

These volumes were designed by Emmelyne Pornillos of 1218A in Montreal and set into type by Emmelyne Pornillos, with Laurie Castilloux-Bouchard, Maxime Doucet, and Liz Broes. The diagrams and schemas were made by Maxime Doucet and the maps by Brian Ally.

The text face is Minion, designed by Robert Slimbach in 1989. The main text is set in 10.5 point type on 14 point leading, with text figures; captions, endnotes, and indexes are set in 8.5 point, and titles in 26 point. The display type red is Pantone 485.

The book was printed and bound in September 2010 by Friesens in Altona, Manitoba, on a sheetfed Man Rolland 900 Series offset printer. The inks used – Flint K+E Novavit F918 Supreme Bio – are 100% vegetable-oil based and alcohol-free.

The paper – 80 lb Cream Reincarnation Matte Text – was chosen for both its aesthetic and its environmental qualities. Reincarnation Matte, produced for New Leaf Paper in Hamilton, Ohio, USA, is manufactured with electricity that is offset with Green-e® certified renewable energy certificates, and is 100% recycled with 60% post consumer waste, Ancient Forest Friendly, FSC Certified, and Processed Chlorine Free. According to an environmental benefits analysis provided by New Leaf Paper – using calculations based on research by the Environmental Defense Fund and by other members of the Paper Task Force – the choice of post-consumer waste fibre (rather than virgin fibre) for the 15.2 tonnes of Reincarnation Matte required to manufacture the print run of these volumes saved the following resources:

Trees	217 fully grown
Water	376 m <sup>3</sup>
Energy	73 GJ (about 20 MW·h)
Solid waste	2.74 t
Greenhouse gases	9.36 t

Reincarnation Matte also meets two standards for strength and permanence developed under the auspices of the Canadian General Standards Board (CGSB). The first of these

standards – CAN/CGSB-9.66, “Coated Offset Paper” – guarantees that the paper has the necessary strength properties to function as a good paper for printing and for books.

The second standard addresses durability. Ever since the discovery that book papers used in the 19th and early 20th centuries had a tendency to yellow with age and become weak and brittle, there has been a concern within the archival community that better papers should be developed if our written heritage is to be preserved. A central issue in the establishment of adequate standards for durability was the possible harmful effects of lignin in wood-pulp paper. Extensive Canadian research programs conducted jointly by the Canadian Conservation Institute and the Pulp and Paper Research Institute (Paprican) showed clearly that while the presence of lignin in wood pulp paper may have contributed to yellowing, it was not responsible for the acid deterioration of the paper. Research also indicated that the mechanical strength of alkaline papers, almost regardless of fibre type, can be preserved if there is a sufficient presence of calcium carbonate to act as a buffer: a minimum level of 2% was established.

The resulting standard CAN/CGSB-9.70-2000, “Permanence of Paper for Records, Books and Other Documents,” is unique in that it separates mechanical permanence from optical permanence, and thus allows lignin-containing papers to fall within the definition of permanent paper. The paper used for these volumes meets the requirements of this standard and it can therefore be expected to survive for a long time without becoming acidic and fragile.

The 90 x 117 cm (35.5 x 46 inch) sheets were folded and gathered into 32-page signatures, sewn with Lineco regular gauge, 27 lb, 100% linen thread, trimmed to 8.5 by 11 inches, and cased in. The spine adhesive is polyurethane reactive (PUR) and the binding is reinforced with LBS 100% cotton cambric. The headband is a Lineco Cotton Headband, red. The endpapers are Rainbow 80 lb Charcoal, Antique finish. The case is 3.0-mm Eskaboard, which is made of 100% recycled post consumer waste paper, FSC certified, and Ancient Forest Friendly, covered with Brilliantia #4003 light grey, 100% rayon cloth and hot stamped with Kurz Luxor HC 307 metallic foil.