The Transformation of Europe in the Third Millennium BC

Part I

Proceedings of the International Conference
Riva del Garda, Trento, Italy, 25–28 October 2023

Edited by
Franco Nicolis, Gabriella Kulcsár,
and Volker Heyd

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The Yamnaya Impact on Prehistoric Europe

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ERZSÉBET JEREM and WOLFGANG MEID

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THE YAMNAYA IMPACT ON PREHISTORIC EUROPE

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Front Cover

The Maritime Bell Beaker from Ensisheim
(Reguisheimer Feld, obj. #8347, Haut-Rhin, France)
Photo by Isabelle Déchanez-Clerc, Sélestat
Permission: Archéologie Alsace
A special thanks to Loïc Jammet-Reynal, Lausanne, and Muriel Roth-Zehner, Sélestat

Back Cover

Detail of the decorated bottom of the Bell Beaker from Santa Cristina di Fiesse (Brescia, Italy)
Photo by Elena Munerati, Trento
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Transformation, Part 1 – Introduction

In many ways, the Glockenbecher Symposium in Oberried in 1974 (Lanting – Van der Waals 1976) marked a significant milestone in the modern research history of Bell Beakers. It was a first major attempt to bring together scholars working on this fascinating yet puzzling phenomenon that continues to challenge our understanding of European prehistory. Exactly 24 years later, in May 1998, the first international Bell Beaker conference at Riva del Garda (hence Riva del Garda I) called 'Bell Beakers Today' followed in this tradition. Its proceedings, published in Nicolis 2001, offered a state-of-the-art overview at the time, incorporating both traditional archaeological approaches and the first cautious steps towards integrating new scientific methods. It was Kristian Kristiansen who stated in his review of the Riva del Garda I proceedings, that: "We are perhaps for the first time beginning to see the contours of a historical explanation of the Bell Beaker phenomenon, one that is able to account for both its unity and regional complexity" (Kristiansen 2004).

Now, another quarter-of-a-century have passed, and once again, Riva del Garda has hosted the international Bell Beaker community. The Riva del Garda II conference, held in October 2023, brought together researchers from across Europe (*Fig. 1*). This present volume, now published in 2025, gathers the contributions from that meeting, reflecting the current state of knowledge and the many debates that continue to shape this field. In this sense, we now stand at a third generational stage of Bell Beaker research, spanning more than half-a-century. During these decades, there have been numerous other Bell

Fig. 1. All participants of the 2023 Riva del Garda II conference in the newly arranged garden next to the Centro Congressi (photo by K. Wentink)

Beaker conferences, workshops, and colloquia; many of them resulting in published proceedings. The latest among these is published with Abegg *et al.* 2022, based on the virtual Bell Beaker conference 'Bell Beaker Culture in All its Forms' organised by the University of Geneva, Switzerland, during the challenging Covid-19 period in January 2021. We will not attempt to list all these conferences and publications here; they are, in fact, frequently cited throughout the contributions in this volume.

Despite all this collective effort, Bell Beakers remain an enigma. It is still difficult to fully comprehend how, between 2700 and 2000 BC, more than half of Europe could seemingly unite under the shared symbol of a distinctively shaped and decorated drinking vessel. The question of how such cultural connectivity emerged – across immense distances and diverse communities – continues to intrigue and puzzle scholars. When Kristian wrote in 2004 that we begin to see the contours of a historical explanation of the Bell Beaker phenomenon, we are still trying, 21 years later, to grasp those contours! The rapid rise of ancient DNA research and other scientific techniques has undoubtedly opened many new windows into the prehistoric world. Yet, at the same time, what has been termed the 'Third Scientific Revolution' (Kristiansen 2014) has not simplified Bell Beaker studies. It has, rather, added new layers of complexity and debate.

The aim of this latest conference – and the structure of the present publication – is to place the Bell Beaker phenomenon within an even broader context, both in terms of time and geography. Rather than viewing Beakers in isolation, they are understood here as the culmination of wider transformations that began further east, in the Pontic-Caspian steppes of nowadays Russia, Ukraine and Moldova, during the last third of the 4th millennium BC. They stand in sequence with the 'Steppe' pre-Yamnaya, Yamnaya, Corded Wares, and finally the Bell Beakers themselves. Thus, this volume represents Part 1 of the two-part series 'Transformation of Europe in the Third Millennium BC', focusing on the Bell Beakers. A subsequent volume, Part 2, will explore the 'Steppe'-related groups themselves, and their interactions with the last descendants of the Early Neolithic farmers of Europe, particularly the Globular Amphora Culture.

However, it would simply be single-sided to regard the Bell Beaker phenomenon solely as the westernmost ripple of these east-to-west movements. There remains a genuine western and southern European dimension when it comes to their origins and establishment, expansion and pinnacle of networking, and decline and end. This is, to a good deal, due to their local cultural substrates differing very much from the east: Enduring megalithic traditions all over in the west; the complex social and economic structures of Iberia; other Chalcolithic and Late Neolithic societies in Italy, France, Netherlands and Britain, all topped by the increased circulation of metals – copper and gold – during the second half of the 3rd millennium BC. Some of the contributions in this volume will even explore the intriguing possibility that the origins of Bell Beakers lie in the far west of the continent – perhaps even independent of eastern influences altogether.

The road to Riva del Garda II

Curiously, it all began when we, Franco and Volker, accidentally bumped into each other on Kálvin tér in Budapest on September 1, 2022, close to the venue of the European Association of Archaeologists (EAA) Annual Meeting. What started as a chance meeting quickly turned into a decisive moment for Bell Beaker research. Franco shared that he would love to organise another Bell Beaker conference, especially as 2023 would mark the 25th anniversary of 'Bell Beakers Today', held in Riva del Garda in 1998. Added to that, Franco explained there were changes to come to the *Ufficio Beni Archeologici* of the Autonomous Province of Trento in northern Italy at the end of 2023, making this the perfect, and possibly last, opportunity for him to host such a meeting.

Volker, a participant at the 1998 Riva del Garda I conference, mentioned that his ERC-funded YMPACT project still had significant resources available for a concluding conference before the project's end on December 31, 2024. The original plan of holding that conference at the Hermitage in St. Petersburg in Russia had fallen through, first due to Covid-19 and then the Russian invasion of the Ukraine. The idea of joining forces for a new conference suddenly seemed very real. However, there was one complication: The ERC YMPACT topics focus more on eastern and southeastern Europe and on earlier periods, around 3000 BC and the first half of the 3rd millennium BC. Bell Beakers, in contrast, are mainly found in the west and south of Europe and belong to around 2500 BC and the second half of the 3rd millennium BC. In a way, they complement each other, but they are also, figuratively speaking, two different shoes.

Notwithstanding, we quickly confirmed our mutual interest in collaborating and promised to explore the idea of a kind of 'YMPACT – Bell Beaker – Riva del Garda' conference. In the weeks that followed, we stayed in close contact via email. Out of these discussions emerged the compromise concept: Not one huge, unwieldy conference trying to cover all of the 3rd millennium BC in one go, but rather two coordinated events under a single overarching theme: 'The Transformation of Europe in the Third Millennium BC'. The inspiration for that title came from an article Volker co-authored with Richard Harrison in 2007 (Harrison – Heyd 2007), though the idea itself can be traced back to Kristian Kristiansen to around 2005. The logical next step was to organise Part 1, to be focused on Bell Beakers, in Riva del Garda in 2023, marking the anniversary. Part 2 would then follow, focusing on the YMPACT topics. The city of Budapest, as the westernmost country with known Yamnaya occupation, and due to excellent relations with Hungarian archaeologists built over the past decade, was soon chosen as the perfect venue for Part 2. With this choice, Gabriella Kulcsár was asked to join us in organising both events. Dates were soon also fixed, with Riva del Garda II scheduled for October 2023 and Budapest in April 2024. It was also agreed that Franco would organise funding for Part 1, while Volker with his ERC grant would cover most of Part 2, and also fund the costs of publishing all conference proceedings.

In the months that followed, particularly over Christmas 2022, we gradually developed the concept through regular Zoom meetings. Those who have organised international archaeological conferences with some 25 invited contributions know what this means in terms of time, energy, commitment, and resources. However, to organise not one, but two complete conferences – Parts 1 and 2 – with more than 50 speakers, in two different locations in Europe, six months apart, and 800 km away from each other, under the same overarching topic and structure but bringing western and more eastern traditions together… What an even greater, not to say ambitious, and truly Herculean effort this turned out to be. During these Zoom meetings throughout late 2022 and early 2023, we also agreed on the basic structure of the first conference. Most importantly, we had to consider the financial limitations. Franco's available funds restricted the number of colleagues we could invite to Riva del Garda II to no more than 25, with all travel and accommodation expenses covered. The budget also dictated the number of conference days and hotel nights in Riva del Garda. Additional organisational tasks included arranging internal transport from airports to Riva del Garda, securing the venue, planning the excursion, the conference dinner, as well as providing lunches and coffee breaks. We carefully discussed how many sessions to have, which topics they should cover, and how long each presentation should be. Should we follow the typical 15–20 minutes format, or allow significantly more time? And what about keynotes? How many, and whom to invite? In the end, we settled on six sessions, 45 minutes for keynotes and 30 minutes for regular lectures, including time for questions, and overall discussion at the end of each session and day.

Having arrived in the third decade of the 21st century, we aimed for a fair balance of senior and junior scholars, gender representation, and participation from as many Beaker countries as possible, excluding much of the Bell Beaker East-Group however, as Central Europe would be more covered by

Part 2. As a consequence, we as the then organisers and now editors, in a first step put together a long list of names of those colleagues having significantly published about Bell Beakers in the last couple of years. We then selected the keynote speakers of each session, always from two different countries and ideally including both male and female researchers. Each keynote pair could, in turn, invite two or three younger colleagues to give additional talks. In January 2023, invitations were sent out, first to our keynoters, followed again by Zoom meetings to coordinate session contents and further speakers with them. All other speakers were then contacted in March. Needless to say, that nearly everyone accepted our invitations. By the summer of 2023, the program of Riva del Garda II = 'The Transformation of Europe in the Third Millennium BC, Part 1' was thus fixed. Every speaker was subsequently asked to prepare an abstract of no more than 200 words with one figure included. This resulted in a 33-pages booklet with program and abstracts, like then in 1998, edited and printed in Trento, and ready at the start of the conference.

In Riva, 25 years after

Riva del Garda II was never planned as a reunion of those who attended the first Bell Beaker conference in 1998. Nevertheless, we feel it is important to acknowledge that we could not invite everyone we would have liked to. Financial limitations, the need to balance keynote and regular speakers, considerations of country and gender representation, and, admittedly, the occasional decision with yet unknown knock-on effects, all played a role in shaping the final list of participants. As a result, some well-known Bell Beaker specialists – including some who were present in Riva del Garda I – had to be left out, and for this, we can only express our regret. In the end, only a small group of participants took part, and gave presentations, in both conferences: Marie Besse, João Cardoso, Volker Heyd, Olivier Lemercier (as part of Jean Guilaine's team giving a synthesizing overview of 'Campaniformes et environnement culturel en France méditerranéenne'), Alfredo Mederos Martin (whose co-authored paper in 1998 was read by Richard Harrison), and of course Franco. Other colleagues, including Johannes Müller and Marzena Szmyt, were rather scheduled to contribute to the 'Transformation of Europe in the Third Millennium BC, Part 2' conference. Similarly, as the Bell Beaker East-Group was widely excluded from Part 1, their scholars were not present either. Many colleagues who then attended and gave presentations have since sadly passed away. To our knowledge, these are: Paul Ambert, Enrico Atzeni, Lawrence Barfield, Giovanna Bermond Montanari, Humphrey Case, Alain Gallay, Jean L'Helgouach, Rózsa Kalicz-Schreiber, Johannes-Wolfgang Neugebauer, and Sebastiano Tusa. Let us remember them not only as good colleagues but who notably brought Bell Beaker research forwards. However, other colleagues contributed to this volume after the conference, as it was similarly done for Riva del Garda I, by invitation from the editors. These refers, in the present book, to the articles of Jan Turek (having been in Riva del Garda I), Rafael Garrido *et al*., and Marco Baioni – Raffaella Poggiani Keller – Lucia Sarti. Of the latter team, Raffaella Poggiani Keller, who sadly passed away last year, attended and Lucia Sarti even gave her own lecture in Riva del Garda I.

Organising and running a conference has changed dramatically since 1998. Back then, there was no email and Zoom, no conference website, no livestream, no recordings, and certainly no YouTube channel. Invitations were sent as real letters – Volker still fondly remembers receiving his formal letter of invitation for Riva del Garda I – and most correspondence was done by post, although the first emails were beginning to appear. The venue remained the same: the *Centro Congressi* in Riva del Garda. However, unlike 1998, there was no Bell Beaker exhibition this time, as Franco had then impressively arranged. The city centre itself has hardly changed. The picturesque lake and mountain panorama continues to provide the perfect backdrop for an international gathering. Unfortunately,

Fig. 2 All participants of the 1998 Riva del Garda I conference in the old garden next to the Centro Congressi (photo archive of the Ufficio Beni Archeologici of the Autonomous Province of Trento)

the grand lakeside hotels where every speaker stayed in 1998 were no longer affordable within today's tighter budgets. The number of participants has changed as well. In 1998, around 150 people attended, as can be seen from the then much larger group photo (*Fig. 2*). In 2023, the smaller lecture hall hosted around 80 people. Yet, thanks to modern technology, around 120 participants followed the conference online via livestream, resulting in an overall larger audience size. A conference website (https://franconicolis.wixsite.com/transformeurope1riva), livestreaming, full lecture recordings, and a dedicated YouTube channel (playlist by ELTE Humán Tudományok Kutatóközpontja [former HUN-REN Bölcsészettudományi Kutatóközpont] still available as of summer 2025 at: https://www.youtube.com/playlist?list=PLO4IEQZa_8XM7s7npYaBiP9X3UoqOqjy1) were all unthinkable 25 years ago. Now these are part of the standard experience. Likewise, while simultaneous translations in English, French and Italian were needed back then, in 2023 all presentations, discussions and contributions were given in English. Such is the accepted norm today.

Conference contents were different too, a quarter-of-a-century ago. Back then, Riva del Garda I was divided into four thematic blocs, discussing: 1) The Beaker phenomenon and ideology; 2) Research on particular regional groups; 3) Extraction of raw materials and technology; and 4) Burial rites (see also the conference review of Turek 1998). The conference then unfolded over full five days with 34 lectures altogether. An additional 30+ posters were presented too, and discussed at one prolonged lunchbreak. While questions on ideology, regional identities and prehistoric technologies are still topical, the 3rd millennium BC as seen from the 2020s looks different than from the end of the 1990s, and it is not only due to aDNA and other sciences of the 'Third Scientific Revolution', as mentioned above. New paradigms, many new exciting Beaker finds and evidences, new perspectives on both pan-European and regional issues pose new problems and raise refined questions. On the other hand, some old concepts,

Fig. 3. The organizing panel of the 1998 Riva del Garda I conference. From left to right: Franco Nicolis, Christian Strahm, Alain Gallay (†), Jean Guilaine, Lawrence Barfield (†), and Richard Harrison (photo archive of the Ufficio Beni Archeologici of the Autonomous Province of Trento)

prevalent since decades, are finally thrown out of the windows. In Riva del Garda I, Franco had then assembled an organizing committee consisting of the leading Beaker scholars of the time whose first meeting (also attended by Giovanna Bermond Montanari and Stephen Shennan) was hosted by Jean Guilaine at the Collège de France in Paris. Besides Franco, these were Lawrence Barfield, Alain Gallay, Jean Guilaine, Richard Harrison, and Christian Strahm. A special inaugural speech was given by Alain Gallay and the final discussion was led by these professors as panellists (*Fig. 3*). For Riva del Garda II, a different pathway was chosen: Initial organisation, concept and sessions were kicked off by Franco and Volker; then developed in Zoom meetings with all keynote speakers, who contributed a good deal to develop the contents of the respective sessions. *The Times they are a-changin!*

The Riva II conference unfolding

Participants began arriving throughout Tuesday, October 24, 2023, via airports in Milan, Verona, and Venice, with transfers bringing them to Riva del Garda. All were accommodated in the same welcoming hotel in the heart of the old town, fostering early conversations and a collegial atmosphere. The conference officially opened at 9:00 am on Wednesday, October 25, in the familiar *Centro Congressi* – also the venue of the 1998 symposium – with welcoming words from F. Marzatico, director of the *Unità di missione strategica Soprintendenza per i beni e le attività culturali* of the Autonomous Province of Trento, followed by a 15-minute joint introduction by Franco and Volker (*Fig. 4*).

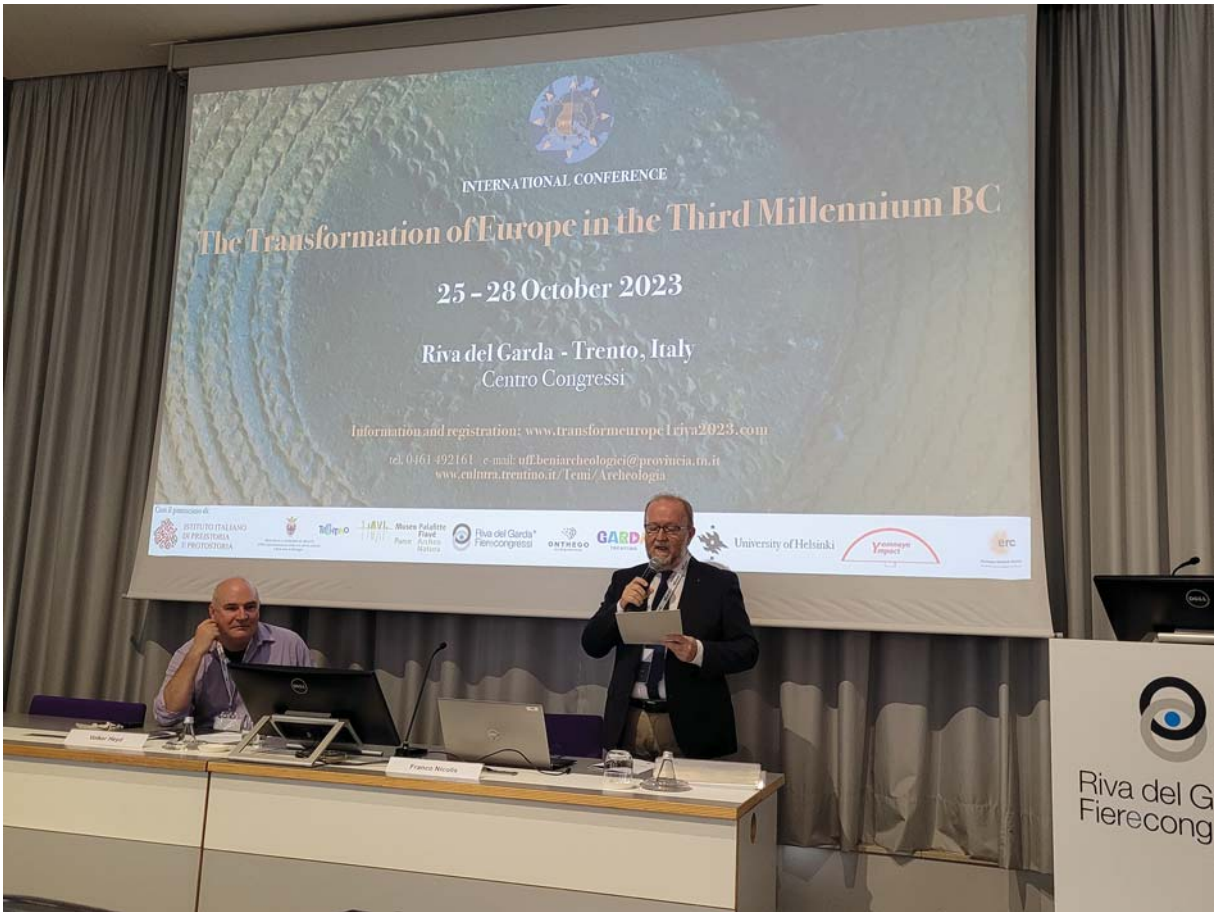
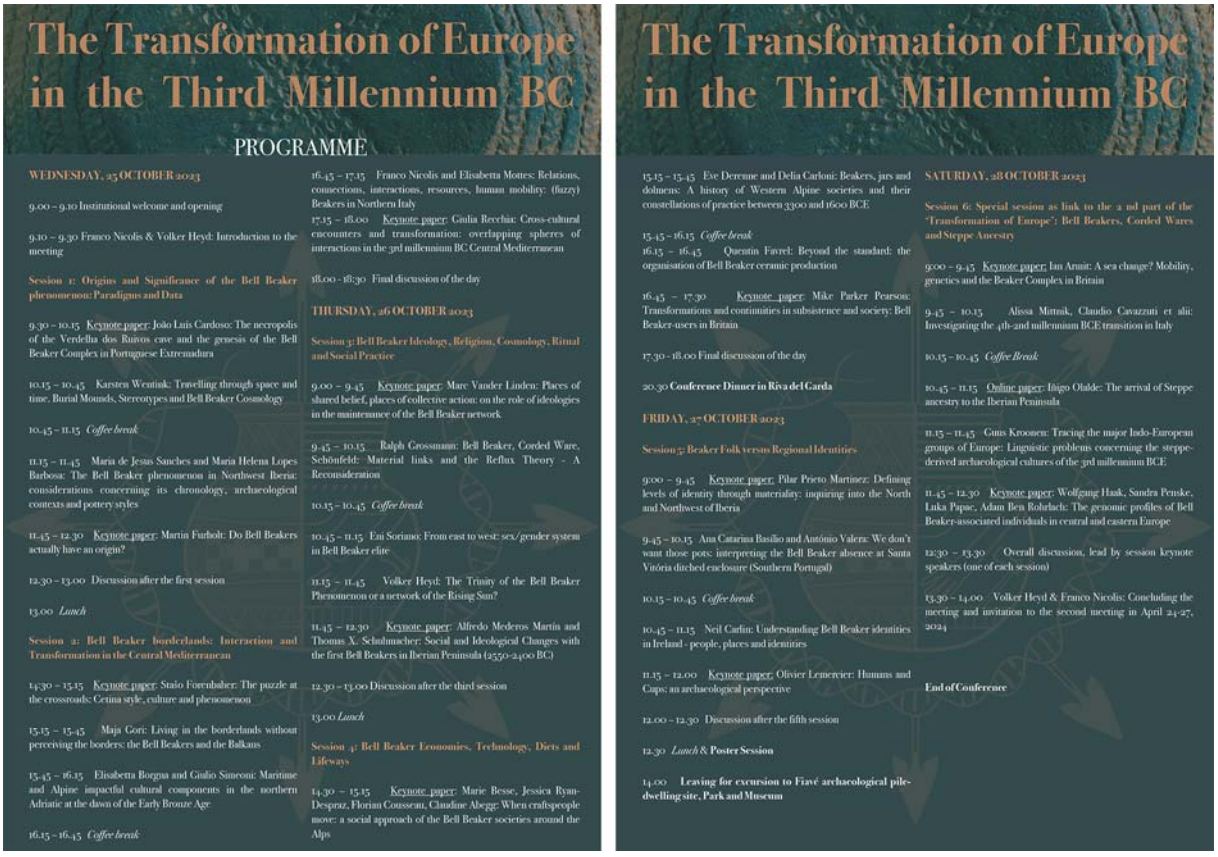


Fig. 4. Volker and Franco during their joint introduction of the 2023 Riva del Garda II conference (photo by K. Wentink)

Over the next four days, until midday Saturday, October 28, the program featured six sessions and a total of 27 presentations, including 12 keynotes (*Fig. 5*). Sessions had the following headers: 1) Origins and Significance of the Bell Beaker phenomenon: Paradigms and data; 2) Bell Beaker borderlands: Interaction and transformation in the Central Mediterranean; 3) Bell Beaker ideology, religion, cosmology, ritual and social practice; 4) Bell Beaker economies, technology, diets and lifeways; 5) Beaker folk versus regional identities; and 6) Link to the second part of the 'Transformation of Europe': Bell Beakers, Corded Wares and Steppe Ancestry.

Compared to 1998, there is still some overlap when it comes to session topics. The times do indeed sometimes *not* change much when it comes to Bell Beaker research subjects that matter over generations. As planned, each session featured two keynote lectures – one opening, one closing (45 minutes each) – and two to three additional talks (30 minutes each), with discussion time built in after each paper and at the close of each session. Sessions were led by keynote speakers of the previous sessions and these acted likewise as moderators for the discussions. In total, there were nine presentations on the first and second days, followed by the gala conference dinner. The third day saw four papers and an excursion to the Bronze Age pile-dwelling site of Fiavé in the Alpine foothills (in contrast to the 1998 Iceman excursion to Bolzano). The final day included five papers and closing remarks from the editors, who also extended an invitation to join Part 2 in Budapest in April 2024. Six posters were presented; far fewer than the 30+ in 1998, highlighting a broader shift in academic presentation formats. Coffee breaks twice a day, lunch



The Transformation of Europe in the Third Millennium BC

PROGRAMME

WEDNESDAY, 25 OCTOBER 2023

9.00 – 9.10 Institutional welcome and opening

9.10 – 9.30 Franco Nicolis & Volker Heyd: Introduction to the meeting

Session 1: Origins and Significance of the Bell Beaker phenomenon: Paradigms and Data

9.30 – 10.15 Keynote paper: João Luís Cardoso: The necropolis of the Verdelha dos Ruivos cave and the genesis of the Bell Beaker Complex in Portuguese Extremadura

10.15 – 10.45 Karsten Wentink: Travelling through space and time. Burial Mounds, Stereotypes and Bell Beaker Cosmology

10.45 – 11.15 *Coffee break*

11.15 – 11.45 Maria de Jesus Sanches and Maria Helena Lopes Barbosa: The Bell Beaker phenomenon in Northwest Iberia: considerations concerning its chronology, archaeological contexts and pottery styles

11.45 – 12.30 Keynote paper: Martin Furholt: Do Bell Beakers actually have an origin?

12.30 – 13.00 Discussion after the first session

13.00 *Lunch*

Session 2: Bell Beaker borderlands: Interaction and Transformation in the Central Mediterranean

14.30 – 15.15 Keynote paper: Staša Forenbaher: The puzzle at the crossroads: Ceuna style, culture and phenomenon

15.15 – 15.45 Maja Gori: Living in the borderlands without perceiving the borders: the Bell Beakers and the Balkans

15.45 – 16.15 Elisabetta Borgna and Giulio Simeoni: Maritime and Alpine impactful cultural components in the northern Adriatic at the dawn of the Early Bronze Age

16.15 – 16.45 *Coffee break*

16.45 – 17.15 Franco Nicolis and Elisabetta Mottes: Relations, connections, interactions, resources, human mobility: (fuzzy) Beakers in Northern Italy

17.15 – 18.00 Keynote paper: Giulia Recchia: Cross-cultural encounters and transformation: overlapping spheres of interactions in the 3rd millennium BC Central Mediterranean

18.00 - 18:30 Final discussion of the day

THURSDAY, 26 OCTOBER 2023

Session 3: Bell Beaker Ideology, Religion, Cosmology, Ritual and Social Practice

9.00 – 9.45 Keynote paper: Marc Vander Linden: Places of shared belief, places of collective action: on the role of ideologies in the maintenance of the Bell Beaker network

9.45 – 10.15 Ralph Grossmann: Bell Beaker, Corded Ware, Schönfeld: Material links and the Reflux Theory - A Reconsideration

10.15 – 10.45 *Coffee break*

10.45 – 11.15 Emi Soriano: From east to west: sex/gender system in Bell Beaker elite

11.15 – 11.45 Volker Heyd: The Trinity of the Bell Beaker Phenomenon or a network of the Rising Sun?

11.45 – 12.30 Keynote paper: Alfredo Mederos Martín and Thomas X. Schuhmacher: Social and Ideological Changes with the first Bell Beakers in Iberian Peninsula (2550-2,400 BC)

12.30 – 13.00 Discussion after the third session

13.00 *Lunch*

Session 4: Bell Beaker Economies, Technology, Diets and Lifeways

14.30 – 15.15 Keynote paper: Marie Besse, Jessica Ryan-Despraz, Florian Cousseau, Claudine Abegg: When craftspeople move: a social approach of the Bell Beaker societies around the Alps

15.15 – 15.45 Eve Derenne and Delia Carloni: Beakers, jars and dolmens: A history of Western Alpine societies and their constellations of practice between 3300 and 1600 BCE

15.45 – 16.15 *Coffee break*

16.15 – 16.45 Quentin Favrel: Beyond the standard: the organisation of Bell Beaker ceramic production

16.45 – 17.30 Keynote paper: Mike Parker Pearson: Transformations and continuities in subsistence and society: Bell Beaker-users in Britain

17.30 - 18.00 Final discussion of the day

20.30 **Conference Dinner in Riva del Garda**

FRIDAY, 27 OCTOBER 2023

Session 5: Beaker Folk versus Regional Identities

9.00 – 9.45 Keynote paper: Pilar Prieto Martinez: Defining levels of identity through materiality: inquiring into the North and Northwest of Iberia

9.45 – 10.15 Ana Catarina Basílio and António Valera: We don't want those pots: interpreting the Bell Beaker absence at Santa Vitória ditched enclosure (Southern Portugal)

10.15 – 10.45 *Coffee break*

10.45 – 11.15 Neil Carlin: Understanding Bell Beaker identities in Ireland - people, places and identities

11.15 – 12.00 Keynote paper: Olivier Lemercier: Humans and Caps: an archaeological perspective

12.00 – 12.30 Discussion after the fifth session

12.30 *Lunch* & **Poster Session**

14.00 **Leaving for excursion to Fiavé archaeological pile-dwelling site, Park and Museum**

SATURDAY, 28 OCTOBER 2023

Session 6: Special session as link to the 2 nd part of the "Transformation of Europe": Bell Beakers, Corded Wares and Steppe Ancestry

9.00 – 9.45 Keynote paper: Ian Armit: A sea change? Mobility, genetics and the Beaker Complex in Britain

9.45 – 10.15 Alissa Mittnik, Claudio Cavazzuti et alii: Investigating the 4th-and millennium BCE transition in Italy

10.15 – 10.45 *Coffee Break*

10.45 – 11.15 Online paper: Íñigo Olalde: The arrival of Steppe ancestry to the Iberian Peninsula

11.15 – 11.45 Guus Kroonen: Tracing the major Indo-European groups of Europe: Linguistic problems concerning the steppe-derived archaeological cultures of the 3rd millennium BCE

11.45 – 12.30 Keynote paper: Wolfgang Haak, Sandra Penske, Luka Papac, Adam Ben Rohrlach: The genomic profiles of Bell Beaker-associated individuals in central and eastern Europe

12:30 – 13.30 Overall discussion, lead by session keynote speakers (one of each session)

13.30 – 14.00 Volker Heyd & Franco Nicolis: Concluding the meeting and invitation to the second meeting in April 24-27, 2024

End of Conference

Fig. 5. The program poster of the 2023 Riva del Garda II conference

and other shared meals encouraged informal exchange, and added to the extended discussions following lectures and sessions. Book stalls lined the lobby, and evenings were spent enjoying local restaurants. The atmosphere confirmed: Nothing replaces the depth of discussion and connection found in a well-run in-person conference.

The structure of the Riva del Garda II conference was shaped not only by practical constraints but also by a conscious effort to focus the content thematically rather than geographically or chronologically, though there were a few deliberate exceptions. Most notably, we centred the conference on the western and southern parts of Europe. As a result, and as already mentioned above, speakers dealing with the Bell Beaker East-Group and northern regions like Scandinavia were largely excluded, to be featured instead in the second conference (Budapest 2024), where Eastern, Central and Northern Europe will take the stage. This contrasts with the 1998 meeting, where the Bell Beaker East-Group had a stronger presence. Similarly, while Sicily and Sardinia had been central topics in 1998, they were not specifically addressed in 2023. Instead, Session 2 focused on the Central Mediterranean and Adriatic basin; an intentional choice, given our Italian setting. This session included case studies from the Balkans, Northern Italy, and cross-cultural interaction in the Adriatic and beyond, reflecting Italy's pivotal geographical and cultural position. One area much better represented than in 1998 was Iberia. Three presentations from Portugal (Basilio – Valera; Cardoso; De Jesus Sanches – Lopes Barbosa) and three from Spain (Mederos – Schuhmacher; Prieto; Soriano) gave Iberia strong visibility, acknowledging its central role in Beaker studies today. However, northern Africa as the southernmost extension region of the Bell Beaker phenomenon was unfortunately as badly represented in 2023 as in 1998: Even a quarter-of-a-century later, it is still a diaspora in Beaker research.

And then, there was session 6…

Goodbye Riva – See you again in Budapest

Session 6 was envisioned as a special component, much anticipated by everyone. Scheduled for the final day, it served as a conceptual bridge to Part 2 of the 'Transformation of Europe in the Third Millennium BC' project. This session brought together leading experts in archaeogenetics and linguistics, Ian Armit, Alissa Mittnik, Claudio Cavazutti, Iñigo Olalde, Guus Kroonen, Wolfgang Haak and others, offering insights into 'Steppe' ancestry, genomic transitions, and Indo-European language developments. It created a rich, forward-looking framework for understanding the broader 'Third Millennium BC Transformations', without which one cannot barely understand the Bell Beaker phenomenon in Europe. Thus, while anchored in the Bell Beaker world, Riva del Garda II opened many doors: To Iberian dynamism, Beaker versus local substrate interaction, Adriatic–Aegean connections, genetic–linguistic entanglements, and many more; preparing the ground for what was to follow next in Budapest (for more details, see also our section 'Transformation Epilogue' at the end of this book). Volker presented, in the last half-an-hour at the floor of the *Centro Congressi* in Riva del Garda, a few slides with the Budapest dates, venue, organisation details, session topics and preliminary program with those keynote speakers having already accepted the invitations. He extended invitations likewise to everyone in the audience to come to Budapest, and join in and listen to the Part 2. And so, we departed, knowing we would see many again in Budapest in April 2024 for the 'Transformation of Europe in the Third Millennium BC, Part 2' conference.

About this book

All contributions included in this volume were carefully editor-reviewed by Franco and Volker. From initial submission to final layout, each paper passed through a three-tiered editorial process. In addition to the editorial oversight of the volume directors, the first round of technical and content editing was conducted by Maija Holappa, based in Helsinki. She cross-checked references, figure quality, and consistency across contributions. A final round of editing and typesetting was carried out by Katalin Sebők in Budapest, who oversaw formatting, layout harmonization, and consistency across chapters. Every paper was read through in detail and corrected where necessary for clarity, structure, and style. Authors received revised drafts for cross-checking and were then sent typeset proofs for final approval prior to printing. This collaborative and layered process ensured both academic rigour and technical precision.

The structure and layout of this volume were modelled closely on the 'Yamnaya Interactions' workshop proceedings published in 2021 (Heyd *et al.* 2021), enabling a seamless continuation in format and organization with the forthcoming 'Transformation of Europe in the third Millennium BC, Part 2' volume. Both books will thus appear as twin volumes, visually and structurally aligned. This marks a change from the previous Bell Beakers Today publication (Nicolis 2001; see also the reviews of Kristiansen 2004 and Lemercier – Salanova 2004), which consisted of two large, beautiful volumes and 736 pages (*Fig. 6*). Like the conference itself, the Riva del Garda II proceedings, while commemorating the 25th anniversary of that landmark conference, were never intended as a reunion or a replication of its publication model.

Times have changed in academic publishing too. All contributions in this volume are published in English. This is another departure from Riva del Garda I (1998), which featured papers in English, Italian

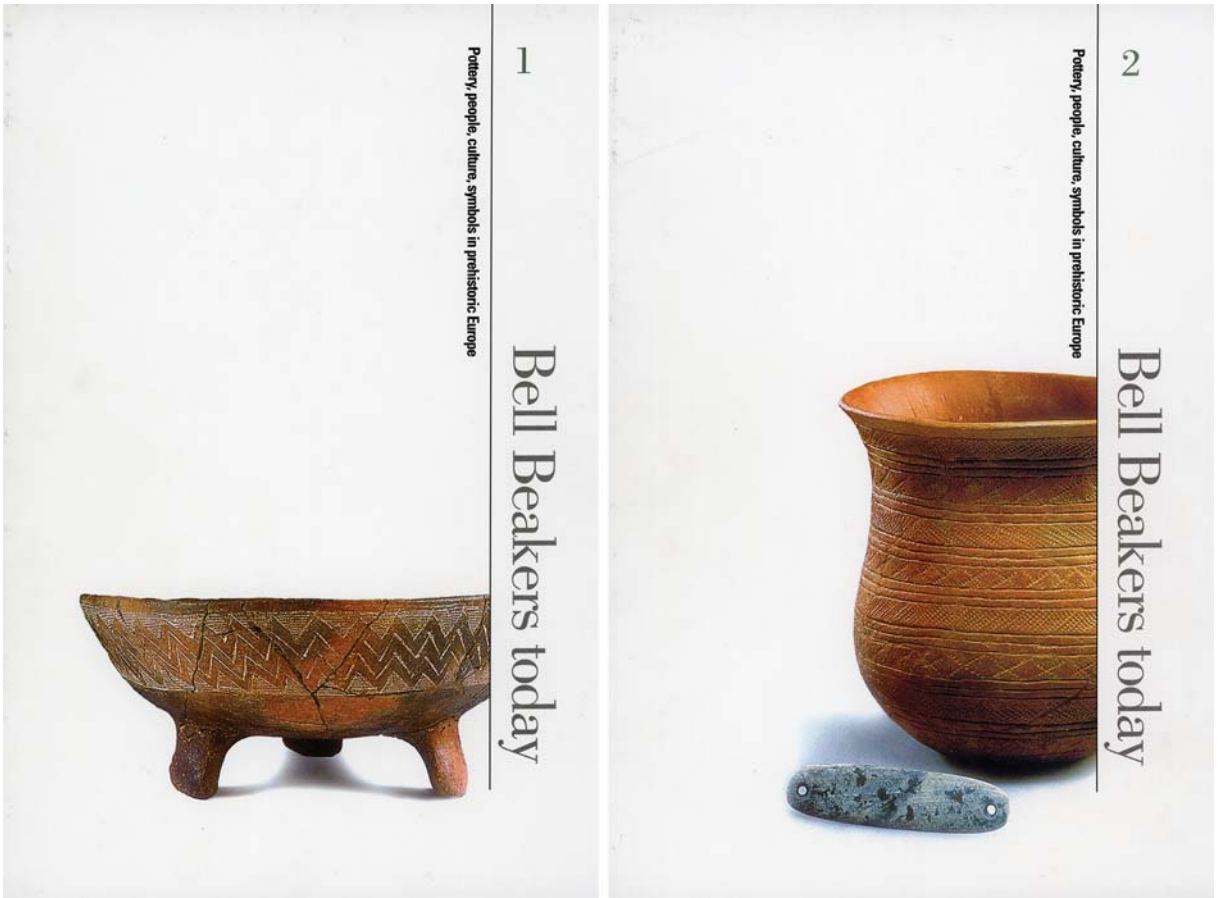


Fig. 6. The Riva del Garda I (Nicolis 2001) book covers, to the left volume 1, to the right volume 2

and French. The proceedings here are organized around the six thematic sessions of the conference, which now serve as the book's six chapters. However, for thematic coherence and balance of length, several papers were reassigned to chapters different from their original oral sessions. In addition, we included shorter papers from posters and invited further contributions from colleagues who were not part of the original Riva del Garda II program. This restructuring was necessary not only to balance the size and coherence of each chapter but also to ensure the inclusion of diverse perspectives. Each chapter opens with then keynote contributions and continues with regular presentations, invited papers, and poster expansion papers. The volume therefore offers a broad and multilayered representation of current Bell Beaker research, reflecting the diversity of regional, thematic, and methodological approaches presented at the conference. To keep the volume within reasonable length limits, contributors were asked to adhere to strict word and figure limits: 5 000 words for oral presentations, 3 000 words for poster papers, with up to 10 figures allowed. Bibliographies and supplementary materials were permitted on top of that.

A special editorial solution was applied to the three major contributions by Alissa Mittnik *et al*., Iñigo Olalde *et al*., and Wolfgang Haak *et al*., originally submitted as individual oral presentations. Following the authors' own proposal, these were merged into a single, much larger synthetic article of over 10 000 words, providing a comprehensive overview of the aDNA research on Bell Beaker-associated individuals in Europe. We are deeply grateful to these leading scholars for offering such an important, collaborative contribution. An extensive Excel appendix listing all genotyped Bell Beaker burials, too large for print inclusion, will be made available as an online supplement. In line with the

inclusive ethos of the conference, all oral presenters were invited to contribute to this volume. All followed and submitted manuscripts except of one – by Guus Kroonen – which is regrettable given the importance of linguistic perspectives. On the other hand, three additional contributions were added after the conference as already mentioned above, and we are pleased to include them.

Similarly, all poster presenters were invited to publish short papers of 3000 words. Of the six posters exhibited at Riva del Garda II, three were submitted as articles: by Giacomo Capuzzo *et al*., Fredrik Dahlberg, and Isabella Matera. We additionally invited two younger colleagues, Elena Lenghissa and Julien Vitani, both present in Riva del Garda, to submit their research also in the form of 3000 words contributions. The result is herewith a volume comprising 32 contributions, grouped into six chapters, authored by approximately 50 scholars from over 15 countries.

The publication of this volume was made possible through generous funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation program under grant agreement no. 788616, the 'Yamnaya Impact on Prehistoric Europe' (YMPACT) project, led by Volker, which also covers the production of Part 2. Significant financial and logistical support was additionally provided by the *Ufficio Beni Archeologici* of the Autonomous Province of Trento, under the direction of Elisabetta Mottes, whose commitment made the Riva II conference and its publication a reality.

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Helsinki, Trento & Budapest in July 2025
Volker Heyd, Franco Nicolis & Gabriella Kulcsár
The Editors

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The *Transformation of Europe in the Third Millennium BC, Part 1* presents the proceedings of the second Riva del Garda conference on the Bell Beaker phenomenon (c. 2700–2000 BC), exploring one of the great turning points of European prehistory. With 32 contributions, grouped into six chapters, authored by 54 scholars from over 15 countries, the book brings together latest discoveries and exciting research results from across Europe. It spans topics like the origins and spread of Bell Beakers, their social and ideological dimensions, regional identities, ritual and economic practices, mobility and migrations, and the far-reaching impact of ancient DNA. Being part 1 of a two-part international conference project, the book offers a fresh synthesis of how Beaker groups connected distant regions and so shaped the cultural landscapes of the western half of the European continent.

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THE YAMNAYA IMPACT ON PREHISTORIC EUROPE