Curriculum Vitae

Family Name: Binda First Name: Luigia Date of Birth: October 6, 1936 Nationality: Italian

Education/ Professional Studies:

Institution: Politecnico of Milan, Faculty of Architecture

Date : 1936

Degree/ Diploma: Graduation in Architecture

Language skills : (From 1 (notions) to 5 (excellent) for competence) (*=mother tongue)

Language	Speaking	Reading	Writing
English	5	5	5
French	4	4	4
Italian	*		

Membership in Associations

1) RILEM
2) American Masonry Society
3) British Masonry Society
4) ASS.I.R.C.CO

Membership in Technical Committees

1984-1989 - Member of RILEM Committee 76-LUM,
1983-to date - Member of NORMAL S (structures), NORMAL M (mortars) and NORMAL F (physics) Committees, Italian Ministry of Cultural and Environmental Properties.
1986-1989 - Member of the committeee for "Raccomandations on the use of sinthetic resins in repairing and consolidation of masonry structures", ASS.I.R.C.CO., (Italian Association for Repairing and Consolidation of Buildings).
1986-to date - Member of joint Committee CIBW80/ RILEM 140TSL.
1988-to date - Convenor of the TG2 "Test methods for masonry units" of CEN/TC 125/WG4.
1992-1997 - Chairman of RILEM Committee 127MS.
1992-to date - Member of RILEM TAC (Technical Advisory Comittee)
1994-1996 - Chairman of RILEM TAC
1993-to date - Member of the CEN TC250/SC6PT4
1996-to date - Member of RILEM TC 167 COM
1996-to date - Member of RILEM TC MMM
1997-to date - Chairman of RILEM TC 177 MDT

Academic Career

1963-1977 Research Assistant, Faculty of Architecture, Politecnico, Milan, Italy.
1977-1983 Assistant Professor, Faculty of Engineering, Politecnico, Milan, Italy.
1983-to Oct.1990, Associate Professor, Faculty of Architecture, Politecnico, Milan, Italy.
From November 1990, Full Professor, Faculty of Architecture, Politecnico, Milan, Italy.

Research Interests and Current research program

Prof. Binda is interested on: preservation and structural restoration of ancient buildings; non destructive evaluation of structures; material decay due to aggressive environment; mechanical behaviour of brick and stone-masonry, long term behaviour of heavy masonry structures, study of repair techniques. Author of over 200 publications.

Prof. Binda is currently working at the following research program:
a) Evaluation of the physic-mechanical decay of masonry structures, by in situ nondestructive investigation and laboratory tests.
b) Influence of aging due to salt crystallization on the mechanical properties of brick masonries.
c) Investigation of the bond strength between mortars and bricks.
d) Characterization of ancient lime mortars through chemical-physical analyses and microscopical observation.
e) Experimental research on the effectiveness of strengthening techniques of masonry materials.
f) Experimental investigation and modelling of the time-dependent and fatigue mechanical behaviour of existing masonries.

A three-lateral contract CRN-NSF (Binda, Atkinson, Rossi) was supporting subject a), a ECC contract is financed research on points a), b), c); a) BRITE ECC contract is financing research on radar tests applied to masonry. Research b) was supported by ECC (European Economic Community) with a joint contract "Environment" with TNO-Delft, Leuven Univ.-Belgium and Hamburg Univ., and with a joint contract "Environment" with TNO, Delft and KIK-IRPA, Brussels, and Research c) is now supported by (European Economic Community) with a joint contract "Costs" with LRMH (F) and TNO.B.CBO-Belgium; and "Repointing" with TNO, Delft and KIK-IRPA, Leuven Univ. -Belgium, JET (Spain). Research d) was supported by a three year contract supported with CNR-GNDT (Group of National Defense from Earthquakes).

Research e) was supported by a three year contract with MURST (Ministry of University, Research and Technology); and is now supported by MURST-Cofin 1998. Research subject e) was studied in a "Jumelage" contract in collaboration with Laboratoire Central des Ponts et Chaussèes, Paris and the Politecnic Athen, Greece, supported by CEE (European Economic Communites) in 1988 and by a MURST (Italian Ministry of University, Research and Technology). Research f) was supported by an ENEL-CRIS contract.

Research Contracts with private organizations and/or public organization are supporting the investigation and diagnosis of the following historic buildings: (i) Bell-tower of Monza (MI), (ii) Cascina Rosa in Milan, (iii) Cascina Chiesa Rossa in Milan, (iv) S. Vitale in Ravenna, (v) Lunigiana historic centers, (vi) Bell-tower of Cremona, (vii) Cathedral of Noto, (viii) Ispica City Hall, (ix) Sortino Convent and Theater, (x) St. Crocefisso Church in Noto.

Publications (most relevant in the last years):

Binda L., Rocca P., Squarcina T., Deterioration of masonry surfaces and of surface treatments: experimental results on full-scale models, The Masonry Society Journal, Vol.14, N.2, pp.25-36, 1996.

Binda L., RILEM Committees, RILEM TC127-MS: Tests for masonry materials and structures, Materials and Structures, Vol. 29, pp. 459-475, 1996.

Binda L., Modena C., Baronio G., Abbaneo S., Repair and investigation techniques for stone masonry walls, in Construction and Building Materials, Vol. 11, N.3, pp. 133-142, 1997.

Schuller M.P., Berra M., Atkinson R., Binda L., Acoustic Tomography for Evaluation of Unreinforced Masonry, in Construction and Building Materials, Vol. 11, N.3, pp. 199-204, 1997.

Baronio G., Binda L., Lombardini N., The role of brick pebbles and dust in conglomerates based on hydrated lime and crushed bricks in Construction and Building Materials, N. 133, pp. 1-8, 1997.

Baronio G., Binda L., Study of the pozzolanicity of stone bricks and clays, in Construction and Building Materials, N. 134, pp. 1-6, 1997.

Binda L., Facchini M., Mirabella Roberti G., Tiraboschi C., Electronic Speckle Interferometry for the deformation measurement in masonry testing, Construction and Building Materials, N.5, Vol. 12, pp. 269-281, 1998.

Binda L., Lenzi G., Saisi A., NDE of masonry structures: use of radar test for the characterisation of stone masonry, NDT & Evaluation International, Vol. 31, N.6, pp. 411-419, 1998.

Binda L., Saisi A., Tiraboschi C., Investigation procedures for the diagnosis of historic masonries, Contruction and Building Materials, Vol.14(4), pp. 199-233, 2000.

Binda L., Tiraboschi C., Flat-Jack Test as a Slightly Destructive Technique for the Diagnosis of Brick and Stone Masonry Structures, Int. Journal for Restoration of Buildings and Monuments, Int. Zeitschrift fur Bauinstandsetzen und Baudenkmalpflege, Zurich, pp. 449-472, 1999.

Binda L., Saisi A., Tiraboschi C., Application of Sonic Tests to the Diagnosis of Damage and Repaired Structures, Acc. For Publ. Int. Journal Non-Destructive Testing and Evaluation, 2000.

Anzani A., Binda L., Mirabella Roberti G., The Effect of Heavy Persistent Actions into the Behaviour of Ancient Masonry, Accepted for publ. Materials and Structures, 2000.

Binda L., Saisi A., Tiraboschi C., Application of Sonic Tests to the Diagnosis of Damage and Repaired Structures, Acc. For Publ. Int. Journal Non-Destructive Testing and Evaluation, 2000.

Garavaglia E., Lubelli B., Binda L., Two Different Stochastic Approaches Modelling the Decay Process of Masonry Surfaces Over Time, RILEM, Matériaux et Constructions, CD-ROM, 2001.

Valluzzi M.R., Binda L., Modena C., Experimental and Analytical Studies for the Choice of Repair Techniques Applied to Historic Buildings, RILEM, Matériaux et Constructions, CD-ROM, to appear, 2001.

Binda L., de Vekey R. RILEM TC 177-MDT Workshop: On Site Control and Non Destructive Evaluation of Masonry Structures, Materials and Structures, Vol. 35, pp.443-444, 2002.

Miquel A., Bromblet P., Vergès-Belmin V., Binda L., Baronio G., De Witte E., De Clercq H., Van Hees R., Brocken H., Experiments on the Compatibility of a Polysiloxane Treatment with Substrates Loaded with Sodium Sulphate: Influence of the Physical Properties of Substrates on the Salt Content Limit, Int. Journal for Restoration of Buildings and Monuments (IJR), Vol. 8, n.2/3, pp. 271-292, 2002.

Modena C., Valluzzi M.R., Tongini Folli R., Binda L., Design Choices and Intervention Techniques for Repairing and Strengthening of the Monza Cathedral Bell-Tower, Construction Building Materials, Special Issue, 16(7), pp. 385-395, 2002.

Binda L., Saisi A., Zanzi L., Sonic tomography and flat-jack tests as complementary investigation procedures for the stone pillars of the temple of S. Nicolo l'Arena (Italy), NDT and E International, v 36, n 4, June, 2003, p 215-227

Van Hees, R.P.J., Binda L., Papayianni I., Toumbakari, E., Characterisation and damage analysis of old mortars, Materials and Structures/Materiaux et Constructions, v 37, n 273, November, 2004, p 644-648

Binda L., Saisi A., Research on historic structures in seismic areas in Italy, Progress in Structural Engineering and Materials, v 7, n 2, April, 2005, pp. 71-85

Valluzzi M.R., Binda L., Modena C., Mechanical behaviour of historic masonry structures strengthened by bed joints structural repointing, Construction Building Materials, Vol. 19, n. 1, pp. 63-73, 2005

Binda L., Zanzi L., Lualdi M., Condoleo P., The use of georadar to assess damage to a masonry Bell Tower in Cremona Italy, Construction Building Materials, Vol. 38, n. 3, pp. 171-179, 2005