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William Barr Senior Research Associate Arctic Institute of North America University of Calgary 2500 University Drive NW Calgary, Alberta T2N 1N4, Canada Wbarr207@gmail.com ANTARCTIC RESOLUTION. Edited by GIULIA FOSCARI/ UNLESS. Zürich: Lars Müller Publishers, 2021. ISBN: 978-3-03778-640-6. 975 p., maps, colour and b&w illus., bib., index. Cdn\$82.00.

At 975 pages, weighing over three kilograms, and with a spine that is seven centimetres in width, this book is big, bold, and in-your-face. There is no soothing reappraisal of familiar polar adventures to be found here, no lengthy tales of heroic sacrifice and patriotism. The casual Antarctic enthusiast who hefts this tome onto his or her lap and begins reading, does so at their peril. But once the pages begin turning, the reader is in for a visual and intellectual feast. Published in time to mark the hundredth anniversary of the first sighting of the continent in 1820 (by Belgian Fabian Gottlieb von Bellingshausen on 27 January, Irishman Edward Bransfield on 30 January, or American Nathaniel Brown Palmer on 20 November depending on whose evidence you support), Italian-born editor Giulia Foscari has produced a sweeping and masterful study of the evolution of Antarctica's architecture from the earliest, most rudimentary hut built by Carsten Borchgrevink's team at Cape Adare on Northern Victoria Land in 1899, to the latest futuristic scientific research bases built by Brazil and China. This volume is particularly timely given that many aging bases are being abandoned (Argentina's Belgrano I, Germany's Filchner), dismantled (South Africa's Sarie Marais), destroyed by fire (Brazil's Comandante Ferraz), or closed (America's Byrd, Russia's Leningradskaya). These were never meant to be permanent year-round structures that lasted forever, and the rate of infrastructure loss and subsequent replacement is likely to escalate in the future.

The arresting design of the book commands attention and merits its consideration front and centre in this review. Foscari is an architect and founder of UNA-UNLESS, a non-profit organization conducting research on extreme environments. Her daring choice of colours and design elements in Antarctic Resolution ensures that the reader is kept transfixed throughout. Juxtaposing jarring neon orange text with evocative black and white archival images, technical architectural drawings, and detailed site plans with modern-day full-colour photographs depicting stark evidence of environmental change, Foscari's attention to detail and thought-provoking design is apparent throughout. It may not appeal to every reader's aesthetic sensibilities but it is riveting nonetheless. The editor has done a superb job in securing contributions from over one hundred and fifty leading polar scholars and practitioners from around the world and from a wide array of disciplines including aeronautics, anthropology, law, chemistry, glaciology, economics, architecture, history, literature, visual arts, engineering, biology, political science, and sociology. There is something here for everyone.

Few books have been written about Antarctica's architecture. Work by Sheppard and White (2017) may be of interest from a theoretical perspective but architectural planning for the two polar regions is quite different. While

an abundance of conservation and building plans for specific Antarctic sites have been published by various national trusts, the focus is often on the heritage aspects of the site. Instead, wide-ranging, current information about polar architecture is most likely to appear in newspaper articles (Gendall, 2020; Miles, 2017) or in the scholarly literature (Davis, 2017; Bannova, 2016; Collis and Stevens, 2007). Foscari has filled an important gap by writing about this issue in such detail.

The book is divided into four sections: Dominance or Research, Four Elements, Surviving in the Cryosphere, and Archive of Antarctic Architecture with each section further divided into three to five sub-sections. Drawing heavily on geopolitics, science, technology, and history, each section contains short, informative essays and sumptuous illustrations. Due to its unwieldy size and weight, Antarctic Resolution is presumably not designed to be read cover to cover nor to be used as a textbook. However, it does make an excellent reference book for use by professionals or students within polar studies or the visual arts because of its cutting-edge design and stimulating text; although I pity the librarian who will have to adjust the shelf size to accommodate it. Given the book's strength in addressing scientific and geopolitical aspects, the lip service paid to sociocultural elements is surprising. In particular, gendered aspects of Antarctic spaces are barely mentioned. Christy Collis and El Glasberg have written extensively on related topics but their contributions here are on different issues. Depending on the country of origin, women have only been 'allowed' to visit and work in Antarctica for a few decades. For example, the British Antarctic Survey did not permit British female scientists to work in Antarctica until the 1980s. Today, women and men live and work together at all international research bases. An investigation of how each gender has been differently impacted by the design of space within the base, is more than warranted here.

An index would have improved access to the material—so important in a volume with many contributors. 'How to Read it' instructions appear in small letters on page 25 where the reader is informed that "all drawings, cartographies, data visualisations, images, captions and quotes produced and/or curated by Giulia Foscari/UNLESS and the editorial voice are featured in fluorescent orange" while the submissions from specialists are in black. These instructions are easy to miss and should be addressed earlier on and situated more prominently in the text. Additionally, the contributor submissions are designed to dominate the text while the editorial voice is deliberately

muted so the choice of colours chosen for each would seem to be opposite. A more comprehensive editorial analysis throughout would help to contextualize the issues raised.

This is not a book which seeks to draw conclusions, and the editor and contributors to this volume deliver up no neat solutions to Antarctica's challenges. It beguiles, informs, and invigorates the reader but there are few answers here. But the questions raised are provocative and ultimately, the reader is left with an appreciation of the true complexity that is Antarctica.

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