

Name: Paul Crame. **Course Module:** MA Archaeological Practice - Archaeological Research Methods (HPAR7004). **Tutors:** Nigel Nayling and Martin Locock. **Date:** 21/12/2021 **Word Count:** 2098.

Provide a critical reflection of your role and responsibilities within a wider archaeological project considering the requirements for professional and ethical judgement, and your relationships with other team members and other stakeholders.

The British coastline is constantly changing, some of these are natural causes, but predominantly future change will be due to anthropogenic climate change with a significant impact on low-income coastal communities (Zsomboky et al., 2011). The challenge to our heritage sector is managing this loss in a way that proactively engages with communities, instead of inoperative reactions resulting in ineffective outcomes for all stakeholders in our shared heritage. Venture et al., propose a pragmatic framework that deals with the process of loss in four themes: invisible loss, adaptive loss, Inevitable loss, and radical loss, with the aim of how we can then dynamically negotiate these different outcomes instead of passively and perhaps apathetically accepting the loss of our heritage (Venture, et al., 2021).

Invisible loss is complex; it can involve objects we are unaware of but become apparent over time as the coastline erodes; for example, the discovery of Sea-Henge early Bronze Age timber circle on Holme Beach in Norfolk, 1998. However, it can also be things we are not yet aware of due to practical restrictions on private land or just being overlooked, invisible to a person walking across a landscape. Therefore, invisible loss provides a continuously changing opportunity for heritage organisations to re-engage the archaeological record with community stakeholders. Adaptive loss involves developing heritage restoration for an adapted purpose, thus maintaining a site or object in the community domain before it is lost forever. An example would be the Gamecock Oyster Yawl project (Whitstable Maritime, 2021); a charity proactively engaging with the local community to restore a working oyster yawl before it is lost to coastal erosion. Inevitable loss is the acceptance that coastal erosion is an unavoidable process. However, stakeholders still have the potential opportunity for practical engagement to record and preserve the archaeological record, gaining discoveries and maintaining a community's collective memory before the inevitable loss. An example of this has been CITiZAN in England (CITiZAN, 2021a), which has actively engaged with groups of volunteers to record intertidal archaeology using modern archaeological methodologies. Lastly, radical loss follows on from the last theme, but seeks to engage with larger-scale future loss of our landscapes and coastal communities, looking at ways to prepare people for some of the radical changes brought about by climate change, and rapid sea level rises that will result in the future abandonment of communities (Abandonedcommunities, 2021).

Using the above thematic framework, I will evaluate my role within the wider CITiZAN project and as a person that lives within a coastal community, concerned with the effects of climate change. Focussing on my project work highlighting

invisible loss to my wider community with an online low-tide trail I developed in August of 2021 (Crame, 2021) and long-term ongoing project work in Sandwich Bay, recording data points of wooden stakes on the foreshore thought to be post-mediaeval fish-weirs and WW2 anti-aircraft poles, before the inevitable loss to the sea (Band, 2022).

First, we need a brief overview of how the CITiZAN Project developed over the last few years, considering the professional and ethical requirements, the supporting structure of human resources that has enabled the project progress and the significant qualitative outcomes for the multitude of stakeholders involved over the project lifetime. It is, however, challenging to neatly apply this to a project management model such as the Management of Research Projects in the Historic Environment (MoRPHE, 2015); because the CITiZAN project has been a large scale expansive and responsive project, with a multitude of ambitious aims broken down into two distinct funding cycles between 2015-18 and 2019-2022 with changing stakeholders' requirements. Nonetheless, it is still possible to broadly apply the principles of MoRPHE because we can discern an organised structure with clearly demarcated roles (Appendix A), aims, objectives, products, and tasks (Appendix B).

The initial project cycle 2015-18 was initiated by the Museum of London Archaeology (MOLA) in 2014 on application to the Heritage Lottery Fund (HLF) for a three-year program to train volunteers to record at-risk coastline and estuary archaeology, with additional stakeholder funding provided from Historic England, The National Trust, and the Crown Estates. The CITiZAN project is the practice of public archaeology that developed from the long-established Thames Discovery Program (TDP, 2021), unpacking the sometimes distant academic or exclusive commercial spheres of archaeology, and placing practice back within communities. This was achieved through three regional partnerships, MOLA in the Southeast, Council of British Archaeology (CBA) in the North and the Nautical Archaeology Society (NAS) in the Southwest of England. The main aims were to appoint trained and experienced archaeologists to the regional areas for outreach and training, developing an online recording application that could be used by volunteers, linking data back to the Archaeology Data Service (ADS) and the local Historic Environment Record (HER) and developing a focused online website to communicate across the network to engage with active volunteers via social media platforms. Engagement and education were the keys to the project's success, this involved workshops with community volunteers to train in the recording of at-risk intertidal archaeology, but also a broader outreach programme of guided walks, lectures, conferences and coordinating with Television production companies to produce the popular Channel 4 program (Britain at Low Tide, 2016).

MOLA provided additional support to the three regional core teams of archaeologists for the duration of both projects. This included a Head of Research and Engagement, Project Leader and Project Officer to align the research objectives with MOLA's frameworks (MOLA, 2021), regional frameworks (CITiZAN 2021b) and funder framework (Heritage-Fund, 2018). Head of Fundraising to proactively scope for additional funding sources for the project and MOLA's internal departments to provide day to day operational support regarding human resources, finance, IT and health and safety. The projects were evaluated externally by a private consultant in the heritage sector to ensure that qualitative objectives were kept in line with the

stakeholder funding. Also, a Specialist Advisory Network (SAN) of senior professionals and academics across the heritage sector was utilised as a strategic knowledge base of expertise to network with project outputs, publications, and opportunities for collaborative practice. Risk was a significant element of the project's aims, identifying areas at the highest level of risk of sea-level rise and using the networks resources to identify these areas and record the archaeological record. A risk register was updated quarterly for the project duration to focus on this crucial objective. Other ongoing metrics were also measured quarterly regarding finance, timetabled tasks/activities against regional and national frameworks, inventories of supplies, volunteer time, fundraising and data metrics from the mobile applications and website.

The project successfully developed monitoring software that communities could use to record intertidal archaeological data, updating records nationally on ADS and local HER. Thousands of volunteers participated in hundreds of events and workshops across England, developing new skills and forming new networks within coastal communities to ameliorate coastal change and loss. Both published and grey literature was produced, and conferences were organised to raise awareness in the academic community and the broader public via the national media (CITiZAN, 2018a). Notably, the outcome resulted in the current second three-year project phase 2019-22, the Regional Discovery Programmes and Responsible Stewardship Project, initially piloted in 2018 (CITiZAN, 2018b). Therefore, the current project cycle took the findings of the previous national project and focused on six regional risk areas: Liverpool Bay, South Devon Rivers, Solent Harbours, Humberside, Mersea Island, and the East Kent Coast. The key objective was to connect with individuals in these communities and formulate closer long-term partnerships with local groups and regional environmental stakeholders such as the Kent Wildlife Trust in the East Kent Discovery Program.

A significant factor that has impacted the second cycle of the project has been Covid-19; this has reduced the opportunity for the regional programs to engage directly with volunteer fieldwork during the 2020/21 lockdowns. Although perversely, it provided a set of different opportunities for volunteers to re-engage with their localities, working on desk-based archaeology projects such as the low-tide trails to highlight the visible and invisible archaeological records. My project remit in the spring of 2021 was to develop an online low-tide trail in East Kent, which could be further developed as a guided walk in the late summer; this idea followed on from the successful 2018 regional pilot of the Tankerton Bay Wreck (TBW) excavation, which had a significant impact in terms of local interest and national media attention. It was agreed with CITiZAN's East Kent Coast Community Archaeologist, Lawrence Northall to build a low-tide trail around TBW with additional points of interest along the intertidal zone and a central theme of geological and archaeological change.

Although desk-based archaeology, the project still involved physically mapping the coastline, this involved my adherence to the CITiZAN code of conduct (Appendix C) and the health and safety risk of lone working in the low tide, which required help from people within my social bubble to accompany me with the work. In contrast, the project fieldwork conducted at Sandwich Bay Flats with CITiZAN in late 2021 was group-based volunteer work managed by lead archaeologist Lara Band within the intertidal zone, in collaboration with freelance archaeobotanist Lisa Gray. The

lessening of Covid-19 restrictions allowed collaborative project fieldwork recording and taking samples of the wooden stakes on the foreshore. However, risk assessments were needed (Appendix D) and training volunteers on the risks involved with intertidal archaeology and gaining written consent, gathering emergency contact details, and assessing volunteers' current medical status (Appendix E). The Standards and Guidance for Nautical Archaeological and Reconstruction was also followed with regards to section 2 (CIFAS, 2014a p.5) The code of conduct expected of professionals in the field and Section 5 fieldwork (CIFAS, 2014a p.10) in the specifications of the pre-project design, timetabling activities, ensuring equipment was usable, briefing staff and subcontractors on expectations and tasks, recording methodologies and post excavation tasks with regards to the sampled stakes for further analysis and identification in the laboratory. Working with volunteers in the project also involved the use of CIFAS policy statements concerning the use of volunteers and students on archaeological projects (CIFAS, 2014b, pp) especially regarding the role of the volunteer as not being an employee, and therefore exploited for agreed project work that has already been demarcated to a paid employee or subcontracted to a specialist.

The online Low-Tide Trail involved a significant amount of planning in terms of allocating time for desk-based research, which was planned over six months during lockdown (Appendix F). The project was broken down into five key stages: literature review, writing up and editing, guided walks (Appendix G), uploading and editing content to ArcGIS StoryMaps to be used as a map application for the general public and finally, promotion of the low-tide trail via social media outputs. In terms of ethics and CIFA guidelines (CIFA 2014c), the primary consideration for the project was conducting due diligence with copyrighted images (Appendix H), ensuring that we had permission to publish online and not plagiarising any written content. A considerable amount of stakeholder collaboration was used in the project at the local level involving volunteer groups such as Timescapes Kent and the Whitstable and Herne Bay museums. The project outcomes and feedback on social media have been positive in highlighting invisible loss in the locality and raising the concerning issue of coastal erosion of heritage due to anthropogenic climate change.

The Sandwich Bay project has been a longer-term collaborative project involving recording wooden stakes in the intertidal zone before the inevitable loss of these from the archaeological record. My role as a volunteer has been to record the fish-trap in the intertidal zone, cut targeted samples and undertake laboratory analysis of the wood species via a series of workshops held at Canterbury Christchurch University under the supervision of archaeobotanist Lisa Gray (Appendix I). In addition, I also collected datasets on WW2 anti-aircraft poles on the foreshore of Sandwich Bay, which is due to be published in the appendix of the final CITiZAN report in 2022. The primary ethical considerations with the project have been the impact on the local environment; the flats constitute an important area in western Europe for migratory birds. This has involved gaining permission and working in collaboration with our stakeholders Kent Wildlife Trust to ensure that the impact of our fieldwork did not interfere with this area of special scientific interest. Another ethical aspect of the project has been the discovery of significant quantities of unexploded WW2 bomb ordinance; this has involved close supervision of volunteers on the foreshore and working in coordination with the local coastguard and bomb disposal units to neutralise this risk (Appendix J).

Bibliography:

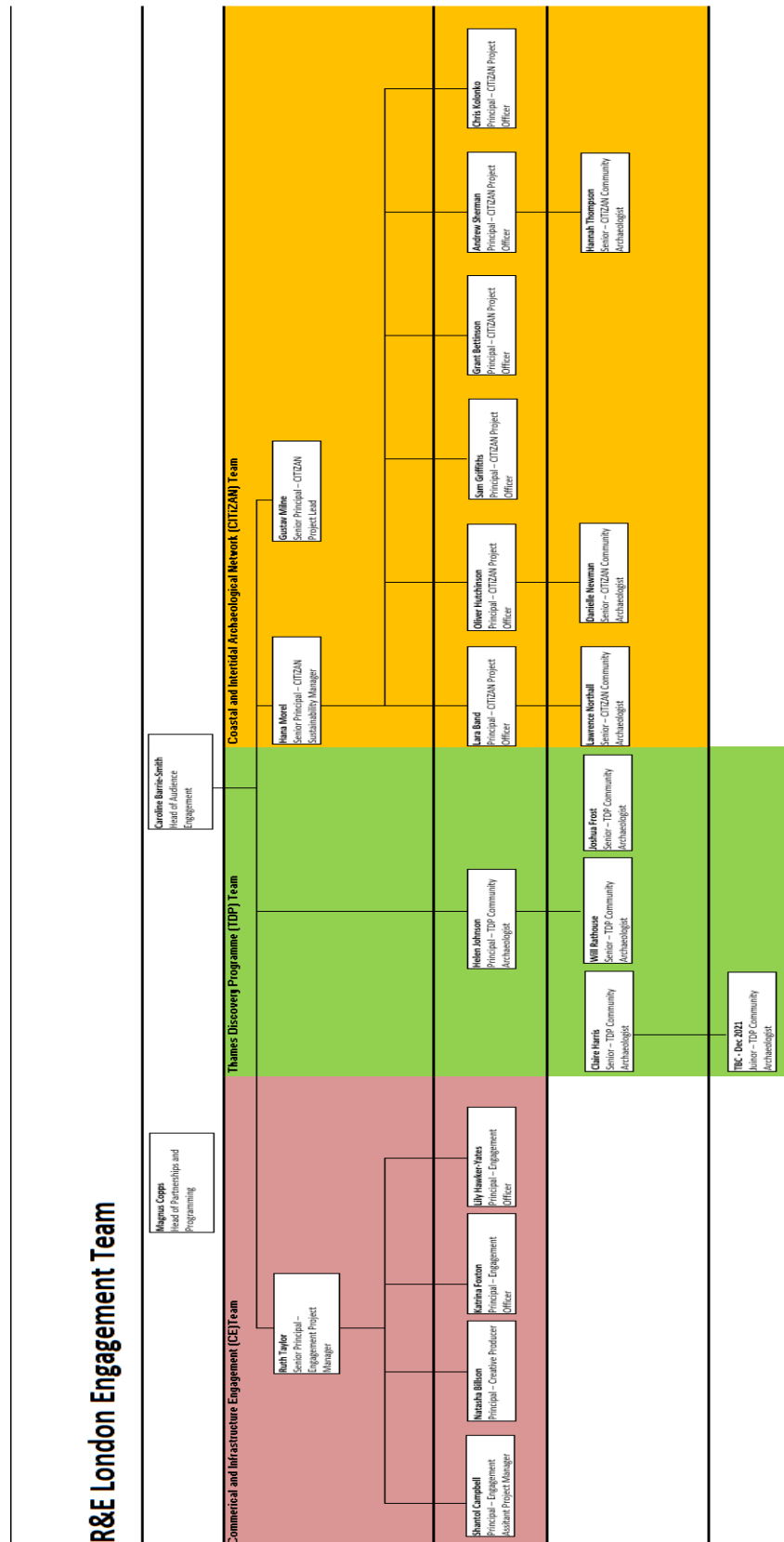
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Appendices:

Appendix A: Structure of key operational project roles.



Appendix B: Aims, objectives, tasks and products for the two funding cycles of the CITIZAN projects: Source, the Coastal and Intertidal Zone Archaeological Network Final HLF project report 2018, see bibliography.

First funding cycle 2015-18 (completed):

- **Aims: General subject areas of research and development work.**

To establish a national standardised infrastructure through the development of intertidal archaeology methodologies and the creation of an open-access interactive website and app to ensure England's coastal archaeology will be better identified, recorded, monitored, and managed.

To raise the profile of at-risk coastal and intertidal sites through a national and regional outreach programme, and to directly engage new audiences in their heritage.

To implement a national system of community-based monitoring of coastal and intertidal archaeology through a dedicated volunteer training programme and the development of a smartphone app, compatible with data gathered by Scotland's Coastal Heritage at Risk Project (SCHARP).

To encourage and support local communities to become active partners by providing opportunities to research, write and share their work and creating an enjoyable and sociable experience.

To disseminate our findings through publication of reports and deposition of all crowdsourced data with the ADS to create a unique research resource and enable England's coastal heritage to be interrogated, analysed, and interpreted on a larger scale.

- **Objectives: Specific research questions that contribute towards Aims.**

Can numbers of volunteers and regional stakeholders be sufficiently mobilised to make the project operative nationally?

Can a standardised recording system be used by members of the public on mobile phones to record at risk areas of the archaeological record in the UK?

Can levels of risk and awareness be raised in the general population via sustained national media engagement?

Can a self-sustaining standard national modus operandi for training, survey, and monitoring procedures; identify 20 key sites, build formal partnerships and work closely with local communities?

- **Tasks: The work undertaken to develop a Product.**

Ongoing applications for grants and awards for the duration of the project.

Facilitating Outreach events with the public and stakeholders for the duration of the project.

Training events with volunteers on how to monitor and survey the foreshore.

Develop a new CITIZAN conference and contribute to established academic conferences.

Produce published and unpublished grey literature in addition to guides, newsletters, website and blog content.

Develop a large virtual community using established social media platforms.

Develop useable online applications that volunteers could use to monitor the intertidal zone.

- **Products: Specified items whose completion contributes towards Objectives.**

Extensive stakeholder and community development throughout the project.

Run a **social media campaign** tied in with the transmissions of our TV show Britain at Low Tide on Channel 4 using the hashtag #BritainAtLowTide. Importantly however, the intention of this campaign was to convert enthusiasm for the programme into participation; we aimed to tap into public conversations online and direct members of the public towards our website and smartphone app.

Over the course of the project, the CITiZAN regional teams have sent out monthly regional (North, Southwest and Southeast) **newsletters** providing news on recent discoveries, new research, and upcoming events.

CITiZAN aimed to secure a minimum of £27,000 worth of **volunteer contributions**. Contributions made to the project totalled £193,262. These included volunteers working in the CITiZAN offices, student placements, professional contributions, and app user contributions.

Our **outreach programme** of guided walks, lectures, manned stalls and other activities are raising awareness and enthusiasm for the project and for at-risk intertidal and coastal archaeology. We have held 243 outreach events and engaged over 9000 people.

CITiZAN staff have **chaired or co-chaired sessions at national and international conferences** including: · ‘Theories of change: assessing the benefit and impact of archaeology’, Chartered Institute for Archaeologists (CIfA) 2019 · ‘Just Add Water and Mix: Heritage and Climate change, challenges and novel methods’, cochair, European Archaeology Association (EAA) conference 2018, Barcelona · ‘Coastal and Island Archaeology’, chair, Society of American Archaeologists (SAA) conference 2018, Washington DC · “Oh, I do like to be beside the seaside’: community collaboration and innovation on the coast’, chair, CIFA 2018, Brighton · ‘Young people in archaeology’, chair, Theoretical Archaeology Group (TAG) 2015, Bradford.

CITiZAN staff have delivered academic papers or posters at a number of regional, national and international **conferences** including: · European Archaeology Association (EAA) conferences in Glasgow 2015, Maastricht 2017 and Barcelona 2018 · Society of American Archaeologists (SAA) conference in Washington DC 2018 · Modern Climate Change and the Practice of Archaeology, Jesus College, University of Cambridge 2017 · CIfA conferences 2016, 2017, 2018 21 · Theoretical Archaeology Group (TAG) 2015, 2017 · SCAPE and NAS joint conference, Glasgow 2016 · Nautical Archaeology Society (NAS) conferences 2016, 2017 · Post-Medieval archaeology conferences 2017, 2018 · Thames Discovery Programme Foreshore Forum 2015, 2106, 2017, 2018 · MOROL (Institute of Welsh Maritime Historical studies) Conference, Wales 2015, 2016 · CBA Yorkshire Annual Symposium 2017 · Exmoor National Parks ‘Getting Involved’ volunteer conference 2017 · Bones to Drones Conference 2017 · Sussex Archaeology Symposium 2016, 2017 · AGES Conference 2016 · Rathcrogen conference, Ireland, 2016 · Plymouth Coastal Observatory Conference 2016 · Landscape Survey Group Conference 2016 · Severn Estuary Forum 2016 · National Maritime Museum Lecture Series, 2016 · Nottingham University 3D heritage conference, 2016 · Heritage Alliance AGM 2016 · Transforming the Thames annual forum 2015 · HER Winter Forum 2015 · Quaternary Research Association (QRA) meeting 2015 · Beyond the seas Symposium 2015.

Publications CITiZAN staff have published **academic papers** in edited works including: Milne G, 2017 'The Thames at War: a secret history uncovered' in N. Cohen & E. Wragg The River's Tale: archaeology on the Thames Foreshore in Greater London: MOLA, pp 101-112 · Momber, G., Tidbury, L., Satchell, J., & Mason, B., 2017 'Improving management responses to coastal change' in Dawson, T., Nimura, C., López-Romero E., and Daire, M. (eds) Public Archaeology and Climate Change: Oxbow Books, pp 34–43 · Tidbury, L., Satchell, J., and Momber, G. 2017. Arch-Manche: Using Archaeological, Paleoenvironmental, Historic and Artistic Resources in Coastal Management in Bailey, G., 22 Harff, J., Sakellariou, D. (eds) Under the Sea: Archaeology and Palaeolandscapes of the Continental Shelf: Springer · Wragg, E., Cohen, N. Milne, G. Ostrich, S. and Nimura, C. 2017. 'Community recording and monitoring of vulnerable sites in England' in Dawson, T., Nimura, C., López-Romero E., and Daire, M. (eds) Public Archaeology and Climate Change: Oxbow Books CITiZAN have published a number of popular articles including: · Milne, G. 2015. 'CITiZAN: Turning the Tide' British Archaeology (Sept/Oct 2015) · Ostrich, S. 2015. 'Coast to coast: recording England's vanishing heritage' Current Archaeology (306), pp 36–41 · Sherman, A. 2015. 'CITiZAN: Community archaeology around the English coastline' Forum: The Journal of Council for British Archaeology Yorkshire Vol. 4, pp 25-28 · Band, L., Bellisario, A., Clement, M., Hutchinson, O., Milne, G., Ostrich, S., Sherman, A., Tidbury, L., and Wragg, E. 2017. 'CITiZAN goes to war: Britain's coastal frontline 1914-1918' Current Archaeology (324), pp 36–43 · Ostrich, S. 2017 'CITiZAN, the Coastal and Intertidal Zone Archaeological Network: innovation in archaeology' ClFA Yearbook and Directory pp 21–23

We created a CITiZAN-edition of the BAJR (British Archaeology Jobs Resource) **Skills Passport**. These passports were distributed to all training programme participants. Newly learned or developed skills are recorded and signed off by the trainer. This acts as a record which can be used to demonstrate continued professional development.

CITiZAN have held **120 training events** and additional follow up visits along England's coastline and tidal rivers. More than 1300 people have attended these training sessions, with many of these repeatedly attending sessions however nearly 600 of these are unique attendees showing the popularity amongst returnees in our training programme.

Our interactive website **www.CITiZAN.org.uk** is the hub for communication and participation in the project. It features information on intertidal sites, educational resources and how-to guides and hosts our project data, reports and our blog. It also features our interactive map.

A main feature of the CITiZAN website is our **multi-vocal blog**. This features articles from CITiZAN staff, volunteers and stakeholders about coastal and intertidal research, news, and the volunteer experience. See section 13.1 for a list of all published blog posts and authors.

We record data on the visibility of archaeology at the feature/monument level, collecting information about archaeological features as they are exposed by erosion in the intertidal zone. Any member of the public can become an online **CITiZAN surveyor and use the map or smartphone app** to create core feature records and contribute to the long-term monitoring of change of these features by submitting survey updates. 1527 new core features • 2289 monitoring update surveys • 3927 new photos.

CITiZAN have created 61 and **published 33 3D-models of dynamic foreshore features** using MOLA's Agisoft Photoscan licence and processing server. These models are hosted online on CITiZAN's Sketchfab account: <https://sketchfab.com/citizan>.

CITiZAN have also organised and delivered **3 annual conferences** featuring a mix of academic, professional and volunteers presenting on work on coastal and intertidal archaeology. These have

been very well-received by attendees, speakers and sponsors. The conferences have been held around the country, with each being organised and delivered by a different CITiZAN region to provide a wider access for our volunteers based around the country.

CITiZAN staff have written **23 grey literature (unpublished) reports** for our key sites around the country. These have been submitted to the Archaeology Data Service and distributed to appropriate Historic Environment Record (HER) offices, Local authorities and will be made publically available on our website:

- Band, L. 2016b. Barge Graveyard, Maldon, Essex
- Band, L. 2017a. Orford Ness, Suffolk: four CITiZAN surveys 2016-2017
- Band, L. 2017c. Pegwell Bay, Kent
- Band, L. 2018a. Orford Ness, Suffolk: PoW Camp
- Band, L. 2018d. Coalhouse Fort Park, Essex
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- Bellisario, A. 2018b. Stanswood Bay, Lepe Country Park, Hants
- Bellisario, A. and Tidbury, L. 2016. Saltworking in Chichester Harbour, Hants & West Sussex
- Clement, M. 2016. St Patrick's Chapel, Heysham, Lancashire
- Clement, M. 2017a. Coastal and intertidal archaeology activities for YAC
- Clement, M. 2017b. Lifeboat Station No. 1 Slipway, Priors Haven, Tynemouth
- Hutchinson, O. 2018a. Monkey Beach, Mersea Island, Essex
- Hutchinson, O. 2018b. Fen farm, Essex
- Kearns, T. 2018a. Turf Lock Barge, Devon
- Kearns, T. 2018b. St Mary's, Isles of Scilly
- Mason, N. 2018b. Earles Shipyard, Kingston-upon-Hull, Yorkshire
- Sherman, A. 2016a. Cleethorpes Submerged Forest, Terminal Groyne, Cleethorpes, NE Lincs
- Sherman, A. 2016b. Jenny Brown's Point, Silverdale, Lancs
- Sherman, A. 2018a. Beadnell, Northumberland
- Sherman, A. 2018a. Cleethorpes submerged forest, further works, NE Lincs
- Sherman, A. 2018e. Howick bathing pools, Northumberland
- Tidbury, L. 2018b. Middlebere, Dorset
- Tidbury, L. 2018c. Brownsea Island, Dorset

Second funding cycle 2019-22 (ongoing):

We have evaluated our original sustainability plan, which was to find the resources to continue with what we had established in 2015–18 however as can be seen by how much we exceeded our original project targets, CITiZAN has grown massively in scope. In the light of experience, it became clear that the long-term survival and future development of the project demanded major changes in direction and approach. To achieve this, a further three-year programme has been put forth to the HLF, building on the foundations and investment established in 2015–18, with four new directions:

- **Aims: General subject areas of research and development work.**

Repositioning the project within a broader cross-sector context. This would require more formal collaboration with Historic England, with universities and with conservation-minded agencies such as the National Trust, National Parks and Natural England.

- **Objectives: Specific research questions that contribute towards Aims.**

Redirecting our coastal heritage survey with stronger links to climate change studies. It is clear that detailed mapping of the long-term rate of exposure and loss of archaeological features exposed on the coast can be seen as a proxy for calculating the broader picture of regional coastal erosion. In addition, the detailed identification and measuring of markers for ancient relative sea-level change also provides reliable data for estimating the long-term trajectory of rising sea-levels. Taken together, it can be seen that CITiZAN's coastal surveys are therefore as much concerned with heritage as with understanding climate change.

- **Tasks: The work undertaken to develop a Product.**

Refocussing much of our energy on six specific locations. Rather than attempting to work at twenty or more sites, the new generation of regional 'Discovery Programmes' would enable the team to support training, survey, monitoring and research in much greater and more effective depth than was previously possible. It would also embed the project much more deeply in the community at all levels, a key milestone for ensuring its sustainability.

- **Products: Specified items whose completion contributes towards Objectives.**

Reviewing the income streams that such a new project requires. This would involve: -

Locally based fund-raising efforts to support each of the six new Discovery Programmes.

Offering at-cost courses and workshops for local communities; · offering field-courses at-cost for universities; · Partnering with universities on coastal research projects.

Offering CPD courses for companies and agencies on community-based coastal surveys; · tendering for the archaeological evaluation/public engagement work on proposed flood/coastal defence development and infrastructure projects.

CITiZAN appreciates the time, commitment and skills that volunteers contribute to the project and we are dedicated to ensuring that the experience is enjoyable, beneficial and safe for the volunteer. This document outlines what you can expect from us and what we expect from you to make this a productive, reciprocal relationship.

CITiZAN agrees:

- To provide insurance for all participants in training and outreach events
- To provide comprehensive and regularly updated health and safety guidelines for participants
- To provide guidance on health and safety matters as part of training and outreach events
- To provide site specific risk assessments for training and outreach events
- To ensure volunteers have support whilst volunteering
- To liaise with volunteers about any issues that may affect their involvement with the project

The volunteer agrees:

- Not to work alone on the foreshore
- To be aware of the environmental conditions (e.g. weather, tide times, dangerous mud, unstable cliffs, etc) of a site location and to not undertake work under dangerous conditions
- Not to dig or excavate any area of the foreshore
- To adhere to the CITiZAN Finds Policy
- Not to smoke or eat whilst on the foreshore or to smoke in any areas used by the project
- To take reasonable care for their personal health and safety and that of others affected by their actions
- Not to intentionally or recklessly interfere with, or misuse anything provided by the project
- To report any hazards they encounter or observe whilst involved with the project
- To use equipment provided by the project in accordance with training or instructions from the team
- Not to carry out project activities whilst under the influence of alcohol or illegal drugs or prescription medication that may affect their ability to work safely
- Not to access a site if there is no obvious right of way or public access unless permission has been given by the landowner
- To respect fences and signage
- To respect the natural environment
- Not to discuss the project with the media without prior permission from the staff
- Not to do anything that may bring CITiZAN into disrepute

The focus of CITiZAN is to record and monitor eroding on the foreshore features; it is not to systematically collect finds. Should volunteers find any objects that they think might be of significance they should report these to the CITiZAN team and their local Portable Antiquities Scheme Finds Liaison Officer (FLO). For further information please refer to the CITiZAN finds policy.

Appendix D: Risk Assessment:

Site Visits Risk Assessment



ASSESSOR	Lara Band	LOCATION/SITE	Sandwich Bay	REF NO.	EKCDP_SB202109
DP AREA	East Kent Coast Discovery Programme	REVIEW DATE	Every 3 months at the ALL TEAM meetings, next review date January 2021.	EVENT DATE	6/11/2021 – 7/11/2021
TASK ASSESSED	Field work at Sandwich Bay Fieldwalking in lines from coast edge to low tide to ascertain, and log, existence of fish trap stakes in the area to the south of the public car park with 2 members of CITIZAN staff, 3 very experienced volunteers and 15 new/nearly new volunteers. Risk assessments of all types will be steered by the MOLA Health Safety and Environment Policy and Operational Procedures. This Generic Task Risk Assessment is written in line with MOLA RAMS Policy 4.01 – 4.14				
EQUIPMENT & CONTACTS	Mobile phone plus basic first aid kit, drinking water, hand sanitizer, COVID suitable antiviral/antibacterial wipes, masks and gloves. RTK. Feature marker flags. Equipment will not be shared and will be sanitized at the end of every working day. CITIZAN Emergency Contact: Caroline Barrie-Smith, Office: XXX CITIZAN: XXXX				

Nature of Hazard	Groups at Risk	Existing risk control measures (pre-visit/attendance)	Risk Rating			Additional Controls (during visit/attendance)	Residual Risk Rating
			L	C	R		
by moving vehicles traffic in public car park (meeting place)	Staff, volunteers	Site awareness of road crossings. First aid kit kept up to date and taken to all sites. First aid kit carried in yellow hi-viz backpack	2	4	6	Minimize risk through a health and safety talk before fieldwork begins Particular vigilance when crossing a car park or any road with staff, forewarned of crossing places.	1

Slips/Falls on uneven surfaces	Staff, volunteers	Visit destination awareness (staff pre-check the place they are going to) Suitable footwear for environment First aid kit kept up to date and taken to all sites. First aid kit carried in yellow hi-viz backpack	3	4	12	Minimize risk through a health and safety talk before fieldwork begins Highlight and/or eliminate hazards Particular vigilance around holes and uneven ground, particularly where this is new to the member of staff or there has been significant storm or wave action which could have altered the terrain.	2
Cuts, lacerations and concussion from sharp objects on the foreshore	Staff, volunteers	Awareness of site risks	3	4	12	Minimize risk through a health and safety talk immediately before fieldwork begins Warn people not to pick up objects from the foreshore	2
Threat from UXO	Staff, volunteers	Awareness of site, and UXO risks. Trained in UXO identification and system of reporting	2	5	10	Minimize risk through a health and safety talk immediately before fieldwork begins, including laminated images of UXO found on the beach previously. Warn people not to pick up objects from the foreshore but to inform CITIZAN staff of suspicious looking object	1

Getting stuck in the tidal flats	Staff, volunteers	Awareness of site risks especially scouring around hulked vessels and bait digging holes	2	5	10	Minimize risk through a health and safety talk immediately before fieldwork begins, including warnings of particular risk areas (hulks, bait digging holes)	1
Getting cut off by the tide	Staff, volunteers	Check tide tables and plan fieldwork accordingly	2	5	10	Check tidal condition each day, inc. but not limited to wind speed and direction. Warn staff of these. Keep an eye on the tide during work at all times.	1
Unpleasant weather conditions including fog	Staff, volunteers	Check long range weather forecast. Provide all staff with hi-vis jackets or waistcoats	2	5	10	Check weather conditions each day before fieldwork and cancel or cut short activity if necessary. Take compass bearing from site to shore	1
Stress / Fatigue (Mental & physical)	Staff, volunteers	Scheduled regular breaks. Ensure staff & participants are aware of their task	2	3	6	Awareness of all staff physical condition during task. Cancel or cut activity short if necessary	1

ction from a coronavirus strain COVID-19, SARS-CoV-2, MERS-	Staff	Awareness of risk from catching and passing on an infection. Awareness of symptoms & emergency procedures. Staff to report any symptoms immediately to their line manager and self-isolate where it is required by Government advice- with a continuous cough/fever and/or anosmia (loss of taste and smell) No pre-advertising of site visits and limited live social media posts whilst out on site so as to not encourage members of the general public to join in.	3	5	15	Fieldwork organized around current government guidelines. No one who is considered vulnerable or living with anyone vulnerable will take part. Social distancing will be implemented on site at all times. If interested members of the general public are in the area where staff are working, staff must ensure all persons adhere to Government guidance on social distancing. If requested, volunteers can be updated on the current MOLA policy and plans for volunteer interaction. All staff travel in a maximum of two per vehicle, and conform with the measures described in <i>MOLA's Risk Assessment For Vehicle Usage COVID-19(1.2)</i> All staff are assigned	2
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						equipment and tasks at the beginning of each day. Feature marker flags (30cm garden canes with hi-vis flags: 3 sets, each set with a different colour flag so set can be assigned to each person for their use alone) These will be sanitized at the end of the day before packing back into vehicles. Staff will not share water or food. Teams must carry hand sanitizer on their person or in their first aid kits and adhere to the Government guidance about frequent handwashing and use of sanitizer where water and soap is not available Any staff member who presents with the three main symptoms whilst at work must stop work immediately and make arrangements to go home and self-isolate.	
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						All staff must familiarise with the MOLA COVID-19 Safe Working Practice which is available on Union Square to be fully aware of the requirements for all staff in relation to COVID-19 Use of public toilets – staff need to ensure social distancing, follow any specific signage in the toilets, wipe down toilet before using with an antibacterial wipe or spray and make sure they wash hands and dry hands with paper towel or personal hand towel (if not available be wary of use of hand dryers as this could spread the virus)	
hyperthermia, hypothermia, from suitable weather conditions for activities	Staff	Awareness of local area weather conditions prior to and during visit Suitable clothing taken for task Carry water and space blanket in first aid kit	3	3	9	Staff awareness of everyone's physical condition during task In the case of very bad weather conditions task will be cancelled	1
stroke or sunburn from exposure.	Staff	Awareness of local area weather conditions prior to and during visit Suitable clothing taken for task Extra sun protection cream taken when necessary	4	3	12	Staff awareness of everyone's physical condition during task In the case of extreme weather	2

						conditions task will be cancelled	
work overload causing stress & depression	Staff	Staff offered Mental Health First Aid information & courses Working hours are accurately recorded and monitored Regular good communications between individual & line managers MOLA have Mental Health First Aiders who are available for to all staff	3	4	12	Tasks are redistributed by line manager if required A confidential discussion facility is available whenever staff need Staff maintain awareness of volunteers's mood and feelings and cut short activities if necessary.	2

Discovery Programme Project Officer	Lara band	Signed	X	Date	
Discovery Programme Community Archaeologist	Lawrence Northall	Signed	X	Date	
CITIZAN Project Manager	Caroline Barrie Smith	Checked and signed	X	Date	

Rating Calculator

Likelihood that hazardous event will occur		Consequence of hazardous event	
	very unlikely	1	insignificant – no injury
	unlikely	2	minor – minor injuries needing first aid
	fairly likely	3	moderate – up to three days' absence
	likely	4	major – more than seven days' absence
	very likely	5	catastrophic – death

on Level Table

Rating	Action
-25	Stop – stop activity and take immediate action
-16	Urgent action – take immediate action and stop activity if necessary, maintain existing controls rigorously
-12	Action – improve within specified timescale
-6	Monitor – look to improve at next review or if there is a significant change
-2	No action – no further action but ensure controls are maintained and reviewed

Appendix E: Consent forms.

(Don't let it) Slip through the net – November 2021

H&S declaration (to be signed and handed back to CITiZAN staff)

I

(print name) have discussed and understood the Health and Safety Assessment and understand the risks and how to keep myself and other safe.

Signed

Emergency Contact

Name

Phone number

Address

Medical conditions

Do you have a medical condition and/or are taking any medicines we should know about?
Yes / No

If yes, please put details you're willing to share here. This is just so we can help you in the event of an emergency.

Appendix F: Project time management schedule for Low Tide Trails.

PART 1: Map and area review 23/01/2021 to 20/02/2021 - Weeks 1 to 5.

MAPS	Week 1 (Reading) 23/01/2021	Week 2 (Maps) 30/01/2021	Week 3 (Maps) 06/02/2021	Week 4 (Maps) 13/02/2021	Week 5 (Maps) 20/02/2021
Task 1	☐ Check Land's links and re-read documentation.	☐ Review: Kent HER Map : • See Review 31/01/2021 ☐ Review map again for updates in June 2021 - Update Notes ☐ Good background for the beach to the west some info on forts and turbines • http://dayguide.co.uk/wp/index.php/herm-e-bay-trail/	☐ Review: Citizenmap find sources • See Review 31/01/2020 ☐ Review map again for updates in June 2021 - Update Notes ☐ Good background for the beach to the west some info on forts and turbines • http://dayguide.co.uk/wp/index.php/herm-e-bay-trail/	• My Field Data: Google Map - Block 1 Low tide walk (The Street to the Skateboard Park) • My Field Data: Google Map Block 2 Low tide walk (Skateboard park to swale cliff beach)	• My Field data Google Map - Block 3 Low tide walk (Swale Cliff beach - Caravan Park) - 3 meter low tide
Task 2	☐ Go for extended walk along foreshore low tide- ☐ Extended walks Feb			☐ Review Map Sources Cyster walk Whitstable Maritime trail map	☐ Review: Map Sources Whitstable Museum trail map: ☐ My Notes on Whitstable Museum Map
Task 3					☐ Basic outline on herne bay- See 1. Historic Mural and 2. Ship in - was here that wagons loaded with farm produce went down to the beach at low tide and their produce would be loaded onto "Hogs" - a type of barge- for transport to the Medway towns and London. These boats would then return with cinders and other waste such as small pieces of coal, cinders and ash, left from the production of bricks, as well as the dung from the thousands of London stables for fertilizing the surrounding farms. wheel on beach ?? and also Herne Bay Pier

PART 1: Literature review 27/02/2021 27/03/2021 – Weeks 6 to 10.

LIT Review	Week 6 (Lit Review) 27/02/2021	Week 7 (Lit Review) 06/03/2021	Week 8 (Lit Review) 13/03/2021	Week 9 (Lit Review) 20/03/2021	Week 10 (Narrow Lit Review) 27/03/2021
Task 1	• National Heritage List for England (NHLE). • Most info listed on the HER map see above – some good detail on the wreck with potential sources • Review of National Heritage data • whit to Hernebay • Review map again for updates in March 2021 – Update Notes • National Library of Scotland comparative maps • Abandoned community • Hampton on sea: coastal erosion • Old maps online • Review again in June • Britain from Above • To Much fun! Review again • channelcoast.org • Hmm? not much info. • https://houseprices.io/lab/lidar/map • Lidar Curve Ditches near sewage works listed on HER? • TR1376467418 • https://www.bgs.ac.uk/geological-data/map-viewers/	• https://smorg.uk/category/location/fort-wesley • https://www.connectedhistorie.org/ • https://www.britishtownship.org.uk/ • PAS Portable Antiquities Scheme • https://archaeologydataservice.ac.uk/ • https://www.wrecksite.eu/ • Social Media • Kent Landscapes FB groups? • https://www.facebook.com/HimmescapeKent/ • Historic England find photos • Historic England - England places • https://www.southampton.ac.uk/smmi/research/smmispecific/ • Communities Applied Solution • Roman shipwrecks page on project overview	• Collections and Archives • Special collections uni Kent? • Cathedral Records archive Karen? • Collections Beany institute • https://www.kentarchives.org.uk/ • https://thecliffoundation.org.uk/archive/library/loyds-register-of-ships-online/loyds-register-of-ships-online • Canterbury council conservation area appraisals	• Review local Archaeology Groups • Canterbury Archaeological Trust • Archaeology in Kent • http://www.kenthistoryforum.co.uk/index.php • http://www.kenthistoryforum.co.uk/index.php • Kent Archaeology field School • Kent Archaeology society • Geological data from windfarm exploration on Kent flats?	• Uni Kent Resources • Review University of Kent's online resources on archae • Ethos BL PhD papers?
Task 2					

PART 1: Review 03/04/2021 01/05/2021 – Weeks 10 to 15.

Focus Review Map and Literature Data	Week 11 03/04/2021	Week 12 10/04/2021	Week 13 17/04/2021	Week 14 24/04/2021	Week 15 1/05/2021
Task 1	London Clay and the Archaeology of the East Kent Coastline between Whitstable and Swalecliffe Introduction: Point 1 View from Castle hill gardens of harbour, Swale and isle of shepy - Geo deep time (Covered) Point 2 Copperas works and Thames estuary trade (covered) Point 3 Tudor Wreck (Covered) Point 4 Prehistoric to Bronze age finds on the long rock. Geo now disappearing beach mammoth (key research area to do) - https://www.citizen.org.uk/blog/2020/Jul/17/stakes-and-ships-sandwich-bay-kent/ Point 5 Bronze Age well Complex and hoards (Covered) Point 6 The Brick works (key research area to do) Point 7 Wagon Wheel – Mussel beds – second fishery – Meeting boats (key research area to do) Point 8 Pudding Bowls and Roman Boats - swillis@kent.ac.uk +44 (0)1227 827966 (key research area to do) Point 9 Swalecliffe disappearing community (Covered) Point 10 Conclusion: Discuss Evidence from windfarm – What else can there be? (Doggerland future archaeology) (Covered)	• Journal / periodical search • K/ Source ARCHAEOLOGIA CANTIANA • Link to Lit Review • Books • Link to Lit Review • Websites • Link to Lit Review	• Journal / periodical search • K/ Source ARCHAEOLOGIA CANTIANA • Link to Lit Review • Books • Link to Lit Review • Websites • Link to Lit Review	• Journal / periodical search • K/ Source ARCHAEOLOGIA CANTIANA • Link to Lit Review • Books • Link to Lit Review • Websites • Link to Lit Review	

PART 2: Write up draft points (1 to 10) 08/05/2021 10/07/2021 – Weeks 16 to 25.

Write up Drafts	Week 16 08/05/2021	Week 17 15/05/2021	Week 18 22/05/2021	Week 19 29/05/2021	Week 20 05/06/2021
Task 1	Point 1: View from Castle hill gardens of harbour, Swale and isle of sheapy - Geo deep time	Point 2 Copperas works and Thames estuary trade	Point 3 Tudor Wreck	Point 5 Prehistoric to Bronze age finds on the long-rock.	Point 5 Bronze Age well Complex and hoards
Task 2					
Task 3					
Task 4					

Write up:	Week 21 12/06/2021	Week 22 19/06/2021	Week 23 26/06/2021	Week 24 3/07/2021	Week 25 10/07/2021
Task 1	Point 6 The Brick works	Point 7 Wagon Wheel – Mussel beds – second fishery – Meeting boats	Point 8 Pudding Bowls and Roman Boats	Point 9 Swalecliffe disappearing community	Point 10 Conclusion : Discuss Evidence from windfarm – What else can there be? (Doggerland future archaeology)
Task 2					
Task 3					
Task 4					

PART 3: Revised walk and public engagement 17/07/2021 29/08/2021 – Weeks 26 to 33.

Revise:	Week 26 17/07/2021	Week 27 24/07/2021	Week 28 31/07/2021		
Task 1	Completed				
Task 2			Walk Trail		
Task 3					
Task 4					

Present:	Week 29 01/08/2021	Week 30 08/08/2021	Week 31 15/08/2021	Week 32 22/08/2021	Week 33 29/08/2021
Task 1	Walk 1	Walk 2		Walk 3	Walk 4
Task 2					
Task 3					
Task 4					

PART 4: Edit and publish online via Arcgis Storymaps 05/09/2021 03/10/2021 – Weeks 34 to 38.
<https://storymaps.arcgis.com/stories/6e5ab2cab84d4d7b89acb96db4e219bd>

ArcGIS StoryMaps	Week 34 05/09/2021	Week 35 12/09/2021	Week 36 19/09/2021	Week 37 26/09/2021	Week 38 03/10/2021
Task 1	Edit points 1 to 5 and proof read	Edit points 6 to 10 and proof read	Check Copyright and plagiarism	Check Copyright and plagiarism	Publish online
Task 2					
Task 3					
Task 4					

PART 5: Promotion 10/10/2021 07/11/2021 – Weeks 39 to 43.

Promote	Week 39 10/10/2021	Week 40 17/10/2021	Week 41 21/10/2021	Week 42 31/10/2021	Week 43 07/11/2021
Task 1	Facebook groups	Twitter and other platforms	Local groups and university	stakeholders	Personal Networks
Task 2					
Task 3					
Task 4					

Appendix G: Guided Low-Tide-Trail photo Whitstable August 2021 the Long Rock.



Appendix H: Consent for copyright for Low Tide Trails.

A	B	C	D	E	F	G
Figure	Over 75 year?	Open Source?	Citizen photo?	Own Photo?	Contact owner Check permission:	Result
1	Yes 1930s	N/A	N/A	N/A		ok
2	No	No	No	No	http://www.sheppeyfossils.com/pages/scombrinus_macropomus.htm	?
3	N/A	Yes	No	No	https://en.wikipedia.org/wiki/London_Clay	ok
4	N/A	Maybe?	No	No	https://kentarchaeology.org.uk/node/126	?
5	Yes 1500 wood print	N/A	N/A	N/A	N/A	ok
6	nNo	Yes	No	No	https://en.wikipedia.org/wiki/Vitriol	ok
7	No	No	No	No	https://www.wessexarch.co.uk/	?
8	No	No	No	No	https://www.wessexarch.co.uk/	?
9	No	No	No	No	https://www.wessexarch.co.uk/	?
10	No	No	No	No	https://www.cambridge.org/core/journals/antiquaries-journal	?
11	No	No	No	No	https://www.cambridge.org/core/journals/antiquaries-journal	?
12	No	No	No	No		?
13	No	No	No	Yes	N/A	ok
14	No	No	Yes	No	N/A	ok
15	No	No	Yes	No	N/A	ok
16	No	No	No	Yes	N/A	ok
17	Picture 1909	N/A	N/A	N/A	N/A	ok
18	Yes 1935	N/A	N/A	N/A	N/A	ok
19	No	No	No	Yes	N/A	ok
20	1866	N/A	N/A	N/A	N/A	ok
21	1870 picture	N/A	N/A	N/A	N/A	ok
22	No	Yes	No	No	Wikipedia	ok
23	No	No	No	No	https://britisharchaeology.ashmolean.ac.uk/highlights/pudding-pan.html	?
24	No	No	No	Yes	N/A	ok
25	1888	No	No	No	N/A	ok
26	1910	No	No	No	N/A	ok
27	1910	No	No	No	N/A	ok
28	No	Yes	No	No	https://en.wikipedia.org/wiki/Kentish_Flats_Offshore_Wind_Farm	ok

Appendix I: Workshop laboratory photos on wood species identification with Lisa Gray, Canterbury Christ Church University October 2021.



WOOD IDENTIFICATION RECORDING SHEET

SAMPLE NUMBER CZEKC-SB-2109-90

Naked Eye Characteristics

- If roundwood - bark present? YES/NO
- If roundwood - Diameter = _____

TRANSVERSAL SECTION

Is it Hardwood or Softwood?

- If roundwood - Ring Count = 9
- Vessels/Pores (round)? And rays from 1 to more cell wide > Hardwood
- Tracheids (angular), rays one cell wide >> Softwood

Hardwood

- Pore/Vessel distribution > Ring/Semi-Ring/Diffuse?
- Ray cell width > uniseriate / bi-triseriate / 3 - 5 seriate / >5 seriate / uniseriate and multiseriate

RADIAL SECTION

Hardwood

- Rays > Heterogenous (bricks and squares) / Homogenous (bricks)
- Perforation Plates > Simple/ Scalariform (Bar Nos.....)
- Spiral Thickening? No / Yes - Feint / Strong

Softwood

- Pitting In Rays > Large or small?
- Spiral Thickening? No / Yes - Feint / Strong

TANGENTIAL SECTION

Hardwood

- Ray Width > 1 cell
- Ray Height > 10-20 Cells

Softwood

- Resin canals in rays?

SPACE BELOW FOR SKETCHES AND OTHER NOTES

Appendix J: Overview.

