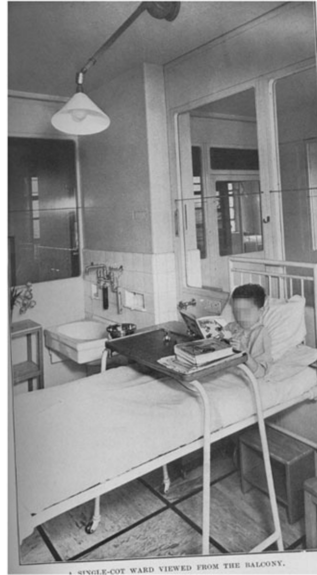

Figure 7.
Image from Great Ormond Street Hospital 1939 Annual Report. © Reproduced with kind permission of GOSH Archives.

with plain white. Who, then, were the white and wipe-down objects *for* in children's hospitals, if previous painted tiles had served the same hygienic purpose? As with white walls, ceilings, floors and corridors, they were there for the purposes of creating a feeling of cleanliness as much as a reality. In this case, this feeling may have been more important for visitors than the children themselves. For anxious parents, the room depicted in Figure 7 might have been reassuringly modern and hygienic. It is significant that this image was shared as part of the GOSH Annual Report, as an example of good design practice in the 1930s.

Whiteness can be understood differently when we consider how it would have been experienced by a specific person, or type of person. The 1930s children's ward requires some speculation and photographic interpretation to demonstrate this point, but other sources make it more explicit. Turning to the more recent history of hospitals, there is great richness in the flourishing of the genre of pathography or published 'illness memoir'. To take just one of many possible examples: encounters with the large, white Computed Tomography (CT) scanner feature regularly in such texts. In *Patient* (1996), Ben Watt describes the CT scanner as a 'big white doughnut', while in *C: Because Cowards Get Cancer Too* (1998), John Diamond wrote that 'The great thing about the CT scan is that it looks just like prime-time viewers think the medicine of the future ought to look: white, clean, non-

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invasive.'[105] The initial appearance of the machine and its sleek, white, modern qualities reassured patients in an otherwise difficult and uncomfortable situation. Diamond noted that—despite all the surface-level 'reassuring' qualities of the CT scan's appearance—in practice, encountering the machine also came with a host of unpleasant sensory experiences, anxiety and a feeling of claustrophobia when 'enclosed'.[106] In this person's narrative, whiteness was represented as 'reassuring' and futuristic rather than dehumanizing and scary; the appearance of the machine was a counterbalance to the stressful sensory experience of the scan. Another person might have viewed this 'white, clean' machine differently, depending on their emotional state, attitude to technology, levels of pain, and more. In short, it is impossible to extrapolate from a single person's impression of whiteness in hospital over time, but such experiences are still worthy of note. Whiteness was a co-produced and relational quality, not simply a colour (or absence of colour) that projected a single, shared meaning into hospitals.

The discussion to this point has provided two very different examples, from the early and later twentieth century, to show that whiteness must be considered in relation to people. Both indicate that what might be stressful and 'sterile' to one person could be experienced as 'care' by another; this has undoubtedly been true across time and place. The viewer of whiteness has always been a co-producer of its meaning(s). In other contexts, the people in hospitals helped to *create* atmospheres of care, or turn 'objects' into symbols of care through their acts and rituals. The staff delivering trolleys stacked with fresh white linens or white teacups provide one such example. Although often the source of noise complaints, the trolley could also be extremely important for immobile patients. Shanti Sumartojo and Sarah Pink show, in their study of a psychiatric inpatient unit for older people, that 'trolleys ... had to be present in order for atmospheres of care to coalesce ... because the patients in that ward were themselves less able to move around'.[107] No single material component of the trolley created this 'atmosphere of care', which was produced as part of a shifting web of relations between people, objects, weather, time, emotions and more.[108]

The qualities of 'care' were brought into being through a relationship between white objects, their sensory qualities, and the different people in hospitals. Figure 8 depicts a smiling domestic staff member serving tea at

[105] John Diamond, 'Because Cowards Get Cancer Too: A Hypochondriac Confronts His Nemesis', *New York Times*, <https://archive.nytimes.com/www.nytimes.com/books/first/d/diamond-cancer.html> accessed 13 August 2021; Ben Watt, *Patient: The True Story of a Rare Illness* (London, 1996).

[106] Diamond, 'Because Cowards Get Cancer Too'.

[107] Shanti Sumartojo and Sarah Pink, *Atmospheres and the Experiential World: Theory and Methods* (London, 2018), 83.

[108] Sumartojo and Pink, *Atmospheres and the Experiential World*, 83.

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Homerton Hospital in 1990, showing the high proportion of white plates, cups, bowls, and wipe-down trolley tops. In theory such shiny white surfaces, combined with chrome, should have been signifiers of hygiene but in this context they were symbols of domesticity and care. Cups, jugs, and plates—such as those on the trolley in Figure 8—did not have meaning on their own. They needed to be part of a ritual to be given meaning and to represent care: tea was served at the same time daily, often by the same staff members (or staff in the same uniforms). It was part of a routine involving other sensory stimuli such as sound and smell. As with all white objects, the materiality of the cups was also important. Those in Figure 6 appear to be ceramic cups and plates, which would make a bright sound when in contact with a teaspoon, and have the comforting feel of non-institutional cups of tea from home. The whiteness of the hospital cups was thus balanced with the material feeling of homeliness. They differed from the white plastic cups increasingly used for medication or water over the late twentieth century, and from other disposable cups and cutlery that were becoming commonplace in hospitals by the end of the century. These cups were sturdy, firm, and part of the material representation of care.

Figure 8 also draws attention to the different people who spent time in hospitals, including not only patients but a range of members of staff beyond the clinical. The 'white coat' discussed above was not the only uniform seen in hospitals, of course. It is difficult to know from the archival image what colour the uniform was at Homerton Hospital, but other records indicate that there were somewhat hierarchical uniform colours at work elsewhere. In Ben Watt's *Patient*, in relation to his time in the recovery ward of a London hospital in the 1990s, he notes that: 'Almost all the women on the staff were black. They wore bright yellow nylon dresses .... Hot, weak tea came round with Marie biscuits at around eleven, and again at four.'[109] Watts emphasizes the importance of ritual and of the staff uniform colour, a bright yellow evoking sunlight and cheer. It might be significant that Watts not only notes that Black women were serving tea, but also that they wore 'bright yellow' dresses. The linking of race and yellow clothing here might not be coincidental. Lynda Nead argues that clothing and colour—and their representation in visual culture—have long been key to the construction of by 'defining both the restrained, neutral look of the white nation and the ... excesses of the new black African and Caribbean immigrants'.[110] This point has always been pertinent in the NHS, particularly as the 1948 British Nationality Act brought many (much needed) migrant workers to the health system.

[109] Watt, *Patient*, 126. Capitalization and formatting as per the original source.
[110] Lynda Nead, '"Red Taffeta Under Tweed: The Color of Post-war Clothes', *Fashion Theory*, 21 (2017), 365. Capitalization and formatting as per the original source.

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Figure 8.
Lucia B., Homerton Hospital, 1990. Reproduced with permission of Barts Health NHS Trust archive. SBHB/MP/4/2/3/12.

Watts' comment about the colourful uniforms of Black staff members must be placed in such a longer history.

The colourful uniforms of domestic staff are in conspicuous opposition to those of the white coat. While yellow might have been a cheerful colour, white has long been seen as a symbol of superiority. As Philip C. Russell notes, the white coat carried many cultural associations, including 'being morally or spiritually pure or stainless, spotless, innocent; free from malignity or evil intent; beneficent; opposed to something characterized as black (i.e. death); highly prized, precious; fair seeming.'[111] It is no accident that those further towards the perceived 'top' of the hospital hierarchy have been more likely to wear white throughout the twentieth century. In terms of the racial issues raised above, this is a complicated picture. Staffing at all levels of the NHS is racially and ethnically diverse, but there has also always been racial inequality. A recent report by the King's Fund noted that 'as the pay bands increase, the proportion of ethnic minority staff within those bands decreases, from 24.5 per cent at band 5 to 6.5 per cent at very

[111] Philip C. Russell, 'The White Coat Ceremony: Turning trust into entitlement', *Teaching and Learning in Medicine*, 14 (2002), 56–9. This article relates primarily to the US 'White Coat Ceremony' but these broader points also apply in the UK.

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senior manager level'.[112] This means that patients have always been more likely to see white people in white coats. These trends have also long been evident in visual culture; Roberta Bivins, for examples, gives an example of a *Daily Mail* cartoon from 2013 in which 'the racialized nurse figure operates as a stand-in for *all* Mid-Staffordshire nurses, just as its two white male figures—a traditionally white-coated doctor, and a plump and be-suited manager—represent the other hospital professionals'.[113] Bivins shows that there were also representations of Black and Asian doctors in NHS visual culture, but that they were more ambivalent than representations of nurses.

While 'whiteness' is being discussed here primarily in spatial and material terms, rather than in terms of race, the two cannot always be separated. As Kirsty Dootson argues, there are 'intimate connections between the politics of colour-as-hue and the politics of colour-as-race', not least because whiteness is treated as a 'benchmark against which all colours are measured'.[114] Again, this is an important reminder that whiteness—as hue and as race—must be simply treated not as a 'norm', an absence, or a 'benchmark'. Kathleen Connellan notes that 'white has been used architecturally and architectonically to influence or, more specifically, control people especially through white spaces and white places'.[115] In hospitals, Connellan argues, white ensures that there is 'nowhere to hide' and is a feature of large institutions keen on 'order' of the bodies within them. These meanings apply to the white walls and white coats of hospitals alike. Racial hierarchy is one such type of 'order', power and control, and the whiteness of hospital spaces, objects, and uniforms was one way of maintaining this order.

Such links between 'whiteness' and 'purity' have long had social implications. Critical race theorists have shown how links between whiteness, cleanliness, physical purity, and moral purity, have operated to reinforce racial hierarchies and power systems in a range of contexts.[116] There is also an extensive literature in anthropology and cultural history about the symbolism of 'dirt' and the ways in which control of dirt can be used to

[112] Shilpa Ross *et al.*, 'Workforce Race Inequalities and Inclusion in NHS Providers' <https://www.kingsfund.org.uk/sites/default/files/2020-07/workforce-race-inequalities-inclusion-nhs-providers-july2020.pdf> accessed 13 August 2021, 12.

[113] Roberta Bivins, 'Picturing Race in the British National Health Service, 1948-1988', *Twentieth Century British History*, 28 (2017), 103. On visual culture, photography and race in the NHS see also Jack Saunders, 'Emotions, Social Practices and the Changing Composition of Class, Race and Gender in the National Health Service, 1970–79: "Lively Discussion Ensued"', *History Workshop Journal*, 88 (2019), 204–28.

[114] Kirsty Sinclair Dootson, 'Introduction to the Issue: The Politics of Colour', *Frames Cinema Journal*, 17 (2020). np.

[115] Kathleen Connellan, 'The Psychic Life of White: Power and space', *Organization Studies* 34 (2013), 1529.

[116] Dana Berthold, 'Tidy Whiteness: A Genealogy of Race, Purity, and Hygiene', *Ethics & the Environment* 15 (2010), 1–26.

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manage wider disorder (or disorderly bodies).[117] As Anne McClintock argues, Victorian Britain had shown a 'fascination with clean, white bodies and clean, white clothing'; the legacies of such ideas continued well into the twentieth century.[118] The relationship between whiteness, lightness, brightness, hygiene, purity and superiority that has long been culturally embedded in Britain cannot be neatly disentangled from the racial implications of whiteness in hospital design.[119] The idea that white walls continued to symbolize hygiene and that white coats continued to mark out superiority, even in the context of the rise of colour as a marker of modernity, was interwoven with the racial and imperial politics of post-war Britain. It would be an oversight not to recognize the changing significance of white spaces, objects, and clothing in an increasingly multi-cultural Britain and an NHS reliant on migrant workers.[120]

Whiteness was, then, in certain contexts still very much a mechanism by which the hospital created different forms of 'order'. Some of the claims made to this point, about the reassuring qualities of white walls and objects, must be revised or nuanced in the light of the racial implications of whiteness discussed here. White was reassuring for some, controlling for others, and sometimes undoubtedly a complex mixture of the two. The points made in the above sections on paint and objects are still worth considering here, though, in terms of the material qualities of whiteness. Whiteness only carried the qualities outlined here, of 'purity', when white walls and objects were kept—or appeared—clean, which was not always the case. Whiteness could be an extremely important and powerful mechanism of inscribing value-laden social hierarchies, but it was also unstable.

This section has highlighted the importance of examining whiteness, and white materialities, in relation to the people who spent time in hospitals. It has explored two very different themes, of the ways in which white could operate to produce atmospheres of care, and the role of whiteness in creating social hierarchies. In so doing, it has drawn attention to the fact that whiteness cannot be treated as a 'one size fits all' category with single meanings. This section has explored age and race as two factors that affect the meanings and impacts of whiteness in hospitals, but gender and class would have also been possible and important categories of

[117] Mary Douglas, *Purity and Danger: An Analysis of Concepts of Pollution and Taboo* (London, 1966).

[118] For example, she shows links between white aprons, Pears soap adverts, hygiene and race; McClintock, *Imperial Leather*, 31–2, 61–2.

[119] Richard Dyer, *White: Essays on Race and Culture* (London, 1997); Kathleen Connellan, 'The Social Politics of White in Design' in DeLong and Martinson, eds, *Color and Design*, 65–88.

[120] On the role of migrant workers in the NHS see Roberta E. Bivins, *Contagious Communities: Medicine, Migration, and the NHS in Post-war Britain* (Oxford, 2015); and Julian M. Simpson, *Migrant Architects of the NHS: South Asian Doctors and the Reinvention of British General Practice* (Manchester, 2018).

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analysis. Whiteness was a relational category that was experienced in different ways depending upon the other objects and people in the room, the activities taking place, *and* the social and cultural contexts.

Conclusions

In 1993, an article in *Hospital Development* magazine described the 'hallmark' of respected architects Powell & Moya as a 'pristine white backcloth for telling colour and natural materials'.[121] To describe white walls as a 'backcloth' was implicitly to draw comparisons with a gallery space, and this article was not alone in doing so. In her 2019 book *Constellations: Reflections from Life*, Sinéad Gleeson remarks that 'Hospitals are not unlike galleries. Interactive spaces; a large-scale installation of sound and colour'.[122] Gleeson's comment refers to the way in which she encounters hospital artworks as she is wheeled through the corridors. Her point also has greater significance when examined more closely. In the 1970s, Brian O'Doherty observed a shift in what a 'gallery' was over the course of the twentieth century, arguing that the 'white cube' had formed an increasingly important part of its identity.[123] Crucial to this spatial production is the feature literally in the background of Gleeson's discussion of the hospital art: the white wall on which it is displayed. Like the modernist gallery, the earlier hospital-as-gallery was one in which—in O'Doherty's words – 'we see not the art but the *space* first . . . a white, ideal space'.[124] Whiteness was an important material and symbolic addition to a building, even when it became a 'backcloth' in the late twentieth century. It should be closely examined, rather than dismissed as 'neutral', 'pure', 'silent', 'plain', or 'blank'.[125]

Whiteness operated in many ways in the twentieth-century hospital at any given time. Depending on the context, white could be: a mechanism to control germs and create asepsis (the pharmacy); a strategy to create the impression of hygiene (textured paint); a symbol of care (the tea cup); a means of promoting rest (the reduced glare of a white or off-white ceiling); a signifier of power (the white coat); or a sign of disrepair or disorder (the 'wall wound', or soiled bed linen). This article has also shown some patterns, such as a continued association between whiteness and hygiene over the course of the century, amidst the declining use of 'all-white' schemes. By the end of the twentieth century, the British hospital had a much expanded colour palette and many of these took on the meanings previously held by white (such as modernity and

[121] Peter Scher, 'Northern Exposure', *HD*, 24 (1993), 31.
[122] Sinéad Gleeson, *Constellations: Reflections from Life* (Basingstoke, 2019), 109
[123] Brian O'Doherty, *Inside the White Cube: The Ideology of the Gallery Space* (San Francisco, 1986). This book is based on essays published in 1976.
[124] O'Doherty, *Inside the White Cube*, 14.
[125] Wigley, *White Walls*, xiv.

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humanization). However, various white surfaces and linens—and the maintenance of them—continued to exist in important ways in relation to and as part of this expanded colour palette.

There is value in building chronologies around this material history, rather than assuming that social and political history are the best frameworks with which to start analysis. The traditional, politically oriented periodization of post-war social democracy and the welfare state (with its person-centred pastel shades), followed by neoliberalism (with its consumerist bright colour palettes), emphasizes change and transformation. The tools and analytical frameworks of material history might offer an alternative model for understanding change over time. Rather than thinking about linear narratives, with twists and turns, there is value in conceptualizing change over time as layers and palimpsests. This framework allows us to recognize that each layer exists in relation to each other, rather than replacing what came before, and that each of these layers is itself richly textured and complex. Some of the analysis may appear at first glance to be specific to medical history, but this article raises bigger and more important questions about how we do modern British history, whether we place too much emphasis on visual rather than material culture of buildings, and whether there are ways to break free from politically oriented chronologies. Whiteness was a material, multisensory and relational part of making history, not just the 'blank wall' of the gallery against which modern British history took place.

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