

Acknowledgments

endured during this project. The tenacity, assertiveness, and roll-up-your-sleeves hard work she demonstrated relentlessly is arguably the only reason this book was published in 2021 (if not this decade). In short, Lori’s our rock; she is a veteran of **lakos20**, and we look forward to working with her on *all* of our planned future projects — e.g., allocators (**lakos22**), contracts (**lakos23**), Volumes II and III following **lakos20** (**lakos2a** and **lakos2b**), and anticipated future editions of this book incorporating C++17, C++20, etc.

Pablo Halpern, a former member of Bloomberg’s BDE team, an active member of the C++ Standards Committee, the creator of the `std::pmr` allocator model, and now a full-time collaborator with BDE working on language-level support for local memory allocators, served as a ghost writer for several features in this book (e.g., see Section 2.1. “User-Defined Literals” on page 835) and provided massive restructuring to many others (e.g., see Section 2.1. “Generalized PODs ’11” on page 401). Notably, out of all the nonauthors who contributed drafts in final form, only Pablo was able to write in a style approximating the authors’ voice. He also performed the research for a paper, commissioned by the authors of this book, demonstrating that **move operations**, though faster to execute initially, can have negative overall runtime implications due to **memory diffusion**; see **halpern21c**.

Dr. Andrei Alexandrescu — author of the seminal book *Modern C++ Design* (Addison-Wesley, 2001), coauthor of *C++ Coding Standards* (Addison-Wesley, 2005), and major contributor to the D language — was called upon for multiple assists in this endeavor: (1) as an expert author to provide an approachable guide to using variadic templates for those accustomed to their C++03 counterparts (see Section 2.1. “Variadic Templates” on page 873); (2) as a technical reviewer whose primary job was to reduce the tedium of John Lakos’ writing style and its numerous parenthetical phrases and footnotes; and (3) as a mascot and champion of our effort to imbue, on C++03 folk, the C++11/14 overlay of features. Andrei also generously agreed to write a foreword to this book, advocating its utility for senior developers familiar with classic C++.

Harold Bott, John’s TA in his Advanced C++ course during the 1990s at Columbia University, reconnected with John in 2019. Harry has since been a force in driving this book forward to completion. After a month of research with Nina, John entrusted Harry, a former programmer at Goldman Sachs and Executive Director at JP Morgan, with getting the flagship feature of modern C++ (see Section 2.1. “Rvalue References” on page 710) ready for review — a daunting task indeed. Once reviews were in and revisions were needed, Harry worked with John, nearly around the clock for almost three straight weeks, to incorporate reviewer feedback and to bring this important feature to the state in which it is presented here.

Mungo Gill is one of the newest full-time contributors on the BDE team and brings with him more than 30 years of professional software experience at such notable organizations as Salomon Brothers, Citigroup, Lehman Brothers, Google, and Citadel Securities. Mungo has reviewed every line of this book and has provided valuable feedback from a senior practitioner’s perspective. He also coordinated the process of assembling glossary definitions and gaining consensus among a host of eclectic domain experts.

Clay Wilson, a member of the BDE team since 2003, is another veteran of **lakos20**. Clay has, for the past 18 years, been our “closer” when it comes to reviewing software components.