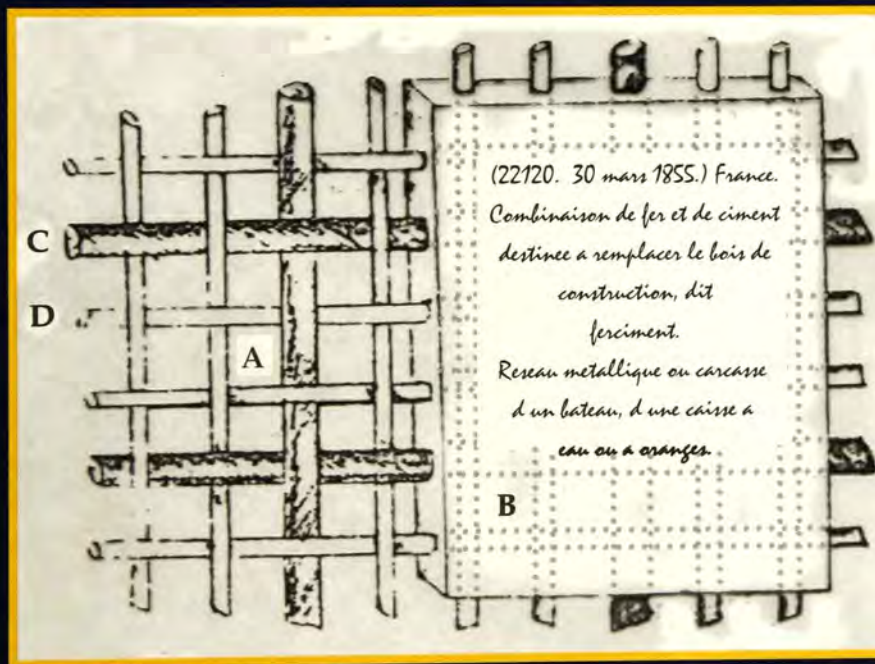


FERROCEMENT 6

Lambot Symposium

Proceedings of the Sixth
International Symposium on Ferrocement
University of Michigan, Ann Arbor, June 7-10, 1998



Edited by
ANTOINE E. NAAMAN

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LAMBOT SYMPOSIUM

Proceedings of the Sixth
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Sponsored by:

ACI - American Concrete Institute
RILEM - Reunion Internationale des Laboratoires
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Ferrocement International Network
Asian Institute of Technology
University of Michigan

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UNIVERSITY OF MICHIGAN
ANN ARBOR, MICHIGAN, 48109-2125, USA

Inventor of "ferciment" or ferrocement:



Joseph Louis Lambot

(Was born May 22, 1814, Montfort-sur-Argens, and died August 2, 1887,
Brignoles, France)

French Patent:

(22120. 30 mars 1855.) France.

*Combinaison de fer et de ciment, destinée à remplacer le bois, dit
ferciment succédant du bois de construction.*

Contents

Preface
Workshop
Acknowledgment

1. ADVANCES AND ISSUES

- IFIC and IFS: Partners for Ferrocement Technology Development and Transfer 5
L. Robles-Austriaco and R. P. Pama
- The Armature that Made History; The Boats of Joseph Louis Lambot 11
J. E. Morgan and R. Morgan
- Advanced in Science and Technology of Ferrocement 35
S. P. Shah and A. Peled
- Recent Research and Applications of Ferrocement in Singapore 53
P. Paramasivam
- Ferrocement: Environmentally Sound Technology 65
L. Robles-Austriaco
- Ferrocement: An Insight and Review - So What Is New? 75
J. M. Pemberton
- The Future of Ferrocement - Some Thoughts 85
E. Z. Tatsa

2. HOUSING APPLICATIONS: PREFABRICATED AND MONOLITHIC

- Applications of Prefabricating Ferrocement Housing in Mexico 95
A. Olvera L., F. Olvera, R. Martinez, F. Almeida, A. E. Olvera, and G. Gallo
- Residential Building Systems 109
E. Escobar Loreto de Mola and H. Wainstok Rivas
- Technology for Prefabrication and Assembling of Light Ferrocement Panels 119
S. Marrero Osorio and H. Wainstok Rivas
- Building System for Low-Cost Ferrocement Housing 129
E. F. Machado, Jr.
- Behavior of Moment Connections Between Ferrocement Half-Box Panels 139
M. A. Mansur, K. L. Tan, A. E. Naaman and P. Paramasivam
- Ferrocement Bolted Shear Joints: Finite Element Analysis & Stress Distribution 153
H. Hammoud and A. E. Naaman
- A Monolithic Ferrocement Auditorium 173
A. Fernandez and P. Montes

Ferrocement Intact Structures <i>O. Waldschlagel, N. Schneider and Stephen A. Bohlen</i>	187
3. MECHANICAL PROPERTIES	
Improvement of Punching Shear Resistance in Ferrocement Slabs <i>S.F.U. Ahmed and P. Nimityongskul</i>	203
Punching in Simply Supported Ferrocement Slabs <i>M. A. Mansur, J. Ahmad and P. Paramasivam</i>	219
Experimental and Analytical Studies on Flexural Behaviour of Ferrocement Plates <i>M. Arif, S. K. Kaushik, and Pankaj</i>	233
Flexural Behavior of Ferrocement/Concrete Composite Beams <i>H. H. Nassif, G. Chiravurri, and M. Sanders</i>	251
Compressive Behavior of Concretes with Externally Bonded Ferrocements <i>A. Shirai</i>	259
Some Investigations into the Behaviour of Welded Mesh and Its Effect on the Tensile and Flexural Performance of Ferrocement <i>M. Ranjbar, A. Nakassa, and P. J. Nedwell</i>	267
High Performance Ferrocement Using Stainless Steel Mesh and High Strength Mortar <i>P. J. Nedwell and A.S. Nakassa</i>	277
Strength of Ferrocement in Biaxial Tension <i>C.B.K. Rao and A. K. Rao</i>	285
4. DURABILITY	
High Durability Ferrocement <i>I. G. Vickridge, A. S. Nakassa, and H. Turner</i>	297
The Effect of an Aggressive Environment on the Flexural Performance of Ferrocement <i>I. G. Vickridge and M. M. Ranjbar</i>	313
The Combined Effect of Crack, Load and Aggressive Environment on the Corrosion Rate of Ferrocement Reinforcement <i>I. G. Vickridge and M. M. Ranjbar</i>	329
5. FIBER REINFORCED PLASTIC REINFORCEMENTS	
Applications of Ferrocement Principles for the Analysis of Advanced Fiber Composites <i>J. Hammel, P. N. Balaguru and R. Lyon</i>	347
Bending Behavior of Hybrid Ferrocement Composites Reinforced with PVA Meshes and PVA Fibers <i>P. Guerrero and A. E. Naaman</i>	361

Tensile and Shear Response of Angle Ply Cement Based Composites <i>G. J. Haupt and B. Mobahser</i>	375
Study of Shear Joints in Fiber Reinforced Plastic (FRP) Ferrocement Bolted Connections <i>M. Lopez and A. E. Naaman</i>	385
Tension Tests of Mortar Reinforced with Steel Meshes and Polymeric Fibers <i>M. K. El Debs and E. B. Ekane</i>	403
6. INDIGENOUS MATRICES AND FIBERS	
Cementitious Matrices Using Indigenous Materials for Ferrocement Applications <i>J. Pera and J. Ambroise</i>	417
The Microstructure of the Interfacial Zone between a Portland Cement Matrix and Fique Reinforcing Fiber <i>S. Delvasto, C. Ferrer, A. Carcel, and R. Mejia de Gutierrez</i>	431
Investigation of the Mechanisms of Toughness Generation in Natural Fiber Cementitious Composites <i>S. Delvasto, C. Ferrer, A. Carcel, and R. Mejia de Gutierrez</i>	439
Fique Fibers: Experimental Results of Flexural Testing of Fique Fiber-Reinforced Cementitious Composites <i>B. J. Hunter and A.E. Naaman</i>	449
Experimental Study on Behavior of HPSFRCC under High Velocity Impact <i>Wei Sun and Xin Luo</i>	461
7. NOTABLE STRUCTURES AND INNOVATIVE APPLICATIONS	
Ferrocement Projects in Saudi Arabia <i>F. Audrito, D. Angelotti, P. J. Jennings, and D. V. Russell</i>	473
A Multi-Purpose Ferrocement Element for Rural Applications <i>C.B.K. Rao</i>	485
Ferrocement Sandwich Walls: Research Projects by the São Carlos Group (Brazil) <i>M. K. El Debs, E. F. Machado Jr., J. B. de Hanai & T. Takeya</i>	493
Auto Prestressing Behaviour of Ferrocement under Flexural In-Service Cyclic Loading and its Practical Applications <i>P. Karunakar Rao</i>	507
Strengthening and Repair of Masonry Walls with Ferrocement Coatings <i>F. L. de Oliveira and J. B. de Hanai</i>	519
Recovery of Steel Tank by Using Ferrocement <i>H. Wainshok Rivas and B. Acosta Ramos</i>	529

Structural Design of Ferrocement Water Tanks and Swimming Pools <i>J. B. de Hanai and D. G. Pantago</i>	537
8. REGIONAL REPORTS: STATUS, PROGRESS AND PROJECT	
Ferrocement in Canada and the United States <i>M. E. Iorns and G. B. Batson</i>	551
Ferrocement Research and Development: 1994-1997 <i>R. R. Cabahug and L. Robles-Austriaco</i>	563
Problems and Prospects of Ferrocement in Italy <i>V. Barberio and R. Mattone</i>	577
Development of Ferrocement in Bolivia: Construction and Technology - National Experiences <i>O. Antezana M.</i>	585
Regional Progress Report - Mexico <i>A. Fernandez</i>	589
National Report - United Kingdom <i>P. J. Nedwell</i>	593
9. FERROCEMENT MODEL CODE	
Working Draft of the Ferrocement Model Code <i>A. E. Naaman, L. Austriaco, P. N. Balaguru, J. B. de Hanai, H. Nassif, P. Nedwell, R. Pama, P. Paramasivam, E. Tatsa</i>	599
Calibration of the New Ferrocement Model Code <i>H. H. Nassif</i>	679
List of Participants	691
Author Index	696
Subject Index	697

Preface

"Ferciment" or ferrocement is truly the first invention of reinforced concrete, the most used construction material in the world. The main difference between them relates mostly to scale. Reinforced concrete uses larger size reinforcing bars instead of wires or meshes, and a concrete binder, which, unlike cement paste and mortar, contains larger size aggregates. Ferrocement is a thin composite made with a cement based mortar matrix reinforced with closely spaced layers of relatively small wire diameter mesh. The mesh may be made of metallic or other suitable materials. The fineness of the mortar matrix is designed to allow full encapsulation of the reinforcing mesh system.

Ferrocement was invented by a Frenchman, Joseph Louis Lambot, in 1848. In spite of the fact that the rapid development of reinforced concrete stifled the development of ferrocement until the second half of the 20th century, today there is a new revival in the use of ferrocement in applications where its desirable properties cannot be matched by other materials, such as strength, toughness, water-tightness, lightness, durability, and environmental stability. An extraordinary confluence of new technologies and a large market for housing products worldwide could bring a revolution in the way ferrocement is used. Moreover, the increasing availability of advanced materials such as fiber reinforced plastic (FRP) meshes or mats, and either high performance cementitious matrices or indigenous matrices, provide new opportunities for ferrocement to expand its range of applications far beyond what has been achieved to date. Since these advances are expected to materialize in the coming century, there is a need to pause, review the state of the art, and reflect on the future.

The Sixth International Symposium on Ferrocement, is dedicated to Lambot and falls on the 150th anniversary of the invention of ferrocement. It is one of a continuous series of symposia which takes place once every four years under the sponsorship of the International Ferrocement Society based at the Asian Institute of Technology in Bangkok.

The primary objectives of this Symposium are to provide a compendium of up-to-date information on the most recent developments and research advances in the field of ferrocement and thin cement based laminates, to allow a forum of world specialists to share their knowledge of and experience in ferrocement, to foster cooperation and technical exchanges between researchers and practitioners in the field, to identify current technical gaps as well as future research needs, and to suggest directions to follow.

Particular features of the Symposium include: presentation and discussion of the first Ferrocement Model Code, which is sponsored by the International Ferrocement Society; status of ferrocement in different regions of the world and near future progress; review of recent notable structures and innovative applications of ferrocement; ferrocement prefabricated and monolithic housing or elements; the use of fiber reinforced plastic meshes; the use of indigenous matrices and fibers; durability; research advances and scientific perspective for the near future.

The organizers wish to express their deep appreciation to all those who have contributed papers to the Symposium, and to the many who have worked to make it happen.

Antoine E. Naaman
Ann Arbor, Michigan
April 1998

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Acknowledgments

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