



ESHE 2021 Conference Schedule

Our meeting is supported by:



Tuesday 21 September 2021

Virtual Keynote

5:00 pm to 6:30 pm (CEST, GMT+2) [4:00 – 5:30 pm GMT+1, London]



Chris Stringer:

Human evolution: some recent discoveries and their implications

The last few years have seen many exciting discoveries and much innovative research on human origins. In this lecture I want to review some of what we have learnt, and what we still need to learn, about the last 500,000 years of human evolution. This includes the evolution and relationships of our species Homo sapiens, the Neanderthals and the Denisovans, and the outstanding question of why we are the only kind of humans left out of the many that came before us.

Moderated by Mateja Hajdinjak, hosted by the Francis Crick Institute

[Zoom LINK](#)

(Passcode: 930391)

Wednesday 22 September 2021

**1:00 to 1:30 pm CEST Opening of the Conference
(and the general assembly)**

Zoom

1:30 to 2:30 pm CEST: Podium Elevator Pitches, Session 1
Moderated Live Discussion, Zoom

Chair Session:
Sireen El Zaatari

1:30-1:50 pm CEST	
Miguel Caparros & Sabine Pratt	The phylogenetic definition and mode of evolution of the genus <i>Homo</i> - A new conceptual approach
Elena I. Zavala et al.	Sediment DNA identifies hominin and faunal turnovers at Denisova Cave
Cosimo Posth et al.	Genomic analysis of Czech fossil reveals the oldest modern human skull from Europe
Q&A	
1:50-2:10 pm CEST	
Mateja Hajdinjak et al.	Initial Upper Palaeolithic genomes from Bacho Kiro Cave reveal recent Neanderthal ancestry and links to Asia
Gregorio Oxilia et al.	Earliest western expansion of the Uluzzian groups and the late Neanderthal occupation in southern Italy
Andrea Picin et al.	At the onset of the Central European Micoquian: new archaeological and genetic data from Stajnia Cave (Poland)
Q&A	

2:10-2:30 pm CEST	
Alon Barash	New fossil evidence for a large-bodied hominin from Early Pleistocene 'Ubeidiya, Israel
Juliette Guibert-Cardin	Middle Pleistocene tools and site functions: preliminary traceological analysis of the lithic assemblage from Marathousa 1 (Megalopolis, Greece)
Claudio Tennie	Chimpanzees fail to spontaneously produce and use sharp-edged stone tools
Q&A	

Break

2:30-2:45 pm CEST

2:45-3:45 pm CEST: Poster session 1, Ice Island

Unmoderated, Gather.town

Giuseppe Briatico et al.	Paleoenvironmental insights by stable isotopes and phytoliths at Simbiro III Monumental Section (~1.2-1.3 Ma) (Melka Kunture, Upper Awash, Ethiopia)
Christina Siali et al.	A reliable 3D approach for identifying domestication related activities of Reindeer (<i>Rangifer tarandus</i>) based on muscle attachment sites.
Ana Alvarez Fernandez et al.	The Mousterian lithic assemblage of Galería de las Estatuas site (Sierra de Atapuerca, Spain) from a functional perspective. Preliminary Results.
Ines Bludau et al.	Lake level changes and their paleo-climatic implications at the MIS12 Lower Paleolithic (Middle Pleistocene) site Marathousa 1, Greece
João Cascalheira et al.	Middle Paleolithic occupations in the Escoural Cave (southern Portugal): preliminary geoarchaeological results

Jacopo Niccolo Cerasoni et al.	Late Pleistocene to Holocene palaeoenvironmental reconstruction and human behaviour at Iho Eleru rock shelter, Nigeria
Ana Belen Galan Lopez et al.	Studying mobility degree of extant caribou (<i>Rangifer tarandus</i>) and its application to fossil reindeer in South-Western France: an actualistic approach
Eleonora Gargani et al.	The manufacture of antler tools in the Magdalenian Swabian Jura: technological analysis and reconstruction of the reduction sequence.
Alessandra Livraghi et al.	Combining cementochronology and tooth wear analyses to estimate the season of death of large sized game: the case of De Nadale Cave and San Bernardino Cave (north-east of Italy)
Marcel Niekus et al.	Middle Palaeolithic, Upper Palaeolithic and Mesolithic flint artefacts dredged from the offshore Last Glacial Rhine-Meuse valley floor. The Maasvlakte 2 and Zandmotor sites (The Netherlands)
Mikel Arlegi	Evolutionary selection and morphological integration in the foot of modern humans
Emma Bird et al.	Internal bone architecture in the triquetrum of extant hominids and <i>Homo neanderthalensis</i>
Miguel Delgado et al.	Pattern and magnitude of taxonomic classification accuracy of living and fossil hominoid upper molars through landmark-based and surface-based approaches
Christopher Dunmore et al.	Degree of trabecular bone extension into the medullary cavity of the first metacarpal in Plio-Pleistocene hominins.
Jérémy Dubeau et al.	On the tracks of Neandertals on the Iberian Coast. Palaeobiological analyses of the footprints from Matalascañas (Almonte, SW Spain)
Daniel García-Martínez et al.	Comparative anatomy of the upper ribs and vertebrae of MH1 (<i>Australopithecus sediba</i>) from a 3D geometric morphometrics approach
Tracy Kivell et al.	Revisiting the functional morphology of the <i>Homo habilis</i> OH 7 hand
Jülide Kubat et al.	Cyclical trace element patterns in Pleistocene <i>Pongo</i> and <i>Homo erectus</i> on Java (Indonesia) indicate seasonal differences in dietary strategies

Jana Kunze et al.	Evidence for habitual tool use in early hominins
José María López-Rey Pérez et al.	Estimation of the diaphragmatic domes in KNM-WT 15000 <i>Homo ergaster</i> and Kebara 2 <i>Homo neanderthalensis</i> using a <i>Homo sapiens</i> model
Laura Martínez et al.	Buccal dental microtexture analysis of extant primates and Pliocene <i>Australopithecus</i> from East Africa.
Alexandra Schuh et al.	A microscopic analysis of bone development of the airorhynch orangutan midface
Alejandra Sotomayor Sainz & Amanda G. Henry	Plant foods in Palaeolithic diets: nutritional relevance beyond carbohydrates
Clément Zanolli et al.	The structural organization of <i>Homo luzonensis</i> teeth
Costantino Buzi et al.	The retrodeformation of the cranium from Steinheim an der Murr, Baden-Württemberg, Germany
Tingfeng Zhang & Sandra Martelli	Differences in spatial relationships of the hominoid temporal glenoid fossa and neurovascular cranial base outlets
Teagan Harty et al.	Ecological diversity of <i>Gorilla</i> spp. from dental macrowear analyses
George Konidaris	<i>Macaca</i> (Cercopithecidae, Primates) from the Middle Pleistocene of Marathousa 1 (Megalopolis basin, Greece)

Break

3:45- 4:00 pm CEST

4:00 pm to 5:00 pm CEST: Pecha Kucha Elevator Pitches
Moderated Live Session 2, Zoom

Session Chair:
Trine Kellberg Nielsen

4:00-4:20 pm CEST	
Elena Essel et al.	Non-destructive extraction of ancient DNA from bone and tooth artefacts
Alejandro Andirkó et al.	Establishing a chronology of <i>Homo sapiens</i> -specific genetic variants
Pierre Gousset et al.	Phylogenetic analysis of <i>Homo luzonensis</i> : taxon, characters, phylogeny and island evolution
Q&A	
4:20-4:40 pm CEST	
Jacopo Gennai	Like two peas in a pod: lithic technology points to high similarity in the early Upper Palaeolithic
Firas Jabbour et al.	Changes in settlement and technical behavior of the Upper Paleolithic occupations of Aghitu-3 Cave, Armenia
Igor Djakovic et al.	Evaluating the spatio-temporal proximity of Neanderthals and <i>Homo sapiens</i> at the onset of the Upper Palaeolithic in France and northern Spain
Q&A	
4:40-5:00 pm CEST	
Ron Shimelmitz et al.	Renewed excavations of Tabun Layer B: a window into the complexity of Middle Paleolithic hominin populations
Marco Peresani et al.	Use of green pebbles by late Neanderthals at Fumane cave
Paige Madison	Tug of War

Q&A

Thursday 23 September 2021

**1:00 to 2:00 pm CEST: Podium Elevator Pitches,
Session 3**
Moderated Live Discussion, Zoom

Session Chair:
Philipp Gunz

1:00-1:20 pm CEST	
Philipp Mitteroecker et al.	How to identify drift vs. selection in the evolution of human morphology? The case of the human pelvis
Ekaterina Stansfield et al.	The evolution of pelvic canal shape and rotational birth in humans
Rita Sorrentino et al.	Unraveling the morpho-functional traits of the Neanderthal talus
Q&A	
1:20-1:40 pm CEST	
Giulia Marciani et al.	The Uluzzian techno-complex at Grotta di Castelcivita (southern Italy): production and use of stone tools
Naomi L. Martisius et al.	Initial Upper Paleolithic bone technology and ornaments at Bacho Kiro Cave (Bulgaria)
Dirk Leder et al.	Neanderthal symbolic behaviour - A 51,000 year-old engraved bone from Einhornhöhle, Germany
Q&A	

1:40-2:00 pm CEST	
Jennifer Leichliter et al.	Nitrogen isotope analysis of 120,000-year-old tooth enamel from the Middle Palaeolithic Neanderthal site of Neumark-Nord 2, Germany
Alicia Sanz-Royo & Ana B. Marín-Arroyo	What Neanderthals and AMH ate in northern Iberia? Evaluation of the subsistence strategies and environmental exploitation during the Middle to Upper Palaeolithic transition
Gabriele Terlato et al.	Aurignacian subsistence strategies at Fumane Cave between 41-37ky cal BP
Q&A	

Break

2:00-2:15 pm CEST

2:15-3:15 pm CEST: Poster session 2, Volcano Island

Unmoderated, Gather.town

Gabriele Russo et al.	New insights on late Neanderthal subsistence strategies and settlement dynamics in the southern Harz, Germany
Ninon Taffin et al.	How luminescence dating highlights the earliest known prehistoric occupations of the Central Aegean (Stélida, Naxos island, Greece)
Soňa Boriová et al.	Bone breakage experiments under microscope: modelling archeological situation in bone fragmentation at Upper Paleolithic Pavlov I site, Czech Republic.
Idoia Claver et al.	Taphonomic approach to the faunal assemblages of the Middle Pleistocene sites of Oxígeno and Santa Elena (Manzanares Valley, Spain)
Annapaola Fedato et al.	The influence of hand dimensions on the pattern of fingers flexion during Lower Paleolithic stone tool

	manipulation
Cristina Gameiro et al.	Time and Space: spatial and functional analysis at Rôdo (Central Portugal) Late Pleistocene open-air site
Susanne Krueger et al.	The potential resource space for hominids in Olduvai Gorge, Middle Bed I
Leopoldo Perez et al.	Exploring LGM subsistence in Cantabrian and Mediterranean Iberian areas: ungulates bone assemblages as nutritional and industrial resource among Solutrean groups
Maria Silva et al.	No sex differences during visual exploration of Lower Paleolithic tools
Andrzej Wisniewski et al.	Lower Palaeolithic and early Middle Palaeolithic in Poland: Re-assessment of the age and technological features of sites
Marianne Cooper et al.	An analysis of morphological evolution in the hominid lower limb using methods from quantitative genetics
Quentin Cosnefroy et al.	Ontogenesis of femoral biomechanical properties in non-human primates: study of olive baboon
Edwin de Jager et al.	Bringing blood to the brain: how to estimate the size of the vertebral arteries in fossil specimens
Stanislava Eisova et al.	Craniovascular morphology and craniosynostoses: an evolutionary perspective
Lisa Genochio et al.	The development of bite force resistance in modern humans and Neanderthals
Raquel Hernando et al.	EASY, FAST, AND CLEAR. Recognizing the role of the optical microscope for the quantification of human dental microwear
Mégane Holl	How does hyperostosis frontalis interna affect bone cranial vault thickness and organization?
Tania Kapoor & Suzy White	Craniofacial variation in early <i>Homo sapiens</i>
Julia Muñoz Guarinos et al.	Ontogeny aspects of femoral mid-neck strength in modern humans and Middle Pleistocene humans from Sima de los Huesos (Atapuerca, Spain).

Christopher Pestana et al.	Phylogenetic ancestral character state reconstruction using maximum likelihood of hominin encephalization
Olalla Prado Nóvoa et al.	Don't stop me now. How can pregnant females deal with mobility costs?
Nadine Steer et al.	Functional morphology of the scaphoid of extant hominoids and fossil hominins.
Samar Syeda et al.	Inferring hand use in <i>Australopithecus sediba</i> : Analysis of the external and internal morphology of hominin proximal and intermediate phalanges.
Alessandro Urciuoli et al.	The primitive morphology of the Indonesian <i>Homo erectus</i> cochlea
Amelie Vialet et al.	Before and after Marine Isotopic Stage 7: the human remains from the Coupe-Gorge Cave (Montmaurin, France)
Mosarwa Babutsi et al.	Locomotor behaviour of Plio-Pleistocene cercopithecoids: evidence from trabecular bone properties.
Ivan Ramirez-Pedraza	Feeding behavior of macaque from the Plio-Pleistocene site Guefâit-4.2 (Eastern Morocco) through dental microwear and stable isotopes

Break

3:15-3:30 pm CEST

3:30 pm to 4:30 pm CEST: Pecha Kucha Elevator Pitches

Moderated Live Session 4, Zoom

Session Chair:

Mateja Hajdinjak

3:30-3:50 pm CEST	
Pierre-Jean Dodat et al.	Isotopic calcium biogeochemistry: Application to the dietary reconstruction of middle Paleolithic Neandertals from Regourdou (Montignac, France) and Grotte du Bison (Arcy-sur-Cure, France)
Pedro Horta & Laurent Chiotti	Intensive and expedient resource extraction strategies through the flexible use of lithic bipolar methods in Early Aurignacian of Abri Pataud
Laura Sophia Limmer et al.	Childhood stress in Paleolithic Hominins – Neanderthals vs. Modern Humans
Q&A	
3:50-4:10 pm CEST	
Jack Hill et al.	The evolutionary enlargement of hominoid cerebellar surface area relative to the neocortex
Thomas W. Davies et al.	Postcanine EDJ morphology in <i>Homo habilis</i> and its implications for the evolution of early Homo
Lucia Nadal & Marta Mirazón Lahr	A machine learning approach to sexual dimorphism in hominoid mandibular morphology and its application to <i>Paranthropus boisei</i>
Q&A	
4:10-4:30 pm CEST	
Marina Vegara-Riquelme et al.	Carnivore interactions in the formation of a palimpsest using Artificial Intelligence tools: a taphonomic analysis of FLK North (Olduvai Gorge, Tanzania)
Kristen Wroth et al.	Human occupation of the semi-arid grasslands in the interior of South Africa during Marine Isotope Stage 4: New archaeological and paleoecological evidence from Lovedale, Free State

Emma J. Devereux et al.	Modelling Plant Nutritional Data on the South African Lowveld: Hominin Dietary Implications of Plant Nutritional Variation on a Proxy Savanna Landscape
Q&A	

Friday 24 September 2021

**1:00 to 1:45 pm CEST: Podium Elevator Pitches,
Session 5**
Moderated Live Discussion, Zoom

Session Chair:
Philipp Mitteröcker

1:00-1:20 pm CEST	
Sarah E. Freidline et al.	The undescribed juvenile maxilla from Grotte des Contrebandiers, Morocco – a study on Aterian facial growth
Fotios Alexandros Karakostis et al.	Biomechanical evidence of increased thumb dexterity in 2-million-year-old thumb fossils
Tina Lüdecke et al.	First enamel nitrogen isotope data of early hominins: Early Pleistocene <i>Australopithecus</i> (Sterkfontein Member 4, South Africa) did not consume significant amounts of animal resources
Q&A	
1:20-1:45 pm CEST	
Eugène Morin et al.	Revisiting hunting efficiency: do hunting returns scale with prey body size?
Ana B. Marín-Arroyo et al.	SUBSILIENCE Database System: an integrated bioarchaeological database

Denne Reed et al.	An Integrated Information Architecture for Paleoanthropology
Robert A. Foley et al. [<i>moved to Session 6</i>]	Palaeoanalytics: data science approaches to lithic analysis
Q&A	

Break

1:45-2:00 pm CEST

2:00-3:00 pm CEST: Poster session 3, Cave
Unmoderated, Gather.town

Guillaume Guerrin et al.	The La Ferrassie 1 individual dated with Optically Stimulated Luminescence: at least 3 of the skeletons from the site date from the same period.
Paul Kozowyk et al.	A model method: measuring birch tar production complexity using Petri nets
Alessandro Aleo et al.	The long life of Mesolithic bone/antler projectile points from the North Sea
Sebastian Fajardo et al.	Using Petri nets to model the production of <i>Ammocharis coranica</i> and <i>Ozoroa schinzii</i> adhesives by Ju/'hoan hunters.
Rupert Knight	Keep the home fires burning - Neanderthal fuel selection as a modern cognitive process
Megan Malherbe et al.	Dental Occlusal Form and Function in <i>Equus capensis</i> : Evaluating a Controvertible Taxonomic Status
Justin Pargeter et al.	Does stone tool 'backing' result in improved adhesion in hunting weaponry?
Karen Ruebens et al.	The late Middle Palaeolithic occupation of Abri du Maras (layer 1, Neronian, southeast France):

	integrating lithic analyses, ZooMS and radiocarbon dating to reconstruct Neanderthal hunting behaviour
Alfred Sanchis et al.	Mousterian and Early Upper Paleolithic faunal and lithic assemblages from Llonin Cave (Northern Iberian Peninsula): inter-stratigraphical context, subsistence patterns, settlement dynamics and human-carnivore interactions
Flavia Venditti et al.	A close look at artifact's biographies: Lower Paleolithic Patinated Flint Tools from Late Acheulean Revadim, Israel
Frederick Coolidge	Brain Differences between Homo sapiens and Neandertals and their Potential Cognitive Consequences
Almudena Estalrich & Ana B. Marín-Arroyo	What were the kids doing during the Late Pleistocene in northern Spain? Insights from activity-related dental wear.
Richard Marques et al.	The role of non-formal education in teaching Human Evolution: An online advanced course for high school students
Maria Mednikova	Denisova 3 distal phalanx microanatomy: new consideration
Sofwan Noerwidi et al.	Hominin Femur from Lusi Depression, North of Central Java: Its Morphological Character and Taxonomical Position
Carolin Röding & Katerina Harvati	Beyond the EDJ: combining landmarks on the cervical line, EDJ and occlusal surface in the study of upper permanent premolars
Azahara Salazar Fernández et al.	A 3D geometric morphometric analysis of the scapular glenoid fossa of subadult scapulae from Sima de los Huesos (Sierra de Atapuerca, Burgos, Spain).
Petra G. Šimková et al.	Morphological variation in modern human upper premolars
Alfredo Suesta Guillen et al.	A 3D morphometric approach to skull integration and modularity in <i>Pan troglodytes</i> and <i>Homo sapiens</i>

Samuel Tanner et al.	The human and Neanderthal first metacarpal: external shape, cross-sectional geometry and their co-variation
Anneke van Heteren et al.	Covariation of Proximal Finger and Toe Phalanges in Homo sapiens: a novel approach to assess covariation of serially homologous structures
Suzanna White	Sexual dimorphism in the Middle Pleistocene brow ridge
Manuel Will et al.	Different environmental variables predict body and brain size evolution in Homo
Carlotta Zeppilli et al.	Measuring the asymmetry in long bone morphometric maps of cortical thickness: occupation-related differences in the modern human humerus
Oriol Monclús-Gonzalo	Ankle bone morphology is shading light on the locomotor repertoire diversity in early primates

Break

3:00-3:15 pm CEST

3:15 to 4:15 pm CEST: Pecha Kucha Elevator Pitches

Moderated Live Session 6, Zoom

Session Chair:

Andrew Sorensen

3:15-3:35 pm CEST

Julia van Beesel et al.	Comparison of the arm-lowering performance between Gorilla and Homo
Stephanie Melillo & Julia van Beesel	Clavicle curvature and shoulder height in hominoids
Robert A. Foley et al. <i>[Moved from Session 5]</i>	Palaeoanalytics: data science approaches to lithic analysis

Q&A	
3:35-3:55 pm CEST	
Nicole M. Webb et al.	A tight squeeze for chimpanzees: the role of joint laxity and fetal head orientation during birth
Viktorija A. Krenn et al.	How sacralizations and lumbarizations shape the human sacrum
Nicole Torres-Tamayo et al.	New reconstruction of the pelvis of KNM-WT 15000 supports a wide body shape for Early African H. Erectus
Q&A	

3:55-4:15 pm CEST	
Ashleigh L. A. Wiseman & Oliver E. Demuth	Range of motion mapping of the <i>Australopithecus afarensis</i> hip joint
Marine Cazenave et al.	Is a well-developed calcar femorale evidence of bipedal locomotion?
Irini Sifogeorgaki et al.	Context is Key: The case study of Umhlatuzana rockshelter, KwaZulu-Natal, South Africa
Q&A	

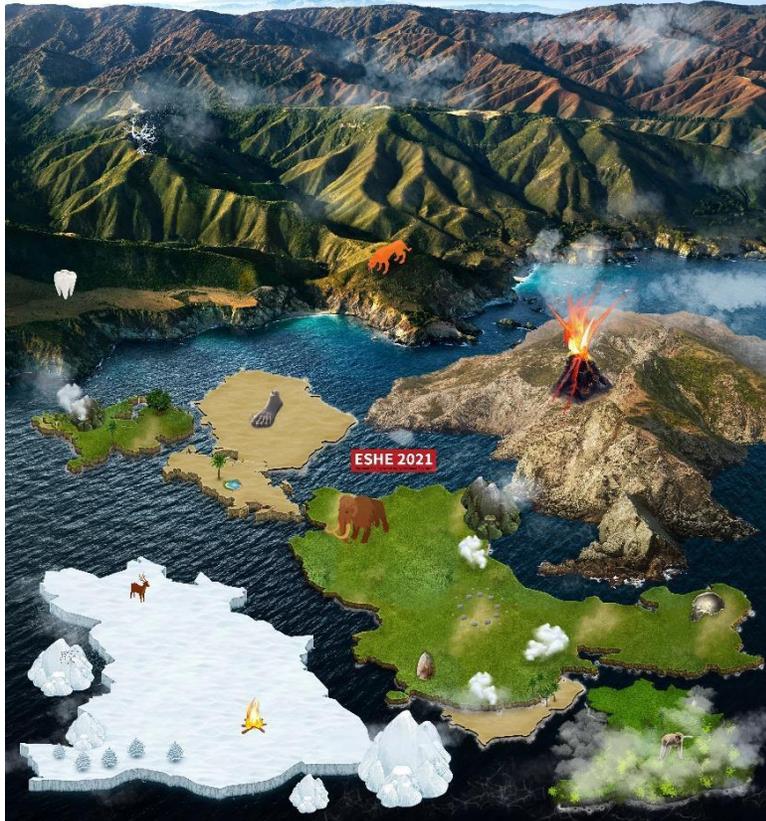
Break
4:15-4:30

GENERAL ASSEMBLY
4:30-5:30 pm CEST

Virtual Drinks in Gather.town
5:30 pm CEST

Poster sessions in Gather Town

To foster interactions with the other conference participants we recreated our virtual gathering space from last year's virtual meeting experiment. You can move your little avatar with the arrow keys, and once you get close to other avatars, a video chat starts. Participants can also share their screen to show images or figures.



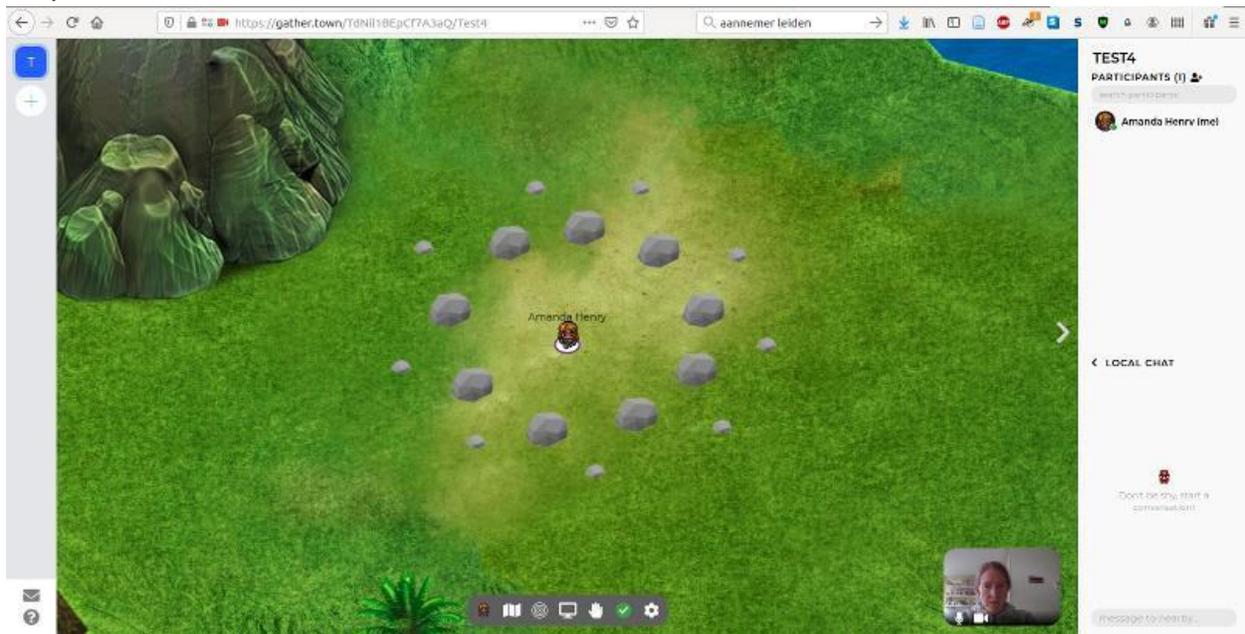
This year, each poster is uploaded into small virtual poster boards and we have placed the Poster Session in different locations on the map: Poster session 1 on Ice Island, Poster session 2 on Volcano Island, and Poster session 3 in the Cave. Presenters are encouraged to be present near their poster during their allocated session in the program to engage with questions.

Please feel free to wander around and explore. You can log into gather.town using this year's link provided in the meeting 2021 website (in the Classroom section). It works best using Chrome as a browser. Please read the detailed instructions on how best to use Gather Town at the bottom of this program.

Instructions for Gather Town

Open the website in Google Chrome. For best results, you will need a camera and microphone. If you do not have any, you should still be able to use the 'local chat' function to discuss with presenters, but some of the ease of conversation will be lost.

Log into Gather Town using your full name (first and last) so that people can find you. Once you see this screen, you use the arrow keys to move your avatar around on the map.



The top right side of the screen shows the other participants. If you click on someone's name, you can find them, and a line indicating the fastest route to that person will appear.

At the bottom right is a chat area. You can choose a local chat (only those people near you will see the conversation) or a global chat (everyone will see what you say). Please use the local chat as a general rule.

Across the bottom middle is a small grey menu bar. From the left,

- The first icon is your avatar. If you click on this you can change the appearance of your avatar.
- The second icon (folded paper) is a global map, so you can see where the meeting areas are.

- The third icon (the bullseye) is your interaction radius. Clicking on it changes the range at which you will see someone in the video. *IMPORTANT!* Please reduce this radius to two rings at most; otherwise you may inadvertently join conversations.
- The fourth icon (the computer screen) is the option to share your screen. Please note this function is still in beta and may not work for all systems.
- The fifth icon (the hand) is to signal a question. This function may be helpful if you end up in a large conversation.
- The sixth icon (the gear) opens the settings tool, where you can log out, change your camera and audio selections, and, if necessary “respawn” (respawning resets your avatar’s position to the center of the map in case you get stuck somewhere).

As you get near to other avatars, the video and sound from that person will appear across the top of your screen. The wider you have your interaction radius set, the more people you can interact with at the same time.