

Research In Context essay

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Question: Can Graphic Design really save your life?

Explore the association of wellbeing and personal growth in Design, in your discussion. (Delivered by Donna Williams)



(Fig.1 Educational Ebola mural painted by artist Stephen Doe in 2017 to inform people about the symptoms of Ebola in Monrovia, Liberia)

Introduction

Imagine a world without Graphic Design, how would you know where to go, what's good and bad for you, or how to use certain equipment and follow instructions? There's art hidden all around us that can make the difference between life and death. Virus prevention posters, medical waiting rooms and packaging for antibiotics aren't renowned for their 'striking graphics', (Dawood, 2017), but instead work unconsciously amongst these environments to inform and warn others.

In this paper, I have researched how various methods of design has impacted on society and lives through educating, persuading, and finding solutions to prior, ineffective designs.

Chapter one – *The significance of design*

Through the effective use and understanding of colour scheme psychology and simple iconography, Stephen Doe's mural helped convey the Ebola disease's symptoms to a population where over '30 languages were spoken, and few could read or write.' (Lange, 2017). It is important for information design to be easily accessible and understood amongst a wide demographic. People's lives can be at



the hands of bad graphic design, "Poorly-designed warning signs are ambiguous" (Devine, 2013), and can often mislead an individual and undermine the severity of certain hazards, therefore, designers must think critically and carefully about their designs in order to successfully convey a message to the public.

(Fig.2 In Case of Fire sign. Image taken by Mat Devine, 2013)

When it is done strategically, cautiously, and in consideration of the audience and their surroundings – good and bad graphic design certainly makes that difference between life and death. This essay will be exploring the work of Margaret Calvert and Jock Kinneir and the significance of the Rail Alphabet typeface, "Battenberg" patterned traffic vehicles in the UK, design studio *Pearson Lloyd's* effective infographic: "A Better A&E", and Abram Games; 'the master of graphic persuasion' (Gorvett, 2017).

Chapter 2 – The Rail Alphabet typeface & UK road signage



(Fig.3 - Margaret Calvert)

(Fig.4 - Jock Kinneir and Margaret Calvert)



Margaret Calvert's *Rail Alphabet* typeface, initially designed for use across transport systems, is a great example of how an effective and simplistic yet an 'unconscious' style of design can save lives. She became part of the country's national psyche (Sarah Schrauwen, 2017) with help from graphic designer, Jock Kinneir. The creation of the over-57 year old typeface and complete road signage redesign made a huge impact and became "...a model of modern road signage" (graphéine, 2018). Later adopted by the *British*

Railway and their transport systems, unlike their previous used corporate identity typeface; *Gill Sans*, the *Rail Alphabet* was described as the 'somewhat utilitarian industrial design' of the 1960s. (Junction, 2019). From 1964, the rail alphabet became the widely iconic typeface used nationally by British Rail service at every station, depot, and in every train. According to Strathpeffer Junction, the

Rail alphabet was part of British Rail's Modernisation Plan and eventually was visible in almost every direction – further proving its significance in the British Rail's brand and corporate identity. After the air and rail transport, all road signs, starting with the UK's motorways, were handed over to Calvert and Kinneir between 1958 and 1965. Jock Kinneir's logical question, quoted by an article for the Design Museum website, "What do I want to know, trying to read a sign at speed?" showed that the two understood the environment that motorway signs would be in.

British Rail Alphabet (1965)

Rail Alphabet 2 – Bold weight



(Fig.5 – Margaret Calvert & Jock Kinneir's Rail Alphabet designs)

The work of Margaret Calvert and Jock Kinneir is a prime example of unconscious design holding a huge significance to everyday lives. Although used all over Britain, these signs are taken for granted, "Quite like Pierre Novat and the French Ski Slopes" (graphéine, 2018). Mark Akerman, 2019, from Culture Voyage states that we never think about signs because they're so commonplace. However, without the existence of clear signs and good graphic design system of signage, our roads would be chaotic, and the risk of car accidents and injuries would be far more apparent and frequent than they are today. In 1961, Herbert Spencer captured photographs of the different sign designs on the

networks and roads, he later published the images in his magazine, *Typographica*, and stressed there be an 'urgent need to review the whole system of British road signs' and the adoption of a simplistic pictorial symbol system to replace the wordy and ambiguous signs that are currently in use. (Montgomery, 2015).



(Fig. 6,7 and 8 - road signs captured by Herbert Spencer in 1961 for his magazine 'Typographica')

These signs prior to Calvert and Kinneir's re-developed road signage branding generated 'great confusion' (graphéine, 2018). The new proposal of these road sign designs by Calvert and Kinneir not only adapted to high-speed reading, but was also proposed with lower case letters, a new typography introduced and the use of specific colours. This not only minimised the road confusions, but also became the new visual language of the roads. 'The signs conformed to the 1949 Geneva Protocol' (Ackerman, 2019), meaning triangular shapes were used to warn, rectangles to give

information and the use of circles for commands. The signage re-design was designed for purpose, clarity, and ease for the public, and following the success of Calvert and Kinneir's success of the 1958 motorway system, they were soon appointed to develop a signage system for all British roads (Montgomery, 2015). According to BBC News (2013), In 1960, car accidents caused over 1,600 deaths among England and Wales. By 2009, this dropped by 41% - falling to just 964 deaths. The deaths of infants and children also dropped by 70% by 2009, and over that time, car ownership across the UK was increasing by 3% each year. This data could've also been influenced by the seatbelt law, which was introduced in 1968 and made compulsory for all rear-seat occupants to wear a seatbelt by 1991 (Road Safety GB, 2018). However, despite other arguments, there is no denying that the rebrand of road signage had a huge significance, and most importantly, has saved many lives across the UK.

Chapter three – *The impact of the Battenberg pattern*



(Fig 9 – Battenberg cake from www.taste.com.au)

How could a cake pattern have so much significance in today's society? The Battenberg cake is not only widely known for its deliciousness, but also became the face of the UK's first responder's vehicle designs because of its easily recognisable checker-pattern design.

(Fig. 10 - A Victoria, Australia Police Highway Patrol Car marked with a Sillitoe hybrid pattern)



'The 'Full Battenberg scheme' was designed by the UK Home Office in the early 1900's' (Killeen, 2012) after the use of the Sillitoe pattern, originated in Glasgow, Scotland. The Battenberg design was explicitly designed for police vehicles in the UK and was presented in blue and

yellow colours, then later adopted by ambulance vehicles in a green and yellow colour combination and is also used on some, not all, fire brigade vehicles today. While being visible throughout the day and night, according to John Killeen (2012), the design was also capable of being seen from at least 500 metres away from on-coming road users in comparison to the Sillitoe pattern that was deemed not a high visibility pattern and was tough to be seen over longer distances. After researching on high-conspicuity livery for first responder vehicles, I discovered a publication made by the Home Office of Police Scientific Development Branch.

(fig. 11 – Police vehicle with Battenberg and Chevron pattern markings)

Author, Paul Harrison (2004), states the objectives of the Full Battenberg scheme being; the reduction of likelihood of road accidents and enhancing the safety of both officers and the public, having the vehicle be recognised as a police vehicle up to a distance of 500 metres in normal daylight, and the “Assist in high visibility policing so as to reassure the public and enhance the potential deterrent benefits of proactive traffic patrol activity”



(Harrison, 2004). Dr David B. Logan (2016) from the Monash University Accident Research Centre, implies conspicuity and recognition has become the most controversial topic in vehicle safety marking literature because of the doubt in recent research that the chevron and checkerboard patterns have a sole effectiveness beyond roadside barriers. The Battenberg pattern also holds a number of disadvantages, which, according to John Killeen (2010), include; difficulty to apply to smaller and odd shaped vehicles, the confusion when several vehicles are overlapping, the other colour combinations of Battenberg markings not being effective and the lack of individual testing for rear Chevron patterns. Despite the debate, we could still argue that these patterns are effective due to the colour combinations and design having great discerning outlines against urban backgrounds in comparison to the past, more ineffective, Sillitoe pattern designs. The Battenberg design had many advantages as it included fluorescent retroreflective yellows and greens, the rear chevron patterns (designed to reduce collisions) and is effective in many street lighting variations. (Logan, 2016).

There is an obvious significance that emergency service vehicles are easily recognisable to the public. 3m Safety's article on vehicle safety markings notes that 'Emergency service vehicles rely on being seen and recognised in order to be effective'. To save lives and protect others, it is vital that

emergency services are quickly recognised in all weather conditions, whether the vehicles are at a crime scene or speeding through traffic. These markings help the public and road users give way for emergency services to pass-through quickly, which can then potentially save a life or somebody in danger with every second saved.

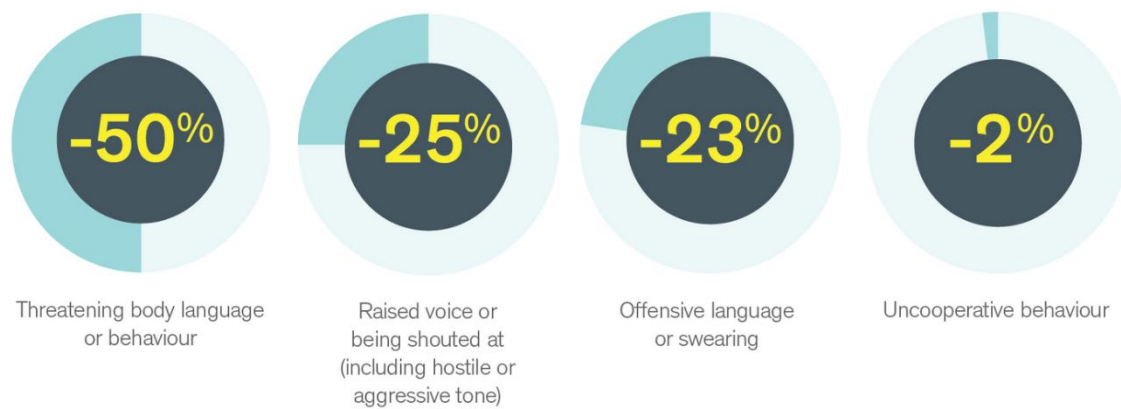
Chapter four – A Better A&E

From preventing visitors from getting lost, informing people about certain topics, threats, diseases, and consequences, to reducing the violence ratings, it is obvious that infographics and signage systems within various environments certainly hold great significance.

London based design studio; Pearson Lloyd came up with a very effective design solution to help decrease violence in hospitals around the UK named 'A Better A&E'. According to the Design Council's article, violence toward frontline staff in hospitals cost the NHS at least £69 million every year and around 59 thousand physical assaults happen in NHS hospitals in England. After being commissioned to develop the project aimed to reduce violence and aggression in 2011 (Montgomery, 2013), *PearsonLloyd* gathered an effective team which included psychoanalysts, service designers, A&E consultants, and social scientists to pin the reason why patients become both verbally and physically abusive to hospital staff (Griffiths, 2013) to help tackle this brief made by the Design Council and the Department of Health. From an interview with Alyn Griffiths from *dezeen* (2013), Pearson Lloyd mentioned that the goal was to 'calm the space down' and provide a 'less likelihood of violent incidents'. Lloyd also realised that most of the frustration leading to anger is because of the lack of knowledge and understanding of hospitals and how the system is operated, so as a solution, placing key information in appropriate locations within waiting rooms and consultation areas became the focus. (Griffiths, 2013). The signage system by PearsonLloyd's team provided clear information for patients including dynamic information about the number of cases being handled and the live status of the A&E department and according to Angus Montgomery (2013), the team

also assisted and trained A&E staff in a new method of greeting patients upon arrival and aiming to put patients at ease during their visits.

Impact of Design Solutions on Hostility and Non-physical Aggression



(Fig.12 – ESRO; Frontier Economic Analysis of the Impact of Design Solutions on Hostility and Non-physical Aggression)

After the launch of the £450 thousand project in 2013, Pearson Lloyd's project 'proved the impact of design' (Ayling, 2015), as according to the ESRO Frontier Economic Analysis; threatening body language, aggression and violent behaviour dropped by 50%. According to Gov.UK's blog by Miles

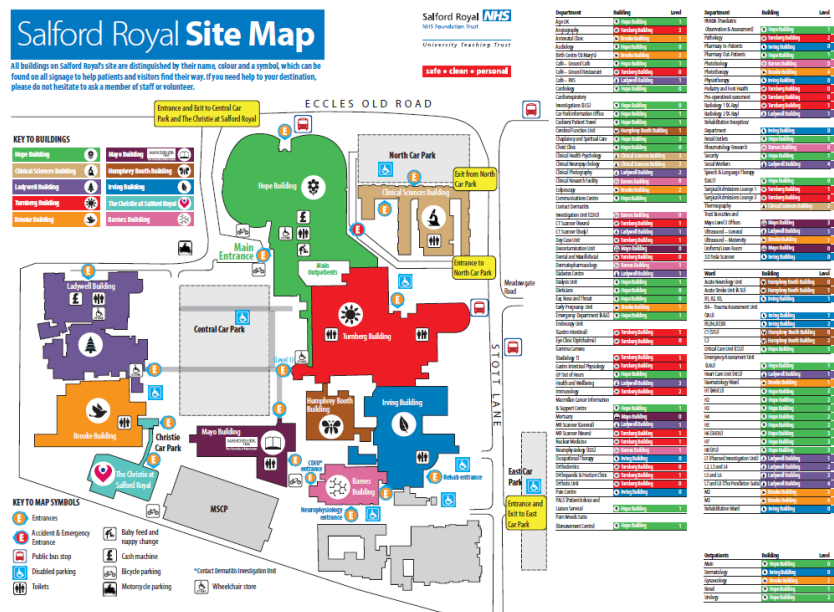
(Fig. 13 – 'A Better A&E' leaflet design by PearsonLloyd's team)



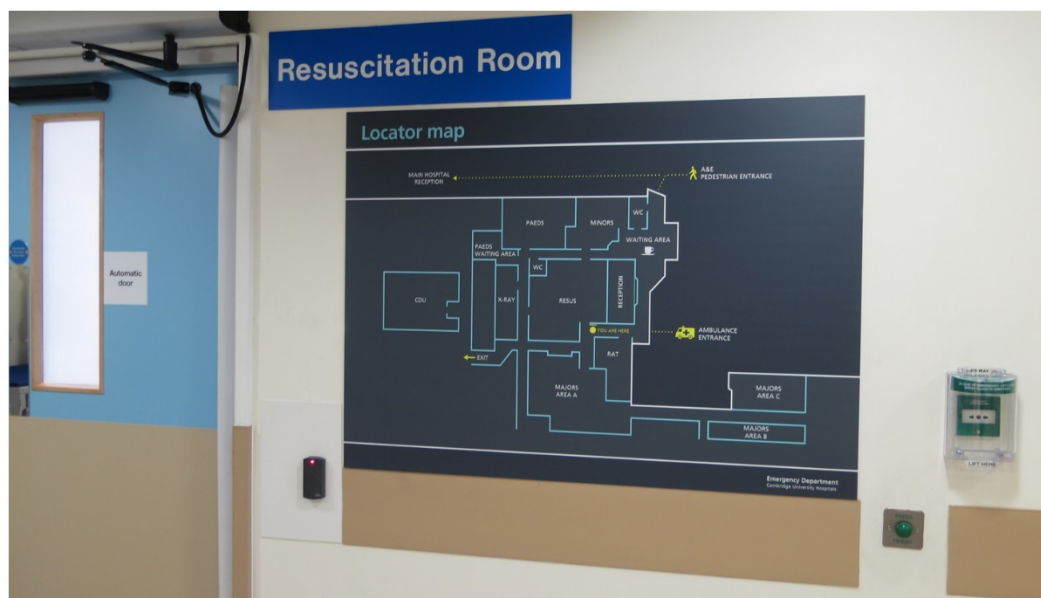
Ayling and Catherin Makin, these infographics also led to an improved patient experience by making them less violent and aggressive (Montgomery, 2013), and was a 'good value for money' as for every £1 spent on design solutions, they would accumulate a benefit of £3 with the majority of cost savings coming from the reduced violent behaviour (Ayling,

2015). There is no doubt that the whole process of this project aimed to ensure that lives would be safer, public experiences would be improved, and the risk of physical abuse would decrease. We could argue that the infographics were extremely significant because of the layouts, colour scheme,

use of symbols, people involved, or even the information present. However, all of these combined factors made the 2013 Design Week nominated project a huge success in decreasing danger in A&E's and providing a safer environment for the staff and patients through effective visual communication. As Richard Poulin said, "clarity and human interaction are means by which we save another person's life, then I wholeheartedly agree – yes, graphic design can save your life!" (Sarah Schrauwen, 2017).

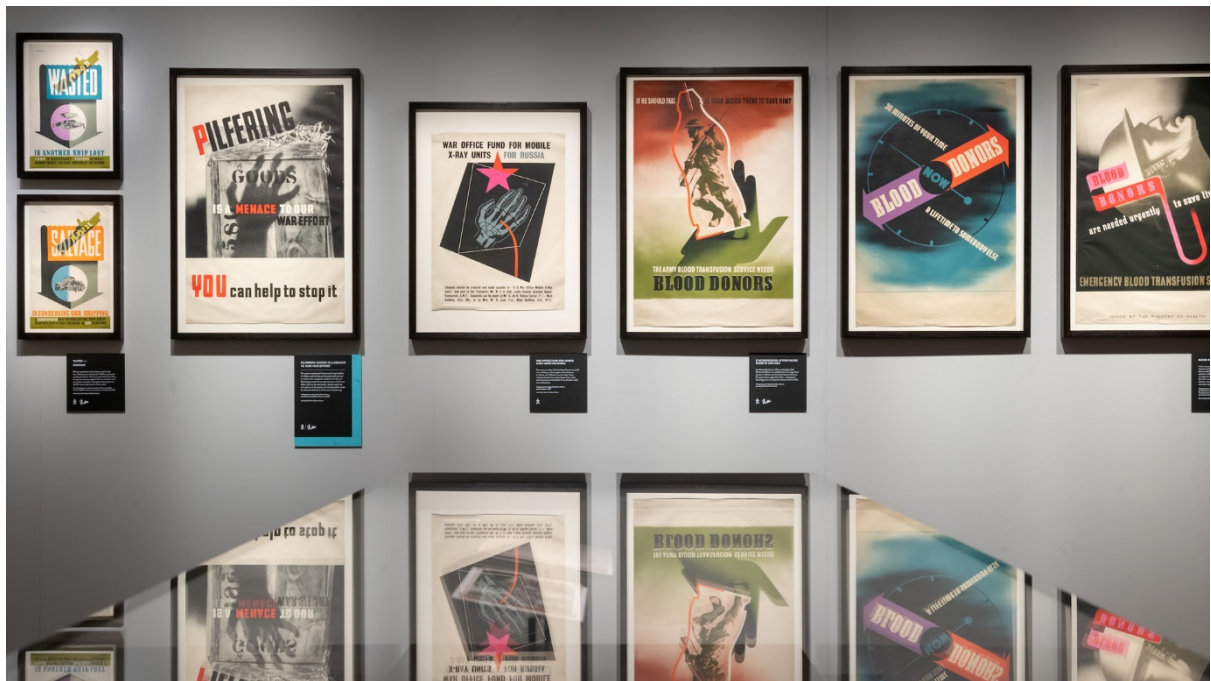


(Fig 14. Salford Royal Site Map design)



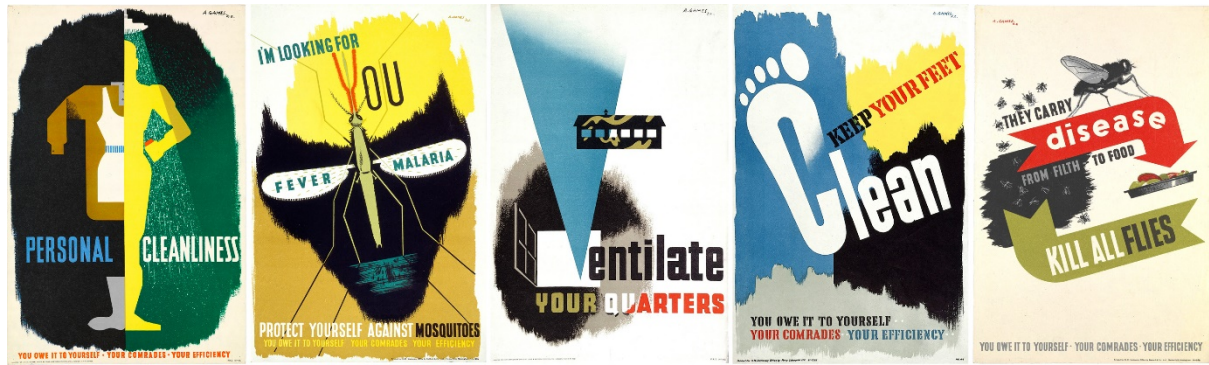
(Fig 15. PearsonLloyd' map design at Cambridge University Hospital)

Chapter five – *Graphic Persuasion*



(Fig. 16 – Abram Games' artwork at the National Army Museum exhibition)

Graphic persuasion is another extremely effective method of leading (and luring) others, propaganda in the 1940s was everywhere during the World War. After resigning from being a Second World War soldier and being recognised for his artistry in 1942, the 'master of visual seduction' (Dawood, 2019); Abram Games, born in London in 1914, created work that symbolised 'Britain's optimistic spirit' (Dawood, 2019) and boosted recruitment, educated soldiers, and encouraged the population to contribute to Britain's war efforts. After discovering the small, dull looking propaganda notices on the walls failed to serve their purpose, Abram Games strived to give these posters what they deserved; more attention and appreciation by taking a brighter approach to the 'darkness of war' according to the Letterform Archive (2020).



(Fig. 17 – Abram Games' Posters for the British War Office, 1941)

Abram Games adapted great ambiguous imagery to his work and '...conveyed clarity and appeal through his complex ideas by integrating lettering and images' (Sarah Schrauwen, 2017), for example, Games encouraged soldiers to 'play their part' and contributed to voting in the general election in his 'Serve as a Soldier, Vote as a Citizen' poster (Dawood, 2019), and in another, Abram Games encourages soldiers to stop spreading secrets and discourage gossip within the army. The title of the poster being 'Your Talk May Kill Your Comrades' (Dawood, 2019), and the image showing a soundwave leaving a soldier's mouth and spearing the hearts of three comrades. Games also made posters related to health and hygiene and showed concern over the health problems and was commissioned by the War Office, to target soldiers and raise awareness about malaria, and give advice for men with sexually transmitted diseases (europeana.eu, 2018). These effective messages in posters acted as warnings to everyone and caused the public to be cautious where appropriate and according to Abram Games' daughter, Naomi Games, 'He was interested in ethical posters.' Games was keen to design for the purpose of informing others rather than selling goods (Letterform Archive, 2020), and this certainly worked, and he was deemed the '...master of powerful composition. 'He believed that designers should create in the interest of humanity and be conscious of their responsibilities.' (Sarah Schrauwen, 2017). Abram Games' posters were adapted for civilian use, and by 1945, he designed 100 posters instructing, educating, and spreading messages about careless talk and how to be less wasteful. He also designed posters urging for help for victims of the

holocaust and these became successful in raising awareness and encouraging people to help others. Naomi Games states that Abram Games was 'particularly proud of his 1960s *Freedom from Hunger* poster for the United Nations' and if his work saved at least one life, he would have been satisfied (Sarah Schrauwen, 2017).

Conclusion

Being open minded and aware of current issues and trending topics is extremely important when it comes to designing for the public. From the utilisation of the Battenberg cake pattern on the UK's first responder's vehicles, infographics in hospitals to decrease violence and abuse, creating posters to raise awareness about hunger and sexually transmitted diseases, warning nations about viruses, to re-branding a road signage system being used across an entire country – these methods of design certainly hold significance and extreme importance. Every factor mentioned has contributed to ensuring people are safer by effective use of design and visual communication with their audiences. This brings me to question how and what I'd design or re-brand to contribute to saving lives, whether I'd choose to persuade, educate, or create unconscious design, and how successful I'd be as I consider that many lives are in the hands of the designer.

Figures

Figure 1: Doe, S., 2014, *Educational Ebola mural painted by artist Stephen Doe to inform people about the symptoms of Ebola in Monrovia, Liberia* [Painted]. Retrieved from: <https://www.newscientist.com/article/2147303-graphic-design-can-save-your-life-heres-how/>

Figure 2: Devine, M., 2013, *In Case of Fire sign*. [Sign] Retrieved from: <https://thoughtcatalog.com/mat-devine/2013/01/the-dangers-of-bad-graphic-design/>

Figure 3: Calvert, M. 2018, *Woman at Work!* [Sign] Retrieved from: <https://www.grapheine.com/en/history-of-graphic-design/margaret-calvert-woman-at-work-how-design-saved-uks-roads>

Figure 4: *Jock Kinneir and Margaret Calvert, (n. d.)* [Photograph] Retrieved from: <http://britishroadsignproject.co.uk/jock-kinneir-margaret-calvert/>

Figure 5: Margaret Calvert and Jock Kinneir's Rail Alphabet designs, (n. d.) [Typeface Designs] Retrieved from: <https://www.networkrail.co.uk/stories/rail-alphabet-2-launches-at-exhibition-celebrating-1960s-design-icon/>

Figure 6,7 and 8: Spencer, H., 1961, *Road signs captured by Herbert Spencer in 1961 for his magazine 'Typographica'* [Photograph]. Retrieved from: <https://www.grapheine.com/en/history-of-graphic-design/margaret-calvert-woman-at-work-how-design-saved-uks-roads>

Figure 9: Taste.com.au, (n.d.) *Battenberg cake recipe* [Photograph]. Retrieved from <https://www.taste.com.au/recipes/battenberg-cake/c2aa519e-bcb5-4239-9e37-441f6f9d48b3>

Figure 10: Kileen, J., (n.d.), *A Victoria Police Highway Patrol Car marked with a Sillitoe hybrid pattern*. [Photograph] Received from: <https://ambulancevisibilityblog.wordpress.com/2012/04/27/the-difference-between-battenburg-high-visibility-markings-and-sillitoe-chequers-on-police-fire-ambulance-vehicles/>

Figure 11: Kileen, J., (n.d.) *Police vehicle with Battenberg and Chevron pattern markings* [Photograph]. Received From: <https://ambulancevisibilityblog.wordpress.com/2012/04/27/the-difference-between-battenburg-high-visibility-markings-and-sillitoe-chequers-on-police-fire-ambulance-vehicles/>

Figure 12: Design Council, 2013. *ESRO Frontier Economic Analysis of the Impact of Design Solutions on Hostility and Non-physical Aggression* [Data] Retrieved from: https://www.designcouncil.org.uk/sites/default/files/asset/document/AE_evaluation_summary_1_0.pdf

Figure 13: Griffiths, A., 2013, *'A Better A&E' leaflet design by PearsonLloyd's team*. [Photograph] Retrieved from: <https://www.dezeen.com/2013/12/02/hospital-redesign-by-pearsonlloyd-reduces-violence-and-aggression/>

Figure 14: *Map and directions for the Salford Royal NHS building*. Retrieved from: <https://www.srft.nhs.uk/useful-information/how-to-get-to-the-hospital/>

Figure 15: *Map and directions for the Salford Royal NHS building*. Retrieved from: <http://www.abetteraande.co.uk/#homepage>

Figure 16: Army Museum, *Abram Games' artwork at the National Army Museum exhibition* [Photograph]. Retrieved from: <https://letterformarchive.org/news/view/abram-games-posters-for-the-public-good>

Figure 17: Games, A., 1941, *Abram Games' Posters for the British War Office* [Posters] Retrieved from: Retrieved from: <https://letterformarchive.org/news/view/abram-games-posters-for-the-public-good>

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