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UATERNARY
ERSPECTIVES

The INQUA
Newsletter



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December
2021

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Cover photo: Semi-submerged Roman pier within a very sheltered small bay said "Bagni della Regina Giovanna" at Capo Sorrento, located along the coasts of Sorrento Peninsula limestone promontory. The Sorrento Peninsula is a WSW–ENE elongated horst, which separates two semigrabens, the Gulf of Naples in the Campania Plain to the North, and the Gulf of Salerno in Sele Plain to the south.

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XXI INQUA
 Congress
 Rome
 13-20 July 2023

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QUATERNARY PERSPECTIVES
 is the newsletter of



INQUA
 INTERNATIONAL UNION
 FOR QUATERNARY
 RESEARCH

Established in 1928, INQUA is the representative body for Quaternary science world-wide. INQUA is dedicated to removing barriers and to fostering diversity and inclusivity by prioritising funding for early career and developing country researchers to enable their participation in the international scientific networks that INQUA supports. INQUA promotes – and operates according to – a philosophy of inclusivity, not discriminating against any individual on the basis of race, colour, religion, gender, gender identity or expression, sexual orientation, genetics or disability. We encourage you to join INQUA through any of its Commissions, and contribute to the development of Quaternary science worldwide.
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The end of the COVID-19 hibernation

The title of my contribution to the June 2021 issue of Quaternary Perspectives was “*The end of the COVID-19 hibernation*” because half a year ago I had the optimistic feeling that we were on the way out and close to the exit. A feeling that appeared to be too optimistic. Now, half a year later, we know that it will take longer before we are back to “normal”; much longer. The pandemic that started ca. two years ago has still its impact on our daily life; it is still reducing our mobility and the possibility to have in-person meetings. The current increase of the number of infected persons, in particular in Europe, indicates that there is still a long way to go before we are back to “normal”.

For organisations such as INQUA, the impact of the current restrictions is big. Most of the scheduled in-person meetings have been cancelled or postponed; others have been changed into a virtual mode despite the fact that virtual meetings are no real alternative for the in-person meetings. It is obvious that INQUA's goal - to promote improved communication and international collaboration in experimental and applied aspects of Quaternary research – is under pressure. The big challenge is now, to accept the current situation and to deal with the current (and possible future) restrictions and to look for inspiring alternatives for our in-person meetings. Alternatives such as the organisation of online webinars that focus on research topics that are interesting for our Quaternary research community or the organisation of discussion forums such as the one on The “stratigraphical division of the early Middle Pleistocene” organised by ICS-SQS and the INQUA-SEQS. Suggestions for alternatives are, of course, more than welcome.

INQUA MONTHLY NEWSLETTER

In order to increase the visibility of INQUA and to actively communicate the upcoming activities, it has been decided to launch a monthly INQUA newsletter. The first issue should be out in January 2022. The INQUA newsletter should be widely distributed and send to individual researchers

as well as to the members of the International Council and related (international) organisations. The monthly INQUA newsletter should not replace Quaternary Perspectives which is more retro perspective. The INQUA monthly newsletter should include: a) latest details about the up-coming meetings (including meetings of the INQUA communities in the different member countries: DEUQUA, AFEQ, QRA etc.); b) information about the progress of the current INQUA supported projects; c) reminders of application deadlines etc.; d) latest information about the INQUA Congress.

INQUA ROME 2023 CONGRESS

The good news is that the organising committee of the upcoming INQUA Rome 2023 Congress (<http://www.inquaroma2023.it/>) decided to go for it, despite of the current pandemic situation and taking into account that it is impossible to predict how the situation will develop. Mid-January 2022 the first circular will be send.

Let us all meet July 2023 in Rome

Please take care and stay healthy

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The 2021 medal goes to Julie Loisel

The Sir Nicholas Shackleton Medal for outstanding young Quaternary scientists

INQUA has established the Sir Nicholas Shackleton Medal in 2007, in memory of Nick Shackleton, president of INQUA between 1999 and 2003, and a giant in Quaternary science. The medal was conceived to award young Quaternary scientists. The 2021 medal will be awarded during the General Assembly of the XXI INQUA Congress, in July 2023 in Rome, Italy.

Four outstanding young scientists have been nominated and evaluated by the Award Committee, chaired by Laura Sadori, composed of the INQUA president, Thijs van Kolfschoten and the vice-presidents Brian Chase, Zhengtang Guo and Lynne Quick.

The ranking process included the evaluation of their CVs and publications, their main scientific achievements as well as the oral presentation (given on the 12th of October). During their lectures presenting interdisciplinary and modern research, all candidates showed that the paleoenvironment and the paleoclimate can be investigated from different perspectives. Despite dealing with different proxies, all the introductions focused on past climate changes and on the role that the study of Quaternary can have in helping to understand our future. This is an important take home message for all the INQUA members, and we should be very proud of the contribution that INQUA could give to our society.

The competition was hard, as all the candidates proved to be very good Quaternary scientists, notwithstanding their young age. The Award Committee, which is extremely proud of such outstanding candidates, was also impressed by the number and quality of their scientific publications and by their active role inside the international research community.

NOMINATED CANDIDATES

Dr. Alexander Francke is a geologist, graduated in Cologne, Germany, where he obtained a PhD in geology/palaeontology. Alex has proposed a newly developed

approach to simultaneously study catchment erosion (through novel uranium isotope analyses), climate (through traditional proxy analyses), and land use (through pollen analyses) on Quaternary lake sediment records. After a post-doc position in Cologne, working on Lake Ohrid succession, he moved to Australia where he got a position as research fellow, first at the university of Wollongong, then at the one of Adelaide (Australia).

Alex talk was on: *Catchment vegetation and erosion controls soil carbon cycling in SE Australia during two Glacial-Interglacial cycles*

Dr. Daniel Enrique Ibarra is a geologist and an environmental scientist, graduated at Stanford university, where he obtained a PhD in Earth System Science, focusing on past regional changes in the water cycle. He is tackling directly one of the most pressing global change issues today, hydrological changes, which remain a major challenge for earth system models. Dan was a Research Associate at Palo Alto, later occupying different research positions at Stanford university and at the University of California. Dan is currently Assistant professor at Brown University, in Providence (USA).

Dan talk was on: *Warm and cold wet states in western North America during the Quaternary*

Dr. Eleonora Regattieri is a natural and environmental scientist, graduated in Pisa, Italy, with a PhD in Geochemistry on Interglacials hydrological diversity inferred from continental carbonates. Eleonora masters several scientific topics (tephrostratigraphy, stable isotopes, speleothems, U/Th dating method) related to paleoclimatic reconstructions and dynamics. Eleonora was a junior researcher at the department of Geology at Pisa university. Now, she has a permanent position as Researcher at CNR – the Italian National Research Council) at the Institute of Earth Sciences and Georesources in Pisa.

Eleonora talk was on: *Past interglacials variability from Mediterranean continental carbonates*

Dr. Julie Loisel is a physical geographer, she graduated at Quebec university and obtained a PhD in Earth and Environmental Science at Lehigh University, working in peatlands from Arctic to Patagonia. Julie's research mainly focuses on Holocene climate change and the long-term development of peatland ecosystems (~ past 10,000 years), with an emphasis on peatland carbon dynamics. Julie has had post-doc positions at the University of Leigh and at the University of California, and, after one year as visiting assistant professor at Texas A&M University, she became Assistant Professor in 2017.

Julie talk was on: *Carbon Sequestration in Peatlands in a Warmer World*



WINNER

The INQUA Award Committee has decided to award **Julie Loisel** with the 2021 Sir Nicholas Shackleton Medal because she showed a high potential in developing Quaternary Science. In her short career she had an important output as indicated by her scientific production. She also demonstrated the capability to achieve important results in her field and excelled in leading projects. She showed the potential to strengthen the importance of the study of the Holocene, also in consideration of current and future climate changes



PALAEO-DCN DEVELOPING COUNTRY PALAEOSCIENCE NETWORK

The Palaeo-DCN is a new initiative that seeks to develop community, representation and resources for Developing Country Researchers (DCRs) from all disciplines of the Quaternary palaeosciences.

Inherently global, the palaeosciences encompass all aspects of past climate change, ecology and environmental and human evolution. However, economic inequalities can result in researchers from developing countries lacking the infrastructure necessary to learn the skills and access the support required to develop their own research or participate in international projects.

The Palaeo-DCN seeks to address three key aspects:

1. Develop a community network for the communication of ideas, news and events and the exchange of ideas and experiences for DCRs from around the world.
2. Create an organization to raise the visibility and representation of DCRs, including a means to communicate needs and perspectives specific to their community to funding bodies, event organisers and other international networks.
3. Provide a platform for resources such as online educational content and research tools that can be used to supplement local and regional capacity and training opportunities.

The Palaeo-DCN is intended to be maximally inclusive, seeking participation from researchers in all developing countries. For the purposes of the Palaeo-DCN, this includes all countries that are defined by the [World Bank as being low to upper-middle income countries](#). Researchers from each of the countries in these categories have their own unique challenges and experiences, and this definition is used in order for each to be included and given voice in this network.

As a new initiative, we are in the process of developing the Palaeo-DCN community. There is no cost or obligation associated with joining the Palaeo-DCN.

To join, please visit the [website](#) and fill in the simple form

INQUA SPLOSH project 2001F

SPLOSH – an International Focus Group on Submerged Palaeolandscapes of the Southern Hemisphere

INTRODUCTION

The study of submerged coastal landscapes and human occupation records has rapidly emerged as a key topic in Quaternary science in the last decade aided by new and higher-resolution technologies and focused research programs (e.g., [SPLASHCOS](#)). These are only beginning to be translated into the Southern

Hemisphere (SH) where the study of submerged palaeolandscapes faces specific challenges and unique opportunities (Benjamin et al. 2018; Carabias et al. 2014; Cawthra et al., 2015; 2020; Flores-Aqueveque 2021; López et al. 2018; Veth et al. 2019; Ward et al. 2013, 2018). Global changes in relative sea level of up to 120 or 130 m below present during the last glacial period

(~ 22 ky BP) have had a profound influence on the movement of modern humans including between South Asia and Greater Australia, as well as across the South America and South African landmasses. Vast coastal plains and a significant portion of prehistory were drowned during the marine transgression, with a decrease in continental landmass of over one

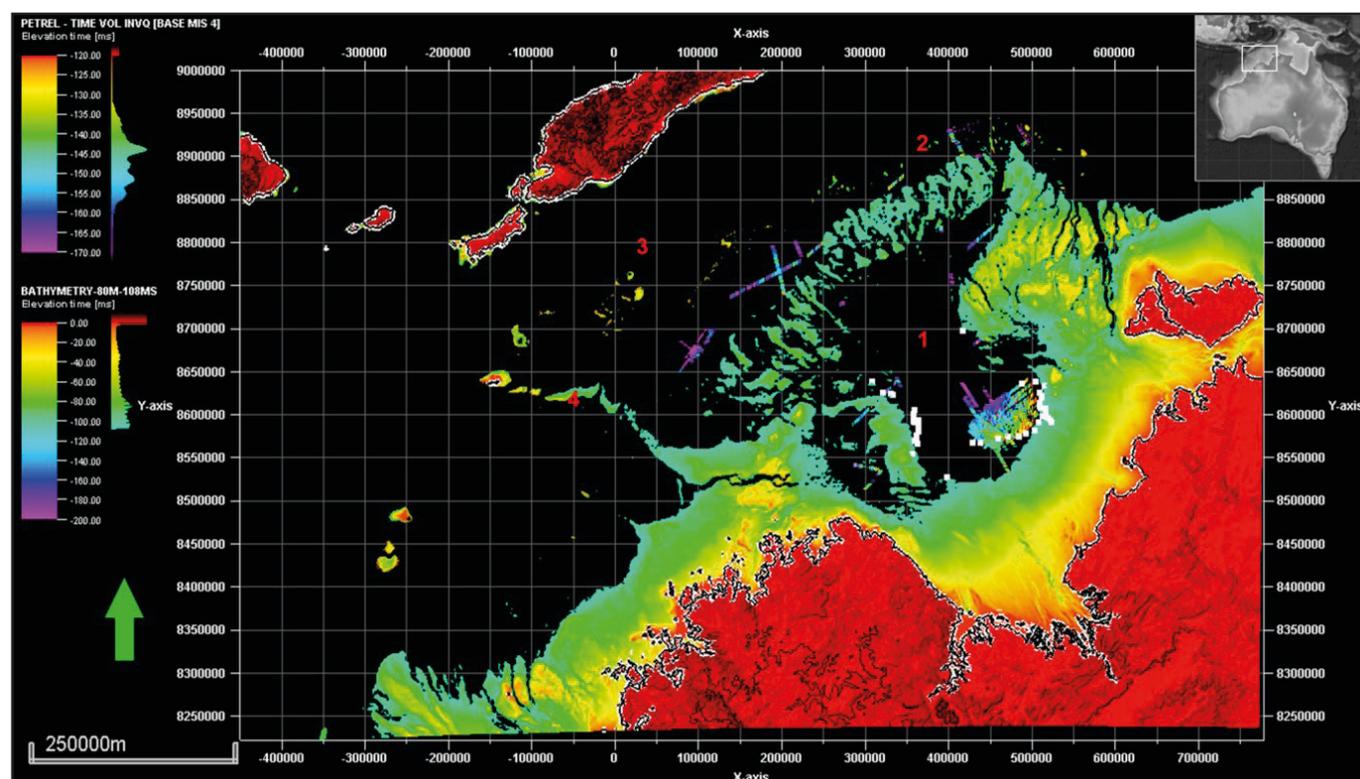


FIGURE 1: Present day bathymetry of the northern Australia shelf (Geoscience Australia) showing emergent landscape based on 108ms (80m) contour for the MIS 4 lowstand. Base MIS 4 picks are also displayed, the seismic geomorphology of these events is estuarine or marine. Mapped shore break positions and depositional margins (white squares) also displayed. Present day coastline is shown as a black contour. Provisional predicted MIS 4 lowstand emergent landscape using the 80m seabed bathymetry as a proxy indicates the Malita basin is (1) open to the sea with an (2) inner and (3) outer archipelago and a (4) peninsula. ERC funded ACROSS (project 759677) (from Fogg et al. 2019).

third (~ 190 sq. km/yr) within the Pacific and Indian Oceans since the Last Glacial Maximum.

The new INQUA SPLOSH focus group aims to increase awareness of submerged landscapes and environmental changes in the SH, and to help provide a platform for scientific exchange and interdisciplinary collaboration to help strengthen the importance of research in this region. Common themes such as sea-level change, coastal landform evolution, human dispersals and coastal resource use will be explored through a series of workshops and synthesis outputs, with a particular emphasis on Indigenous perspectives and connections with Sea Country.

A SOUTHERN HEMISPHERE PERSPECTIVE

The SH comprises five continents, including over 8300 islands, and four oceans (80% water) and has been largely ice-free for much of the Quaternary. This has allowed for more open dispersals (Bird et al. 2019) and greater potential for landform preservation on the shelf (Brooke et al. 2017). It also covers a wide range of latitudes (from ~12°N to ~56°S), with very different climate conditions, ecosystems and

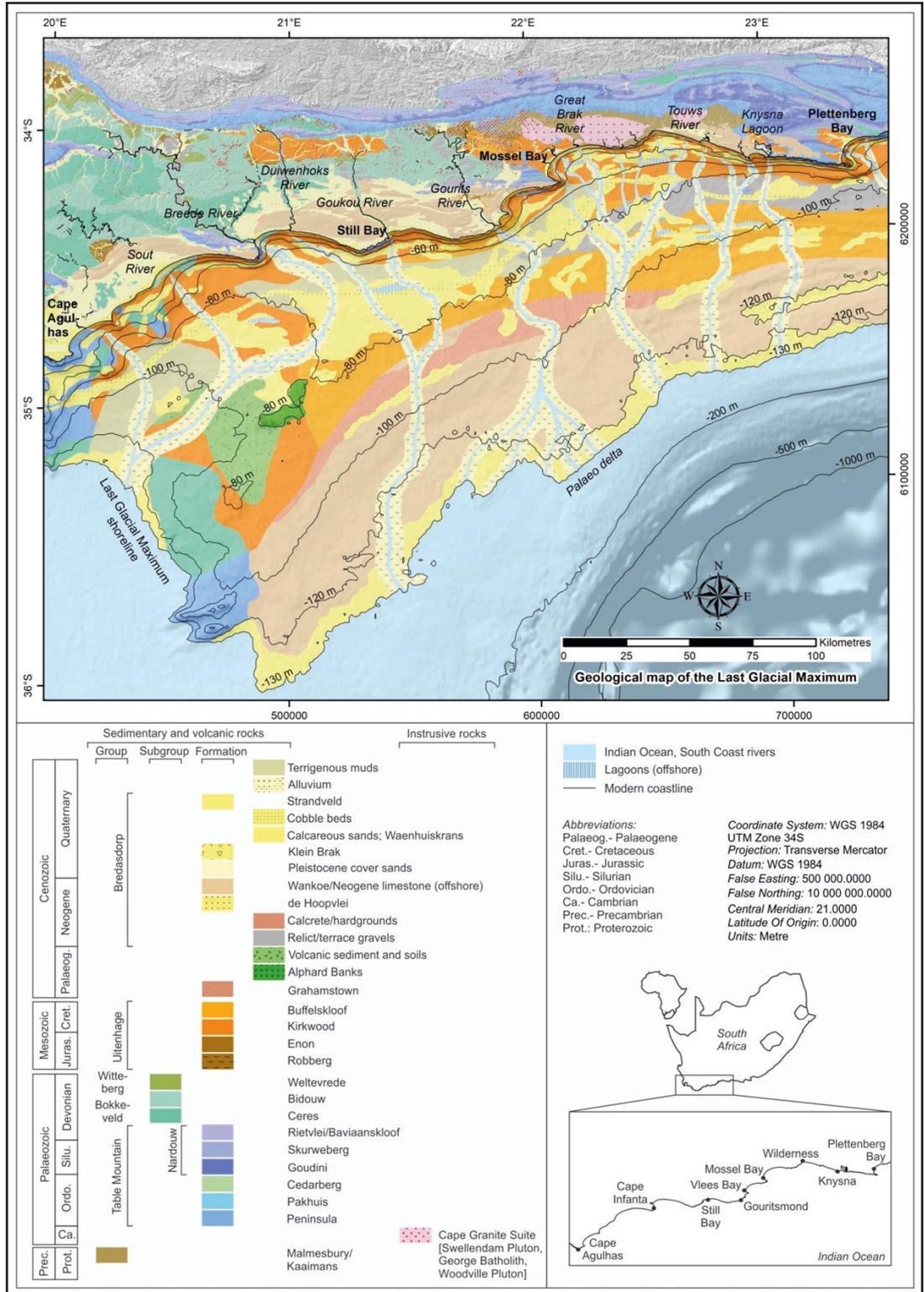


FIGURE 2: In the South Cape of South Africa, the Palaeoscape project (Marean et al., 2014) defined and studied the Palaeo-Agulhas Plain; an extinct, submerged terrestrial ecosystem. Following a ten-year investigation of the continental shelf, a geological map of the Last Glacial Maximum was compiled that covers ~55,000 km² of seafloor and coastal plain and demonstrates a remarkably different submerged landscape compared to the present-day Cape Foreland (from Cawthra et al. 2020).

geological contexts that offer different biogeographical perspectives on use of coastal corridors (e.g., the *Kelp Mangrove Highways*) and use of watercraft (Erlandson 2007).

From the global perspective, there is increasing acceptance that oral traditions might contribute to an understanding of natural phenomena (Nunn 2018; Reid et al.

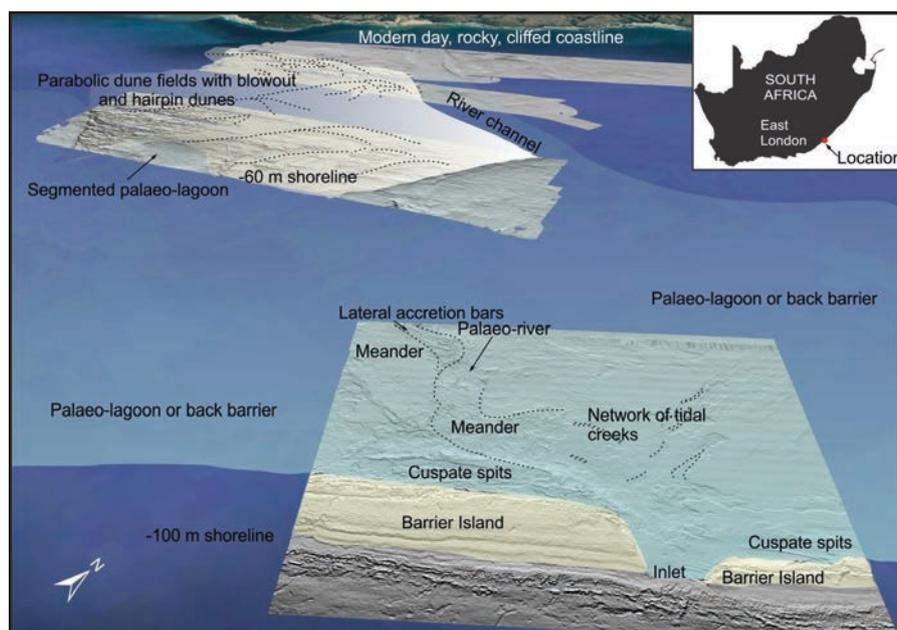


FIGURE 3: Post-glacial geomorphology off the Eastern Cape Coast, South Africa, showing how the present rocky cliffed coastline is so different from the past coastal landscape at lower sea levels, with large dune systems and coastal waterbodies (from Green et al. 2020).

2015) and a growing interest and application of Indigenous Knowledge in environmental and marine resource management as part of a shared heritage (Coastal Mapping Laboratory 2017; Ward et al. 2018). SPLOSH will work to highlight the unique SH perspective, not only as a different geographical and environmental region but also with an academic discourse inclusive of Indigenous science knowledge and pedagogies.

There are many science questions that can be explored within this geographic scope, some of which are already being explored through projects happening in the SH, such as ERC funded ACROSS project (Farr, e.g. Figure 1) and the Palaeoscape project on the Cape South Coast of South Africa (see QSR Special Issue introduced by Cleghorn et al. 2020; Figure 2). Through themed annual workshops, we hope to explore some key questions, including:

1. *How does the greater oceanic area of the SH influence the nature and preservation of submerged landscapes, and how these are studied?* Differences in local climatic and geological setting (Green et al. 2020; O'Leary et al. 2020; Figure 3), including active versus passive margins, will have influenced site preservation.

In addition, multi-proxy reconstruction of the depositional environment of extant sites can provide enhanced understanding of submerged landscapes evolution (Flores-Aqueveque et al. 2021; Figure 4). Complementing new INQUA-funded projects such as NEPTUNE - NEW Procedures and Technologies for UNDERwater paleo-landscapE reconstruction, we can explore site preservation and site prospection, including use of new technologies.

2. *How can we incorporate concerns, interests, knowledge, traditions, and perspectives of First Nations people in submerged landscapes research?* In Australia especially, there is growing awareness of cultural continuity with the offshore coastal landscape through ongoing cultural connections and resource use practices (Rist et al.

TEAM LEADERS

Ingrid Ward, University of Western Australia
 Helen Farr, Fraser Sturt, University of Southampton, UK
 Hayley C. Cawthra, Nelson Mandela University & Council for Geoscience, South Africa
 Andrew Green, University of KwaZulu-Natal, South Africa
 Alex Bastos, Federal University of Espírito Santo, Brazil
 Diego Carabias, ARQMAR, Chile

REFERENCES

- [Benjamin J, O'Leary M, Ward I et al. \(2018\) *Antiquity Project Gallery* 92:363](#)
[Bird M, Condie SA, O'Connor S et al. \(2019\) *Scientific Reports* 9:8220](#)
[Brooke BP, Nichol SL, Huang Z, Beaman RJ \(2017\) *Continental Shelf Research* 134:26-38](#)
[Carabias D, Cartajena I, López P et al. \(2014\) In: *Flatman J, Evans A, Flemming N, Springer*, 131-149.](#)
[Cawthra HC, Compton JS, Fisher EC, MacHutchon MR, Marean CW \(2015\) *Special Publication of the Geological Society of London* 411:219-233](#)
[Cawthra HC, Cowling RM, Andò S, Marean CW \(2020\) *Quaternary Science Reviews*, 235:105858](#)
[Cleghorn N, Potts AJ, Cawthra HC \(2020\) *Quaternary Science Reviews* 235:106308](#)
[Coastal Mapping Laboratory, University of Rhode Island \(2017\) U. S. Department of the Interior, OCS Study BOEM 2017-XXX](#)
[Erlandson JM, Graham MH, Bourque BJ et al. \(2007\) *The Journal of Island and Coastal Archaeology* 2\(2\):161-174](#)
[Flores-Aqueveque V, Ortega C, Fernández R et al. \(2021\) *Quaternary International* 601:15-27](#)
[Fogg A, Dix JK, Farr RH \(2019\) *ESSOAR*](#)
[Green AN, Cooper JAG, Dlamini NP et al. \(2020\) *Marine Geology* 427:106230](#)
[Marean CW, Cawthra HC, Cowling RM et al. \(2014\) In: *Allsopp N, Colville JF, Verboom T*, Oxford University Press](#)
[López P, Cartajena I, Carabias D et al. \(2018\) *Quaternary International* 463:153-160](#)
[Nunn PD \(2018\) *Bloomsbury*, London](#)
[O'Leary M, Paumard V, Ward I \(2020\) *Quaternary Science Reviews* 239:106353](#)
[Reid N, Nunn PD, Sharpe M \(2015\) *Australian Geographer* 47\(1\):11-47](#)
[Rist P, Rassip W, Yunupingu D et al. \(2018\) *Aquatic Conservation: Marine Freshwater Ecosystems* 29\(2\):138-151](#)
[Veth P, McDonald J, Ward I et al. \(2019\) *The Journal of Island and Coastal Archaeology*, 15\(4\):477-503](#)
[Ward I, Larcombe P, Mulvaney K, Fandry C \(2013\) *Quaternary International* 308-309:216-229](#)
[Ward I, Smyth D, Veth P et al. \(2018\) *Ocean and Coastal Management* 160:167-174](#)

2019). We hope to explore how these Indigenous perspectives compare with new scientifically informed sea-level change chronologies, and how we might benefit from Indigenous science and pedagogy.

3. *How do different biogeographical perspectives from the SH influence our understanding of human migration and past coastal resource use?* The distinct ecological and physical features of SH should have influenced biodiversity, sediment dynamics, past human occupation and migration (including use of watercraft) across the shelf at times of lower sea level. Insights can be gained from explorations of these submerged cultural landscapes and from modern analogues.

4. *What new challenges and opportunities can arise from SPLOSH?* SPLOSH will provide a forum to raise timely and significant questions on submerged prehistoric cultural heritage of the SH and to share published and publicly accessible records.

Plans were to hold annual workshops in different countries, but the ongoing COVID-19 pandemic has meant that we have instead had to make more use of video-conferencing. The 2020 workshop was held online and was aimed at showcasing and exploring current submerged landscape research across the SH. Recordings of these talks are [available online](#). This years' workshop was a joint event organized by SPLOSH and NEPTUNE

INQUA communities discussing past and recent evolution of coastal landscapes. Participants of the 'SHINE' workshop were invited to present their field activities and study sites as virtual scientific tour, and was indeed a virtual feast covering everything from the tropics of Queensland to the ice-cold Antarctic; abstracts of these talks are [available online](#).

In addition to the annual workshops, we are working on a [SPLOSH website](#) that will serve as a central dissemination 'blackboard' for workshop events, newsletters, research & publications, as well as collaboration and outreach including links to other

existing (e.g., [AROMAR](#)) and future sites on submerged sites. The website will eventually host an interactive map of known sites/project areas across the SH, allowing a virtual insight into research on submerged landscapes in this region. A [working version of the map](#) is available and we welcome contributions to this. If you are interested in participating or contributing to any aspect of SPLOSH, please contact any of the country leads.

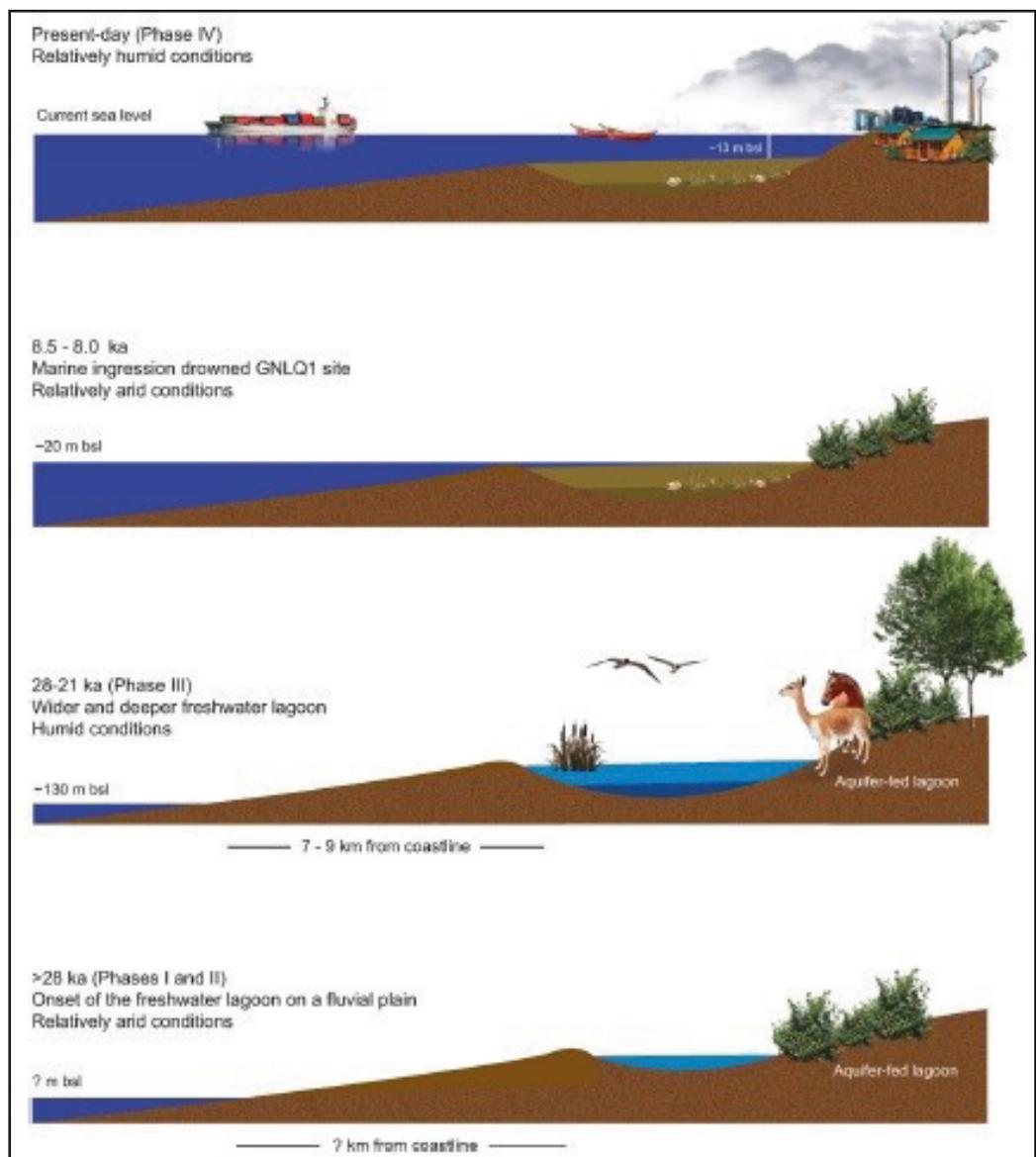


FIGURE 4: Model representing the evolution of site GNL Quintero 1 (GNLQ1), the only submerged fini-Pleistocene landscape reported for the southeastern Pacific, located nearshore, on the central coast of Chile, drawing on stratigraphic, sedimentological and geochemical data obtained from marine cores combined with seismic data (from Flores-Aqueveque et al. 2021).

G. Mattei¹, C. Caporizzo¹, A. Novak², L. Ronchi³, M. Seeliger⁴
 INQUA NEPTUNE project 2003P

Report of NEPTUNE INQUA project activities

NEPTUNE-INQUA project has accepted the challenge to encourage interdisciplinary collaborations between members of its scientific community also during the peak period of the ongoing pandemic. Between June and November 2021, the Neptune leaders cooperated in the organization of two online scientific events in order to break down the barriers of COVID-imposed social distancing and facilitate

communication and data dissemination among geoscientists. These two events were intended for (especially Early Career) scientists involved in studies of marine-related and submerged paleo-landscapes, sea-level indicators, climate, ice-sheet and sea-level modelling.

On the 14th and 15th June 2021, we co-organized a multidisciplinary event titled SHINE "Sparking light once

again over landscapes overshadowed by time" in collaboration with the SPLOSH INQUA Focus Group. It was a non-traditional workshop where participants were invited to present their field activities and study sites as an ideal worldwide virtual scientific tour.

The presentations focused on methodologies or technologies used during a survey or any kind of peculiarity of an ongoing study,



FIGURE 1: Freeze-frame from the presentation of J. Giesken (University of Queensland, Australia) regarding remote sensing methods for morphological investigations in Mpondoland, South Africa.

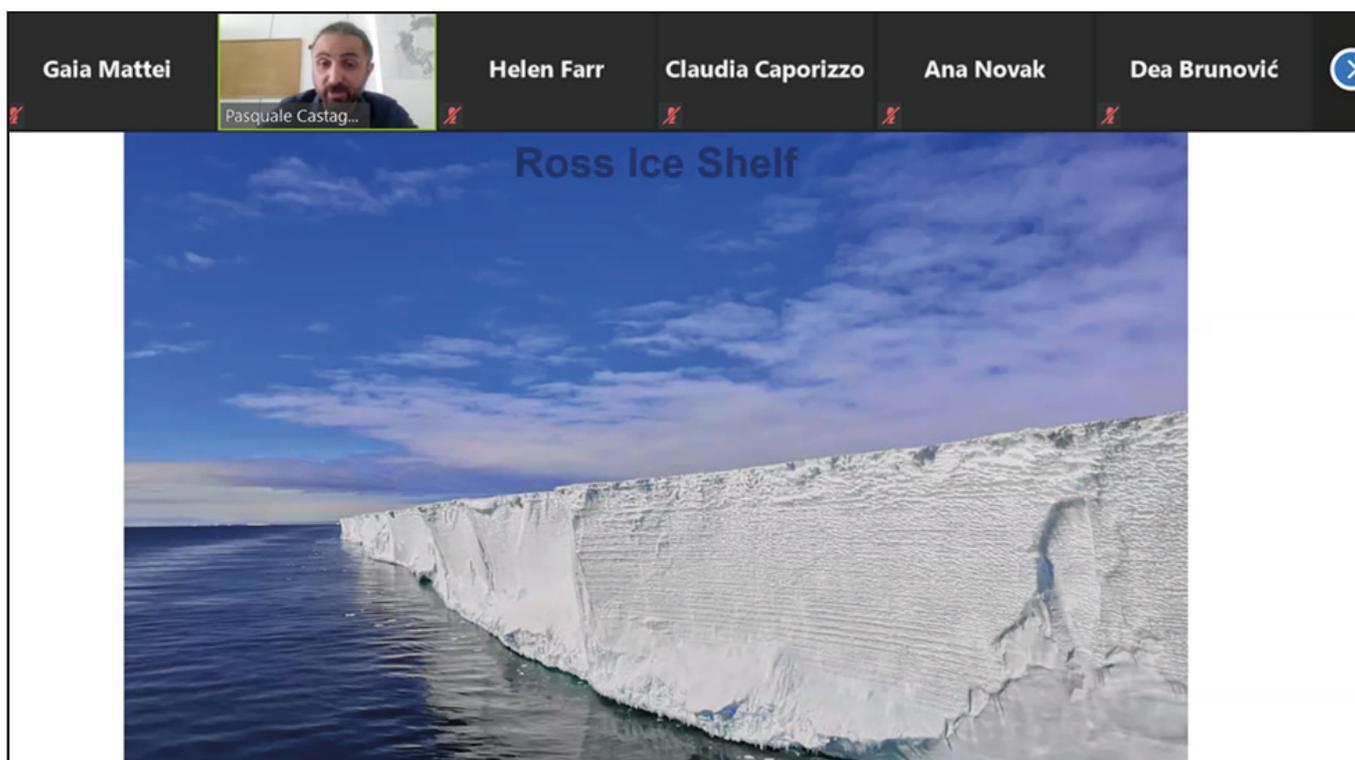


FIGURE 2: Freeze-frame from the presentation of P. Castagno (Parthenope University of Naples, Italy) regarding shelf water studies through indirect analysis techniques in the Ross Sea (Antarctic Region).

with emphasis on the reconstructed landscapes. This unconventional meeting format gave an excellent opportunity to showcase research and/or site surveying in its early phases. The workshop format also favored ECRs in the early stages of their research project providing the opportunity to present and visit sites and landscapes in virtual field trips, which defy both long distances and pandemic-related restrictions.

Our goal has been reached considering that the event had peaks of about 50/60 participants with the active involvement of 17, mostly Early Career presenters.

The talks presented during the first day (14th June 2021) were divided into two different thematic sessions, respectively focused on "Direct methods" and "Remote sensing methods" for the study and analysis of ancient paleo-landscapes. During these sessions, researches from Italy, Bulgaria, and Croatia presented the evolution of the coastal landscapes at different time-scales, from MIS-5 to the present day.

The presentations of the third and fourth sessions, which took place on the second day (15th June 2021),

were focused on "Indirect marine methods" and the creation of "Coastal management models". In this second part of the meeting, data from studies of Antarctic, European, and African landscapes were presented demonstrating the efficiency of these methodologies for the high-resolution reconstructions of paleo-landscapes and their evolution over time.

Moreover, in the cases of both an environmentally significant and strongly anthropized coastal area in southern Italy (Taranto, Apulia Region) and the Caribbean coral reef of Costa Rica and Panama, the presented researches highlighted the importance and the growing need of studies based on coastal vulnerability assessment in the context of the ongoing climate changes and anthropogenic impact.

After the event, the Scientific Committee provided the realization of the Interactive SHINE Book of Abstracts, available for download on the [NEPTUNE Website](#), in which all the links to re-watch the different presentations were included.

In 2021 the NEPTUNE team was also busy with editorial activities as a Special issue in Quaternary

International was planned after the 1st Neptune Workshop. The deadline for manuscript submission expired in September and a total of 15 manuscripts were submitted to the Special Issue PALEOCOASTS among which one has already been published (Scardino et al., 2021) at the moment of writing this article.

Despite the persistence of COVID restrictions, we are planning the second international NEPTUNE Workshop titled "*Collapse into Now*" that will be held online on 2nd December 2021. The deadline for the Abstract submission was 31st October 2021.

The motto of the workshop is "*a glimpse into the past, a step into the future*", considering that the scientific community is increasingly motivated to study past coastal landscapes and processes in order to find clues for predicting scenarios of future climate and environmental changes by integrating field-collected data and climatic models on a regional or global scale.

The International Workshop aims to create a discussion opportunity regarding a wide range of topics related to climate and coastal studies such as:

- Records of sea-level changes and paleo sea-level studies;
- From past to future coastal scenarios;
- Sea-level and coastal response to past and future climate changes;
- Recent climatic influence on coastal modification;
- Analyzing coastal landscapes from backshore to offshore;
- Adaptation of coastal communities to climate and sea-level changes;
- Technological advances in marine and coastal studies;
- Discrepancies between geological sea-level indicators and sea-level models;
- Use of remote sensing datasets for sea-level and ice-sheet modelling;
- Interdisciplinary collaboration in sea-level research.

To encourage the presentation of not only completed research, but also ongoing activities, this year's event is organized in two parts, discussing the practical challenges we face in the early

stages of research:

PART#1 - CALL FOR ABSTRACTS:
intended for Oral Presentations regarding researches in more advanced stages;

PART#2 - CALL FOR DISCUSSION:
intended for the authors that prefer to briefly present their project and/or discuss a specific open issue.

Follow us on our [website](#) and through social media on our [Facebook](#) and [Instagram](#) accounts.

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REFERENCES

[Scardino C, Rizzo A, De Santis V, Kyriakoudi D, Rovere A, Vacchi M, Torrisi S, Scicchitano G. \(2021\). Quaternary International, in press.](#)

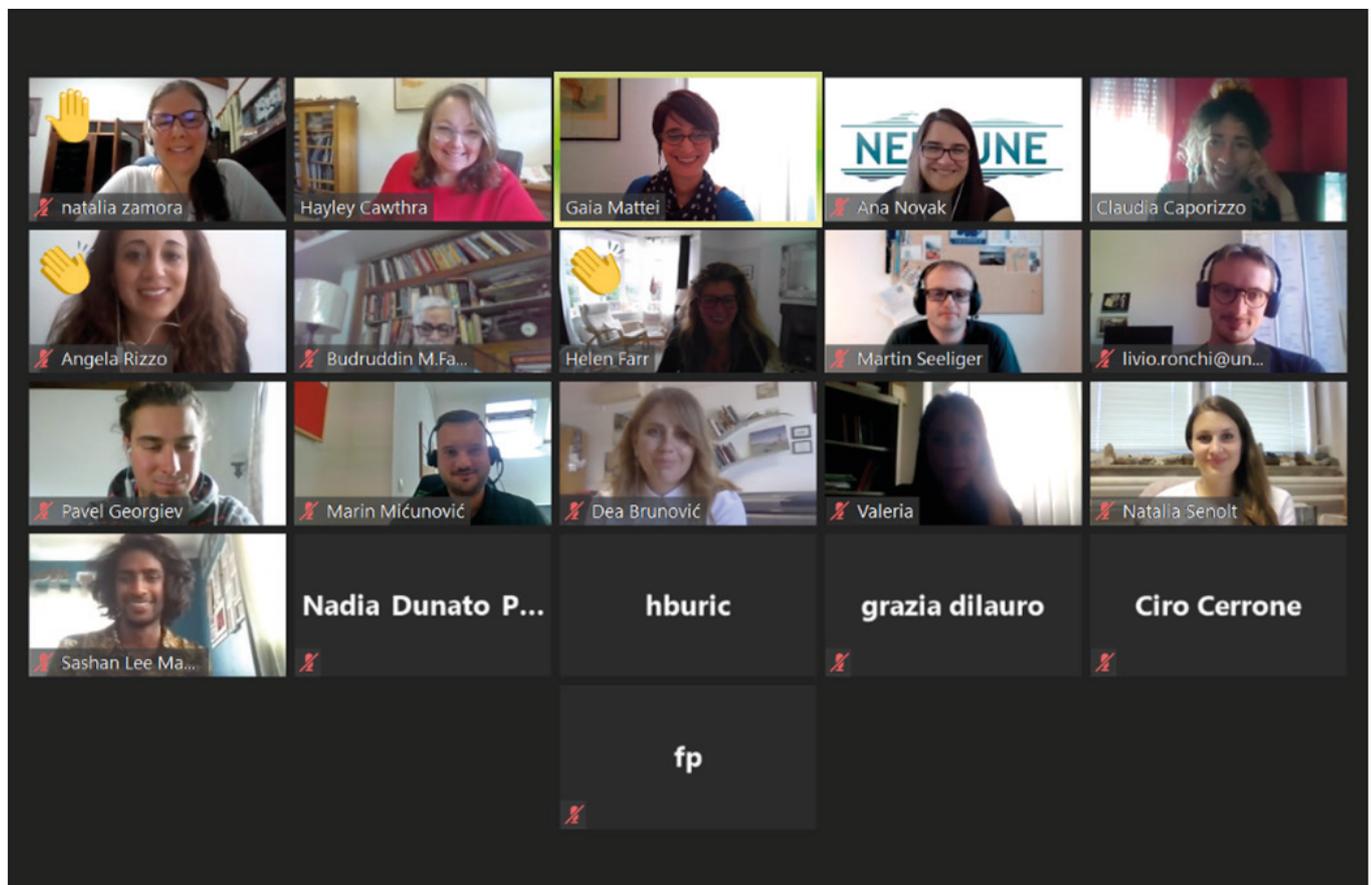


FIGURE 3: Freeze-frame of the end of the SHINE meeting with some of the participants and presenters.

Tom Johnson

PALCOM Update 2021



Many of our PALCOM projects are on hold due to COVID issues, but some are actively engaged in email communication as they plan future workshops and publications. I wish to highlight one of our new multi-year projects, Mapping Ancient Africa, which has managed to organize an international workshop using an innovative regional hub structure in which some within the regional hub choose to meet in person and others participate remotely. The project leader, Will Gosling, University of Amsterdam, has summarized their accomplishments to date:

- A series of web pages is now set up running from their [blog site](#)
- A kick-off meeting was held in October, which saw 44 researchers meet in person, and online, focused around four regional hubs: Kenya, South Africa, Germany and USA. The biggest physical meetings were held by the African hubs and it was great to see the people meeting up

and activity taking place. It was a bit challenging to get interaction really going between hubs, but this will happen given time and experience with the hub meeting concept. [Videos of the cross-hub parts of the meeting](#) are available to watch.

- The project has an online seminar series planned. The first two will be in December. The idea is to have these once a month in the new year. The first two will focus on showcasing new papers, but then this will be followed by three seminars pulled together by groups of researchers to start to bring together palaeoclimate, palaeovegetation and archaeological data. After the seminars people will be encouraged to stay around and chat online about project/paper ideas.
- The project has set up a Slack channel which currently has 46 members to help with communication.

- The project plans to have another 'hub' meeting May/June time next year at which they hope that ideas will have settled sufficiently to come up with a proposal for the planned Quaternary International special issue.

Overall, Will was excited to see this up and running. He found the 'hub' meetings to be pretty effective to actually get some people together despite the COVID restrictions. The "regional + online" configuration got a group of people together who would never have otherwise been able to meet.

This regional hub concept is well worth the consideration of other INQUA projects.

AFFILIATIONS

University of Massachusetts Amherst
Amherst, USA

J. McCalpin

Activities of the TERPRO projects 2021



FIGURE 1: Gemona, Italy. Epicentral area of the 1976 Friuli Earthquakes that destroyed the city 45 years ago.

For the year 2021 TERPRO activities will center around our four Projects and two Working Groups:

TPPT (Terrestrial Processes Perturbed by Tectonics); how tectonic events alter geomorphic processes. Multi-Year Project. Leaders: Stéphane Baize (FRANCE), Gabriel Gonzalez (CHILE), Xuanmei Fan (CHINA)

Main Activity: The planned main activity for 2021 was the 10th Workshop on Paleoseismology, Active tectonics, and Archaeoseismology (PATA Days), to be held in Chile in November '21. Sadly, this event had to be cancelled due to the ongoing Corona crisis.



FIGURE 2: The Tagliamento River in NW Italy drains large parts of the Southern Alps. It has incised into a growing anticline and into a system of terminal moraines where it leaves the Alps.



FIGURE 3: View to the South Alpine Front near Gemona, Italy from Mt. Cuarnan.

For 2022, the main activity will be the 10th Workshop on Paleoseismology, Active tectonics, and Archaeoseismology (PATA Days) in Southern France. This meeting will take place in the last week of September as an in-person meeting.

HYPEDAE (PalaeoHYdrological, -PEDological and -AEolian processes shaping Quaternary landscapes); a joint initiative of three already existing communities: (1) original INQUA Sub-commission GLOCOPH, lately represented in group HEX, (2) the former INQUA Sub-commission on Palaeopedology, and (3) the former group AEOMED and GEODUST. Multi-Year Project. Leaders: Alessandro Fontana (ITALY), Daniela Sauer (GERMANY), Onn Crouvi (ISRAEL), Rajiv Sinha (INDIA).

Main Activities: The Paleosol Symposium in the Russian Altai. This had to be postponed to 2022.

The FLuvial Archives Group (FLAG) held their meeting "Evolution of fluvial systems at different time scales" as an online meeting from 20-21 September, 2021. The videos of the meeting can be found here: <http://eg.igras.ru/en/flag2021en/>.

The online conference Preview of 12th International Conference on Fluvial Sedimentology, 20-21 July, organization by University of Padova. A virtual meeting was held 14 - 15 July 2021, the in-person meeting is postponed to 10 - 15 July 2022, in Riva del Garda, Italy.

The International Conference on Geomorphology, Coimbra (Portugal) was postponed to 12-16 September, 2022.

EDITH (From Earthquake Deformation To SHA); how studies of geodetic deformation and earthquake geology can contribute better to Seismic Hazard Analysis. Multi-Year Project. Leaders: Franz Livio (ITALY), Pia Victor (GERMANY), Zoë Mildon (UK), Sambit Prasanajit Naik (KOREA), Shalev Siman-Tov (ISRAEL).

Main Activity: EDITH had its kickoff meeting in April 2021 as a virtual meeting; we reported in the last issue of QP (Fig. 1, 2, 3).

A. Braun, J. McCalpin

INQUA Input to ISC GeoUnions, via the New Standing Committee on Disaster Risk Reduction

The International Science Council (ISC) GeoUnions Standing Committee on Disaster Risk Reduction (DRR) was formed in July 2020 under the leadership of Professor Orhan Altan, nominated by ISC and ISPRS. Dr. Alexander Rudloff (IUGG) was elected as co-chair in September 2020. In January 2021, INQUA TERPRO members Anika Braun and James McCalpin were appointed as INQUA representatives to the committee.

The committee seeks to strengthen the long-standing International Science Council (ISC) leadership in advancing DRR. It also honors the ISC's (former ICSU's) role in preparation of world conferences on DRR.

The committee includes a maximum of 10 regular voting members. The representatives of the GeoUnions comprise the sustaining members. The following GeoUnions will be represented:

- International Astronomical Union (IAU)
- International Cartographic Association (ICA)
- International Geographical Union (IGU)
- International Society for Photogrammetry and Remote Sensing (ISPRS)
- International Union of Geodesy and Geophysics (IUGG)
- International Union of Geological Sciences (IUGS)
- International Union of Quaternary Research (INQUA)
- International Union of Radio Sciences (URSI)
- International Union of Soil Sciences (IUSS)

In addition to INQUA, the GeoUnions members IUGG, IGU, IUGS, ISPRS, and URSI have appointed their representatives.

Since its formation, the committee had 11 meetings, with INQUA participation in 6 of them. The committee has published 4 policy briefs, with policy brief #5 on anthropogenic factors contributing to natural disasters with a debris flow case from Japan including contributions from Anika Braun.

Currently, the committee is co-organizing a session with the title "Breaking the Silos – Toward Multi-hazard, Multi-sectoral Approaches to Managing Risk" at the UNDRR Global Platform for Disaster Risk Reduction that will be held in Bali, Indonesia, in May 2022.

Moreover, the committee is currently compiling a booklet on "success stories" in DRR. They would be projects in which earth-science data from an "upstream" INQUA Project were used by "downstream" engineers, planners, or politicians to achieve verifiable reductions in disaster risk. If you have a DRR success story to share, or if you have a topic in mind in your field related to DRR that you would like to see communicated in a policy-brief, please get in touch with Anika or James.

More information on the committee, its members and activities, the terms of reference, as well as the published policy briefs, can be found on the [ISCGDRR website](https://www.iscgeo.org/iscgdrdrr/).

C⁴ WORKSHOP CLIMATE CHANGE AND CARBON CYCLE

Global Change from the Deep Past to the Anthropocene

June 22-24, 2022

CNR Research Area
Pisa, Italy



The International Workshop C⁴ "Climate Change and Carbon Cycle" aims to foster knowledge and cross-disciplinary exchange within the scientific communities interested in Global Change, the Climate System, and the Carbon Cycle through time.

The workshop welcomes contributions on reconstructions, observations and modelling from the geosphere, atmosphere, oceans, and ecosystems, aimed to provide insights into how climate change affects the ways that carbon moves through Earth's environment from the deep past to the modern era, and how carbon cycle interacts with climate and environmental systems.

The workshop will be structured around **three highly interdisciplinary scientific sessions**. Each session integrates different scientific perspectives and encompasses a wide temporal range, from the million-year scale of geological processes, through the thousand-year scale of the orbitally-driven and sub-orbital climate changes of the Quaternary, to the yearly (and sub-yearly) scale of modern monitoring and observations.

Processes: This session aims to provide a better understanding of how linear and non-linear feedbacks within the carbon cycle operate to modulate climate. We welcome contributions on fundamental processes affecting different compartments of the climate system through time.

Impacts: This session seeks to analyse the expression of global changes linked to climate and the carbon cycle on different components of the Earth System across multiple time scales, utilizing multi-disciplinary approaches.

Frontiers: This session aims to explore the frontiers in analytical and scientific research on carbon cycle-climate system dynamics, to identify common/trans-scale knowledge gaps, and to stimulate discussion on how an integrated approach can push research boundaries.

The workshop will be limited to 150 people for logistic reasons, so we encourage registering early

**REGISTRATION AND
ABSTRACT SUBMISSION:**
from December 13th 2021 to
February 28th 2022

<https://dta.cnr.it/climate-change-and-carbon-cycle/>

Scientific knowledge exchange will also be fostered through **3 interactive cross-disciplinary laboratories:**

- «Observation and Prediction: two sides of the same coin»
- «Discovering the Deep»
- «Walking through the Earth System»

The C⁴ Workshop is promoted and organized by the Working Groups "Paleoclimate dynamics" and "Carbon Cycle" of the National Research Council of Italy.



Slovenia – SINQUA

P. Jamšek Rupnik¹, A. Novak^{1,2}

Report from the 6th Regional Scientific Meeting on Quaternary Geology: Seas, Lakes and Rivers, September 2021, Ljubljana

The 6th Regional Scientific Meeting on Quaternary Geology took place from September 27th through 29th, 2021 in a hybrid form: as a virtual and in-person meeting in Ljubljana, Slovenia. This meeting was the first one hosted by the Slovenian INQUA Committee (SINQUA), while the first 5 meetings were organized by the Croatian INQUA Committee. SINQUA together with the Croatian and Italian Quaternary communities, including 19 partner institutions and associations from the region, organized this meeting with the main theme “Seas, Lakes and Rivers”, which was the focus of the keynote lectures and the virtual excursion. The meeting was attended by about fifty researchers from nine countries working on Quaternary topics in the Adriatic, Alpine, Dinaric and Pannonian regions.

The first two days were devoted to scientific sessions that included presentations on 1) seas & transitional environments, 2) archeology, earthquakes & structural geology, 3) projects, 4) lakes, forelands & mountains, 5) karst, and 6) aeolian sediments. The keynote lectures included presentations by a) Branko Čermelj: The recent sediments of the Gulf of Trieste, the most northern part of the Adriatic – An overview of the last 5 decades of the biogeochemical and sedimentological research, b) Slobodan Miko: Submerged landscapes of the Eastern Adriatic Sea, c) Andrej Gaspari: Underwater archaeological investigations in Slovenia (the Slovenian sea and Ljubljana moor), d) Nadja Zupan Hajna: Sediments of a sinking river in karst over time: Škocjan Caves as a case study, e) Nikolina Ilijanić: Paleolimnology of Holocene karst lakes along the Eastern Adriatic coast. The second day ended with a geological tour of Ljubljana led by Matevž Novak. On the third day, a virtual excursion took us to Quaternary marine, lacustrine and fluvial sites in Slovenia, Italy and Croatia, presented by Alessandro Fontana, Giovanni Monegato, Petra Jamšek Rupnik, Andrej



Hybrid form of the meeting attracted more virtual participants. Virtual excursion on a 3rd day of the meeting was mostly followed online.

Šmuc, Maja Andrič, Nina Caf, Katarina Jerbić, Ana Novak and Livio Ronchi. More information is available on the meeting's [website](#).

Despite the hybrid format of the meeting, the presentations stimulated lively discussions in a friendly atmosphere. Many new research results were presented and collected in the Book of abstracts, which is available [online](#). In addition, a [special issue of Quaternary](#) is in preparation for selected papers.

The next meeting, the 7th Regional Scientific Meeting on Quaternary Geology, will be organized by the Croatian INQUA Committee in 2024 in Croatia.

AFFILIATIONS

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² University of Ljubljana, Slovenia

France - AFEQ

Activities and upcoming deadlines of the French Quaternary Association

Representing INQUA in France, the *Association Française pour l'Etude du Quaternaire* (AFEQ), i.e. [French Quaternary Association](#), is an active group of several hundreds of colleagues working on all Earth's reservoirs (continent, ocean, ice). The activities of the association are managed by a board of sixteen members, partly renewed every two years following elections. National and international Master, PhD and postdoctoral positions, workshops and congresses are regularly advertised through the AFEQ list and [Facebook](#) and [Twitter](#) accounts.

FUNDING AND PRIZES

Once or twice a year, AFEQ opens a call for financially support PhD and post-doctoral students who are members of AFEQ and wish to attend (inter)national workshops and congresses. Every two years and during the AFEQ congress, the association awards the Franck Bourdier PhD prize and the Henriette Alimen career medal. The PhD prize rewards a thesis carried out in a French university or an authorized organism. The career medal rewards a senior researcher whose career has substantially contributed to improve our understanding of the Quaternary period. In 2020, the PhD prize was awarded *ex-aequo* to Coralie Zorzi (*Plio-Pleistocene marine palynomorph biostratigraphy of the subarctic Pacific*) and Anaëlle Vayssière (*Fluvial trajectories and processes in the middle Cher valley from the Tardiglacial to the present day*). The first career medal laureate was Catherine Ritz for her major contributions in dating ice cores and modelling the evolution of large polar ice caps (Fig. 1).



FIGURE 1: PhD prizewinners Anaëlle Vayssière (left) and Coralie Zorzi (right) with former president Pascal Bertran.

THE QUATERNAIRE JOURNAL

The board manages the publication of *Quaternaire*, an indexed peer-reviewed scientific journal publishing articles dealing with all aspects of Quaternary sciences (Fig. 2). The absence of content/size limit allows submitting either long manuscripts with extensive data presentations or short papers reporting progress on a given topic, method, etc. It also provides the opportunity to guest-editors to lead thematic issues. *Quaternaire* is published online on

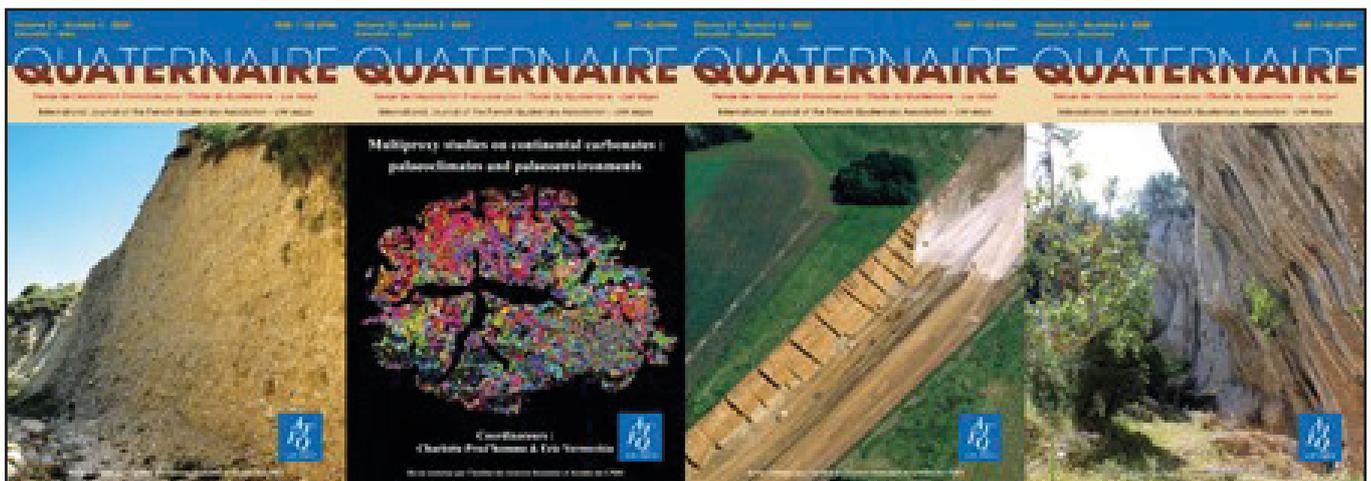


FIGURE 2: *Quaternaire*, the official scientific journal of the French Quaternary Association

OpenEdition Journals where an HTML version of each article is fully accessible. Manuscripts in English are welcome: submission and publication are free of charges.

AFEQ CONGRESSES

The forthcoming congress Q13 will be held in Strasbourg from the 14th to the 18th of March 2022. Four days of communications will be followed by one day of workshops. Colleagues from other countries are thus highly welcome to take part in this congress. Last edition, Q12, held in Aubervilliers in 2020 brought together about 200 participants from 13 countries, including many young colleagues. In addition to classical Quaternary themes, the impacts of human societies on landscapes and anthropization processes will be particularly addressed. For more information please see the [congress](#) and the [AFEQ](#) websites.

A YEARLY EXCURSION

During the AFEQ field trip 2020, organised last September, Magali Delmas and Marc Calvet (University of Perpignan) explained in great detail and enthusiasm the 10-year last research carried out in the eastern Pyrenees on the Quaternary fluvial terraces and glacial deposits at higher altitudes. They paid special attention to present all the dating techniques applied to these deposits with the aim to provide an accurate picture of the dynamics and extent of glaciers in this part of the Pyrenees. They organised also the visit to two archaeological sites, the Niaux and Mas d'Azil caves, which also preserve sedimentary deposits associated with ice ages (Fig. 4, 5). Many of the participants in the field trip were young doctoral students and researchers, who received financial support from the AFEQ.

The preparation of the spring 2022 excursion in northern France is in progress. It will be preceded by a one-day symposium on the regional Eemian, before visiting two major Eemian archaeological sites (Waziers and Caours). The following days we will visit other sites of Pleistocene inheritances: a) dunes, thermokarsts and channelled streams of the Scarpe plain, b) the historical and constitutive sections

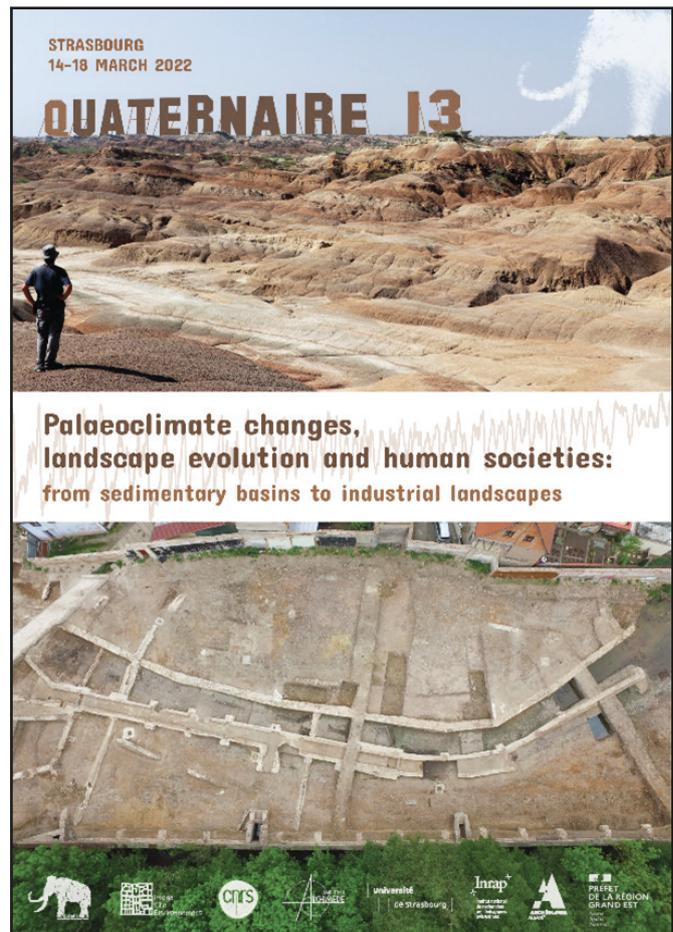


FIGURE 3: The forthcoming AFEQ congress Q13, Strasbourg, 14-18 March 2022.

of the Somme Quaternary terrace system (Cagny-la Garenne, Abbeville-carrière Carpentier) some of which recently reinvestigated (Saint-Sauflieu), c) the Weichselian loess sequences of Amiens-Renancourt and Morcourt, and d) the Holocene peat of Morcourt. Updates will be provided [soon](#).



FIGURE 4: Presentation of the terminal moraine complex of the Têt valley at the belvedere of Col du Pam.



FIGURE 5: Inside of Notre Dame de Vie cave located in the staged karst systems of the Têt valley.

On the road to Roma2023...

THE INQUA ROMA2023 WEBSITE WILL BE ONLINE ON JANUARY 10TH

The official website of the INQUA Roma2023 Congress will be launched on 10th January 2022, in view of the release of the First Circular.

Any information about the Congress organization will be available in real time on the website. People interested in participating to INQUA Roma2023 are recommended to save the web address inquaroma2023.org in their favourite bookmarks. Stay tuned!

PEOPLE AT WORK!

INQUA Roma2023 is coming soon! The Organizing Committee is hard at work for the preparation of the First Circular which will be released in January. Lots of topics yet to discuss and many things to set, but we are ready to go. Follow us on our [Facebook](#), [Twitter](#) and [Instagram](#) accounts for updates and news!

AIQUA Webinars Winter 2021 - Spring 2022

The Italian Association for Quaternary Studies (AIQUA) organises a series of webinars in preparation to INQUA Rome2023.

12 January, 3.30 PM CET

Onn Crouvi - Geological survey of Israel
Dust, loess and their impact on soils around the Mediterranean

Upcoming

Antonio Caruso - University of Palermo
The Plio-Quaternary GSSPs in the Mediterranean: an overview

Philip Hughes - University of Manchester
Quaternary Glaciations in the Mediterranean area

Francesca Ferrario - University of Insubria
Earthquake environmental effects and the ESI scale: an INQUA tale

More information coming soon on the INQUARoma2023 and AIQUA website.



Jule Xiao¹ & Thijs van Kolfschoten^{2,3}

Quaternary International - New Releases

Since the publication of the June 2021 issue of *Quaternary Perspectives* 12 new volumes of *Quaternary International* have been published: 5 Regular issues with standalone papers and 7 Special/Thematic Issues. Follow the latest updates on the published issues on the [Quaternary International](#) website.

SPECIAL/THEMATIC ISSUES

[Volume 593-594](#) - Pages 1-434

Anthracology: Charcoal Science in Archaeology and Palaeoecology

Edited by Eleni Asouti, Ceren Kabukcu

Anthracology, the field of environmental archaeology concerned with the study and interpretation of wood charcoal macrofossils retrieved from archaeological sites and off-site palaeoecological contexts, is a well-established discipline with its own theoretical principles and methodologies within the domains of archaeological science and palaeoecology. This special issue of *Quaternary International* bears testimony to the maturity and achievements of the discipline. Titled *Anthracology: Charcoal Science in Archaeology and Palaeoecology*, it comprises select papers presented at Anthraco2019 – 7th International Anthracology Meeting held at the University of Liverpool Central Teaching Hub, 2–6 September 2019, under the auspices of the Department of Archaeology, Classics and Egyptology (Fig. 1).

[Volume 596](#) - Pages 1-184

Variability in Lithic Production Technology during the Range Expansion of Paleolithic Modern Humans: Asian Perspectives

Edited by Yoshihiro Nishiaki, Seiji Kadowaki

Determining when and how Paleolithic modern humans successfully dispersed across Eurasia, replacing earlier archaic populations, is a keenly debated topic in the international literature. While archaeological studies have been carried out using a variety of multidisciplinary approaches, much of the data, and the resulting hypotheses and frameworks, are centred on field investigations

in western Eurasia and Africa. This special issue, entitled *Variability in Lithic Production Technology during the Range Expansion of Paleolithic Modern Humans: Asian Perspectives*, aims to broaden our geographic perspective of Pleistocene human dispersals, and the technological record associated with this process, by focusing on archaeological records from Asia.

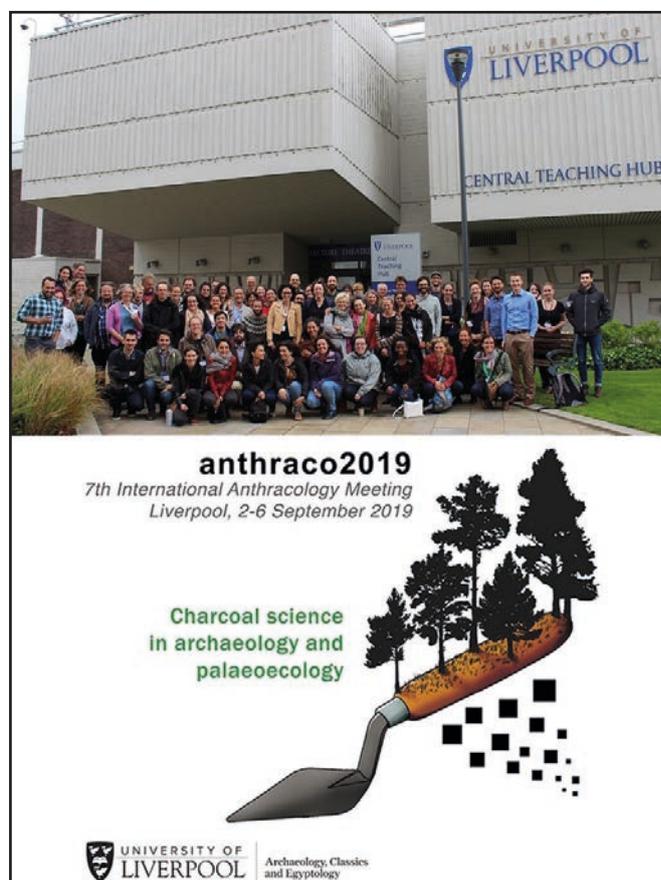


FIGURE 1: *QI Vol. 593-594 - Group of Anthraco2019 participants braving the wind and rain lashing the Liverpool conference venue (ph. Eleni Asouti; conference logo by Marvin Demicoli).*

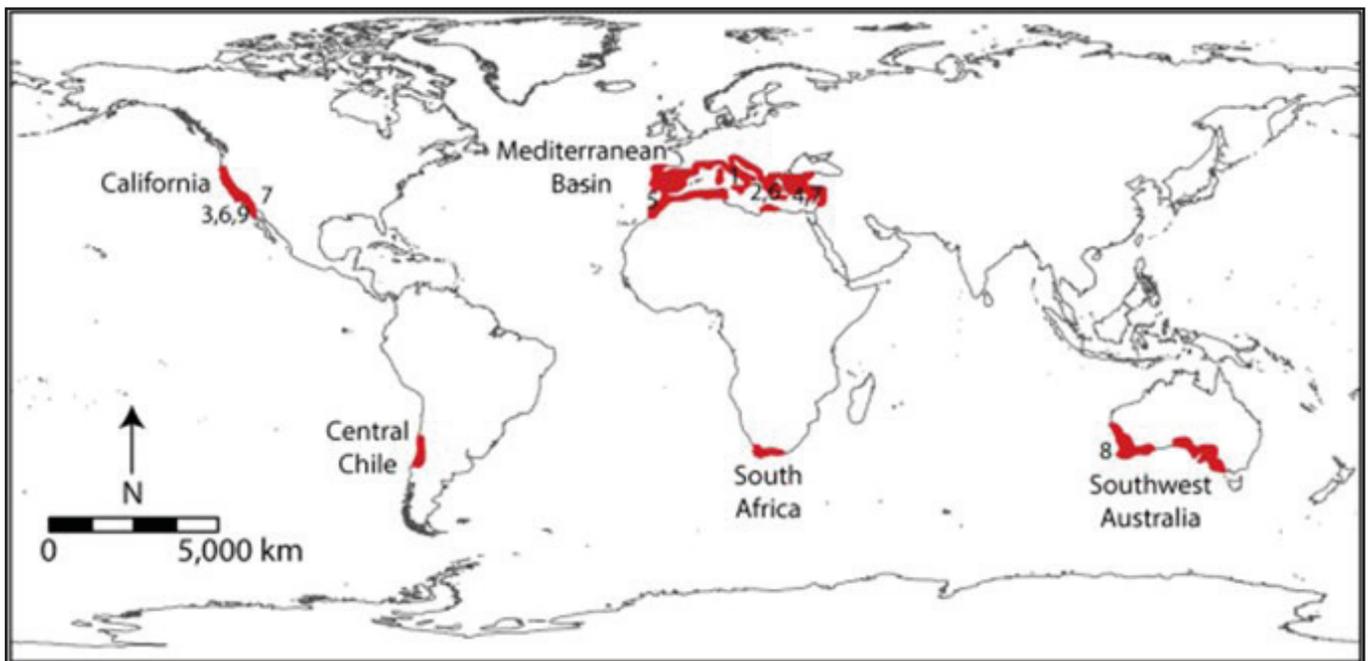


FIGURE 2: *QI Vol. 597* - Approximate locations of global Mediterranean Environment zones. The locations are compiled from several open source maps and digitized by the authors using a basemap available in ArcGIS 10.7.1. Case studies in this volume are indicated by: 1) Cheung; 2) Dibble and Finné; 3) Gusick et al.; 4) Jarriel; 5) Jazwa and Collins-Elliott; 6) Jazwa and Jazwa; 7) McNamee et al.; 8) Monks and Radde.

[Volume 597](#) - Pages 1-130

Human Adaptations in Mediterranean Environments

Edited by Kyle A. Jazwa, Christopher S. Jazwa

This Special Issue is composed of papers that examine this relationship (human-environment) within Mediterranean-type environments. Mediterranean regions were chosen as the focus because examples are present in all inhabited continents in the world, and they were the setting for considerable variability in human behavior, culture, and society (Fig. 2).

[Volume 599-600](#) - Pages 1-234

Last 5 ka in South Asia: Climate and Civilization

Edited by Bahadur Singh Kotlia, David Porinchi, Anoop Kumar Singh

It is clear that the abrupt climatic events during the mid-to late Holocene were, at least in part, responsible for human migration and reorganization of the settlements. However, the following questions remain unanswered and were the objectives of this volume of Quaternary International.

1. What was the main reason for the Upper Holocene communities to discard hunting and gathering and modify agricultural approaches and are the Upper Holocene abrupt events (e.g., 4.2 ka, 3.1 ka, MCA, LIA), responsible for reorganization of the society and civilizations?
2. Are the so-called abrupt events synchronous throughout South Asia or are they dependent on altitudinal and latitudinal characteristics?
3. Is it possible to quantify the contribution of different monsoons (particularly Indian Summer and Indian Winter monsoons) under various precipitation regimes during the

last 5000 years and is the role of the Indian Winter Monsoon (IWM) significant in the South Asia during this interval?

4. Were there other reasons, in addition to climate change, responsible for the fall or restructuring of ancient civilizations?

[Volume 602](#) - Pages 1-142

Multi-Proxy Approaches in Marine, Coastal, and Deltaic Environments Worldwide

Edited by Martin Seeliger, Anna Pint

Ten studies of this special issue (Fig. 3) are grouped in four main topics: I) coastal geoarchaeology (Caporizzo et al., 2021; Aucelli et al., 2021; Giaime et al., 2021), II) coastal evolution at the Atlantic coast of South America (Luengo et al., 2021; Figueiredo et al., 2021; Barreto et al., 2021; Martins et al., 2021), III) offshore environmental development processes (Kostecki et al., 2021), and IV) marshland and floodplain dynamics (Tutuianu et al., 2021; Fard et al., 2021).

[Volume 603](#) - Pages 1-138

Human Evolution in the Asia-Pacific Realm: Proceedings of the 1st Asia-Pacific Conference on Human Evolution

Edited by Julien Louys, Mathieu Duval

The first Asia-Pacific Conference on Human Evolution (APCHE) involved experts working on all aspects of the evolution of humans in the broader Asian and Pacific regions. It ran for three days from 25 to 27 June, 2019 and was organized by the Australian Research Centre for Human Evolution (ARCHE) at Griffith University, Brisbane. The primary goal of the conference was to bring together leading Quaternary researchers and foster collaborations

and dissemination of research in this field. In particular, the conference had a focus of bringing scientists from Asia and the Pacific to directly share their research with academics from Australia, Europe, and North America. To cover the breadth or topics contributing to this agenda, the conference was divided into eleven sessions including both standard and keynote presentations. Contributions to this special issue also span this breadth, and all major disciplines in human evolutionary research discussed throughout the conference are touched on in the pages of this volume (Fig. 4).

[Volume 605-606](#) - Pages 1-364

The Quaternary of Europe and Adjacent Areas: Stratigraphical Perspectives and Tools for Correlations – SEQS-2019

Edited by Guzel Danukalova, Markus Fiebig, Pierluigi Pieruccini

This Special Issue of *Quaternary International* present the results of research spanning the bow from marine over brackish to terrestrial environments. It offers palaeoclimate studies from England to the Caucasus and from Kola Peninsula to Mongolia and Turkey. Palaeozoological and palaeobotanical evidence is presented over vast parts of the Eurasian continents.

This broad approach and picture of Quaternary Science is the scope and focus of the Section of European Quaternary Stratigraphy (SEQS) in the framework of the Stratigraphy and Geochronology Commission (SACCOM) of INQUA (Fig. 5).

The contributions to the Special Issue focus on two main topics: a) Stratigraphy and multi-proxies records from the European Regions and b) palaeontological (mainly) settings in Europe and their adjacent areas. All the contributions are also related to the activities of the INQUA Funded International Focus Group SEQS-DATESTRA (SACCOM IFG 1612F), providing overviews and summary of information from Quaternary Terrestrial Stratigraphical key-sites from different European regions and adjacent territories.

TOP CITED

The current, most cited article published in *Quaternary International* the past 3 years is:

Global chronostratigraphical correlation table for the last 2.7 million years, version 2019 QI-500

K.M. Cohen, P.L. Gibbard

[Quaternary International, Volume 500, p. 20-31](#)

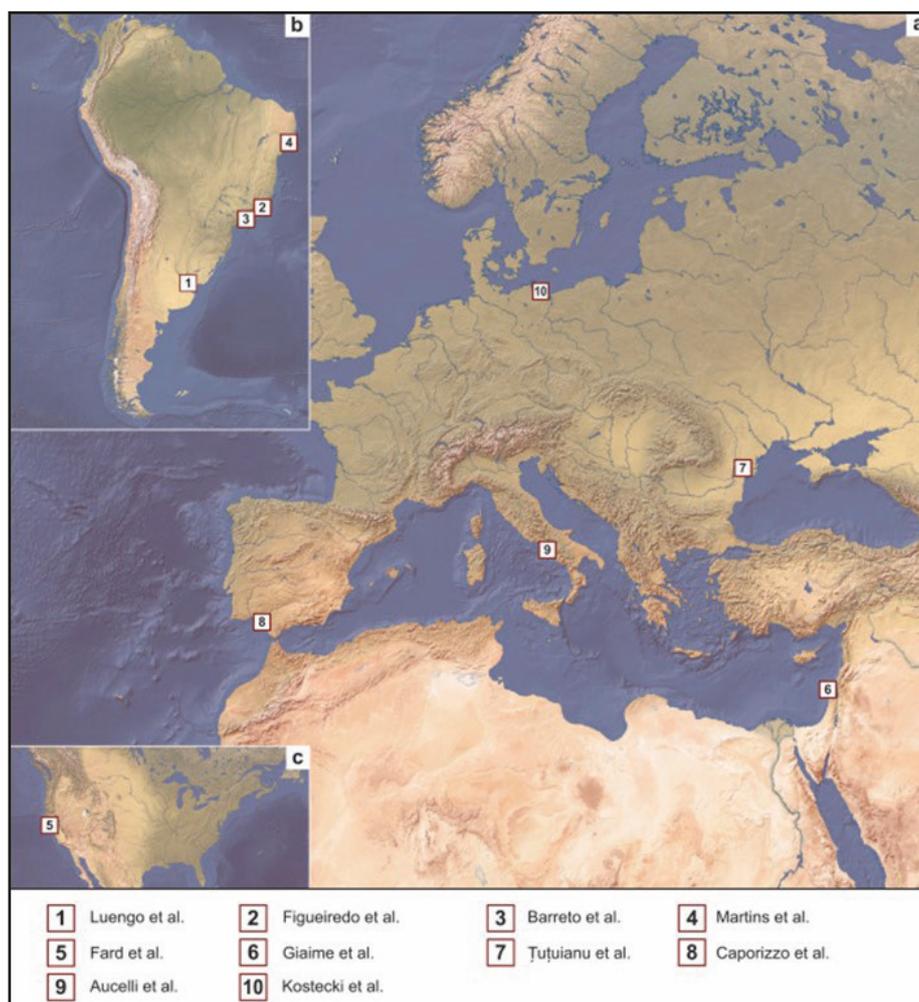


FIGURE 3: *QI Vol. 602* - Location of the studies presented in this Special Issue. (a) Structural map of Europa and Northern Africa. Insert: (b) Structural map of South America; (c) Structural map of the central part of Northern America.

The Global Chronostratigraphical Correlation Table for the Last 2.7 Ma is a chart initiated by Gibbard et al. (2004, Gibbard et al., 2005a, Gibbard et al., 2005b) and Gibbard and Cohen (2008), as output of work for Quaternary stratigraphic commissions of International Union of Quaternary Research (INQUA - SACCOM) and International Commission on Stratigraphy (ICS) (Subcommission on Quaternary Stratigraphy: SQS). Every few years, incremental updates to the chart (Cohen and Gibbard, 2010, 2016) have appeared online on the websites of these commissions and have been distributed as handouts at conferences.

The chart covers the last 2.7 Ma, has global coverage and resolves to the nearest 5000 years in its graphics. The chart communicates that because different regions hosted different Quaternary environments, regional schemes differ between countries and between land and sea. The chart is designed to provide a ready reference to stratigraphical terms that are in use in different areas and environments but apply to the same time periods. The many regional terms it contains, makes it useful as an aide memoire for scientists and students needing to look up terms encountered in the literature on parts of the global Quaternary record with which one is not yet familiar. The overview that it provides, makes



FIGURE 4: *QI Vol. 603 - Participants of the 1st Asia-Pacific Conference on Human Evolution (APCHE) organised by the Australian Research Centre for Human Evolution at Griffith University (credit: Brooke Emma Jensen).*

it useful as an infographic to show professionals and general public alike the general structure and global communality of the Quaternary geological record. These two types of usage explain why the chart (and derivatives) has seen wide usage in text books, as lecture materials and so on (Fig. 6).

For the complete list of Top cited, Most-downloaded and Most popular papers please consult the [Quaternary International](#) website.

NEW PROPOSALS FOR SPECIAL ISSUES

The policy of *Quaternary International* is to publish thematic issues, including peer-reviewed collected research papers from symposia, workshops and meetings sponsored by INQUA's Commissions, Sub-Commissions and working groups. We would like to invite leading scientists to propose SIs in *Quaternary International*. Please contact the Editor-in-Chief (Jule Xiao) for further details.

Standalone manuscripts of outstanding quality presenting advanced research that were deemed to be of broad interest for the global Quaternary research community as a whole are also accepted and published in a restricted number/year regular issues after passing the review process.

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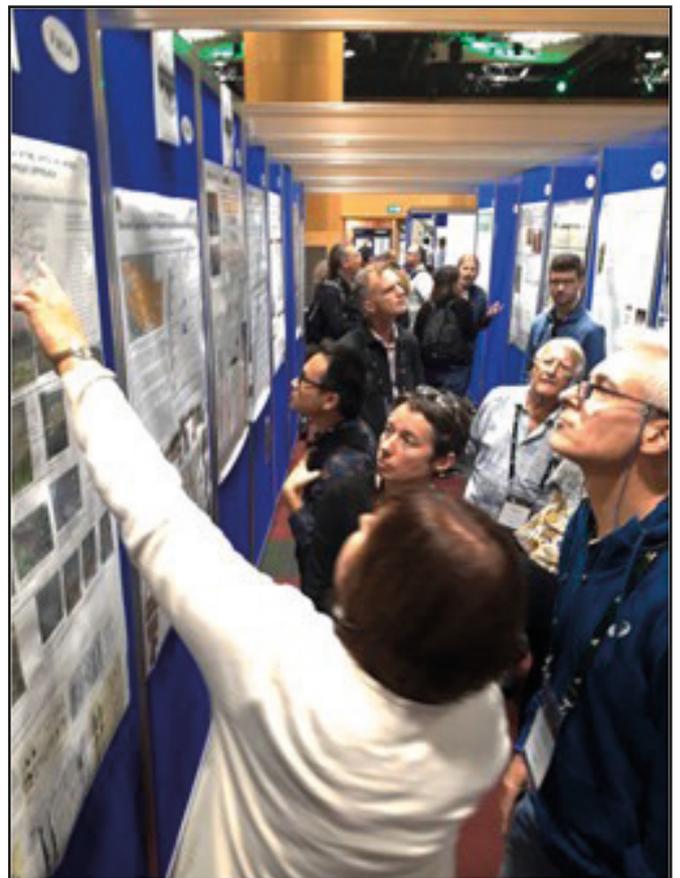


FIGURE 5: *QI Vol. 605-606 - Presentation of poster at the SEQS poster session during the INQUA Congress in Dublin (Ireland), on the July 30, 2019. Personal discussions are the most valuable key to scientific exchange and scientific progress (Ph. G. Danukalova).*

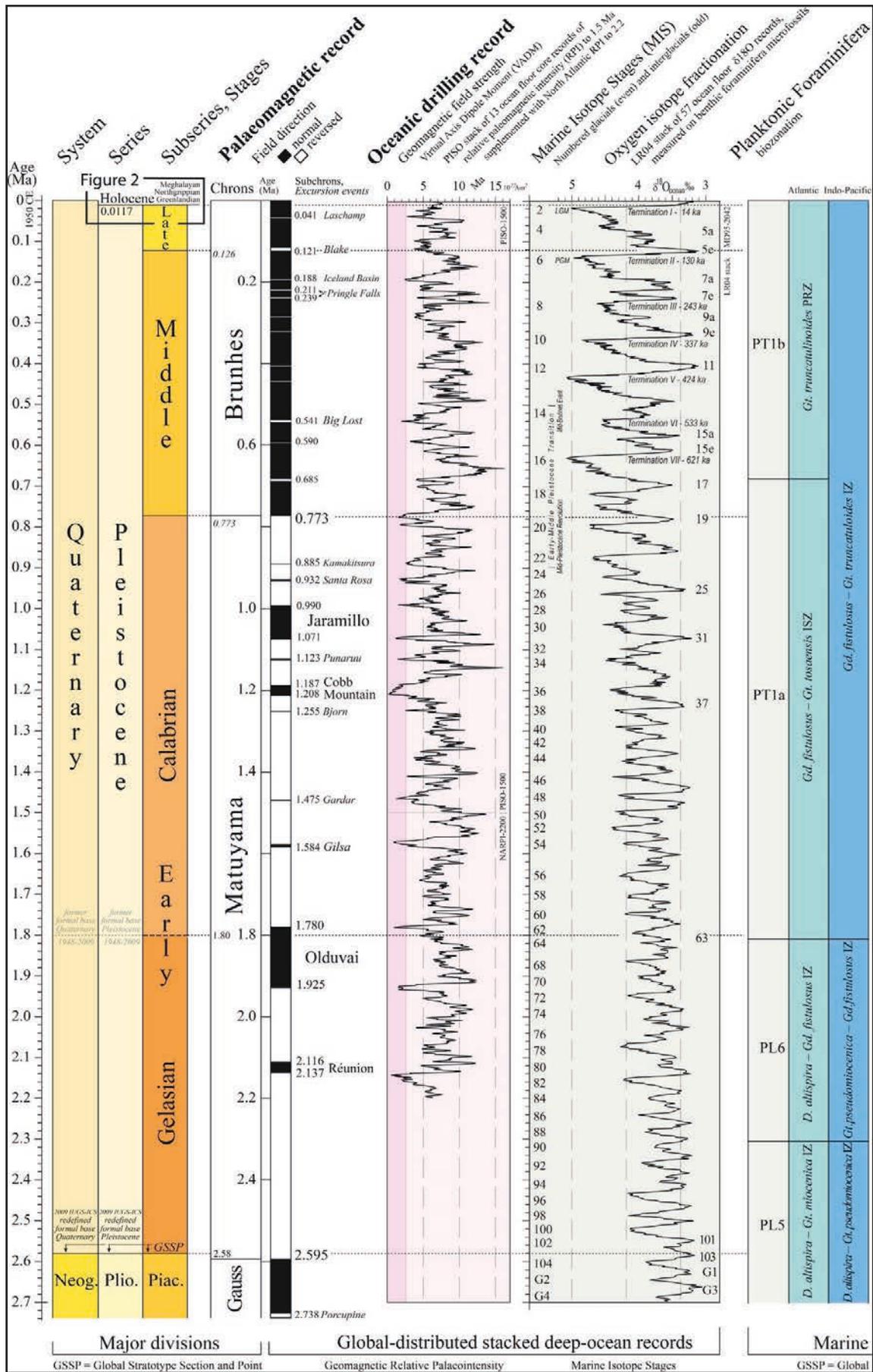


FIGURE 6: Global chronostratigraphical correlation table for the last 2.7 million years, v. 2019. The figure is a compilation making extensive use of published data sets and schemes, all cited in the main text. An unpaginated version of the chart, suitable for poster-sized reproduction, is available online at data.mendeley.com (Cohen & Gibbard, 2019).

