



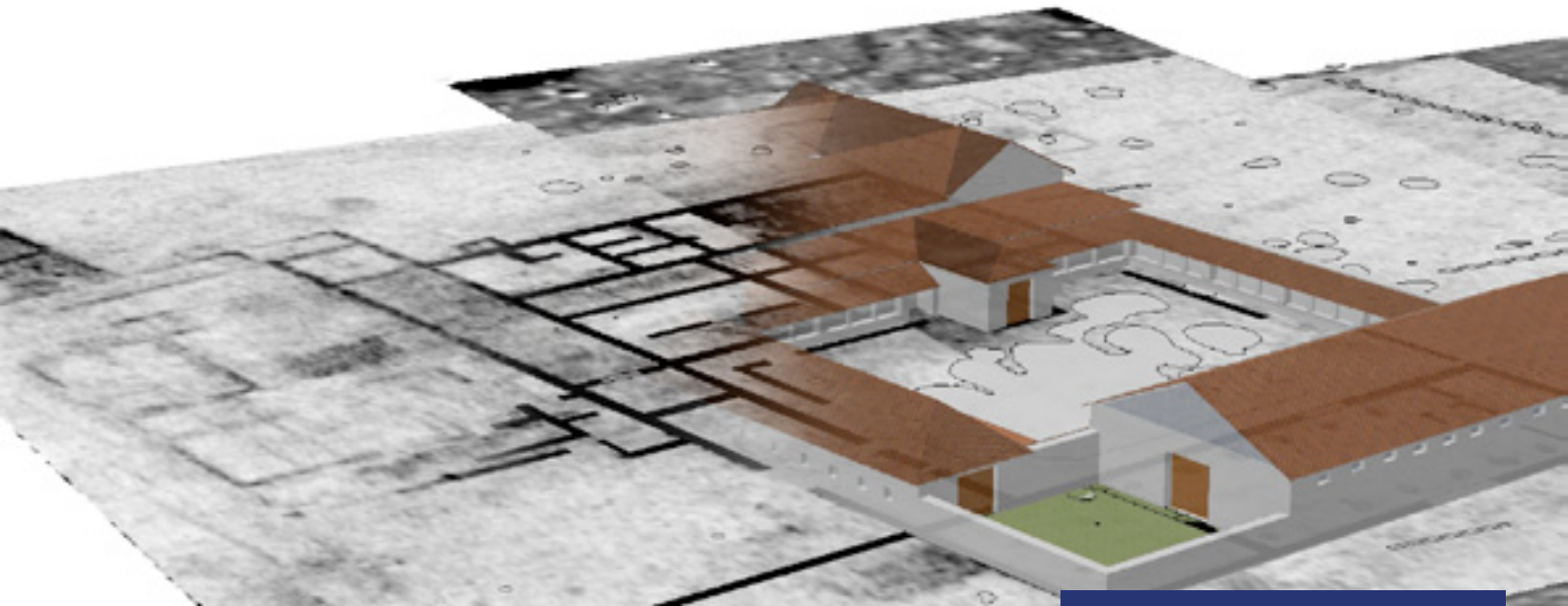
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9<sup>th</sup> – 12<sup>th</sup> October 2011  
Laa an der Thaya, Austria

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# International Conference and Workshop

## «Pioneering Archaeological Prospection»



# International Conference and Workshop «Pioneering Archaeological Prospection»

## OBJECTIVE

An international conference and workshop, «Pioneering Archaeological Prospection», has been organized to encourage pioneers in Archaeological Prospection to meet with current researchers and with the next generation of researchers. The conference is being aimed at an impetus towards saving the documentation of the history of Archaeological Prospection and describing the state-of-the-art and future perspectives in non-invasive archaeological research. It is an initial workshop of the newly founded PhD College for Archaeological Prospection at the University of Vienna (IC-ArchPro), initiated by the Ludwig Boltzmann Institute for Archaeological Prospection and Virtual Archaeology (LBI-ArchPro) and its European Partners.

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PROGRAMME	
<b>SUNDAY</b> 9 OCTOBER 2011	Arrival at Thermenhotel Laa an der Thaya
REGISTRATION	17:00–18:00
PIONEER'S DINNER	18:00

### THE HISTORY OF ARCHAEOLOGICAL PROSPECTION

<b>MONDAY</b> 10 OCTOBER 2011	9:00–9:30	Registration and Coffee	14:30–16:00	John Belshé: Honorary paper
	9:30–9:45	Opening of Conference		Otto Braasch: Aerial Archaeology
	9:45–10:30	Martin Aitken: Honorary paper		Yasushi Nishimura: Geophysical Prospection
BREAK	10:30–10:45	BREAK	16:00–16:15	
	10:45–11:30	Irwin Scollar: Honorary paper	16:15–17:00	Herwig Friesinger: Prospection in Austria
	11:30–12:00	Mike Tite: Honorary paper		Helmut Becker: Magnetic Prospection
	12:00–12:30	Albert Hesse: Honorary paper		
LUNCH BREAK	12:30–14:30	WINE RECEPTION	17:00–18:00	
		CONFERENCE DINNER	18:30	

### STATE-OF-THE-ART IN ARCHAEOLOGICAL PROSPECTION

<b>TUESDAY</b> 11 OCTOBER 2011	9:30–11:00	Michael Doneus: Aerial Archaeology and LIDAR	14:30–16:00	Klaus Löcker: GIS-based Archaeological Interpretation
		Geert Verhoeven: Airborne Imaging Spectroscopy		Dominic Powlesland: Prospecting Archaeological Landscapes
		Chris Gaffney: Geophysical Prospection		Vincent Gaffney: Large Scale Archaeological Prospection
BREAK	11:00–11:15	BREAK	16:00–16:15	
	11:15–12:30	Jörg Fassbinder: Magnetometry	16:15–16:45	Wolfgang Neubauer: The LBI-initiative and the future of Archaeological Prospection
		Immo Trinks: Ground Penetrating Radar		
		Michel Dabas: Motorized Geophysics	16:45–17:00	Final Discussion
LUNCH BREAK	12:30–14:30	SPEAKER'S DINNER	18:30	

### WEDNESDAY

12 OCTOBER 2011

PROSPECTOR'S  
BREAKFAST 8:00–10:00

10:00–15:00 Individual Meetings  
and Workshops

**MONDAY**  
10 OCTOBER 2011  
9:45–10:30

**MARTIN AITKEN**

Martin Aitken was born 1922. His education in physics at Oxford University was interrupted by war service as a Technical Radar Officer in Ceylon (Sri Lanka) and Burma (Myanmar). After completion of his Oxford doctorate he undertook research in nuclear physics using a small electron synchrotron. In 1957 he joined the University's newly-formed Research Laboratory for Archaeology as Deputy Director. He became a Fellow



of Linacre College in 1965 and Professor of Archaeometry in 1985. He retired in 1989. He has written several books, including Physics & Archaeology, Thermoluminescence and Dating, Science-based Dating in Archaeology, Optical Dating.

Besides Magnetic Prospection, his major research projects were in dating: using Thermoremanent Magnetism (TRM), Thermoluminescence (TL) and Optically-stimulated Luminescence (OSL). Magnetic Prospection began in 1958 with a survey at Water Newton (near Peterborough, England). This was at the invitation of archaeologist Graham Webster and followed the prediction made by John Belshé, that buried pottery kilns, and some other archaeological features, would cause a slight disturbance in the intensity of the earth's magnetic field at ground level. The instrument used for detection was a proton free precession magnetometer and was a portable transistorised version of the electronic valve version that had been tried by the British military for the detection of plastic mines; this version needed a small truck for transportation but apart from that drawback it had been abandoned on account of 'soil noise'. Following the success of the first survey the basic proton magnetometer was used on many archaeological sites in Britain and in other parts of the world both by Martin Aitken and by others.

**MONDAY**  
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10:45–11:30

**IRWIN SCOLLAR**

Irwin Scollar was born in 1928 in New York City. He completed his BSc degree in Electrical Engineering at the Lehigh University in 1948. He graduated from Columbia University in 1951, where he studied Classical Archaeology. In 1959 he received his PhD in Prehistoric Archaeology at Edinburgh University. He moved to Germany in 1959 to work at the Rheinisches Landesmuseum in Bonn. He retired in 1991.

Important milestones of his professional career in Archaeological Prospection were the introduction of systematic aerial photography from 1959, the systematic research and appliance of geophysical prospecting from 1960 and the computer evaluation of archaeological sites in Germany from 1961. One of his great achievements was the design and installation of the first large scale system for computer image processing in archaeology in 1975. The volume «Archaeological Prospection» published by Scollar et al. is still a standard, summarizing his important contributions to this field of research.

In addition to his work at the Rheinisches Landesmuseum, he received a lectureship at Bonn University between 1961 and 1966. From 1970 to 1974 he was consultant to the Gesellschaft für Mathematik und Datenverarbeitung for image processing methods. In 1980 he held a lectureship at the University of Cologne in computer methods for archaeology and in 1989 he received an honorary professorship at Cologne.



## MIKE TITE

Mike Tite finished his BA in Physics in 1960 at the University of Oxford, where he also received his doctors degree about Thermoluminescence dating at the Research Laboratory for Archaeology and the History of Art 1964. After his work at the Department of Ceramics, University of Leeds as research fellow the Department of Physics, University of Essex as lecturer and the Research Laboratory at the British Museum he gained a professorship of Archaeological Science at the Research Laboratory for Archaeology and the History of Art/Oxford from 1989–2004.

He was still a DPhil student during his earliest involvement in archaeological prospection. He was actively involved in development of first proton gradiometer («bleeper»), and proton magnetometer surveys at archaeological sites (Iron Age hillforts, pottery kiln sites, iron smelting sites including in Nigeria). Between 1964–1971 he took responsibility for the proton magnetometer survey at the

Iron Age/Romano-British town of Dragonby, Lincolnshire, surveying an area of some six hectares, and from 1967–1975 he undertook research with Chris Mullins into (1) principles of electromagnetic surveying (continuous current and pulsed induction systems) for detection of archaeological features and (2) factors determining the magnetic susceptibility of archaeological soils in England and Italy with Richard Linington.

From 1992–1995 he supervised a DPhil project concerning the use of ground penetrating radar for detection of archaeological features.

In 2010 he assisted in magnetometer and resistivity surveys at the Minoan cemetery on Crete.

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## ALBERT HESSE

Albert Hesse was born 1938, Casablanca/Morocco and studied Engineering at the «Ecole Nationale supérieure des Arts et métiers» from 1960. In 1964 he received his Docteur-ingénieur at the Paris University. From 1960 -1999 he was working as a researcher at the «Centre national de la recherche scientifique» (CNRS) and from 1982-1987 he became director at the «Centre de recherches géophysiques», Garchy/France. He was member at the Standing Committee «International Archaeometry Symposium» and since 1984 he is member at the «Comité des

travaux historiques et Scientifiques» (CTHS), Paris, section Pré- et Protohistoire, (Ministère de l'éducation nationale, France). From 1993-1999 he was associate editor for «Archaeometry» (Oxford) and from 1994-1999 associate editor for «Archaeological Prospection» (Bradford). From 1976-1987 he was a founding member, General Secretary and President of «Groupe des méthodes pluridisciplinaires contribuant à l'archéologie» (GMPCA); «Revue d'archéométrie». He was awarded «Chevalier de l'Ordre des arts et lettres» (Ministère de la culture, France) in 1986. His field work within



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archaeological prospections included various methods like archive studies, aerial and pedestrian observation, surface collections and geophysics which he accomplished in several countries: France (including Antilles), Mexico, Honduras, England, Poland, Portugal, Spain, Italy, Tunisia, Cameroon, Mali, Burundi, Madagascar, Greece, Turkey, Lebanon, Israel, Egypt, Sudan, Ethiopia, United Arab Emirates, Iran, Uzbekistan, India, Sri Lanka and Indonesia. His scientific contributions in archeometry are in archeomagnetism, metrology, archaeological statistics.

Albert Hesse aux mesures sur la terrasse de l'Apadana.  
Ex Le Palais de Darius a Suse  
Une résidence royale sur al route de Persepolis s Babylone,  
Jean Perrot (dir.): Pups.

## JOHN C. BELSHÉ

From 1950–1956 John Belshé passed the civil service professional examination for entry into the U.S. Geological Survey, and subsequently had geophysical exploration experience from North to South America. In 1953 he went to Cambridge University, England, completing his master's degree in geophysics to begin research in rock magnetism. In 1956–1963 he joined the staff of the Dept. of Geodesy and Geophysics. During this period he worked with the firing of the Calke Woods Experimental Kiln, the Little Newton pre-dig surveys, collaboration with Prof. Thellier of Paris, a fellowship at the British School at Athens (where a magnetometer was installed as part of the International Geophysical Year), sampling in North Africa, surveys in the Dead Sea rift valley for scroll related materials, a conference on archaeological prospection in London in 1962, and the beginning of magnetic measurement of marine sediments in the Pacific Ocean at the Scripps Institution of Oceanography. From 1964–1967 his major focus lay on supporting the Mohole Deep Drilling project at Scripps and later as Professor of Applied Oceanography at the University of Hawaii. He assisted archaeological investigations by the University on the island of Hawaii,

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principally through aerial photography, soil testing, computer support, and database organization. John worked with a subsidiary of the Ling Tempco Vought Corporation in the final testing and subsequent operation of the Barking Sands tracking range between 1967 and 1970. He organized onsite support for the Lapakahi dig on Hawaii with time shared computing for the University of Hawaii. Later he joined the research staff of the Oceanic Institute on Oahu to plan and assist deepwater habitat engineering and research. He founded the E-Cubed Science Services Collaborative in Honolulu in 1970 and conducted environmental studies in Hawaii and Micronesia as well as obtaining registration as a Professional Civil Engineer. Between 1972 and 1975 he became



Chief Environmental Planner for the Pacific Ocean Division of the U.S. Army Corps of Engineers. He conducted surveys and environmental impact studies for sites in Samoa, Guam, Micronesia, Okinawa and the state of Hawaii. From 1975–1992 John served in the Headquarters of the Civil Works Branch of the U.S. Army Corps of Engineers, Washington DC, first as a review staff member of the Board of

Engineers for Rivers and Harbors (including 14 months as a Congressional Fellow), then as Chief of Environmental Planning for a nationwide workforce of some 550 professionals which included about 60 archaeologists. In 1992–1997 he worked as staff scientist with the Environmental Protection Agency, first in the Statistics Branch and later in the Federal Activities Branch.

## OTTO BRAASCH

Born on the 14th of November 1936 in Kutenholz/Germany. In 1956 he earned a licence as glider pilot already. In 1958 he joined Luftwaffe/Germany for officer and jet pilot training and graduated in 1961 from the USAF AWX Jet Fighter Training Perrin AFB TEX, USA. From 1961–1980 he held various posts as pilot, squadron commander, operations officer, and deputy wing commander at fighter units as well as staff tour at Luftwaffe HQ in MOD Bonn/Germany. He left the Luftwaffe to pursue his flying passion with a



strong interest in archaeology and history.

With the camera Otto Braasch has explored the European heritage from the air for more than 25 years covering everything from the Neolithic to the 20th century. From 1980 onwards his reconnaissance flights, covered areas around the whole of Europe. Between 1980–1989 he undertook permanent air surveys for the Bayerisches Landesamt für Denkmalpflege and from 1989 until today has been flying for the Landesamt für Denkmalpflege Baden-Württemberg. He has held various lectures at Universi-

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ties around Europe (University of Innsbruck, Freie Universität Berlin, Universität Jena, University of Pécs, Hungary, a.o.)

He has been indefatigable in his search for new sites across our new and expanded Europe in particular taking the opportunities afforded by the end of the Cold War. Otto Braasch takes the highest quality images. He has over 60 publications to his credit, including articles, reports in annual journals and chapters in books. Otto Braasch has provided photographs for many exhibitions, including the RAPHAEL project in 1996 which was exhibited in Prague and Dresden. He was awarded the European Archaeological Heritage Prize for 2001. He is still conducting a schedule of 800 to 900 hours of aerial photography every year.

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14:30–16:00

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**YASUSHI NISHIMURA**

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Yasushi Nishimura (\*1942) studied archaeology and started his career in 1969

at the Department of Nara Palace Site Excavation, National Research Institute for Cultural Properties in Nara where he was also engaged in excavations on Palace and Temple sites.

In 1975 he started at the Centre for Archaeological Operations, National Research Institute for Cultural Properties, Nara where he also studied archaeological prospection. He initiated various important research programs, including «The Development of Advanced Archaeological Prospecting Methods» starting in 1992 and «Wide Area Archaeological Site Investigation Using Ground Penetrating Radar» starting in 1997, both funded by the Ministry of Education, Culture, Sports, Science & Technology in Japan. He also initiated the establishment of the «Japanese

Society for Archaeological Prospection». He organized several Conferences and field surveys, such as «2nd International Conference on Archaeological Prospection» in Ise, Japan and the field survey on Siem Reap area archaeological sites as a part of a research programme by the National Research Institute for Cultural Properties, Nara.

Since 2003 he has been director of protection and preservation of cultural heritage in the Asia and Pacific region in Cultural Heritage Protection Cooperation Office, Asia/Pacific Cultural Centre for UNESCO (ACCU Nara Office).

In 2006 Yasushi participated as a lecturer in the XVth International Field School in Archaeology organised by University of Sienna, Italy. He is a honorary member of ISAP and emeritus researcher and visiting researcher of the National Research Institute for Cultural Properties, Nara, Japan.

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**HERWIG FRIESINGER**

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Herwig Friesinger was born in 1942 in Klosterneuburg. After his studies at the University of Vienna he first worked as an assistant at the Institute for Prehistory and Early Mediaeval History and after his postdoctoral lecture qualification (Habilitation) he received a professorship in 1978. From 1978–1992 he was head of the Institute for Prehistory and Early Mediaeval History, University of Vienna and from 1992 Dean of the Faculty of Humanities at the University of Vienna.

His most important works include projects in Austria as well as abroad, such as the Stone Age settlement on the Carribean Islands of St. Lucia, Barbados and St. Vincent since 1983 or the systematic exploration of the prehistoric and early mediaeval settlements in the area

around the Kamptal/Lower Austria. In 1992 he became a member of the Austrian Academy of Sciences, in 1994 the Czech Academy of Sciences and from 2003 to 2009 he was acting as General Secretary of the Austrian Academy of Sciences.

He set his main scientific focus on the Prehistory of Austria and the Early Mediaeval History of Europe where he established research networks for landscape archaeology. He developed and promoted different prospection methods as well as the integration of natural sciences into daily archaeological work for the preservation of cultural heritage. He initiated the development and the permanent installation of systematic aerial prospection within Austria and founded the department of restoration at the Institute for Prehistory and Early Mediaeval History. His initiative formed the basis for the development and institutionalization of Archaeological Prospection in Austria.

**HELMUT BECKER**

Helmut Becker was born in Trautenau (Bohemia) in 1944. He studied physics and geosciences at Munich University from 1965–1971 and received his diploma in geophysics on the topic of magnetometry in Iceland and started a second study of archaeology at Munich University in 1973–1979. In 1978 he wrote his dissertation in geophysics about magnetometry over the neo-volcanic zone in Northeast-Iceland for the evaluation of seafloor spreading. From 1977–1982 he directed the research project «Archaeo-Prospection and Archaeomagnetism» at the Volkswagen Foundation at the Geophysical Institute of Munich University, establishing a laboratory for archaeomagnetic dating and the development of geophysical prospecting methods (mainly cesium-magnetometry).

From 1982–2006 he worked at the Bayerisches Landesamt für Denkmalpflege (BLfD), where he established a laboratory for digital processing of aerial photos and geophysical prospection following the work of Scollar. At BLfD he acted as the director of the Department «Archaeological Prospection and Aerial Archaeology». He became a member of the German Archaeological Institute in 2001. He retired from BLfD in 2006 and in 2007 he founded «Becker Archaeological Prospection». Helmut Becker is still actively promoting caesium-magnetometry and is working all over the globe. Some of his main prospection projects include the detection of the Lower City of Troy, Demircihüyük, Bogazköy, Sirke-lihüyük (Turkey), Assur, Uruk (Iraq), Palmyra, Resafa, Munbaqa, Tall Bazi (Syria), Awsan-



Hagar Yahir, Mahrib (Yemen), Ras al Jinz, Ras al Hadd (Oman), Dashur, Giza, Saqqara, Qantir-Piramesse, Luxor (Egypt), Suchanica, Cicach, Tuva (Siberia), Tekirbay Depe, Togolog (Turkmenistan), Sazargan, Kefir Kala (Uzbekistan), Sarasm (Tajikistan), Uivar, Cornesti-Iarcuri (Romania), Durankulak (Bulgaria), Vale de Rodrigo, Monte da Ponte, Alcalar, Perdigoes, Xancra, Moreiros2, Monte do Olival, Carascal (Portugal), El Argar, Ambrona, Cerro de la Virgen, Navarra-Los Cascajos, Metallana, Fuente Salina, Paredes de Nava (Spain), Aiali, Ascoli Satriano, Fabrateria, Ostia, Pantelleria, Ravenna Classe, Vale Celone (Italy), Hindwell Neolithic enclosure (Wales, GB), Sigiriya, Dambula (Sri Lanka), Lothal (India) and Neolithic city of Liangzhou and Wah ze Gang – residence of Emperor Qin ze Huang di (China).



## TUESDAY

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9:30–11:00

## MICHAEL DONEUS

After studying in Vienna, he has been employed at the Department of Prehistoric and Early Mediaeval Archaeology, University of Vienna since 1993. He is the director of the aerial archive founded by Friesinger at this department and has 15 years of experience in archaeological remote sensing. He is specialized in aerial archaeology, ALS, photogrammetry, surveying and GIS and has an international reputation as a committee member of the Aerial Archaeology Research Group, and as Vice-President of the ICOMOS & ISPRS committee for the Documentation of Cultural Heritage (CIPA). He wrote his postdoctoral lecture qualification (Habilitation) on landscape archaeology. Since 2011 he has been Professor at the Department for Prehistoric and Early Mediaeval Archaeology of the University Vienna. He is deputy director of the Ludwig Boltzmann Institute for Archaeological Prospection and Virtual Archaeology.



## GEERT VERHOEVEN



Geert Verhoeven (\*1978) received the Master's degree in archaeology from Ghent University in 2002. Seven years later, he obtained a PhD degree for his work on the development of new technologies and data processing procedures for the benefit of archaeological aerial reconnaissance. Besides his work as a part-time UGent professor, Geert currently focuses on archaeological airborne imaging spectroscopy, semi-automated orthophoto production and advanced aerial photographic techniques, research that is conducted in the framework of the LBI for Archaeological Prospection & Virtual Archaeology. His main research interests concern remote sensing technology and methodology, (scientific) photography, geomatics and archaeological computing.

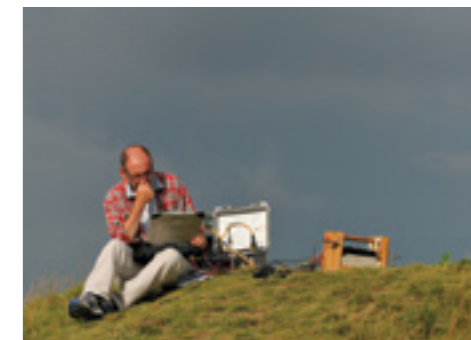
## CHRIS GAFFNEY

Chris Gaffney was appointed to the staff at Bradford in October 2007. His link with Bradford goes back to the 1980s as he has undertaken both undergraduate and postgraduate degrees at this university. Having completed doctoral research (in Earth Resistance) Chris formed a commercial archaeological geophysical company with John Gater. GSB Prospection became the largest group working in Britain. In the summer of 2007 Chris was awarded an Honorary Doctorate for popularising archaeological geophysics via Time Team and other media opportunities.

He teaches both undergraduate and MSc students as well as developing commercial avenues in prospecting. Over the last two decades Chris has researched and published on many aspects of Archaeological Science.

The articles reflect his interest in topics as diverse as philosophy of science, TL dating, Trace Element Analysis and commercial aspects of prospecting. While he has focussed much of his attention on intra-site interpretation, he is currently working on elements of landscape analysis, with particular interests in methodological developments and visualisation as aide to interpretation.

Since 2004 he has been the Editor of Archaeological Prospection and is the current Chairman of ISAP. He is the course director for the MSc in Archaeological Prospection at Bradford.



## JÖRG FASSBINDER

Jörg Fassbinder was born in 1954 in Heidelberg/Germany and studied geophysics at the Ludwig-Maximilians-Universität München, where he received his diploma in 1985 (Diplomarbeit: Bau einer Apparatur zur Bestimmung der Zeitabhängigkeit der magnetischen Anfangsuszeptibilität und Messung an Titanomagnetiten). In 1993 he finished his PhD thesis and in 2009 his postdoctoral lecture qualification (Habilitation) for the subject of geophysics. After intensive work at the departments for the preservation of monuments of Bavaria and Baden-Württemberg he worked together with Becker at the BLfD, where he currently is acting as head of the department for Archaeological Prospection and Aerial Archaeology. Jörg Fassbinder is a leader and contributor to various national and international prospection projects in co-operation with e.g. the Eurasia Department and the Oriental Department of the German Archaeological Institute within South-Siberia, Kasachstan, Jemen, Irak, Iran, Syria and Egypt (since 1996). His other important projects include the coopera-



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tion with the Hermitage Museum St. Petersburg/Russia for the exploration of prehistoric settlements (since 2006) and the collaboration with UNESCO World heritage Bavaria. These are examples of the important contribution of Jörg Fassbinder to enhance the circulation and the development of archaeological prospection. He is a member of a number of international societies like ISAP, or ICOMOS (UNESCO) as well as a founding member of GNAA (Gesellschaft für Naturwissenschaftliche Archäologie und Archaeometrie).

## IMMO TRINKS

Immo obtained a PhD in exploration geophysics from Cambridge University in 2004 and has within the past 17 years worked with and for several internationally outstanding archaeological prospection teams (BLfD, Kiel University, ZAMG). He has considerable experience in high-resolution near-surface geophysical prospection, the latest technological developments, geophysical data processing and interpretation, advanced processing of laser scanner data, 3D data visualization, and scientific programming.



Immo is familiar with both academic research projects and commercial applications (involving marketing and project management) at an international level.

Since March 2005 Immo has been in the setup and operation of a new geophysical archaeological prospection unit at the Department for Archaeological Excavations at the Swedish National Heritage Board. Since April 2010 he has been employed at the LBI ArchPro, focusing as a key researcher on Archaeological Geophysical Prospection.



## MICHEL DABAS

Michel Dabas, born in Paris in 1961, first experimented with electrical methods for archaeological detection in 1978. He got his geophysics diploma from the School and Observatory of the Earth (EOPGS) in Strasbourg in 1984 and graduated from Strasbourg University (DEA) in 1985. From 1985 to 1989, he joined the team of A. Hesse and A. Tabbagh and completed his PhD Thesis at Paris VI University on the Magnetic Behavior of soils in the frequency and time-domain, Application to the survey

of Archaeological sites. During this period, he developed both laboratory instruments for measurement of the magnetic properties of soil - following the pioneering work of Tite, Mullins and Scollar - and the first continuous electrical system for surveying

archaeological sites: the RATEAU.

He joined CNRS in Garchy as a full time researcher in February 1991 and Paris VI University in 1997. He extended his fields of research to air-borne thermal IR measurements, GPR and Electrostatic systems. Since 1994, he has introduced geophysical techniques and methods to Soil Science. With the aim of introducing geophysical methods within the French Rescue Archaeological community, he also co-founded Terra NovA Ltd in England (1993) and Terra NovA sarl in France (1995).

In 2001, he decided to set up a spin-off from CNRS: GEOCARTA SA in order to develop industrially the first ARP© system dedicated to Precision Farming (Precision Agriculture). Geocarta has developed new technologies which are always aimed at the fast mapping of large areas: the EMP (Electromagnetic) and AMP (Magnetics) towed systems, concerns about multi-channel GPR systems and GIS solutions. M. Dabas became associate researcher of ENS (École Normale Supérieure) in 2010.

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**KLAUS LÖCKER**

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Klaus Löcker is an archaeologist and researcher within the team of the LBI ArchPro. He studied at the University of Vienna at the Institute for Prehistory and Early Mediaeval History. Since 2000 he has been assistant lecturer at the Institute for Prehistory and Early Mediaeval History, Vienna. Moreover, he held lectures at the Universities of Innsbruck/Austria and Bochum/Germany. He has also been part of the team Archeo Prospections®/ZAMG, Vienna since November 2000. Klaus is responsible for the organisation and execution of high-resolution geophysical prospection surveys, archaeological interpretation of geophysical data, development of geophysical measurement systems and presentation of prospection data. He has advanced IT skills in GIS, Image Processing, Web-Design and CAD.

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**DOMINIC POWLESLAND**

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Dominic Powlesland has been deeply committed to archaeology ever since he joined a local excavation in Colchester at the age of 11. By the age of 16, he was engaged on projects in Winchester, and, soon after, in York. As Director of the Landscape Research Centre, he has run an extended programme of survey and excavation in the Vale of Pickering at West Heslerton. Running now for more than 30 years, the Heslerton project has no parallels anywhere else in Britain and, indeed, the world. Dominic



and his small team had to develop an entirely original approach; from the use of large scale geophysics to the development of original analytical software, has now been widely adopted by many agencies around the world. It is also now available on Google Earth, where the data are being made freely open to all. What makes Dominic's work all the more remarkable is that it has been as much about the contemporary landscape as the past. For over 30 years he has taken great pains to involve local communities, and to bridge the unhelpful gap between commercially funded archaeology and academic research.

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**VINCENT GAFFNEY**

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Professor Vince Gaffney is Chair in Landscape Archaeology and Geomatics in the IAA at Birmingham and VISTA Executive Director. He is also Director of Research and Knowledge Transfer in the College of Arts and Law. His research interests include GIS and computer-based applications in archaeology. Recent projects include mapping the inundated landscapes of the Southern North Sea, historic landscape characterisation at Fort Hood (Texas), internet mapping of the Mundo Maya region and web-based GIS' and virtual representations to explore the landscape of Stonehenge. He is currently Co-PI with Dr Georgios Theodoropoulos on an agent-based model of the logistical context of the battle of Manzikert (1071). Professor Gaffney is a member of the Cyrene Archaeological Project and leads the UK team creating 3D and virtual imaging of the remains at Cyrene and an extensive programme of geophysical survey exploring the unexcavated and largely unknown areas of the city.



#### WOLFGANG NEUBAUER

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Wolfgang (\*1963) grew up in Switzerland and started archaeological excavation at the age of 15. He studied archaeology, archaeometry, mathematics and computer science at the University of Vienna and the University of Technology, Vienna. He received his PhD in Prehistoric Archaeology for his thesis on Magnetic Prospection in Archaeology in 2000. Since 1985, he has been applying and developing geophysical prospection methods for the detection and documentation of archaeological sites. He co-founded the team ZAMG Archeo Prospections® and worked in this interdisciplinary group from 1996–2003. In 2008 he received the *venia docendi* at the

Institute for Prehistory and Early Mediaeval History of the University Vienna for his post-doctoral lecture qualification (*Habilitation*) on «Interdisciplinary Field Archaeology». He is currently employed as Professor at the interdisciplinary excellence research platform VIAS, the Vienna Institute for Archaeological Science, focussing on Geophysical Prospection, Geodesy and Photogrammetry. He teaches Archaeological Prospection, GIS, stratigraphy and geodesy at the Institute for Prehistory and Early Mediaeval History (UFG) at the University of Vienna. He has been professionally involved in the development and application of advanced archaeological geophysical prospection and the integrated archaeological interpretation of prospection data for more than 15 years. He is currently acting as the director of the Ludwig Boltzmann Institute for Archaeological Prospection and Virtual Archaeology.

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16:15 – 16:45

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#### INITIATIVE COLLEGE FOR ARCHAEOLOGICAL PROSPECTION

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The multidisciplinary Initiative College for Archaeological Prospection IC-ArchPro, established in 2011 by a group of scientists from the Department of Earth Sciences, Geography and Astronomy and the Faculty of Historical-Cultural Sciences of the University of Vienna, is dedicated to the development of novel techniques and methodological concepts for landscape archaeology based on state-of-the-art multidisciplinary archaeological prospection and spatial analysis.

The IC-ArchPro research concentrates on the development of efficient and universally applicable non-destructive methods and techniques for the detection, documentation, investigation, visualisation and integrative interpretation of archaeological landscapes. The main

#### IC-ARCHPRO

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UNIVERSITÄT WIEN  
CO VIAS – VIENNA INSTITUTE FOR  
ARCHAEOLOGICAL SCIENCE

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focus is set on the combination of remote sensing, geophysics, geomatics and geology and their application to archaeological research.

The IC-ArchPro includes PhD students into the development and application of cutting-edge technology and integrated GIS-based spatial analysis and interpretation approaches, with the goal of highlighting important archaeological landscapes in Europe by visualising and analysing otherwise virtually invisible cultural heritage sites. The interdisciplinary approach will lead to a new quality of training for the PhD students due to the unique combination of theoretical and practical training in Vienna and in different European countries.

## LUDWIG BOLTZMANN INSTITUTE

The Ludwig Boltzmann Institute for Archaeological Prospection and Virtual Archaeology (archpro.lbg.ac.at), a research institute of the Ludwig Boltzmann Gesellschaft, was founded in 2010. The institute carries out its research activities together with several international partner organisations, and aims to create a network of archaeological scientists supporting interdisciplinary research programmes for the development of large scale, efficient, non-invasive technologies for the discovery, documentation, visualisation and interpretation of Europe's archaeological heritage. The main partners of the institute which is based in Vienna, are the University of Vienna (A), the Vienna University of Technology (A), the Austrian Central Institute for Meteorology and Geodynamics (A), the Province of Lower Austria (A), Airborne Technologies (A), RGZM-Roman-Germanic Central Museum Mainz (D), RAÄ-Swedish National Heritage Board (S); IBM VISTA-University of Birmingham (GB) and NIKU-Norwegian Institute for Cultural Heritage Research (N).

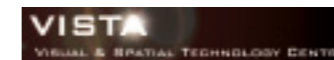


## LBI-ARCHPRO

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## PARTNERS



**LUDWIG BOLTZMANN GESELLSCHAFT –  
SCIENCE FOR THE PEOPLE**

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The Ludwig Boltzmann Gesellschaft\*, which was founded in 1960, is a private sponsor of research establishments in Austria. Its Institutes deal with questions relating to medicine, humanities, social sciences and cultural sciences. It is named after the great Austrian physicist, mathematician and philosopher Ludwig Boltzmann, whose broad scientific interests still remain the basis for the interdisciplinarity of the Ludwig Boltzmann Gesellschaft today.

The LBG, which is financed from public and private resources, is divided into Institutes and Clusters and currently employs more than 250 people. Following a comprehensive organisational reform in 2002, Ludwig Boltzmann Institutes (LBI) have been set up on the basis of calls for proposals and international evaluation procedures. Ludwig Boltzmann Institutes are characterised in particular by their cooperation with institutional partner organisations.

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\* «Ludwig Boltzmann Gesellschaft», often abbreviated to «LBG», means «Ludwig Boltzmann Society».  
As «Ludwig Boltzmann Gesellschaft» and «LBG» are corporate names, they have not been translated.

**LBG GMBH**

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