This book owes its appearance to the International meeting “A Hundred Years of the Endosymbiotic Theory: from Prokaryotes to Eukaryotic Organelles” (Hamburg, Germany, 5–8 October, 2005), which was dedicated to the 100th anniversary of the first publication on symbiogenesis (1905) made by C. (K.) S. Mereschkowsky (1855-1921).

The book’s title is indicative of its two main features. First, the readers understand that it offers an insight into the history of a fascinating and difficult subject — the endosymbiogenesis theory. Second, they realize that the book is written in German, without as much as an English summary.

The main body of the book is preceded by the foreword by J. Soll and U. Maier, the publishers’ introduction and the second foreword, "Symbiosen – Ein Geleitwort" [Symbiosis – a key word], by L. Jaenicke. These introductory texts outline the historical and biological roots of the symbiogenesis theory and some steps in its development.

As indicated in the title, the book itself is split into three parts. The first one contains the facsimiles of the main initial publications on symbiogenesis. They are: "On the nature and origin of chromatophors in Plants kingdom" (Mereschkowsky, 1905); "Symbiosis as an approach to synthesis of organisms" (Famintzn, 1907); "The theory of two plasmas as a basis of symbiogenesis — a new doctrine of the organisms’ appearance" (Mereschkowsky, 1910); "Symbiosis as a means of organism’s synthesis" (Famintzn, 1912).

The first three publications appeared in "Biologisches Centralblatt" and the last one, in "Berichte der Deutschen Botanischen Gesellschaft". Both the authors were Russian, but, typically of the early 20th century, the papers were published in German. At that time, the main international biological journals were published in Germany, and almost all the biologists knew this language.

The second part of the book contains biographies and bibliographies of Mereschkowsky and Famintzn, the founders of the symbiogenesis theory. This job was done by Ksenia V. Manojlenko, one of the major Russian historians of botany ("Andrew Sergeevich Famintzn (1835-1918). A Biographical Essay"), and by Larisa E. Shumeyko, a Russian historian who has long been living in Germany, and her German colleague Ekkehard Höxtermann ("Konstantin Sergeevich Mereschkowsky (1855-1921) — A troubled life of a biologist without motherland"). The biographies and complete publication lists of these scientists are, undoubtedly, a very valuable contribution to the history of biology. The biography of Mereschkowsky is also one of the most complete ones. However, quite a number of essays about these scientists have already seen light in Russian and some in German and English. New articles in German may not be the best way of popularizing this topic.

The third part of the book is subtitled "Roots and paths of the symbiogenesis theory". It contains twelve articles on historical and biological aspects of the symbiogenesis theory written by German, Russian and American scientists: 1. "Symbiosis and symbiogenesis — discovery and development of the biological problem" by E. Höxtermann and D. Mollenhauer; 2. "Genetical persistence and physiological autonomy of plastids" by E. Höxtermann; 3. "On zochlorellae and zooxantellae — the early investigations of symbiotic algae" by A. Guess; 4. "History of blue algae,

It is impossible to consider in any detail the contents of this huge volume (493 pages) in a short review. I would only like to note that all the essays have extensive lists of references and include a number of photos of the main characters, this providing a comprehensive historical picture. The book certainly makes good reading for biologists, historians of biology and people interested in this intriguing field, the symbiogenesis theory... but only if you can read German!

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