

An Architect at War: Adrian Berrington and the Environment of the Modern Battlefield of the First World War

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Abstract

This article asks how fighting on the modern battlefields of the First World War shaped an architect-soldier's perception and concept of space and changed his architectural designs. Against the background of a brief discussion of contemporary and recent accounts that discuss the war experience in spatial terms, the article presents an exemplary case study of the military career of the English architect Adrian Berrington (1886-1923). Before the war Berrington belonged to the circle of the urban sociologist Patrick Geddes (1854-1932), during the war he underwent shell-shock therapy at Craiglockhart War Hospital together with the war poet Wilfred Owen (1893-1918). A detailed analysis of Berrington's war letters and selected designs shows how the war changed his concept of space to a degree that pre-war principles no longer offered guidance for his post-war designs.

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Architecture and modern warfare

[1] In *Architecture in Uniform*, a study of architects "designing and building for the Second World War", Jean-Louis Cohen calls the engagement with the Second World War the "blank space in historical accounts" of modern architecture.¹ Architectural histories either entirely omit the war years or consider them "only in the light of the reconstruction of destroyed cities".² A comparable blind spot exists when it comes to the First World War, which architectural history typically discusses with an eye to three possible intersections between the war and modern architecture. Some accounts emphasize the post-war rebuilding and reconstruction of destroyed cities and villages,³ and others the utopian visions of the coming architectural and urban future that were sketched, sometimes even at the front, by, for example, Erich Mendelsohn (1887–1953) and Antonio Sant'Elia (1888–1916).⁴ A third group of studies concentrates on a new understanding of space, a phenomenon that was born on the battlefields, and, in turn, shaped the post-war emergence of new forms of art and architecture.⁵ Crucial to this new perception of space was aerial photography, a survey tool that derived from wartime aerial reconnaissance. *The Architectural Review*, for example, discussed as early as 1919 the usage of aerial photographs for architecture and urban planning.⁶

¹ Jean-Louis Cohen, *Architecture in Uniform: Designing and Building for the Second World War*, Montreal 2011, 12.

² Anthony Vidler, "Air War and Architecture", in: *Ruins of Modernity*, eds. Julia Hell and Andreas Schönle, Durham: Duke University Press, 2010, 30, quoted in Cohen, *Architecture in Uniform*, 12.

³ For example, Mark Swenarton, *Homes Fit for Heroes: The Politics and Architecture of Early State Housing in Britain*, London 1981; Pieter Uyttenhove, "The Garden City Education of Belgian Planners around the First World War", in: *Planning Perspectives* 5 (1990), 271-283; Nicholas Bullock and Luc Verpoest, eds., *Living with History, 1914-1964: Rebuilding Europe after the First and Second World Wars and the Role of Historic Preservation*, Leuven 2011.

⁴ See for example, Hans R. Morgenthau, "'Why should we be Laymen with respect to Art': The Formative Years 1910-1918", in *Eric Mendelsohn Architect 1887-1953*, ed. Regina Stephan, New York 1999, 10-25, especially 18-23; and Esther da Costa Meyer, *The Work of Antonio Sant'Elia: Retreat into the Future*, New Haven, 1995.

⁵ For the history of aerial reconnaissance, aerial views, and modern architecture see Christoph Asendorf, *Super Constellation - Flugzeuge und Raumrevolution: Die Wirkung der Luftfahrt auf Kunst und Kultur der Moderne*, Vienna 1997; Jeanne Haffner, *The View from Above: The Science of Social Space*, Cambridge, MA: MIT Press, 2013.

[2] Notwithstanding that aerial reconnaissance captured the macroscale of the vastly expanded battlefields of the First World War, the war was still mostly fought on the ground where soldiers experienced their surroundings on the microscale of individual human beings. This shift in scale raises the question how fighting on the vast battlefields may have shaped an architect-soldier's perception of space? Architects fought on the same battlefields as their fellow soldiers; among whom were, for example, many artists. The effect that fighting had on their works of art has often been analysed,⁷ yet comparatively little is known about how fighting on the modern battlefields may have affected individual soldier-architects' concepts of space and their architectural designs.⁸

[3] The first part discusses selected spatial aspects of the environment of the First World War battlefield. On the macroscale, the sheer size of the modern battlefield forced military strategists to rethink how to position soldiers within the vast spaces. On the corresponding microscale of an individual human being, the order of the modern battlefield challenged soldiers when it came to perceiving, orienting, and accommodating themselves within the expanses of their surroundings. This section draws on war time accounts of writers, artists, and movie directors, for example, who reflect in spatial terms on their experience of living and fighting on the battlefields.

[4] The article then turns to the English architect Adrian Berrington (1886–1923) who is today almost unknown beyond experts on English architectural history of the Edwardian period. For at least two reasons, however,

⁶ Gordon H. G. Holt, R.A.F., "Architecture and Aerial Photography", in: *Architectural Review* 45 (1919), 4-9.

⁷ Most recently, for example, Gerhard Finckh, ed., *Das Menschenschlachthaus: Der Erste Weltkrieg in der französischen und deutschen Kunst*, Wuppertal 2014; Gordon Hughes and Philipp Blom, eds., *Nothing but the Clouds Unchanged: Artists in World War I*, Los Angeles 2014; Robert Cozzolino et al., eds., *World War I and American Art*, Philadelphia 2016; Emma Chambers, ed., *Aftermath: Art in the Wake of World War One*, exh. cat., London 2018.

⁸ But see, for example, the session "The Great War and Modern Architecture - 100 years on", 39th Annual Association of Art Historians Conference, The University of Reading, 2013 (conference program, pp. 105-108 [archive-aah.org.uk/media/docs/AAH%202013%20hanbook%20fina%20AC.pdf], accessed August 26, 2018]) organized by Volker M. Welter, UC Santa Barbara, and Iain Boyd Whyte, Edinburgh University. See also Elizabeth Darling, "From Cockpit to Domestic Interior: The Great War and the Architecture of Wells Coates", in: *Journal of Architecture* 19 (2014), 903-922; Volker M. Welter, "From the Landscape of War to the Open Order of the Kaufmann House: Richard Neutra and the Experience of the Great War", in *The Good Gardener? Nature, Humanity, and the Garden*, eds. Annette Giesecke and Naomi Jacobs, London 2014, 216-233.

Berrington's life as a soldier allows for an exemplary case study of the possible consequences of the war on the life of an architect and especially on certain of his designs. First, numerous letters Berrington wrote from the battlefield to a close female friend in London offer first-hand, unedited reflections of his life in the trenches. Second, well before the war both, Berrington and his friend, the poetess Rachel Annand Taylor (1876–1960), had become members of the circle around the Scottish urban sociologist and city designer Sir Patrick Geddes (1854–1932). Accordingly, Geddes' ideas about space, environment, and cities constitute a backdrop against which to analyse Berrington's battlefield accounts. They also allow one to establish what changes the experience of fighting and living on the battlefield may have had on both Berrington's Geddesian (spatial) worldview and selected of his designs during and after the war.

The expanding landscape of war

[5] The Russo-Japanese War from 1904–1905 was one of the earliest modern conflicts during which "a sudden, dramatic increase in the number of psychiatric casualties" was noted,⁹ a phenomenon that contemporary sources traced back to "the tremendous endurance, bodily and mental, required for the days of fighting over increasingly large areas and the mysterious and widely destructive effects of modern artillery fire".¹⁰ Only a decade later, developments of weapon systems and technology necessitated entirely new ways of warfare.

[6] By the time of the First World War, the battlefields had expanded enormously in size because of the extended range of artillery. The battle of the Somme, for example, was fought on a terrain that "was ten times more spread out than Waterloo"¹¹, the site of Napoleon's defeat a little over a century earlier. The vastly increased battlefields created a sense of vague but sudden danger, as the German writer Ernst Jünger (1895–1998) experienced it early on in the fighting. When a shell suddenly killed and maimed members of his company, he observed: "What was this? The war had shown its claws and thrown away its comfortable mask. It was so mysterious, so impersonal."¹² Danger could arrive from everywhere, confounding any sense

⁹ Eric J. Leed, *No Man's Land: Combat & Identity in World War I*, Cambridge: Cambridge University Press, 1979, 97-98.

¹⁰ R. L. Richards, "Mental and Nervous Diseases during the Russo-Japanese War", in: *Military Surgeon* 26 (1910), 178-179, quoted in Leed, *No Man's Land*, 98.

¹¹ Stéphane Audoin-Rouzeau and Annette Becker, *14-18: Understanding the Great War*, trans. Catherine Temerson, New York 2002, 26.

¹² E. Jünger quoted in Leed, *No Man's Land*, 155.

of orientation that relied on dividing a battlefield into opposing halves, hostile and friendly.

[7] Instead of coming face-to-face with an enemy as in traditional warfare, when phalanges rushed toward each other, the enemy was now often thought of as a "secret, malignant being, somewhere over there".¹³ Long-range artillery, machine guns controlling large swathes of territory, and invisible armies that had dug themselves into the ground transformed how soldiers perceived their front-line surroundings. Now they had to constantly gauge the formation of the land concerning both enemy positions and possible movements perhaps indicating an imminent attack.

[8] In a sense, as the Gestalt psychologist and artilleryman Kurt Lewin (1890–1947) pointed out in 1917, the new perspective enforced a more integrated view of the landscape, but the gain in coherence was paid for with a loss of comprehensiveness. The peacetime landscape was "*round, without front and back*"; it offered space as part of an infinite whole far larger than what was visible. By comparison, the landscape of war was "*bounded*" and "*directed*" because it was constituted by zones and spots ranging from those of danger where snipers may kill, artillery hit, and the enemy attack, to those of (some) safety in the rear.¹⁴ Moreover, the soldier operated in a relative space, for these areas of danger and reprieve constantly shifted.

[9] During the First World War, almost all the combatant armies eventually substituted versions of "'open order' deployment for 'close order' formations", which meant they began placing "soldiers on the battlefield ... farther apart from one another than had been custom for most of recorded history".¹⁵ These adaptations also affected the spatial order of battles when the "holding of the first line of trenches" at all costs gave way to the idea of "plane defense", which envisaged giving up a lightly-held first trench in order to recapture it later in a counterattack.¹⁶ Plane defence, in turn, morphed into "defense in depth"—which the Germans called "elastic defence"—resulting in "the fragmentation of coherence, the shattering of any clear, geometrical structure, the dissolution of the company into small, independent squads and pockets of defenders".¹⁷

¹³ E. Jünger quoted in Leed, *No Man's Land*, 155.

¹⁴ Kurt Lewin, "The Landscape of War" [1917], transl. by Jonathan Blower, introd. by Volker M. Welter, in: *Art in Translation* 1 (2009), no. 2, 199-209: 201-202 (italics in original).

¹⁵ John A. English and Bruce I. Gudmundsson, *On Infantry. Revised Edition*, Westport, CT 1994, 1; see also John A. English, *A Perspective on Infantry*, New York 1981.

¹⁶ Leed, *No Man's Land*, 101-102.

Living on the battlefield

[10] Assigned to sections of, for example, the Western Front (which stretched from the English Channel to the Swiss border) and sometimes seeing no battle action for long periods, individual soldiers often attempted to domesticate the trenches, driven by a longing for a homely place in an uncanny territory. The German art and architecture critic Max Osborn (1870–1946) was startled by the wastepaper baskets he had seen during a tour of subterranean German dugouts. He concluded that "only such an exaggeration of orderliness makes this muddy cave fit for human habitation, as it creates a touch of home".¹⁸ The future silent movie director Friedrich Wilhelm Murnau (1888–1931) turned his room in an occupied château near Verdun into an outpost of German Kultur by impeccably decorating his temporary home: "Everything in it was clean and well-appointed; when you went to see him [Murnau] you forgot about the war, and the visit was polite and civilized."¹⁹

[11] Occasionally, notions of home were created by overlaying the trench system with an imagined regional and national urban topography. The Irish politician and Member of Parliament William Redmond, who fell in action in 1917, wrote about the practice of naming trenches after "well-known streets at home", including "most of the best-known London street-names" in addition to other English and also Scottish, Irish, and Welsh place names.²⁰ While these instances of the domestication of the battlefields draw on memories from the soldiers' pre-war lives, living in the trenches also forced soldiers to engage with the daily surroundings in ways that challenged established perceptions of space and environment.

[12] The incalculability of the war environment created "geographies of sense", a term Santanu Das coined when analysing how the war resulted in battlefield environments which were full of danger, constant noise, overwhelming stenches, and terrible sights.²¹ Some soldiers experienced the manifold changes of the environment of war as disorienting; a British subaltern recalled how "moving about in the trenches [...] seems like walking

¹⁷ Leed, *No Man's Land*, 103; also, William Balck, *Entwicklung der Taktik im Weltkrieg*, 2nd, extended ed., Berlin 1922, 120.

¹⁸ Max Osborn, *Drei Straßen des Krieges: Arras, Champagne, Flandern*, Berlin 1916, 50 (my translation).

¹⁹ Wolfgang Schramm, a comrade of Murnau, quoted in Lotte H. Eisner, *Murnau*, Berkeley 1973, 18 (translation slightly amended).

²⁰ Major William Redmond, *Trench Pictures from France*, London 1917, 35-36.

²¹ Santanu Das, *Touch and Intimacy in First World War Literature*, Cambridge: Cambridge University Press, 2005, especially chapter 2.

in a maze" that makes it "impossible to keep your sense of direction".²² During night missions or when inclement weather and constant shelling had transformed firm soil into soggy mud, feeling one's way forward became the preferred means of spatial orientation, with crawling or edging along close to the ground the corresponding modes of movement. Even during daytime, any views of the surroundings were seriously curtailed because loopholes offered glimpses of only slithers of the terrain and because of the general necessity to stay invisible underground or in a trench.

[13] Other senses, such as hearing, substituted for vision when it came to spatial comprehension. The violinist and composer Fritz Kreisler (1875–1962) could hear whether shells were ascending or descending. Moreover, his highly-developed, musically-trained ear allowed him, so he claimed, to determine the locations where shells had reached the acme of their parabolic curves; once these highest points were mapped, the ranges and positions of enemy artillery could be determined.²³

[14] Foregrounding senses other than vision expanded how the immediate surroundings were experienced, but the awareness of danger and threat never receded, not even in civilian life, to which soldiers often returned while still under the lasting spell of their immersion in the landscape of war. When temporarily or permanently discharged, soldiers often realised that on the battlefield "they had learned skills which were unmarketable in civilian society".²⁴ The writer, poet, and former soldier Robert Graves (1895–1985) famously threw himself to the ground when a car misfired,²⁵ thus illustrating how responses acquired in a malevolent environment continued to trigger battlefield reactions in post-war life.

Architect before the war

[15] Adrian Berrington was born in Birkenhead, near Liverpool, in 1886. From 1903 to 1905, he studied at the Liverpool School of Architecture under Charles Herbert Reilly (1874–1948), who taught architectural design inspired by the French Beaux-Arts tradition.²⁶ Reilly's commitment to both classically-inspired, modern architecture and to the North American City Beautiful

²² Charles Edmund (Carrington), quoted in Leed, *No Man's Land*, 78.

²³ Fritz Kreisler, *Four Weeks in the Trenches: The War Story of a Violinist* [1915], Boston 1916, 25-29. On the soundscape of the battlefield see also Christian J. Grothaus, "Titanophobie: Deutsche Ohrenzeugen der Westfront im Ersten Weltkrieg", in: *Zeitschrift für Literaturwissenschaft und Linguistik* 45 (2015), 44-59 (with an English summary), DOI: <https://doi.org/10.1007/BF03379901>.

²⁴ Leed, *No Man's Land*, 3.

²⁵ Leed, *No Man's Land*, 3.

movement laid the foundation for Berrington's life-long interest in architecture in relation to urban design and town planning.

[16] After graduation, Berrington worked in London, where he became interested in the ideas of Patrick Geddes, who was always on the look-out for architects who could draw the urban improvement schemes he envisioned. By then, Geddes had concocted his idiosyncratic 'theory' of Civics, based on his background in biology, ventures into sociology, experience in urban improvement, and involvement with the Scottish Arts & Crafts movement and the Celtic Renaissance. From approximately 1909 onwards, Berrington rendered in often stunning perspectival drawings such lofty Geddesian ideas as a temple to the Greek gods and a garden for the nine Muses,²⁷ perspectives that illustrate well "a deeper search for unifying qualities in architecture", which underpinned much of Berrington's interest "in poetry and philosophy", as Alan Powers once remarked.²⁸

[17] Berrington found philosophy in the writings of Geddes, yet with Rachel Annand Taylor, poetry entered his life. The poetess from Aberdeen, a member of the inner circle of Geddes since their mutual days of involvement in the Celtic Renaissance, lived in Chelsea in London. Knowledgeable in both mythology and classical antiquity, she advised Berrington on temples and gardens for gods and muses. With Taylor, Berrington had encountered a woman whom he deeply admired, perhaps even loved. A profound friendship developed between the two that resulted in an extensive correspondence and ended only with the architect's death.²⁹

Soldier-architect

[18] Berrington first enlisted with the Territorial Force from January until early May 1915.³⁰ (Fig. 1) Later that year, he was training at the Dunstable Signal

²⁶ See Alan Powers, "Liverpool and Architectural Education in the Early Twentieth Century", in: *Charles Reilly & the Liverpool School of Architecture 1904-1933*, ed. Joseph Sharpless et al., Liverpool 1996, 1-23, especially 5-10.

²⁷ Volker M. Welter, *Biopolis: Patrick Geddes and the City of Life*, Cambridge, MA 2002, 199.

²⁸ Alan Powers, "Architectural Education in Britain 1880-1914", PhD thesis Cambridge University, 1982, 142, quoted in Peter Richmond, *Marketing Modernisms: The Architecture and Influence of Charles Reilly*, Liverpool 2001, 203.

²⁹ The late Dr. Louise Annand, Glasgow, kindly let me read and excerpt Berrington's letters to her aunt R. A. Taylor. Taylor's letters to Berrington remain missing.

³⁰ Territorial Force Attestation No. 2567, January 4, 1915, The National Archives, United Kingdom, WO374/6051. Unless noted otherwise, information about Berrington's military career is taken from the file in The National Archives and his

Depot near Houghton Regis, Bedfordshire; and for the remainder of the war Berrington served as an officer with various signalling units of the Royal Engineers. In October 1915 he shipped out to France, but soon military service took him as far as Macedonia (participating in the failed Salonica campaign in late 1915³¹), Cairo, and Malta, where he was on a hospital ship because of an appendix operation. After many months back in England, Berrington returned to the Western Front in September 1916. Shell-shocked near Nieuwpoort (Nieuport), Flanders, in July 1917, he was treated at Craiglockhart War Hospital in Edinburgh from August to December 1917.³² By February 1918, he was declared to be fit for "light duty in France",³³ but a second breakdown in August 1918 was followed by another spell of treatment, this time at Palace Green Hospital for Officers in London.



1 Portrait of Adrian Berrington as soldier, unknown photographer, unknown location, undated (Image: Private Collection)

Receiving the honorary rank of lieutenant, Berrington was discharged for medical reasons on January 16, 1919. Until he took up a position in October

letters to Taylor.

³¹ Adrian Berrington Medal Card, The National Archives, United Kingdom, WO/372/2, reference number 24493.

³² Admission and Discharge Book for Field Service, The National Archives, United Kingdom, MH 106/1887, cited after the copy held at the War Poets Collection, Craiglockhart campus, Napier University, Edinburgh.

³³ The National Archives, United Kingdom, WO374/6051.

1920 as associate professor of town planning at the University of Toronto, Canada, Berrington worked as an architect for the British Imperial War Graves Commission (IWGC) in France. During this time, an entry by Berrington and two French architect colleagues, Paul-Louis Faure-Dujarric and Jean-Paul Chaurès, for the Greater Paris Town Planning Competition won fourth place.³⁴ Medical issues forced Berrington to leave his academic position in October 1922.³⁵ Berrington's final years were marred by ongoing health problems that arose from his wartime injuries and contributed to his sudden death in 1923.

Soldier-architect in the environment of war

[19] Berrington made sense of the war environment of the Western Front by drawing on the spatial model of Geddes' valley section with which he was familiar from pre-war times. For Geddes, the longitudinal section through a valley that followed a river from the mountains to the sea, visualised two things, first, mankind's evolution towards an urbanised civilisation and, second, the basic unit of his idea of regional planning. Seen from the air, the valley section turns out to be a fan-shaped region with a network of smaller valleys converging on the main valley and with it on a river that runs towards the sea. The valley section is filled with human settlements and habitations, beginning with individual hunters' and crofters' huts in the mountains, followed by villages and ever larger towns further downhill, and culminating in a large city at the river's estuary. Seen on the ground, the valley section emphasizes a network of human communities, each village or town is arranged around a spiritual symbol, for example a church, and all together are under the regional influence of the city at the section's lower end. In order to grasp the valley section and its importance for the evolution of human civilization and the planning of modern, regional cities, Geddes stressed the importance of studying and experiencing one's surroundings with all human senses while being rooted (even if only temporarily as a town planner, for example) in a spot or home from which to survey the valley section by following the course of the river as it leads to the estuary city, the valley region's major spiritual centre.

[20] For Berrington, the valley section was a spatial model he drew on, for example when it came to comprehending his journey onto the battlefield. On September 8, 1916, he wrote to Taylor about journeying to St. Ouen, France, on a train through a "slowly—very slowly—unfolding panorama of harvest

³⁴ Anonymous, "The Paris Town-Planning Competition", in: *The Builder* 118 (June 18, 1920), 712-713.

³⁵ Letter Dean Faculty of Applied Science and Engineering to President of the University of Toronto, October 3, 1922; University of Toronto, Archives, "Office of the President (Falconer) A67-0007/079 (C. H. Mitchell, 1922-23)".

fields & streams which run [through] this meadow". He added that "standing about in a camp or a station whilst one might be seeing a cathedral or the church of St. Ouen almost makes a conscientious objector".³⁶ Recapitulating his travels when writing his letter, the journey transformed into an image of the valley section as it follows the course of a river through a plain or valley until it reaches a city marked by a prominent church, the latter symbolising a spiritual (not religious) community of citizens.

[21] Geddes' diagram, moreover, offered Berrington a framework to make sense of his place within a vast, foreign territory. A letter from October 22, 1916, compared an unidentified village, which offered no "*place* with cafes & so on", with "smaller places which are towns—by virtue of that *place* & perhaps a boulevard".³⁷ Playing with the English word *place* versus the French *place* (square), Berrington's alienation from the landscape of war this time focuses on the absence of a human community constituted by social interactions; a town square symbolised in Geddesian thinking the social community of citizens.

[22] Not every soldier, however, experienced a comparable sense of socio-spatial isolation. William Redmond (1861–1917) wrote shortly before his death a piece on the Grote Markt (Grand Place) in Veurne (Furnes), West Flanders. Entitled "The Square of Empire", Redmond's journalistic contribution to the British *Daily Chronicle* was a well-observed, quasi-sociological and almost Geddesian study of an ancient town square in a historical city as a site that facilitated social interactions between soldiers coming from such far away and diverse countries as Australia, New Zealand, and South Africa.³⁸

[23] Berrington attempted furthermore to counter his sense of alienation by creating himself a quasi-home on the battlefield. On October 25, 1916, he was occupied with the "gratuitous labour to make cosmos in chaos",³⁹ a phrase that summed up his efforts, lasting for already three days, to create "quite a decent dugout" below the cellar of a house: "By the time I have finished it, it will be a jolly good dugout. White & warm with wires in neat rows & so on."⁴⁰ His motivation for spending much time and energy on this abode was in parts a moral one:

³⁶ A. Berrington to R. Annand Taylor, September 8, 1916.

³⁷ A. Berrington to R. Annand Taylor, October 22, 1916 (italics added).

³⁸ Redmond, *Trench Pictures*, 139-147.

³⁹ A. Berrington to R. Annand Taylor, October 25, 1916.

⁴⁰ A. Berrington to R. Annand Taylor, October 22, 1916

[I] Hate disorder like the Devil [...] Even if we move out next week it is a good work to make a white [,] clean [,], well [-] lit [,] orderly dug out in place of a [illegible word] confusion.⁴¹

Berrington's time as a fighting soldier ended when he was shell-shocked in July 1917. The last thing he remembered was being "startled by what appeared to be the quick sound of a high velocity shell"⁴² before he tripped, fell, and lost his memory. Admitted in August for treatment at Craiglockhart War Hospital, Berrington's post-war experience continued to be moulded in a Geddesian vein when, by sheer coincidence, he was assigned to the physician Captain Arthur John Brock (1879–1947) rather than to the already well-known William Halse Rivers Rivers [sic] (1864–1922). Brock was an acquaintance of Geddes and very well versed in the latter's ideas about the interactions between man and his environment.⁴³

Overcoming shell shock by re-integrating man and environment

[24] Brock understood shell shock (or neurasthenia) as the "privation or relative absence of life". A shell-shocked victim's life was "broken up and dispersed into its constituent elements" because "its unity in space and time [were] both gone". With the usually harmonious integration into the environment violently interrupted, a soldier was rendered incapable of "utilising and profiting by his environment, his circumstances" because he could no longer shape, adapt to, or respond to his surroundings.⁴⁴

[25] This environmentally-oriented definition of shell shock called for a resynthesis of the disparate experiences of and reactions to the environment.

⁴¹ A. Berrington to R. Annand Taylor, October 25, 1916.

⁴² Proceedings of a Medical Board, Edinburgh, December 19, 1917, signed A. Brock, Captain, George Stewart, Lieutenant, and a third, illegible signature; The National Archives, United Kingdom, WO 374/6051.

⁴³ *The Hydra*, no. 10, September 1, 1917, 18. For Brock see David Cantor, "Between Galen, Geddes, and the Gael: Arthur Brock, Modernity and Medical Humanism in Early-Twentieth-Century Scotland", in: *Journal of the History of Medicine and Allied Sciences*, vol. 60, no. 1 (January 2005), 1-41 (including a comprehensive bibliography), DOI: [10.1093/jhmas/jri001](https://doi.org/10.1093/jhmas/jri001); Thomas E. F. Webb, "'Dottyville'—Craiglockhart War Hospital and Shell-Shock Treatment in the First World War", in: *Journal of the Royal Society of Medicine* 99 (July 2006), 342-346. Geddes wrote the introduction to Arthur J. Brock, *Health and Conduct*, London 1923, vii-xiii.

⁴⁴ Arthur J. Brock, "The Re-Education of the Adult. I / The Neurasthenic in War and Peace", in: *The Sociological Review*, vol. 10, no. 1 (summer 1918), 25-40, reprinted in *The Re-Education of the Adult / Papers for the Present*, issued by the Cities Committee of the Sociological Society, second series, no. 4, London, no date [1918], 1-19: 2.

To this end, Brock nudged his patients to re-engage, through work and physical activities, with the man-made and natural environments and thereby put together again what the violence of the battlefield had torn apart. The hope was that on the scale of individual human beings, patients would regain their lost capacity for a "synoptic seeing" of the surroundings, which, if attained, equalled the recovery of an "Organism's constant active Interplay with Environment", as Brock paraphrased Geddes' triad of Place-Work-Folk.⁴⁵

[26] As part of his treatment, Berrington depicted a variety of therapeutic activities in small line drawings for *The Hydra*, the hospital's patient magazine. The vignettes marked regular columns with club news and illustrated, for example, patients engaged in indoor activities such as a debating society and outdoor ones like [golfing](#), [model yacht club](#), nature walks, [photography](#), and a [field club](#) that surveyed the surrounding country and nearby city of Edinburgh.⁴⁶ In short, the sketches depict activities intended to stimulate and direct the physical and sensuous capacities of a human being to a renewed engagement with his now peaceful environment. Brock himself published articles in *The Hydra* on the history of Edinburgh,⁴⁷ prescribed involvement in the activities of Geddes' Outlook Tower—an urban study center for the visual and historical exploration of Edinburgh and its region installed by the Scottish sociologist in 1892 in a former observatory on the Royal Mile in Edinburgh—and initiated a survey of the Craiglockhart region by the hospital's field club. Among the members of the latter was the poet Wilfred Owen (1893–1918), another of Brock's patients who had arrived at the hospital shortly before Berrington.⁴⁸

[27] Owen's biographer Dominic Hibberd specifically credits Brock with injecting a Geddesian environmental interest into Owen's writings from his time at the hospital.⁴⁹ Already much earlier in life, Owen had subscribed to John Ruskin's motto "To observe the world", thus considering his surroundings as a potential source of inspiration. Now his poetry also referred to Brock's

⁴⁵ Brock, "The Neurasthenic in War and Peace", 8 and 15.

⁴⁶ *The Hydra*, new series, no. 1, November 1917, 17, right column; 18, left column; 18, right column; 21, right column; see <http://ww1lit.nsms.ox.ac.uk/ww1lit/items/show/8081>. All items are from The First World War Poetry Digital Archive, University of Oxford (<http://ww1lit.nsms.ox.ac.uk/ww1lit/>); © English Faculty Library, University of Oxford (accessed November 3, 2019). Issues of *The Hydra* are extremely rare. A complete print run is preserved in The Wilfred Owen Archive, The English Faculty Library, University of Oxford.

⁴⁷ Arthur J. Brock, "Evolving Edinburgh", in: *The Hydra*, new series, no. 7, May 1918, 4-7; no. 8, June 1918, 10-12, and no. 9, July 1918, 4-7.

⁴⁸ *The Hydra*, no. 6, July 7, 1917, 16.

triad of "organism–function–environment", derived in turn from Geddes' "Place–Work–Folk". For example, when Owen lectured at Craiglockhart on whether plants can think—an environmental issue that had fascinated him since pre-war times—he touched on the intersection of physics, the physiology of animals and plants, and psychology within an environmental setting.⁵⁰ Supported by Brock's therapeutic prescriptions, Owen could overcome his battlefield experiences by reviving some of his pre-war interests and merging them with his new, Brock- and Geddes-inspired interest in the environment.⁵¹

[28] By comparison, Berrington never physically recovered from the consequences of the shell shock. Even more, the event had enduringly shattered his ability to make sense of his environment and his place within it through imagining Geddes' valley section as suggested, at least, by Berrington's [cover design](#) for *The Hydra*.⁵²

[29] When Berrington arrived at the hospital, Owen had just taken over the editorship of *The Hydra* as part of his therapy. Responding to an editorial call "for an attractive cover design—a promising futuristic thing",⁵³ Berrington submitted a drawing that depicted the moment when an explosion suspended a soldier mid-air above a battlefield. Perhaps this was an autobiographical moment, or it illustrated when Owen was "blown into the air by an exploding shell";⁵⁴ regardless, content and composition of the design accurately summarised the post-shell shock situation of Berrington. In the

⁴⁹ This paragraph relies on Dominic Hibberd, "A Sociological Cure for Shellshock: Dr. Brock and Wilfred Owen", in: *The Sociological Review*, new series, 25 (1977), no. 2, 377-386.

⁵⁰ On this issue see also Patrick Geddes, *The Life and Work of Sir Jagadis C. Bose*, London 1920, p. v. Hibberd suspected Geddes' influence on Owen's lecture, but did not reference this work by Geddes.

⁵¹ Once back at the front, Owen was killed on November 4, 1918, during the very last days of the fighting.

⁵² *The Hydra*, new series, no. 1, November 1917, title page; see <http://ww1lit.nsms.ox.ac.uk/ww1lit/collections/document/5125/4316>. This item is from The First World War Poetry Digital Archive, University of Oxford (<http://ww1lit.nsms.ox.ac.uk/ww1lit/>); © English Faculty Library, University of Oxford (accessed November 3, 2019). The drawing was the cover illustration of the new series of *The Hydra* from November 1917 to August 1918. The May 1918 issue omitted Berrington's cover for financial reasons as noted on p. 18.

⁵³ *The Hydra*, no. 11, September 29, 1917, 1.

⁵⁴ Samuel Hynes, *A War Imagined: The First World War and English Culture*, London 1990, 180.

background, a mountain range evokes the Pentland Hills to the south-west of Edinburgh and recalls once again a valley section. In front of the hills a hydra entangles the soldier and puts out of his reach both the hospital as the site of healing (the building of Craiglockhart War Hospital is shown in the right margin, geographically correct to the east of the hills) and the valley section symbolising the harmonious integration of human beings with their environment. On either side of the soldier, angelic nurses—the right one serving a cup of tea, the left one bottled medicine—float upward. Their gentle rise visually dampens the violent blast; perhaps they represent the glimmer of hope for being sent home to Britain after suffering a serious injury on the battlefield.

[30] Two figures framing the body of a soldier faintly evoke the original design⁵⁵ of the war artist William Orpen's painting *To the Unknown Soldier in France*.⁵⁶ Painted sometime between 1921 and 1922—well after Berrington's cover drawing⁵⁷—Orpen flanked the coffin of the Unknown Soldier on either side with a soldier. The painter copied these two figures from his earlier drawing *Blown Up* (1917), which depicts an emaciated, shell-shocked British soldier.⁵⁸ The coffin is centrally placed in front of an arch—part of a symmetrically ordered interior wall—that opens into a long and dark corridor at the end of which a cross rises in bright daylight. Coffin and cross are aligned on the central axis leading down the archway, and thus the sacrifice of the Unknown Soldier is redeemed by the sacrifice of Christ.

[31] Berrington's drawing does not offer a comparable consolation expressed by such compositional means as central perspective and symmetry, and the symbolism of the Christian cross. With the pre-war environment thoroughly torn apart, little is put into its place other than a distant valley section, which may be a faint remembrance of ideas from the past or a hazy vision of a better future.

⁵⁵ William Orpen (1878–1931), *To the Unknown British Soldier in France*, first version, © Imperial War Museum (IWM), London (Art.IWM ART 4438), <https://www.iwm.org.uk/collections/item/object/20880> (readers are advised to click through to image 5/5).

⁵⁶ William Orpen, *To the Unknown British Soldier in France*, © IWM (Art.IWM ART 4438), <https://www.iwm.org.uk/collections/item/object/20880>.

⁵⁷ Nothing is known about the print run and the distribution of *The Hydra* both within Craiglockhart Hospital and, via returning soldiers, on the battlefields. Accordingly, whether Orpen may have seen Berrington's cover for the magazine is also not known to us.

⁵⁸ William Orpen, *Blown Up*, © IWM (Art.IWM ART 2376), <https://www.iwm.org.uk/collections/item/object/20754>.

Greater Paris as extended environment

[32] Contrasting the pessimism of the cover for *The Hydra*, the extension scheme for Paris that Berrington submitted together with his two French colleagues to the Greater Paris Town Planning Competition, which was launched in autumn 1919 and extended until approximately April 1920, offers a more hopeful outlook on the future. (Fig. 2) Subsequent to the competition, Berrington wrote several articles for British architectural and urban planning journals about the competition and the various entries including the one by his own team. Drawing exclusively on these articles, the following does not provide an in-depth analysis of Berrington's design for Greater Paris.⁵⁹ Instead, the focus is on the cues in the articles authored by Berrington that indicate the directions into which his notions of environment and town planning were developing in the immediate aftermath of the war.⁶⁰



2 Adrian Berrington, redrawing of the entry by Paul-Louis Faure-Dujarric, Adrian Berrington, and Jean-Paul Chaurès for the Greater Paris Town Planning Competition, 1919-1920 (repr. from: Adrian Berrington, "The Paris Competition", in: *The Town Planning Review* 8 (1920), no. 3/4, plate 42)

⁵⁹ For the history of the competition see Beatriz Fernandez Agueda, "Rationalizing the Greater City. The 1919 International Competition for Greater Paris", in: *Planning Perspectives* 32 (2017), no. 1, 1-24, <https://doi.org/10.1080/02665433.2016.1185960>.

⁶⁰ Adrian Berrington, "The Paris Competition", in: *The Town Planning Review* 8 (1920), no. 3/4, pp. 163-170 and plates 39-45; Adrian Berrington, "Town-Planning Schemes for Greater Paris", in: *The Architects' Journal*, vol. 51 (June 16, 1920), 759-760, 765, and vol. 51 (June 23, 1920), 787-788.

[33] Berrington, and his French, Beaux-Arts-trained colleagues Paul-Louis Faure-Dujarric (1875–1943) and Jean-Paul Chaurès (1883–?) proposed to expand Paris with a string of one hundred smaller new towns, laid out around the historical city in the shape of a pearl necklace passionately torn from a lover's neck and casually thrown to the ground.⁶¹ At first glance, the expansion scheme draws on established British and European ideas to expand existing (large) cities with, for example, garden cities in the wider surroundings, linked among each other and with the urban centre by railways. Yet reading closely Berrington's articles on the competition and especially the scheme he was involved with, a different impression emerges, for Berrington's drawing begins to resemble a sketch that maps defence arrangements around Paris, an impression which the military vocabulary of Berrington's texts supports.

[34] Paris' old fortifications are re-envisioned as a defensive "non-ædificandi"⁶² zone; further out from the existing city two more such zones are planned, then another around each new town. In between the satellite towns, dense forests are strategically interspersed in order to offer additional obstacles against future land speculators. The zones and forests moreover offer protection and defence for the old and new homes of Parisians, because "a healthy and tolerable residence is undoubtedly the first thing to be sought and attained, and, being attained, to be defended".⁶³ Indeed, Berrington declares the provision of homes as the sole rationale for the existence of cities and the profession of town planning, which runs counter to, for example, central European debates from already before the war about the virtues of crooked or straight streets, urban squares as town planning devices, and the rational division of cities into functional zones. Statements by Berrington such as "A town may—many do—exist without streets, but not

⁶¹ On Paul-Louis Faure-Dujarric see Eric Lapierre, "Louis Faure-Dujarric: Banal or Ordinary Architecture?", in: *OASE* 91 (2014), 136-145, <https://www.oasejournal.nl/en/Issues/92/LouisFaureDujarric> (accessed July 13, 2019), and Jean-Paul Midant, ed., *Diccionario Akal de la Arquitectura del Siglo XX*, Madrid 2004, 291. For Chaurès see François Roux et al., eds., *Les Architectes élèves de l'École des Beaux-Arts: 1783-1907*, Paris 1907, 212. How and when the three architects met is currently not known to us. Berrington and Chaurès may have known each other from the pre-war contacts between the Architectural Association, London, and the École des Beaux-Arts in Paris, see Antonio Brucculeri, "Transfert du modèle beaux-arts dans le milieu londonien: autour de l'Architectural Association School, 1900-1940, in: *Politiques de la culture. Carnet de recherches du Comité d'histoire du ministère de la Culture sur les politiques, les institutions et les pratiques culturelles*, 21 Mai 2018; <https://chmcc.hypotheses.org/4373>.

⁶² Berrington, "Town-Planning Schemes for Greater Paris", 787.

⁶³ Berrington, "Town-Planning Schemes for Greater Paris", 787.

without houses" or "the primary problem [is] ... finding places for people to live" so that citizens can lead a "healthy and tolerable life"⁶⁴ indicate the prime focus of his scheme for Paris. They most likely also reflect Berrington's war-time sense of deep alienation from his environment and his longing for a quasi-home amidst the trenches, and a home in the aftermath of the war.

[35] During the war, Geddes' valley section had offered Berrington a framework with which to locate himself in the hostile terrain; at least until all fell apart when he was shell-shocked. Post-war, and as already indicated in *The Hydra* cover, the valley section is no longer referenced. The highly irregular line that the new towns and the forests draw on the land around Paris is explained as following topographical features. Berrington certainly borrowed from Geddes the notion that the Greater Paris of the future will be a conurbation of many towns and cities, whereas the emphasis on the lay of the land derives more likely from his (and perhaps from his collaborators?) first-hand experience of dealing with and manipulating the topography of the battlefields while living and fighting on them. And just as military installations that took advantage of any given topography may not have had any respect for existing towns or cities, the new Paris as envisioned by Berrington established no visible relation—as far as one can decide from the reproduction of the plan—with the old French capital.

[36] Even more, the proposed plan refused to intervene in the historical centre of Paris; an abstention that strengthens the impression that the explanatory and symbolic values of the valley section had weakened by then for Berrington, if they were not lost altogether. Geddes usually aimed to insert into the historical core of expanded, existing cities a city crown-like acropolis of cultural and educational institutions, which was to function as a symbolic germ cell initiating a new cycle of urban growth. As recently as 1912, Berrington had envisioned such a symbolic core for the British capital, reimagined as "Imperial London".⁶⁵ Now, the plan for Greater Paris omitted such a central Geddesian feature in favour of a pragmatic awareness of the topography of the land and of the homes of the citizens within that environment, two major concerns that just a few years earlier had dominated Berrington's life as architect-soldier.

Conclusion

[37] During the war, Berrington repeatedly drew on Patrick Geddes' valley section as a framework to orient and locate himself within the landscape of

⁶⁴ Berrington, "Town-Planning Schemes for Greater Paris", 759, 787.

⁶⁵ See the two Berrington drawings that follow page 10 and precede the anonymously authored article "Imperial London", in: *The Builder* 102 (1912), 11-13.

war. His shell-shock from July 1917 destroyed this framework. Captain Brock's shell-shock therapy of surveying the local and regional environment by stimulating the patient's multi-sensory and intellectual capacities may have helped Berrington in the short term. But it did not permanently restore Berrington's pre-war Geddesian outlook on the world, and the grand scheme of the valley section never again offered Berrington solace. Berrington's fate recalls the historian Eric J. Leed's characterisation of the war environment as a liminal space that, analogous to a rite of passage, left a soldier bereft of the certainties of the pre-war life while denying him any knowledge of "what he is to become"—or, one has to add in the case of a soldier-architect, what his architecture might be should he survive.⁶⁶

[38] The Greater Paris scheme illustrates how, at least for a brief post-war moment, Berrington channelled the experience of the expanded modern battlefield into a defensive topography of an extended modern Paris that he envisioned alongside the historic city. Whether—and how—the wartime experiences might have transformed Berrington's understanding of modern space and architecture over the long term, however, we will never know because of the architect's early death.

[39] Research well beyond the scope of this paper is required to assess further the possible importance of the (Geddesian) environmental approach to the war landscape and to shell-shock therapy for the emergence of modern concepts of space and environment in British architecture and planning. During the same time when Berrington and Owen were his patients, Brock also treated the architect Arthur J. Davis (1878–1951), today best known as one of the designers of the Ritz Hotel (1904–06) in Piccadilly, London, and for the interiors of ocean liners such as the *Queen Mary* (1935). Next to no archival documents have thus far come to light that could tell us about Davis' war experiences, which highlights how little we still know *in general* about soldier-architects during the First World War.

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⁶⁶ Leed, *No Man's Land*, 17.

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