

1. Record Nr.	UNINA9910966050803321
Titolo	Filling-in : from perceptual completion to cortical reorganization // edited by Luiz Pessoa, Peter De Weerd
Pubbl/distr/stampa	Oxford ; ; New York, : Oxford University Press, 2003
ISBN	0-19-028621-0 0-19-803213-7 1-280-48137-4 9786610481378 1-4237-4567-1
Edizione	[1st ed.]
Descrizione fisica	1 online resource (xxv, 340 pages) : illustrations
Disciplina	612.8/4
Soggetti	Visual cortex Visual perception Senses and sensation Form perception Perceptual Closure Form Perception Perception - physiology Visual Cortex Visual Perception Sensation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Foreword / V.S. Ramachandran -- ; pt. 1 Fast-acting filling-in in normal vision -- ; Ch. 1 Introduction: filling-in: more than meets the eye / Peter de Weerd and Luiz Pessoa -- ; Ch. 2 Filling-in the forms: surface and boundary interactions in the visual cortex / Stephen Grossberg -- ; Ch. 3 Contextual shape processing in human visual cortex: beginning to fill-in the blanks / Janine Mendola -- ; Ch. 4 Surface completion: psychophysical and neurophysiological studies of brightness / Andrew F. Rossi and Michael A. Paradiso -- ; Ch. 5 Mechanisms of surface completion: perceptual filling-in of texture -- ;

Ch. 6 Searching for the neural mechanism for color filling-in / Rudiger von der Heydt, Howard S. Friedman, and Hong Zhou -- ; Ch. 7 Effects of modal versus amodal completion upon visual attention: a function for filling in? / Greg Davis and Jon Driver -- ; Ch. 8 Completion phenomena in vision: a computational approach / Heiko Neumann -- ; pt. II From permanent scotomas to cortical reorganization -- ; Ch. 9 Completion through a permanent scotoma: fast interpolation across the blind spot and the processing of occlusion / Mario Fiorani Jr et al -- ; Ch. 10 The reactivation and reorganization of retinotopic maps in visual cortex of adult mammals after retinal and cortical lesions / Jon H. Kaas, Christine E. Collins, and Yuzo M. Chino -- ; Ch. 11 The blind leading the mind: pathological visual completion in hemianopia and spatial neglect / Jason B. Mattingley and Robin Walker -- ; pt. III Long-term cortical remapping -- ; Ch. 12 Plasticity of the human auditory cortex / Christo Pantev, Nathan Weisz, Michael Schulte, and Thomas Elbert -- ; Ch. 13 Plasticity in adult M1 cortex during motor skill learning / Julien Doyon and Leslie G. Ungerleider -- ; Ch. 14 Cortical reorganization and the rehabilitation of movement by CI therapy after neurological injury / Victor W. Mark and Edward Taub -- ; Ch. 15 Conclusion: Contributions of inhibitory mechanisms to perceptual completion and cortical reorganization / Liisa A. Tremere, Raphael Pinaud, and Peter De Weerd -- Index.

Sommario/riassunto

The best example of filling-in involves the blind spot, a region of the retina devoid of photoreceptors. Remarkably, the region of visual space corresponding to the blind spot is not perceived as a dark region in space, but instead as having the same colour and texture as the surrounding background; hence the expression "filling in." While this type of perceptual completion phenomenon is common in the visual domain, it is argued by the leading scientists who contribute to this book that forms of filling-in also take place in other sensory modalities, including the auditory, somatosensory, an
