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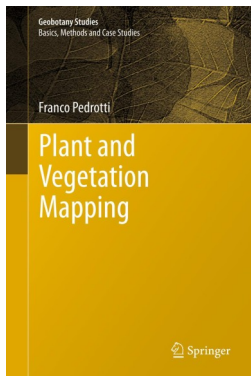
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Peer reviewed

The craft and intricacy of mapping

Plant and Vegetation Mapping. Franco Pedrotti, 2013, Springer. 294 pp. £90 (hardback). ISBN: 978-3-642-30235-0. ; <http://www.springer.com>



This is, on the translator's own admission, primarily an account of geobotanical mapping from Italy, published in English because the tradition there provides 'so much already' and delivers an abundance of material and a kind of synthesis unavailable elsewhere. In

fact, as the author makes clear in his preface, this is effectively a textbook written for undergraduates at the University of Camerino where he has established himself over many years as a lead authority in this subject, within Italy and to wider acclaim. But the book is still a welcome addition to the literature and its translator, the North American Elgene Box, has acquitted himself well in making it accessible to biogeographers and others.

Less persuasive is the apparent claim, from the book's title and the chapter headings, that this is a balanced overview of plant, as well as vegetation, mapping. Actually, half of the book is devoted to vegetation mapping, and of particular kinds, because this is primarily a book informed and enriched by the European phytosociological tradition. And on that score, it provides a wealth of examples of how its forms of data, analytical results and concepts have been made spatially explicit in maps of various kinds. There is an occasional assumption of the superiority of phytosociology as a descriptive technique and a cartographic basis, but more pervasive is a technical terminology that a reader from outside this tradition (for example, the Anglo-American readership) might find initially off-putting. For the most part, however, the author and translator define these terms clearly. An annoying exception is the constant use of the term 'phytocoenosis' for what most of us would recognise as an actual 'stand' of vegetation; and the term 'Maps of Plant Ecology' is a rare infelicity of translation.

This phytosociological commitment provides a pervasive thread throughout the discussion of the process and products of vegetation mapping. However, this is still a valuable review of the territorial extent, topographic basis, typologies and scale of maps and the challenges of generalisation and depicting boundaries and mosaics of various kinds; also of the confidence limits that impressive, colourful maps may cause us to neglect. All of these are practical and interpretive questions which any cartographer or user of vegetation maps faces.

Following on from that, the discussion of the various kinds of vegetation maps—maps based on dominance, on actual plant vegetation types, on successional series of vegetation types, on potential vegetation types and on vegetation processes—unfolds clearly and informatively. There is a great richness, throughout all this, of examples of vegetation maps of many different kinds, and not all from Italy, though they tend to have originated from the author's network of phytosociological and cartographic collaborators elsewhere. There is a wealth of illustrations, many in colour; so many that they are often some distance from the relevant references in the text. Some of the black-and-white figures are fuzzy and one colour map has an unhelpful black-and-white legend.

The further variety included in a separate section of 'Examples of Vegetation Maps' is organised under the headings of different landscapes and habitats—mountains, volcanoes, islands, disturbed environments, urban centres, and so on—and would have perhaps been better included as an appendix. In a sense, they are case studies, again mostly from Italy, though their accompanying texts are essentially descriptive. The small chapter on 'Geobotanical Mapping in Italy', comprising a brief history but mostly a catalogue of publications, many of them included elsewhere in the book and listed among the references, should more obviously be an appendix.

All of this material makes the first section of

the book, on the mapping of plants and their populations, seem less substantial. In fact, it is quite a useful review of mapping individual plants and populations, at finer scales, and locations and ranges at coarser scales. It suffers, though, from the fact that some of the methodological and conceptual questions raised by any kind of mapping (like those of scale) are withheld until the sections on vegetation mapping are reached. Also, it is not quite clear why a treatment of mapping vegetation structure should fall within the section on mapping plants rather than vegetation. The very coarse-scale mapping of phytogeographic zones and mapping plant biodiversity come towards the end of the book, among other chapters on mapping large-scale vegetation zones and belts.

Also towards the close come chapters on applications of geobotanical mapping. These are somewhat slight after what has come before and really leave the important questions of predictive mapping, land-use and landscape planning poorly explored. Also, the chapter on the use of maps for depicting 'conservation status', naturalness, degradation and so on, might be better here than fifty pages earlier, in another section.

The undergraduate course for which the book was written began in 1998 and the Italian original of this book was published in 2004, so the slim coverage of more recent work, including

computerised mapping and GIS applications, is unavoidable (and admitted by the translator), if frustrating. For example, the outcome of a very ambitious international project to produce a 1:2,500,000-scale vegetation map of Europe is now available as an interactive CD-ROM or download, and is the kind of application which every cartographer should know about. The results of a current initiative to produce a circumpolar map on the same scale are awaited with great interest.

The book contains a substantial bibliography, but astonishingly there is no index, so the reader will search with difficulty, and sometimes in vain, for terms such as 'land cover', 'habitat' or 'CORINE', as well as for the concepts, localities and studies which this book does cover so lovingly, and with evident competence, even if idiosyncratically. Even as a download, this work comes at the kind of price publishers try to persuade us is fair, but which may be beyond the reach of all but wealthy libraries.

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