



Dir. PD Ao. Univ.-Prof. Mag. Dr. Wolfgang Neubauer

Address:

Ludwig Boltzmann Institute
for Archaeological Prospection and Virtual Archaeology
Hohe Warte 38
A-1190 Wien

Phone: +43 664 60277 40304

E-mail: Wolfgang.Neubauer@archpro.lbg.ac.at

Homepage: archpro.lbg.ac.at
vias-geo.univie.ac.at

Date/Place of Birth: September 14th 1963, Altstätten/CH

Nationality: Austria

Civil Status: married, 4 children

EDUCATION

University of Vienna:

2008 Habilitation, Prehistoric Archaeology: Interdisciplinary Field Archaeology
2000 Dr. Phil., Prehistoric Archaeology: Magnetic Prospecting in Archaeology
1993 Mag. Phil., Prehistoric Archaeology, Archaeometry and Mathematics
1984-1993 Studies of Prehistory, Archaeometry and Mathematics

Vienna University of Technology

1985-1993 Studies of Mathematics and Computer Science

2003 Training "3D Laser Scanning", Riegler LMS

1993 Qualification "Systemadministrator for SUN OS"

1991 Training Ground Penetrating Radar, GSSI Inc., University of Patras

1991 Training "Interpretation of Aerial Photos", Leica, Switzerland

1969-1982 Primary, Secondary and High School in Altstätten & Heerbrugg, Switzerland

EMPLOYMENT HISTORY

Research:

2010-present	Director of the Ludwig Boltzmann Institute for Archaeological Prospection and Virtual Archaeology
1994-present	Researcher at VIAS-Vienna Institute for Archaeological Science (VB1a/hb), University of Vienna
2007-2008	Research Assistant at the Institute for Computer Graphics and Algorithms, Vienna University of Technology
2007	Visiting researcher: Xian – Qianling, China & Bermuda Maritime Museum
2006	Guest Professor, University of Applied Science, Mainz
2002	Guest Professor, Institute for Ancient History, University of Innsbruck
2002	Visiting researcher: Nara, Japan & Bermuda Maritime Museum
1996-2004	Researcher at Austrian Central Institute for Meteorology and Geodynamics, Dept. of Geophysics, Archeo Prospections® Team
1994-1995	Research Assistant at the Institute for Prehistory and Early Medieval History, University of Vienna: "Set-up of a Magnetic Prospection System for Archaeology"

Teaching:

2011-present	Speaker of the PhD College for Archaeological Prospection
2009-present	Professor at VIAS-Vienna Institute for Archaeological Science, University of Vienna
1995-2008	Senior Lecturer, Institute for Pre- and Protohistory, University of Vienna: "GIS-applications in archaeology, geophysical prospection in theory and practice, statistics, archaeological stratigraphy in theory and practice, geodesy for archaeologists, digital documentation of excavations"
2003, 2006	Lecturer at the Fachhochschule Mainz for GIS in Archaeology
2002	Visiting Professor, Institute of Ancient History, University of Innsbruck
1998-1999	Lecturer at the Institute for Pre- and Protohistory, University of Innsbruck: "Geophysical Prospection"

Others:

2008	Curator of the Exhibition "Blick in die Tiefe", Flavia Solva, Styria
2003-2005	Curator of the County Exhibition of Lower Austria 2005 at Heldenberg
1980-1984	Journalist for culture and science, Switzerland

RELATED ACTIVITIES AND EXPERIENCE

2010-2017	Director of Archaeological Landscape Prospection Projects in Vestfold (N), Birka (S), Uppåkra (S), Stonehenge (UK), Carnuntum(A), Flavia Solva (A), Stubersheim (D), Kilianstädten (D), Kreuttal (A)
2013	Organisation of the international conference on Archaeological Prospection 2013
2008-2012	Project coordinator, "AstroSim – Simulation of astronomical aspects of Middle Neolithic circular ditch systems"
2008 – 2012	Editor of the Journal "ViaVIAS"
2008	Organisation of the international conference "35 years Harris Matrix"
2007-2008	Project coordinator, European Researchers' Night project "CelticNight"
2004	Project coordinator "Scanning of the Great Pyramid"
2002-present	Field-director of over 30 national and international 3D laser-scan surveys
1985-present	Field-director of over 200 national and international archaeological-geophysical surveys applying magnetometry, GPR, resistivity mapping and magnetic susceptibility surveys
1983-present	Director of 9 short & long-term archaeological excavations in Austria and Switzerland
1994-present	Presentations on international conferences (17 invited papers, 45 papers, 41 posters) mainly on archaeological prospection and excavation methods
1990-present	Author of over 200 publications mainly on archaeological prospection and excavation methods
2002-present	Associate Editor of the Journal "Archaeological Prospection"
1992-2008	Project coordinator: The Schwarzenbach Project (www.celtovation.at)
2003-2005	Project coordinator: „Himmelskult der Steinzeit? - Sozio-kulturelle und archäo-astronomische Untersuchung der Kreisgrabenanlagen in Niederösterreich“
2003-2004	Project coordinator: „Virtual Modeling of Circular Ditch Systems“
2002-2004	Scientific coordinator and field director: „Systematic Prospection of Neolithic Circular Ditch Systems in Austria“
2001	Organisation of the international conference on Archaeological Prospection 2001

Relevant Skills: Project management, coordination of research teams, interdisciplinary communication, public relations, fund raising, scientific event organisation, communication of science to the public, motivation of young researchers, scientific networking, IT software specification

Awards: Austrian Champion in European Research 2008

Memberships: International Society for Archaeological Prospection (ISAP), Gesellschaft für Naturwissenschaftliche Archäologie, Archäologie Schweiz, Österr. Gesellschaft für Ur- und Frühgeschichte, Österr. Gesellschaft für Mittelalterarchäologie

SELECTED PUBLICATIONS

Neubauer, W., Gugl, C., Scholz, M., Verhoeven, G., Trinks, I., Löcker, K. et al. (in Press): The discovery of the school of gladiators at Carnuntum, Austria. In: *Antiquity*.

Neubauer, Wolfgang; Trinks, Immo; Salisbury, Roderick B.; Einwögerer, Christina (Hg.) (2013): *Archaeological Prospection. Proceedings of the 10th International Conference on Archaeological Prospection*. Wien, Austria, May 29th - June 2nd 2013. Wien: Verl. der Österr. Akad. d. Wiss.

Gaffney C, Gaffney V, Neubauer W, Baldwin E, Chapman H, Garwood P, Moulden H, Sparrow T, Bates R, Löcker K, Hinterleitner A, Trinks I, Nau E, Zitz T, Floery S, Verhoeven G, Doneus M. 2012. The Stonehenge Hidden Landscapes Project. *Archaeological Prospection* 19: 147-155.

Neubauer W, Doneus M, Trinks I. 2012. Advancing the Documentation of Buried Archaeological Landscapes. *International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences XXXIX-B5*: 547-552.

Zotti G, Neubauer W. 2012. A Virtual Reconstruction Approach for Archaeoastronomical Research. In *Proceedings of the 18th International Conference on Virtual Systems and Multimedia - Virtual Systems in the Information Society, IEEE, Milano 2012*, Guidi G, Addison AC (eds); 33–40.

Verhoeven G, Doneus M, Briese C, Neubauer W, Doneus N, Trinks I, Hinterleitner A, Pregesbauer M. 2012. Latest developments in remote sensing of Roman urban and rural sites in Austria. In *Proceedings of the RAC 2012 - The Roman Archaeology Conference 10*, Frankfurt 2012.

Zotti G, Neubauer W. 2011. Astronomical Aspects of Kreisgrabenanlagen (Neolithic Circular Ditch Systems) - An Interdisciplinary Approach. In *Archaeoastronomy and Ethnoastronomy: Building Bridges between Cultures, Proceedings of*

the 9th "Oxford" International Symposium on Archaeoastronomy (IAU Symposium 278), Lima, Ruggles CLN (ed.). Cambridge University Press; 1743-9213.

Doneus M, Verhoeven G, Fera M, Briese Ch, Kucera M, Neubauer W. 2011. From deposit to point cloud – A study of low-cost computer vision approaches for the straight forward documentation of archaeological excavations. In Proceedings of the 13th International CIPA Symposium Prague 2011, Geoinformatics CTU FCE; 81-88.

Doneus M, Neubauer W, Verhoeven G, Briese C. 2011. Advancing Archaeological Airborne Remote Sensing. Core Concepts of the LBI-ArchPro Initiative. In Archaeological Prospection. 9th International Conference on Archaeological Prospection, Izmir-Turkey, Drahor MG, Berge MA. Archaeology and Art Publications: Istanbul; 12-15.

Ch'ng E, Chapman H, Gaffney V, Murgatroyd P, Gaffney C, Neubauer W. 2011. From Sites to Landscapes: How Computing Technology Is Shaping Archaeological Practice. *Computer* 44/7: 40-46.

Melichar P, Neubauer W (eds). 2010. Mittelneolithische Kreisgrabenanlagen in Niederösterreich. Geophysikalisch-archäologische Prospektion – ein interdisziplinäres Forschungsprojekt. *Mitteilungen der prähistorischen Kommission* 71.

Lobisser WFA, Kucera M, Neubauer W. 2010. 11 Years of the Celtic Festival in Schwarzenbach / Lower Austria and the EU-Project Researchers' Night 2007. In *liveARCH – Living history in archaeological open air museums*, Schöbel G (ed.). Unteruhldingen; 50-58.

G. Zotti, W. Neubauer, P. Schneidhofer, R. Totschnig. Simulation of astronomical aspects of Middle Neolithic circular ditch systems. *Archeo Sciences, revue d'archéométrie, Suppl.* 33, 2009, 379-382.

Erich Nau, Wolfgang Neubauer, Hans Reschreiter. 3D laser scanner documentation of prehistoric tunnels at Hallstatt-Grünerwerk. In: Anreiter P. et al., *Mining in European History*. Innsbruck 2009, 88.

Michael Doneus, Wolfgang Neubauer. GIS-based documentation of stratigraphic excavations using terrestrial laser scanners. In: Anreiter P. et al., *Mining in European History*. Innsbruck 2009, 90.

A. Hinterleitner, S. Seren, K. Löcker, W. Neubauer, E. Bayirli. Data Processing and Image Enhancement of GPR surveys of Roman villas in Austria. *Archeo Sciences, revue d'archéométrie, Suppl.* 33, 2009, 299-302.

Christoph Traxler, Wolfgang Neubauer. The Harris Matrix Composer - A New Tool to Manage Archaeological Stratigraphy. In: *Digital Heritage, Proceedings of the 14th International Conference on Virtual Systems and Multimedia - Cyprus*, 13-20, 2008.

Wolfgang Neubauer, Michael Doneus. Digital recording of stratigraphic archaeological excavations using terrestrial 3D laser scanners. *ViaVIAS 02*, 2008, 45-52.

Wolfgang Neubauer. From Practice to Theory – Expanding the stratigraphic recording into real 3D. *ViaVIAS 02*, 2008, 31-36.

Michael Doneus, Wolfgang Neubauer. Aerial Archaeology and airborne laser scanning at the Iron Age hillfort Schwarzenbach-Burg. *ViaVIAS 02*, 2008, 53 – 59.

Wolfgang Neubauer, Nikolaus Studnicka. The Scanning of the Pyramids Project. *ViaVIAS 01*, 2007, 4-13.

Wolfgang Neubauer, Laser Scanning and Archaeology – Standard Tool for 3D Documentation of Excavations. *GIM international – The global magazine for Geomatics*. Vol. 21, issue 10, 2007, 14-17.

Doneus, M. & Neubauer, W., Laser scanners for 3D documentation of stratigraphic excavations. In: Baltsavias et al. (eds) *Recording, Modeling and Visualization of Cultural Heritage*, Taylor & Francis, London, 2005, 193-203.

W. Neubauer, M. Doneus, N. Studnicka, J. Riegl. Combined High Resolution Laser Scanning and Photogrammetrical Documentation of the Pyramids at Giza. In: Dequal S. (Ed.) *Proceedings of the XXth International Symposium CIPA, Torino 2005. The International Archives of Photogrammetry, Remote Sensing and Spatial Information Sciences, Vol. XXXVI-5/C34/1*, 2005, 470-475/226-231.

Doneus M., Neubauer W., 3D laser scanners on archaeological excavations. In: Dequal S.: (Ed.) *Proceedings of the XXth International Symposium CIPA, Torino 2005. The International Archives of Photogrammetry, Remote Sensing and Spatial Information Sciences, Vol. XXXVI-5/C34/1*, 2005, 226-231.

Neubauer Wolfgang. GIS in Archaeology – The Interface between Prospection and Excavation. *Archaeological Prospection* 11, 2004, 159-166.

- Groh, S., Neubauer, W. (2003). Einsatz eines terrestrischen 3D-Laserscanners in Ephesos. Jahreshefte des ÖAI in Wien, Bd. 72, 2003, 111-122.
- Neubauer W, Eder-Hinterleitner A, Seren S, Melichar P. 2002. Georadar in the Roman Civil Town Carnuntum / Austria: An approach on archaeological interpretation of GPR data. *Archaeological Prospection* 9: 135-156.
- Groh S, Neubauer W, Seren S, Eder-Hinterleitner A, Löcker K. 2002. Geophysikalische Messungen im nordöstlichen Stadtteil von Flavia Solva: Interpretation und archäologisch-historische Auswertung. *Sonderschriften des ÖAI* 71: 79-132.
- Neubauer W. 2002. Archaeological Prospection – A Special Application in eCulture. In *Viewdet 2002, Vienna International Working Conference – eLearning and eCulture*, Riedling E (ed.); 203-214.
- Neubauer W, Eder-Hinterleitner A, Melichar P, Steiner R. 2001. Improvements in high resolution archaeological magnetometry. *Prospezioni Archeologiche* 11: 113-134.
- Eder-Hinterleitner A, Neubauer W. 2001. Reconstructing neolithic ditches by magnetic modelling. *Prospezioni Archeologiche* 11: 45-63.
- Doneus M, Eder-Hinterleitner A, Neubauer W. 2001. Archaeological Prospection 4th International Conference on Archaeological Prospection, Vienna, Doneus M, Eder-Hinterleitner A, Neubauer W (eds). *Austrian Academy of Sciences: Vienna*; 11-33.
- Neubauer W. 2001. Images of the Invisible - Prospection methods for the documentation of threatened archaeological sites. *Naturwissenschaften* 88: 13-24.
- Neubauer W. 2001. Magnetische Prospektion in der Archäologie. *Mitteilungen der Prähistorischen Kommission* 44, Verlag der Österreichischen Akademie der Wissenschaften: Wien
- Neubauer W, Eder-Hinterleitner A, Seren S, Melichar P, Doneus M. 2000. Kombinierte archäologische Prospektion am Beispiel der römischen Zivilstadt Carnuntum. *Carnuntum Jahrbuch* 2000: 27-52.
- Neubauer W, Eder-Hinterleitner A, Seren S, Doneus M, Melichar P. 1998-1999. Kombination archäologisch-geophysikalischer Prospektionsmethoden am Beispiel der römischen Zivilstadt Carnuntum. *Archaeologia Austriaca* 82-83: 1-26.
- Neubauer W, Eder-Hinterleitner A. 1997. 3D interpretation of postprocessed archaeological magnetic prospection data. *Archaeological Prospection* 4: 191-205.
- Neubauer W, Eder-Hinterleitner A. 1997. Resistivity and magnetics of the roman town Carnuntum / Austria: An example of combined Interpretation of prospection data. *Archaeological Prospection* 4: 179-189.
- Doneus M, Eder-Hinterleitner A, Neubauer W. 1997. Combination of geomagnetics and low altitude aerial photogrammetry in archaeology. *International Archives of Photogrammetry and remote sensing* 32(Part 5C1B): 84-89.
- Neubauer W, Melichar P, Eder-Hinterleitner A. 1996. Collection, visualization and simulation of magnetic prospection data. *Analecta praehistorica Leidensia* 28: 121-129.
- Eder-Hinterleitner A, Neubauer W, Melichar P. 1996. Reconstruction of archaeological structures using magnetic prospection. *Analecta praehistorica Leidensia* 28: 131-137.
- Eder-Hinterleitner A, Neubauer W, Melichar P. 1996. Restoring magnetic anomalies. *Archaeological Prospection* 3: 185-197.
- Neubauer W. 1995 *Flums-Gräpplang. Eine spätbronzezeitliche Siedlung in der Schweiz. Bd. 1 Rebberg Ost, Grabungen 1967-1982*, Buchs.
- Neubauer W. 1990. Geophysikalische Prospektion in der Archäologie. *Mitteilungen der anthropologischen Gesellschaft in Wien* 120: 1-60.