1. Record Nr. UNINA9910824707903321

Titolo	Treasures from the sea : sea silk and shellfish purple dye in antiquity / / edited by Hedvig Landenius Enegren and Francesco Meo
Pubbl/distr/stampa	Oxford, [England] ; ; Havertown, Pennsylvania : , : Oxbow Books, , 2017 ©2017
ISBN	1-78570-436-2 1-78570-438-9
Descrizione fisica	1 online resource (233 pages) : illustrations (some color), photographs
Collana	Ancient Textiles Series ; ; 30
Disciplina	667.209
Soggetti	Dyes and dyeing - History Textile fabrics, Ancient Purple Teixits antics Tints (Indústria tèxtil) Llibres electrònics Mediterranean Region Antiquities
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Introduction / by Hedvig Landenius Enegren and Francesco Meo -- Byssus and sea silk : a linguistic problem with consequences / Felicitas Maeder -- Morphology, properties and microscopical identification of sea silk / Anne Sicken -- Tangled threads : byssus and sea silk in the Bronze Age : an interdisciplinary approach / Elena Soriga and Alfredo Carannante -- Finds of Pinna nobilis, Hexaplex trunculus and evidence for specialised textile production in Aetolian Chalkis / Sanne Houby-Nielsen -- Taras and sea silk / Francesco Meo -- Dal bisso grezzo al filato di bisso = From raw sea silk to byssus thread / Assuntina Pes and Giuseppina Pes -- Dyeing wool and sea silk with purple pigment from Hexaplex trunculus / Inge Boesken Kanold -- Recent advances in the understanding of the chemistry of Tyrian purple production from Mediterranean molluscs / Chris Cooksey -- Mari(ne) purple : Western textile technology in middle Bronze Age Syria / Elena Soriga -- The spread of purple dyeing in the eastern Mediterranean : a transfer of

technological knowledge? / Christoph Kremer -- Sacred colours : purple textiles in Greek sanctuaries in the second half of the 1st millennium BC / Cecilie Brøns -- "A Lydian chiton with a purple fringe..." : the gift of the garment to the Hera of Samos and Hera of Sele / Bianca Ferrara -- Purple for the masses? : shellfish purple-dyed textiles from the quarry workers' cemetery at Strozzacapponi (Perugia/Corciano), Italy / Margarita Gleba, Ina Vanden Berghe, Luana Cenciaioli -- Historical outline and chromatic properties of Purpura rubra Tarentina and its potential identification with purple dye extracted from Bolinus brandaris / Fabienne Meiers -- "Purple wars" : fishing rights and political conflicts concerning the production of marine dyes in Hellenistic Greece / Carmen Alfaro Giner and Francisco Javier Fernandez Nieto -- Purpurarii in the western Mediterranean / Benedict J. Lowe.

Sommario/riassunto

"This interdisciplinary volume presents a collection of 17 papers which treat the current state of research on two marine resources used in ancient textile manufacture, shellfish purple dye and sea silk. Purple dye is extracted from the glands of the mollusks Hexaplex trunculus, Bolinus Brandaris and Stramonita Haemastoma which through a chemical reaction of photosynthesis produces hues ranging from dark red to bluish purple color. The importance of purple dye since ancient times as a status symbol, a sign of royal and religious power is well documented. Papers include the study of epigraphical and historical sources, practical experiments as well as, highlighting the presence of purple dye in the Mediterranean area in select archaeological data. Less well known is sea silk, a precious fiber derived from the tufts of the pen shell, Pinna nobilis, with which the mollusk anchors itself to the seabed. These tufts once cleaned and bleached take the aspect of golden thread. Only a handful of artisans on Sardinia still have the knowledge of how to work these fibers from the pen shell, a species protected by the EU Habitats Directive, the knowledge having been transmitted orally for generations. Papers include linguistic issues pertaining to terminology, archaeological investigation, the study of the physical and chemical properties of sea silk and the step-by-step practical working of sea silk fibers. The comprehensive multifaceted overview makes this book a valuable resource for anyone interested in ancient textiles, dyes and textile technology"--Publisher description.

2. Record Nr. UNINA9911006687803321

Autore	Mohammadi B
Titolo	Applied shape optimization for fluids / / Bijan Mohammadi, Olivier Pironneau
Pubbl/distr/stampa	Oxford ; ; New York, : Oxford University Press, c2010
ISBN	1-5231-2123-8 9786612349157 1-282-34915-5 0-19-157421-X
Edizione	[2nd ed.]
Descrizione fisica	1 online resource (292 p.)
Collana	Numerical mathematics and scientific computation
Altri autori (Persone)	PironneauOlivier
Disciplina	620.1/06/0151
Soggetti	Fluid dynamics - Mathematics Mathematical optimization Shape theory (Topology)
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	Contents; 1 Introduction; 2 Optimal shape design; 2.1 Introduction; 2.2 Examples; 2.2.1 Minimum weight of structures; 2.2.2 Wing drag optimization; 2.2.3 Synthetic jets and riblets; 2.2.4 Stealth wings; 2.2.5 Optimal breakwater; 2.2.6 Two academic test cases: nozzle optimization; 2.3 Existence of solutions; 2.3.1 Topological optimization; 2.3.2 Suficient conditions for existence; 2.4 Solution by optimization methods; 2.4.1 Gradient methods; 2.4.2 Newton methods; 2.4.3 Constraints; 2.4.4 A constrained optimization algorithm; 2.5 Sensitivity analysis 2.5.1 Sensitivity analysis for the nozzle problem2.5.2 Numerical tests with freefem++; 2.6 Discretization with triangular elements; 2.6.1 Sensitivity of the discrete problem; 2.7 Implementation and numerical issues; 2.7.1 Independence from the cost function; 2.7.2 Addition of geometrical constraints; 2.7.3 Automatic differentiation; 2.8 Optimal design for Navier-Stokes flows; 2.8.1 Optimal shape design for Stokes flows; 2.8.2 Optimal shape design for Navier-Stokes flows; References; 3 Partial differential equations for fluids; 3.1 Introduction; 3.2 The Navier-Stokes equations

3.2.1 Conservation of mass3.2.2 Conservation of momentum; 3.2.3 Conservation of energy and and the law of state; 3.3 Inviscid flows; 3.4 Incompressible flows; 3.5 Potential flows; 3.6 Turbulence modeling; 3.6.1 The Reynolds number; 3.6.2 Reynolds equations; 3.6.3 The k - model; 3.7 Equations for compressible flows in conservation form; 3.7.1 Boundary and initial conditions; 3.8 Wall laws; 3.8.1 Generalized wall functions for u; 3.8.2 Wall function for the temperature; 3.8.3 k and ; 3.9 Generalization of wall functions; 3.9.1 Pressure correction 3.9.2 Corrections on adiabatic walls for compressible flows3.9.3 Prescribing [sub(w)]; 3.9.4 Correction for the Reichardt law; 3.10 Wall functions for isothermal walls; References; 4 Some numerical methods for fluids; 4.1 Introduction; 4.2 Numerical methods for compressible flows; 4.2.1 Flux schemes and upwinded schemes; 4.2.2 A FEM-FVM discretization; 4.2.3 Approximation of the convection fluxes; 4.2.4 Accuracy improvement; 4.2.5 Positivity; 4.2.6 Time integration; 4.2.7 Local time stepping procedure; 4.2.8 Implementation of the boundary conditions
4.2.9 Solid walls: transpiration boundary condition4.2.10 Solid walls: implementation of wall laws; 4.3 Incompressible flows; 4.3.1 Solution by a projection scheme; 4.3.2 Spatial discretization; 4.3.3 Local time stepping; 4.3.4 Numerical approximations for the k - equations; 4.4 Mesh adaptation; 4.4.1 Delaunay mesh generator; 4.4.2 Metric definition; 4.4.3 Mesh adaptation for unsteady flows; 4.5 An example of adaptive unsteady flow calculation; References; 5 Sensitivity evaluation and automatic differentiation; 5.1 Introduction; 5.2 Computations of derivatives; 5.2.1 Finite differences
5.2.2 Complex variables method

Sommario/riassunto

Examining shape optimization problems for fluids, with the equations needed for their understanding and the simulation of these problems, this text introduces automatic differentiation approximate gradients, and automatic mesh refinement.