

CITIZAN

GUIDE to COASTAL ARCHAEOLOGY



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Join us

Check our website calendar for events and training opportunities, www.citizen.org.uk/events.

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CITiZAN- Coastal and Intertidal Zone Archaeological Network

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Welcome

Welcome to the Coastal & Intertidal Zone Archaeological Network (**CITiZAN**).

Founded in 2015 and following in the footsteps of the Thames Discovery Programme (founded in 2011), CITiZAN is a community-led citizen science project committed to **recording archaeological sites & features** exposed on our coast and open foreshore before they are lost for good.

Storms, wave action, tidal scouring, and changing sea levels are revealing and destroying this precious resource each day.

We have a limited window to record this valuable information and the challenge before us is huge. With approximately **7,723 miles of coastline** to cover, we have sought the generous help of volunteers from around the country, training them to identify, record and monitor a variety of archaeological features found on our foreshores. The data our volunteers generate is publicly available and **supports research into sea level change and its impacts on past and present societies**.

This guide is designed to be used out on the coast and foreshore with our recording app, available for both Apple and Android devices. Digital copies of this guide, including a larger print version, and much more are available on our website www.citizen.org.uk.

Thank you for your interest in our project and for taking the time to make a valuable contribution to our database. Our team is always available to offer guidance and information, so please get in touch with any questions.



What is coastal archaeology?

Coastal and foreshore (the area between high and low tide) archaeology can tell us a great deal about our past, provided we can spot the evidence. It is a combination of the **study of humans based on the physical evidence they have left behind** and the impact of climatic changes (both natural and human influenced). It aims to understand how we have arrived at this unique moment in history.

The beaches, cliffs, estuaries, and shingle spits that make up our coast and open foreshore are among the most dynamic environments in the country. The shape of our coastline is constantly changing as the forces of coastal erosion scour and deposit sediments with every tide, revealing and protecting lost landscapes. As a result, our **foreshores are rich in archaeological evidence** spanning prehistory to the present. Each piece of evidence is a clue adding detail to the human element of our ongoing landscape story. If we observe and record these clues with a detailed eye, they can tell us much about the **fascinating story of England's changing coastline**.



Data gathered can help answer questions of where, when and how quickly relative sea levels have risen (marine transgressions) and fallen (marine regressions), how communities responded to these changes, the technologies they used to exploit local resources, and how they tried to tame the forces of nature, claiming land for farming and defending it against rising seas.



To understand these changes, **we need to record some key pieces of data** about the location and condition of archaeological features on the foreshore. **The CITiZAN app makes this process simple**. No two trips to the foreshore will be the same. New features may have been exposed, and existing features may require updates to our records. This booklet offers guidance on what to do in both scenarios. It includes examples of evidence to look for in the foreshore landscape, how and what to observe when making a record, some common archaeological terms and who to contact if you need any help.



Wonderful things

Archaeological evidence is categorised in four ways, as artefacts, ecofacts, features and sites. You can see examples of these on the following pages.

1. Artefacts

Artefacts are human made or modified objects that tell us about the people who made and used them. The form and style of an object, the material it is made from and the context it is found in can indicate a date and location of origin. You may find examples such as stone tools, pottery and pottery fragments (sherds), worked wood, metal work, coins, buttons, and metal tools.



2. Ecofacts

Ecofacts are natural objects and features that tell us about historic environments and how people interacted with them. You might find examples including tree stumps or trunks, plant remains, animal bones and some larger seeds (such as acorns).



3. Features

Features are any physical structure or element thereof made or modified by humans. Unlike artefacts, they are not portable and cannot be removed from a site. Some examples you might encounter include walls of brick or stone, wattle panels, timber uprights, rubbish middens, burials or fish traps, as well as abandoned or hulked vessels.



4. Sites

Sites are areas defined by the presence of artefacts, ecofacts and/or features that demonstrate human activities took place there. Examples include evidence of settlements or shipwrecks.

Things you can spot on the coast

- Artefacts- human made or modified objects.
- Ecofacts- natural objects or features that have been modified by humans.
- Features- Any physical structure made or modified by humans that cannot be moved.
- Sites- Areas that have artefacts, ecofacts, or features that show human activity took place there.

ARTEFACTS



ECOFACTS

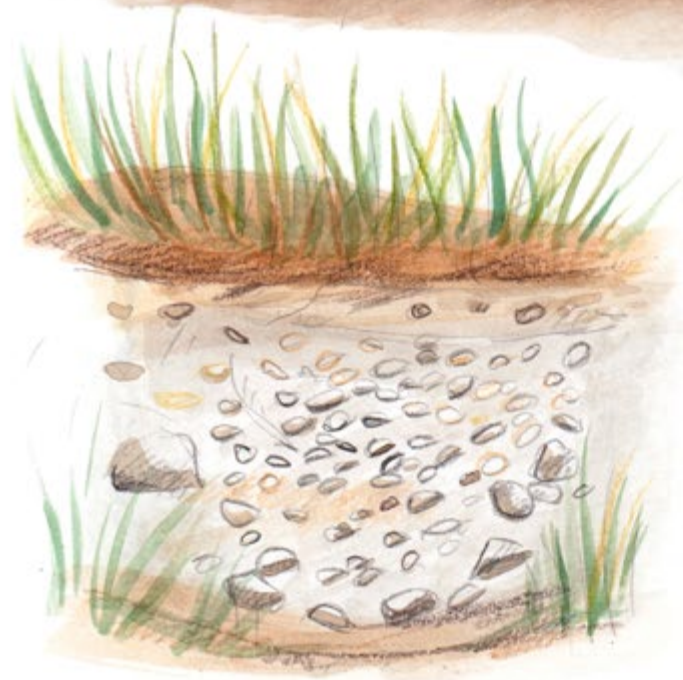


FEATURES

FISH TRAP



ABANDONED
BOAT



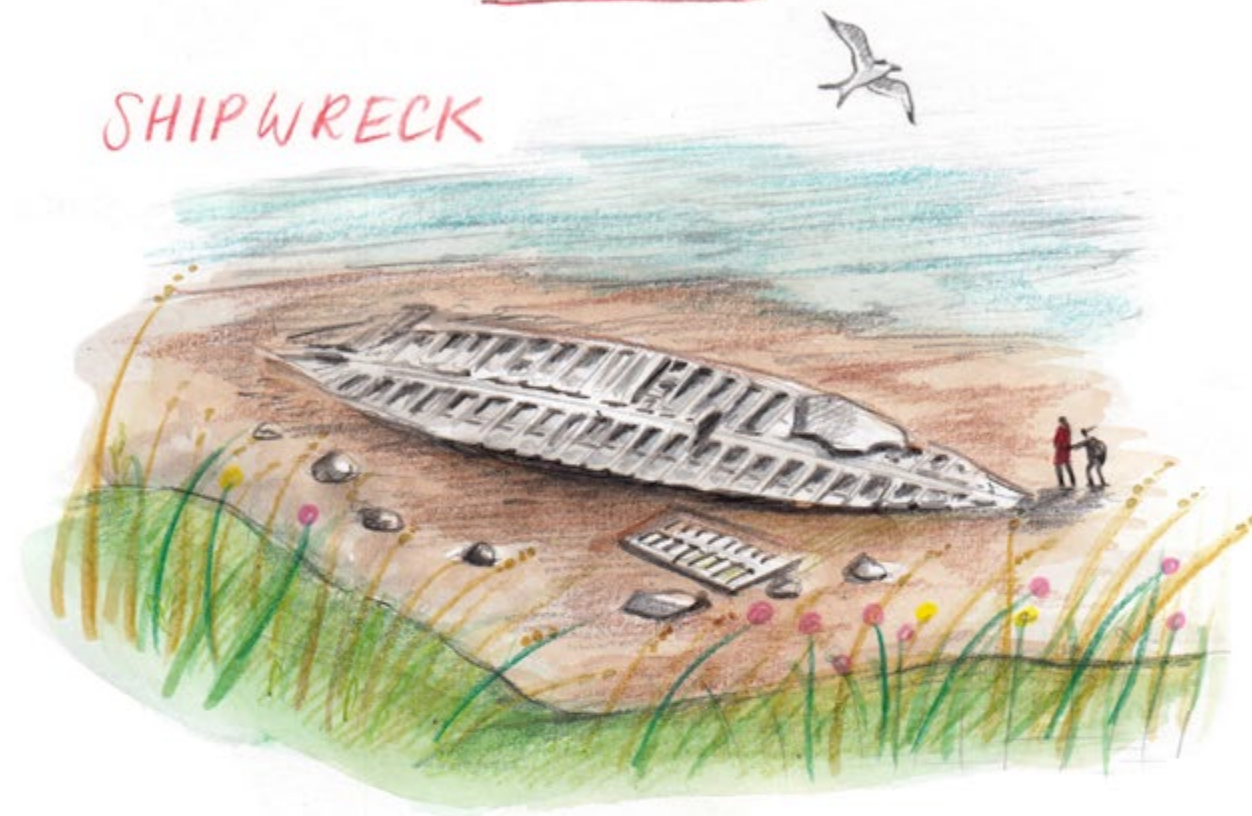
SHELL MIDDEN



WATTLE

SITE

SHIPWRECK

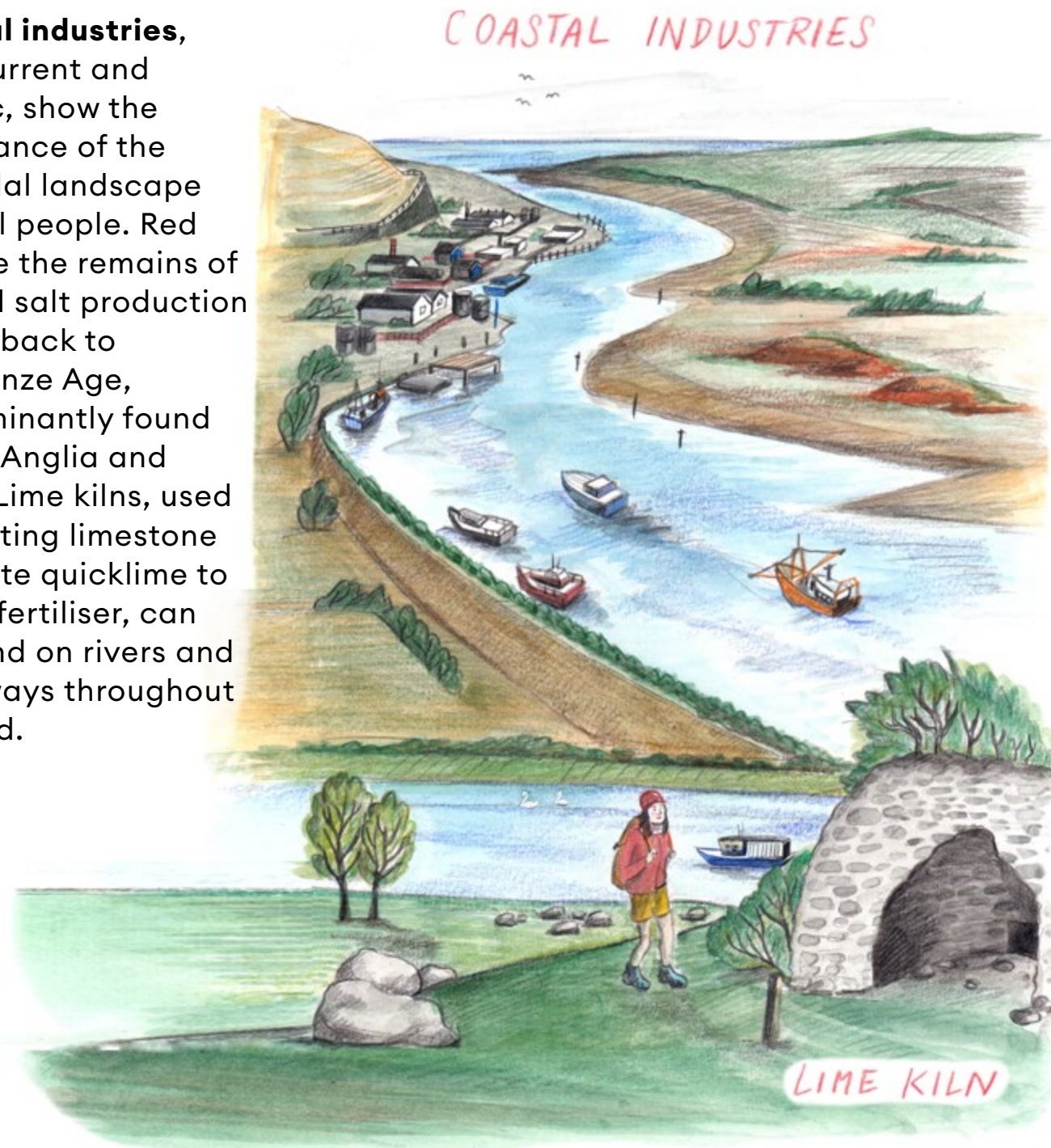


EVIDENCE OF SETTLEMENT

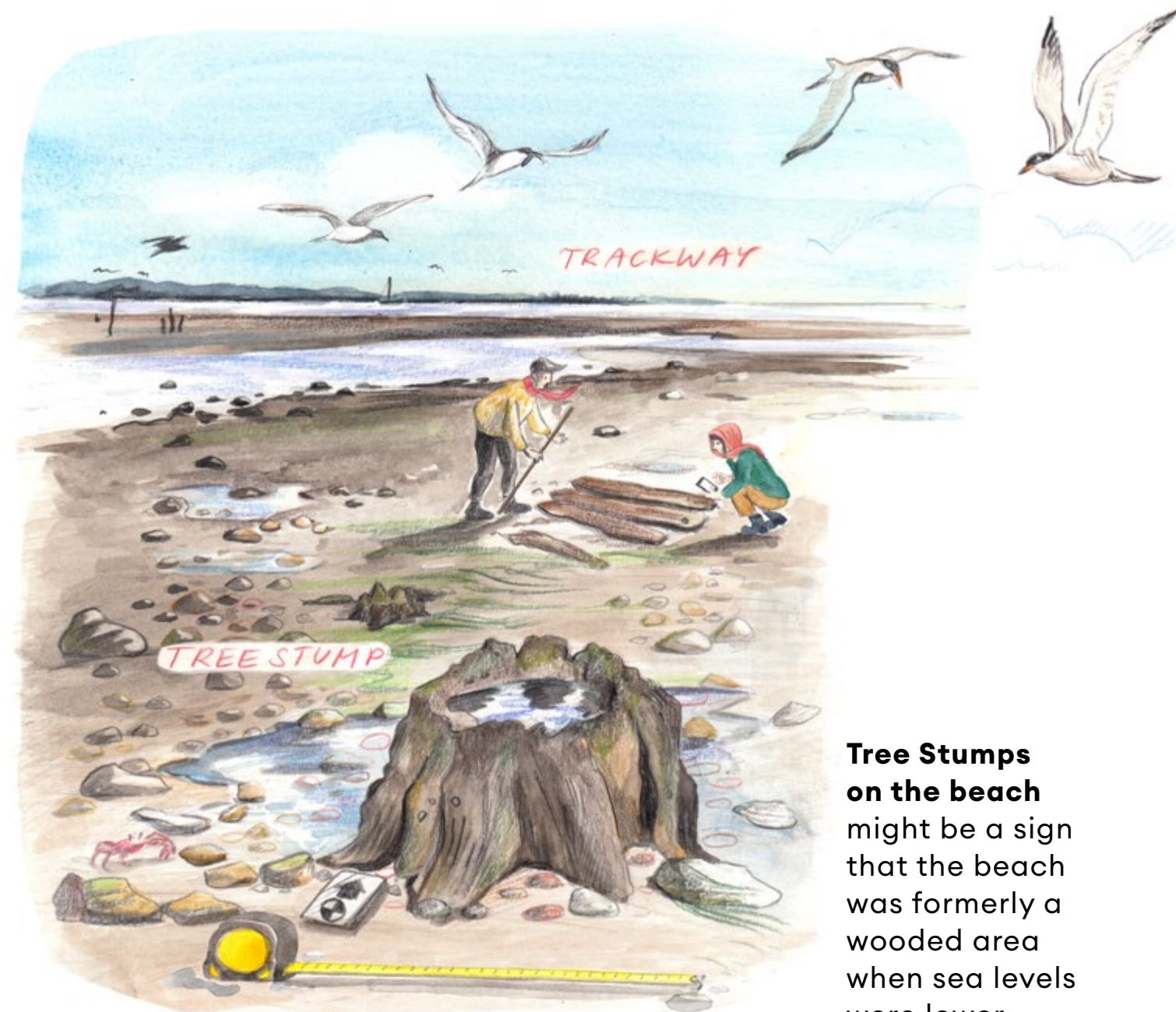
Reading the coast

There are some common natural and archaeological signs of historic and contemporary coastal change to look out for.

Coastal industries, both current and historic, show the importance of the intertidal landscape to local people. Red hills are the remains of coastal salt production dating back to the Bronze Age, predominantly found in East Anglia and Essex. Lime kilns, used for heating limestone to create quicklime to use as fertiliser, can be found on rivers and waterways throughout England.



Other examples of coastal industries are boat-building and quarrying sites, which can be abandoned or still in use.



Tree Stumps on the beach might be a sign that the beach was formerly a wooded area when sea levels were lower.

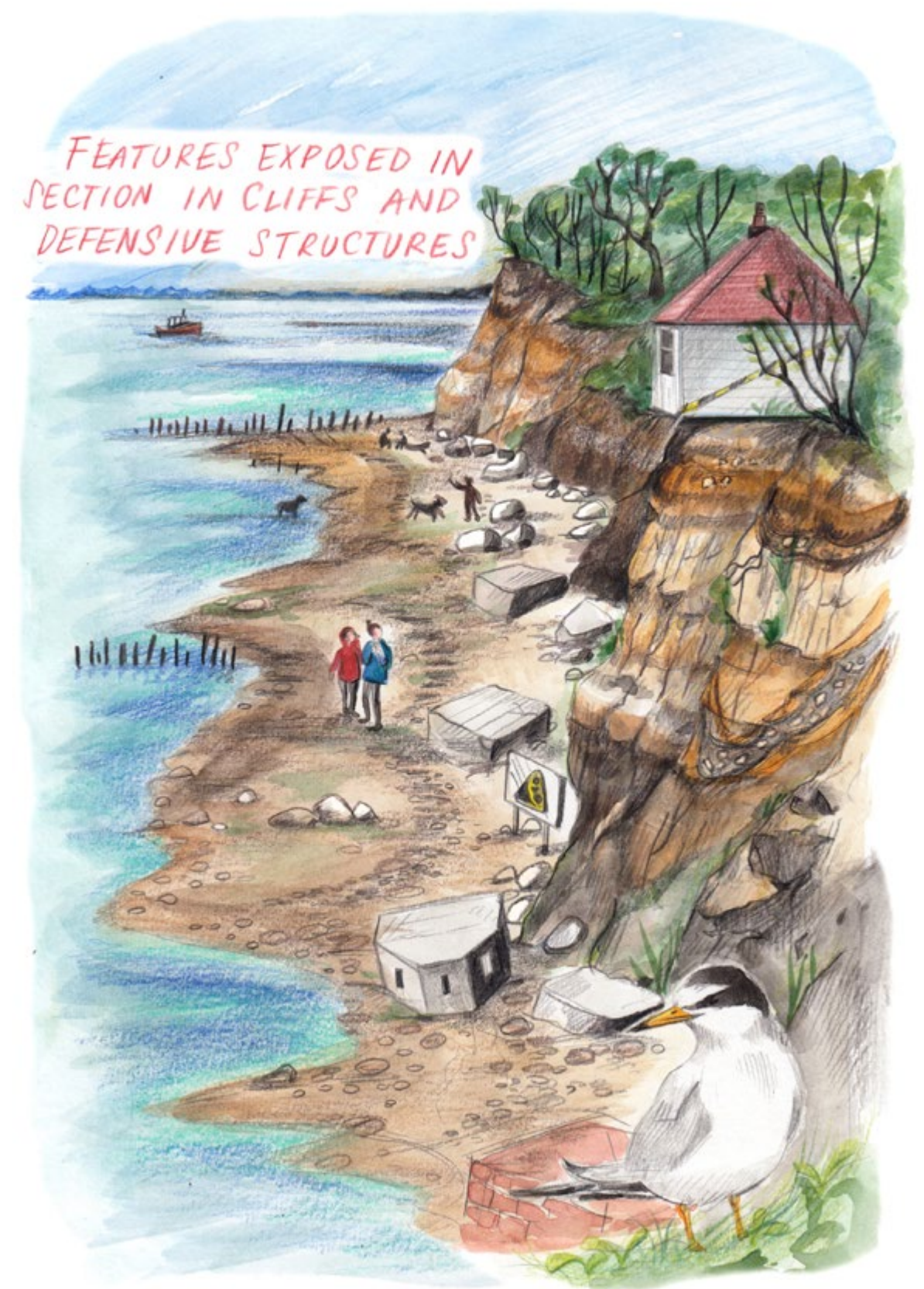
Causeways are raised routes built to cross low, wet land that was frequently flooded by the tide. They may show connections between areas of land that were previously fit to live in at high tide but are no longer habitable. **Trackways** are built pathways crossing and connecting former wet, boggy marshlands or rarely flooded coastal wetlands. They are identified by timber remains of brushwood (the smaller ends of branches), wattle panels made of woven hurdles (poles of wood), or larger worked timber planks.

Common **ecofinds** are sheep, cattle, and pig bones but don't forget to look out for the fossilised bones of the odd mammoth, auroch, and giant deer! Some beaches around the coast were formerly dry land, part of a massive fertile grassland plain where these animals once roamed.



Sometimes found on intertidal mud, **'fossilised' footprints** can tell us about prehistoric life by the water's edge.

Flotsam is material that wasn't deliberately thrown away and **jetsam** is material that was deliberately dumped. These materials can be historical and indicate the presence of wrecked or hulked vessels close by. Be aware that sadly some of what you find will be examples of the modern environmental problem of littering onshore and at sea.



Although tragic for the property owner, **houses on the cliff edge** form an excellent static point from which you can measure the rate of coastal erosion. **Exposed cliff sides** can give you a great view of buried features that might not be visible from a field walk survey. The British coastline is full of the remnants of **defensive structures**, including stone bastions and concrete gun emplacements.

Preparing for a coastal walk

You never know what you might find on a walk along the foreshore. We hope you'll find some interesting archaeology, and if you do, we'd love it if you could tell us about it using our app or our website.

Signing up

1. Before you can add data using either our app or on the website you will need to register for an account at www.citizen.org.uk/register.



2. You will receive an automatic email with a link to activate your account. Please follow that link within 3 days.

That's it! Welcome to the team.

3. If you do not have a smart phone, all is not lost. Our recording forms are available to download from our website www.citizen.org.uk. So simply print them out to take with you, record your site, and then upload the information via our website when you get back.

Useful equipment/kit

As well as your usual walking equipment (wellies, water bottle, warm jacket, etc.), some simple pieces of equipment will help you create accurate records of any archaeological features you find using our app.

- A CITiZAN scale card or ruler.
- A compass or phone with compass app.
- An arrow to indicate which direction is north.
- Your mobile phone or tablet.
- This training guide.



Before you head out, check the CITiZAN map to see what other people have found on your walk. Is there a feature you could update? Monitoring sites is just as important as discovering them!

EQUIPMENT

COMPASS or PHONE
with COMPASS APP



MOBILE PHONE or TABLET

RULER



CITiZAN
SCALE
CARD



THIS
TRAINING
GUIDE



Health and safety

Full safety guidance, our volunteer code of conduct and our FAQs can be found on our website. You should consult these before going out surveying.

- Be aware of your surroundings, particularly on the foreshore, near cliff edges, on mudflats, and around old structures. Watch for slippery rocks.
- Remember to check the tide times for your walk before you leave and never put yourself or anyone else at risk to record a site! **If it doesn't feel safe, it probably isn't.**
- It's always best to work in pairs on the foreshore. If that is not possible, you should tell someone where you are going and when you plan to be back. Arrange for them to contact the coastguard if they have not heard from you by then.
- Take a fully charged mobile phone with you.
- Make sure you know if the tide is ebbing (going out) or flooding (coming in) and plan your exit route with plenty of time.
- Fog can come in very quickly on the foreshore. Use your compass to ensure you know which way land (and your exit) is.
- Identify your nearest landmark in case of an emergency.
- Mud can be deeper than expected, please use caution and stay on firm ground. If you get trapped in the mud do not panic. Spread your weight evenly across both feet or if you are sinking fast lay down and spread your body weight evenly across the surface. Stop others from trying to help you (they may get stuck). **Dial 999 and ask for the Coastguard.** If you can use your phone to get an OS Grid reference (<https://gridreferencefinder.com/>) or what3words (<https://what3words.com/>) this will help emergency services find you faster.



Important safety notes

1. If it doesn't feel safe it probably is not.
2. Be aware of your surroundings.
3. Check the tide times.
4. Work in pairs if possible.
5. Always let someone know where you are and when you will be back.
6. Take a fully charged mobile with you.
7. Plan your exit route.
8. Identify your nearest landmark.
9. Be very careful on the mud.



Responsible coastal stewardship

Before you start recording something, consider whether you need to inform anyone. Some authorities may need to be alerted and some archaeology can be dangerous!

Although the CITiZAN project records archaeological features on the open foreshore and coast, **we do not collect artefacts**. However, we understand that in some rare circumstances, finds of particular value could be lost forever if not picked up. CITiZAN can't store or archive finds, but we can suggest the best contacts in your area for any significant finds you may have recovered.

- If you see something of archaeological interest that you think will disappear very quickly, record it on the CITiZAN app but also take a photograph and send it to us using the email on the inside cover of this guide. One of our teams may be able to visit the site before it is gone.
- Artefacts or chance finds should be reported to your local Finds Liaison Officer at the **Portable Antiquities Scheme** at www.finds.org.uk.



- If what you have found is (a) above high tide and (b) defined as 'treasure' you must report it to the coroner within 14 days under the law of the Treasure Act 1996. More information about the Act and the definition of treasure can be found at www.legislation.gov.uk/ukpga/1996/24/contents.
- If what you have seen is (a) below high tide and (b) may relate in some way to a shipwreck, inform the **Receiver of Wreck** within 28 days at <https://www.gov.uk/government/groups/receiver-of-wreck>, or call the team on 020 3817 2575.



- If you think you have found human remains (bones, burials, cremations) regardless of how old you think they might be, do not touch anything and contact the **local police** first and then contact CITiZAN.
 - If you think you have found anything that looks like ordnance (weapons and ammunition) of any sort and of any age and condition, do not touch it. Mark where the item is with anything you have, step well back (ideally 100 meters) **call 999 and ask for the Coastguard**.
 - Avoid disturbing wild animals, particularly ground nesting birds. Injured or trapped animals can be reported to the **RSPCA** by dialling 0300 1234 999.
- Apart from this booklet you can also look on our website for an extensive list of hints, tips and reminders at www.citizen.org.uk/faq.

Important notes

1. Report artefacts to your local Finds Liaison Officer.
2. If you find 'treasure' you must report it.
3. Report shipwreck finds to the Receiver of Wrecks.
4. Report human bones to the local police IMMEDIATELY.
5. Report weapons and ammunition by calling 999 and asking for the coastguard.
6. Avoid disturbing wildlife.



RECORDING a FEATURE



Preserving by record



The CITiZAN project uses an app to record the archaeology found by citizen scientists around the country. This is where you can make a real difference and it's the most important aspect of the project!

Our app allows you to perform two actions, using a maximum of five simple steps.

1. Add a new feature to our database.
2. Update a feature that has already been recorded.

Recording a new feature

Here's a fictional example of a great app entry for a typical feature – a timber stake protruding from the foreshore. Try to follow the advice in this example when uploading your own entry. If you're not using our app then these steps are still a good guide which you can supplement with a simple sketch if necessary.

Step 1

Give your feature a simple clear name. For example, *Timber Stake 1*.

Step 2

Locate the feature. This is done automatically with GPS if you're using our app. If you are using an Android product the GPS reader does not record your position until you press the stop button.



Step 3

Describe the feature. Close observation helps us understand what we're looking at. Take a good look and describe clearly and plainly what you see. The more detail you provide the better, but we can help to expand your descriptions if it's a cold day and your fingers are going numb! Important things to capture are,

- Length x width x height in metres and millimetres.
- Shape and colour.

Any details about the item you are photographing or the foreshore immediately surrounding the feature. As an example, to describe the stake of wood you could say,

Upright stake about 500 mm tall with a square section. Lighter colour at base, looks freshly exposed by about 100 mm. Sits in water and soft brown mud. Related stakes nearby, see photographs.



Step 4

Take up to four clear, good quality images (see **photographing archaeological features** for tips). The following photographs will help record the site best, if they are possible to take.

- A photo setting the feature in context, with the shoreline in the background, so others can orient themselves when monitoring the feature.
- The whole feature in one image.
- A close-up of what you consider to be the most interesting element.
- A photo of the most actively degrading part of the feature.

Step 5

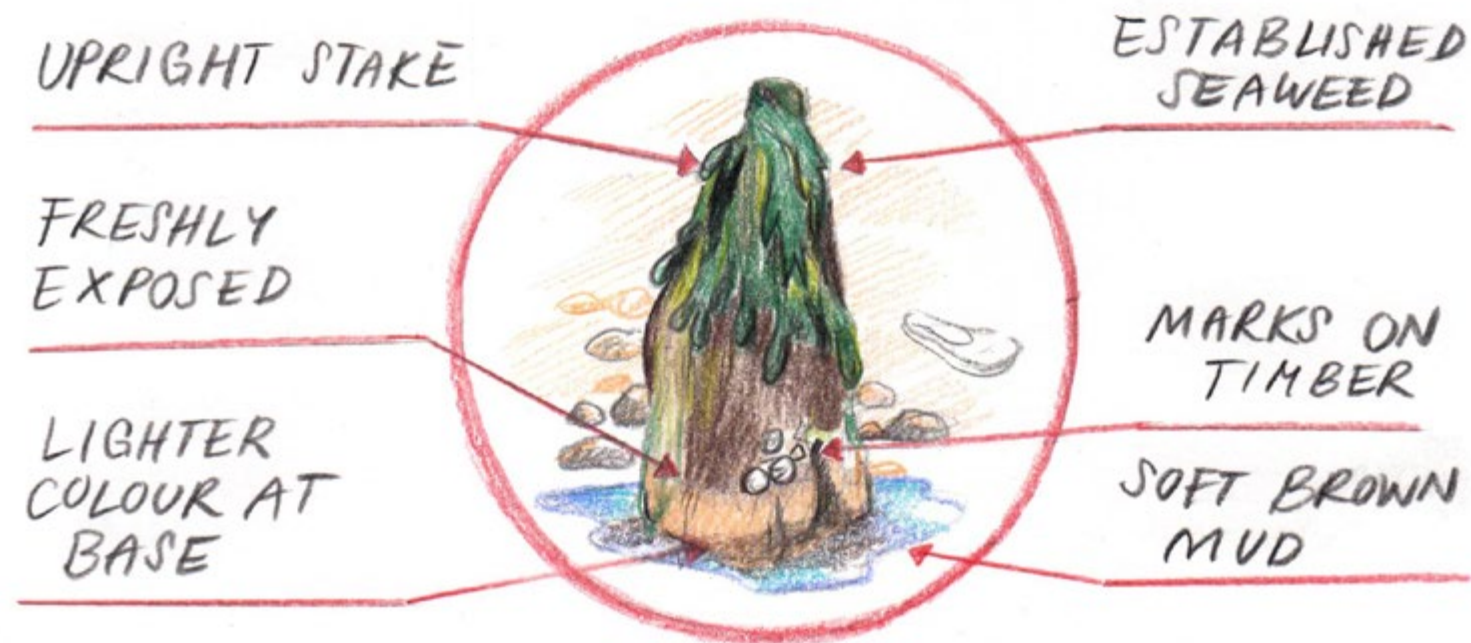
Caption your photographs – each of your 4 images needs a little description to highlight what can be seen.

Photo 1 – Vertical marks can be seen at the base. Recent exposure shown by scale card.

Extra Step

For both new records and updated records you can add comments. These aren't required to complete an entry, but they give you a chance to add extra information, such as to describe the area you found the feature in.

The feature appears to rest in an area of harder mud that feels very firm underfoot. It is an exposed position that seems to be easily changed by strong tides and wave action.



Finally, simply update our records by sending your entry via the app! If you have any questions or cannot fill in a section, leave it blank. Once we receive your record our team will look at your entry and release it to the CITiZAN interactive map or expand your description if necessary before release.

Unsure if what you have found is archaeology? Don't worry, just use the app to make a record and we'll check. All the data we receive is moderated by the CITiZAN team before being made public, so if you think it is worth recording please do so! We'll provide feedback on your submissions where necessary to support your learning.

Feel free to contact CITiZAN with a photo of what you have found just to check. Archaeologists ask each other all the time for help identifying finds.

Take your time in recording and entering your data, unless it is unsafe to do so, and remember to watch the tide. Don't have your equipment? Tide coming in? No internet signal? Don't panic!

- Use the app to locate the find and record as much as possible. You can return to survey and add to the entry later.
- If you don't have a data plan or don't have any signal, you can upload the features when you have connected to a WIFI network.
- If you have used paper forms to record archaeology, you can use a PC at home to create or update a record.



Updating a feature

If you're visiting a known site or feature that's already recorded on our map you can provide information so that we can monitor change. An update is an easier process as the record already exists.

Step 1

Find the record on the app's interactive map and select it.

Step 2

Scroll to the bottom of the record's page and tap "Use Feature Form".

Step 3

You're now in the feature's record and can update as many fields as you like. If its dimensions have changed for instance, you can update these fields. The most important thing to do is capture new photographs of the feature – you can add up to four. One field you must update is the date you are recording the feature.

Important notes

1. Find the record on the map.
2. Update using "Use Feature Form".
3. Edit form as needed.
4. Add new photographs.

Important notes

1. Name your feature.
2. Locate the feature using the app.
3. Describe the feature - dimensions, shape and colour, details of foreshore.
4. Take up to four good photographs.
5. Add captions to your photographs.
6. Save and upload your record.





Photographing archaeological features

Taking a useful photo that captures as much information as possible is a key skill for coastal archaeologists, as sometimes there is only one chance to record the find. If you are updating a record, try to reproduce the original photograph by standing in approximately the same location. This is the easiest way for us to make comparisons and observe change.

Step 1

Clear the area of bags, bottles, jackets, and feet.

Step 2

Place your scale card next to the feature. It must be parallel to the edge of the camera's viewfinder and as close to the subject being photographed as possible.

Step 3

Place the north arrow in a clear position to the side of the feature, near the edge or corner of the photograph.

Step 4

Try and get the full feature you wish to photograph in the shot and take these shots from different angles.

Step 5

Avoid too much background or sky. Too much sky can change the white balance on the photograph and too much background can change the foreground focus.

Step 6

Review your photographs ensuring they follow these guidelines as best as possible, then upload to the app.

Important notes

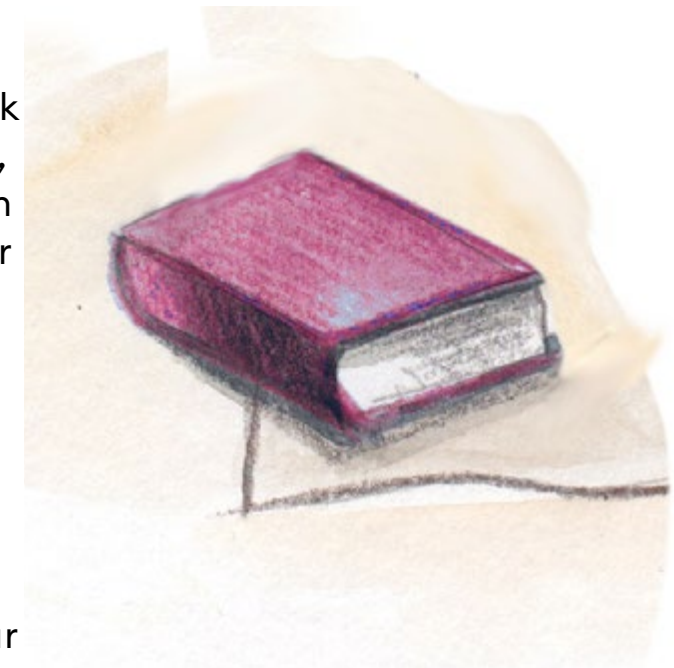
1. Clear the area.
2. Use a scale card and north arrow.
3. Photograph the full item.
4. Avoid too much background or sky.



ARMCHAIR ARCHAEOLOGY

The learning never ends...

Not all information can come from archaeological fieldwork. To get the full historical context of your find, extra work could be conducted in a library, archive, publication or online. All this information can be added to a database entry either through the app or the website map. Please remember to note the source of your information. Also, remember to try and look for both primary (first-hand accounts from people who had a direct connection) and secondary sources (generally scholarly books and articles) as both can add significant value to your research.



If you are interested in ships and shipwrecks, the Lloyds Register Foundation Heritage and Education Centre provides an excellent place to start, <https://hec.lrfoundation.org.uk/>. Other great resources worth using include,

- Your local county archive and library.
- Your local or specialist museum.
- The National Archives, <https://www.nationalarchives.gov.uk/>.
- Historic Environment Records, <https://historicengland.org.uk/advice/technical-advice/information-management/hers/>.
- Academic publications.
- Archaeology magazines.



THE ENGLISH COASTLINE

NORTH SEA

IRISH
SEA

THE ENGLISH
CHANNEL



London
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