

Jersey Studies

JERSEY'S NATURAL ENVIRONMENT

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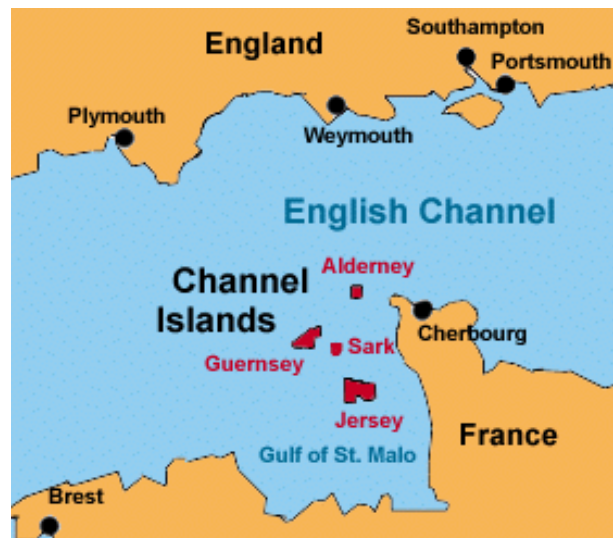
I. Introduction

Jersey's natural environment is one of its principal assets. The combination of location, outstanding natural beauty, fertile soil and an equable climate have facilitated a strong economy and an attractive place in which to live and to work,

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II. Physical location and size

Jersey is the largest of the Channel Islands which, as the name suggests, are in the English Channel, but much nearer to the French side of the Channel than the English side. Jersey is just 15 kilometres from the Normandy coast, 70 kilometres from Saint Malo and 250 kilometres from the South Coast of England. Its position means that it is influenced by both maritime and continental weather systems, and also explains why Jersey's natural environment is so different from that of the UK and although more similar to the nearby continent, is often uniquely "insular".



Jersey is very roughly rectangular in shape with a land area of 120 square kilometres. Jersey's location within the Gulf of St Malo means that it is subject to a substantial tidal range of 12 metres, one of the highest in the world. This adds not only to the varied coastal landscape but also causes the beaches to be "washed" by the sea twice every day. The extensive granite platform off the South East coast is such that the tide goes out several kilometres, increasing the size of the Island by around 25%. The "lunar landscape" exposed at low tide is home to such a wealth and variety of marine organisms that this area, along with the offshore reefs of the Ecréhous to the North East and Minquiers to the South East, has been designated a Ramsar site, that is wetlands of international importance.

Jersey has long stretches of sand on the west coast (St Ouen's Bay), the south coast (St Aubin's Bay) and the east coast (Grouville Bay) while the north coast is more characterised by cliffs and smaller bays, some of which offer small natural harbours. On the west coast sand dunes stretch some way inland.

III. Distinctive features

In 2020 the Government of Jersey commissioned a study, [Jersey integrated landscape and seascape character assessment](#), as part of the preparation of a new Island Plan. The assessment, which is the source for most of this paper, listed ten special qualities of Jersey's landscape and seascape.

Variety, uniqueness and drama

Within Jersey's 45 square miles, there is an extraordinary diversity of landscapes, from patchwork fields to deep wooded valleys; from rugged coastal cliffs to sweeping flat sandy bays, and from uninhabitable reefs to tranquil villages. Its unique position in the English Channel, close to the French coast, means that it is influenced by both marine and continental weather and water systems, and by a fusion of English and French culture.

Diverse and unusual geology

Jersey's skeleton is formed of many different types and ages of igneous and sedimentary rocks, reflecting its tumultuous formation over millions of years. This combination of rocks (on land, in the intertidal zone and under the sea) leads to great diversity of landform, as well as marine features and habitats. The coasts offer opportunities to see very rare rock formations, whilst the largely-inaccessible offshore reefs are unique in Europe.

Abundance of habitats

Jersey's waters are teeming with life, supported by an array of underwater and intertidal habitats including seagrass beds, kelp forests, maerl beds, underwater rock and reefs. Onshore, extensive dune systems provide habitats for species unique to Jersey, and wildlife thrives in the coastal heaths, woodlands, meadows and marshes. A network of hedgerows and banks provides opportunities for wildlife corridors across the island.

Spectacular coastline

Much of Jersey's dramatic and distinctive coastline is entirely natural, from the high, rugged, granite cliffs and headlands of the north coast, to the vast sandy sweep of St Aubin's Bay in the south. Low tide reveals a dramatic and vast world of reefs around the coast, and out to sea. The coastline also has a human legacy of fishing, vraicing (collecting seaweed to use as fertilizer), tourism and defence. Lighthouses, beacons and defensive towers form landmarks and seamarks, and add to the sense of place.

Hidden rural interior

Away from the coast, Jersey feels strongly rural, with a secretive, intimate character. Deep, dark wooded valleys cut through a plateau of patchwork fields. The rural landscape reflects generations of farming practices - from sheep, to apples, to potatoes and cattle - practices which have evolved to take advantage of Jersey's weather, climate and soils. An intricate web of lanes, often tunnel-like between banks and trees, cover the island, linking the scattered farms and villages.

Unique prehistoric archaeology

Caves in the cliffs contain archaeological remains from the Palaeolithic period onwards, including evidence for early human life. Back then, the caves would not have been looking out over the sea, but instead over a vast plain, crossed by river channels, and it would have been possible to walk to what is now France. Later prehistoric archaeology includes La Hougue Bie, one of the most complete Neolithic burial chambers in Europe, and around the coast are visible monuments (dolmens and standing stones) and archaeological landscapes buried under sand deposits.

A rich built heritage

Traditional buildings of local warm-coloured granite occur throughout Jersey, with a distinct local vernacular style influenced by both English and French cultures. Villages vary in form, with some nestled at the foot of the coastal escarpment, and others in sheltered valley-head locations. Most villages are centred around a medieval parish church with a stone spire, which form landmarks in views across the island. Other typical Jersey buildings include manors, dovecotes, mills and structures relating to historic water uses, such as abreuvoirs and lavoirs. Farms are distinctive, often forming a cluster of buildings at the heads of valleys, and accessed through a round-headed 'Jersey arch'. Traditional farm buildings are often two storeys, with windows allowing multiple uses.

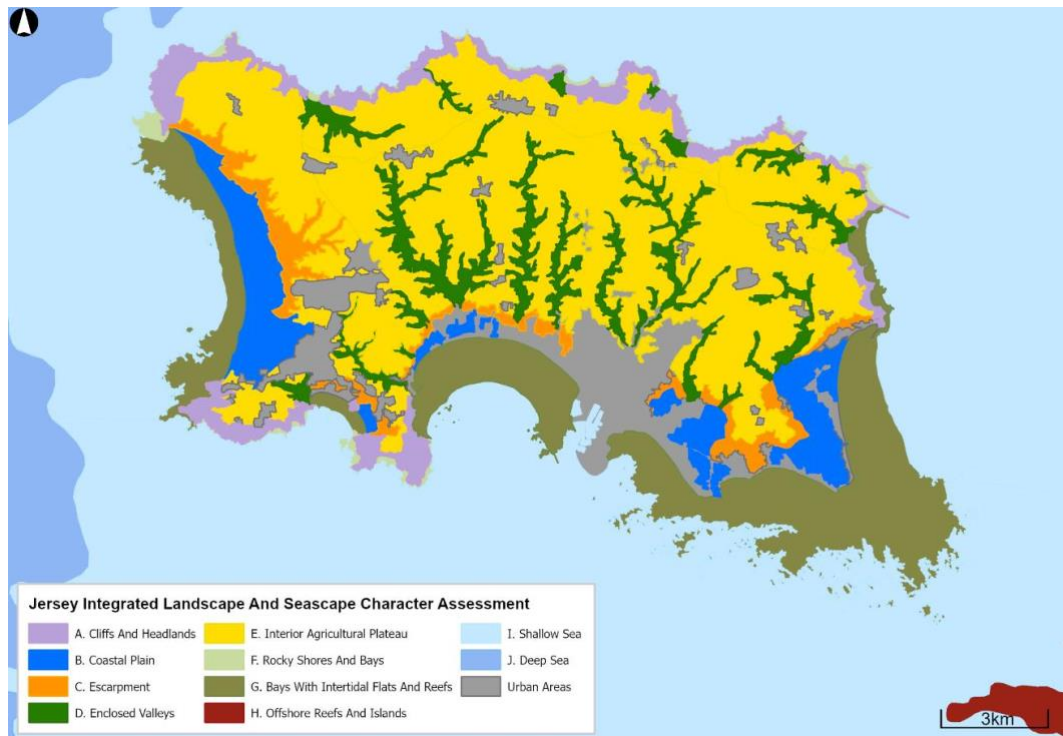
A legacy of defensive sites

Jersey's vulnerable location has resulted in a legacy of defensive sites spanning roughly 2000 years, from Iron Age coastal forts to structures relating to German occupation in World War II. Most of the defensive sites are coastal, and include distinctive landmarks such as Mont Orgueil castle, Elizabeth Castle, the distinctive round coastal 'Conway Towers' and the WW II range-finding towers at Les Landes, Corbière and Noirmont, which formed part of the German 'Atlantic Wall'.

Spectacular views

The longest and most spectacular views in Jersey are generally at the coast, where panoramas encompass land, sea and sky. This is where the different landscapes and seascapes meet, creating attractive compositions, and natural and built landmarks create focal points. Along the north coast, the offshore reefs draw the eye out to sea. The other Channel Islands and the French coast appear on the horizon. The sunsets are spectacular, particularly over the intertidal reefs. At night, dark skies over much of the island allow the stars to be appreciated, punctuated by the flashes from the lighthouses and beacons.

The varied nature of Jersey's physical environment is illustrated in this map, which shows 11 different types of area.



IV. Geology and Landscape

Jersey has a rich geological heritage and is [currently seeking UNESCO Geopark status](#).

Jersey is geologically part of “Armorica” - Brittany and Western Normandy - with rocks that were formed around 600 million years ago. In the centre and west of the Island are shales which have been eroded by the sea to create the magnificent bays of St Ouen and St Aubin. The headlands and cliffs of the north and south-west coasts comprise resistant, pink granite which has withstood erosion to create the Island and has been used in building since the earliest times, adding greatly to the Island’s character. The east of the Island largely comprises spectacular volcanic rocks, characterised by red and green pebbles in Bouley Bay and Archirondel.

The last Ice Age, which ended about 12,000 years ago, caused not only rises and falls of sea-level, creating raised beaches and carving out many of the Island’s coastal features, but also resulted in the Island being covered in a deep, rich löess, blown out from the ice sheet and contributing greatly to the fertile soils and agriculture for which the Island is so well known.

Steep-sided valleys run from the 100-metre plateau in the north of the Island to the bays of the south. The ‘interfluves’ are today a patchwork of fields and hedgerows, whereas the valleys are frequently wooded with meadows and small streams running along the valley floor, pale imitations of the fast-flowing meltwater rivers that carved out these valleys at the end of the Ice Age. In the past these streams were an important source of power for watermills, but today they provide woodland walks as well as essential reservoirs for the Island’s population.

The most recent geological features are perhaps the dunes, or “mielles” as they are called in the local language Jèrriais. The high dunes were formed during the cold dry conditions at the

end of the Ice Age and the lower, coastal dunes during the “Little Ice-Age” of the 15th to 18th centuries. They feature at the back of the bays on the west, south and east coasts but are particularly prominent behind St Ouen’s and Grouville Bays.

V. Vegetation and Wildlife

Jersey’s waters are teeming with life, over 3,200 species recorded since 1949, with new ones arriving all the time. This is a consequence of the overlapping of cold-water species from the UK and Scandinavia with warmer water species from southern Europe, supported by an array of underwater and intertidal habitats including seagrass beds, kelp forests, maerl beds, underwater rock and reefs. The most significant of these habitats is perhaps the Ramsar site of the south east coast and offshore reefs. The ormer is an increasingly rare local speciality found at the lowest tides and the short-snouted seahorse is a significant addition to Island waters. The abundance of seaweed, known locally as vraic and washed up by winter storms, has been an important resource for the Island.

Wildlife thrives in Jersey’s varied habitats, many of which contain species unique to the Island. The extensive dune systems, coastal heaths and cliffs include the Jersey thrift and provide burrows for the increasingly elusive puffin. Woodlands, meadows and marshes include the Jersey orchid, and the network of hedgerows and banks, declining over the last century but now being actively recreated, provides opportunities for wildlife habitats and corridors across the Island. In order to protect these environments, many have been designated Sites of Scientific Interest and large areas of the coast have been included in the newly designated “Coastal National Park”.

Jersey has a variety of bird life, not only the residents but also the spring, summer and winter migrants that always include interesting species. Marsh Harriers are now a regular sight over both the wetlands of the west coast and the interior and the Bittern is a rare but increasingly frequent winter visitor.

The largest mammals on the Island are rabbits, others are the red squirrel and Jersey bank vole. The green lizard and especially the toad, “crapaud” in Jèrriais, are not found elsewhere in the British Isles, the latter being a name long identified with the islanders.

Among the many striking insects, butterflies and moths is the Jersey Tiger Moth.

VI. Climate

Jersey has an equable climate, warm in the summer with plenty of sunshine and relatively mild in the winter. Rainfall is comparatively modest and more concentrated in the winter months. Jersey's climate can best be described as being a little more favourable than resorts on the south coast of England.

The Government of Jersey publishes comprehensive historic [Climate Statistics](#). Table 1 shows key data

Table 1 Jersey, key climate statistics

Month	Mean temperature (°c)	Sunshine hours	Sea water temperature (°c)	Rainfall Millimetres	Rain days
January	6.3	2.0	10	95	15
February	6.1	3.5	9	70	12
March	7.8	4.5	9	65	12
April	9.5	6.5	10	55	10
May	12.6	7.5	12	55	9
June	15.1	8.0	14	40	8
July	17.2	8.0	17	45	7
August	15.5	7.5	18	50	7
September	15.8	6.0	17	65	9
October	13.0	4.0	15	105	14
November	9.6	2.5	12	105	15
December	7.1	2.0	12	110	16
Total/average	14.5	5.2	13	865	133

VII. Links with heritage

Jersey's natural environment cannot be separated from its history. For most of the second millennium England was either at war or in a state of tension with France. Various fortifications were built to protect the Island from French attack, taking advantage of the natural environment. Most prominent of these was Mont Orgeuil Castle, which occupies a commanding position on a hill in the east of the island. Elizabeth Castle, St Aubin's Fort, Seymour Tower and Icho Tower are located on the foreshore and on the coast itself is a series of Martello and Conway towers. During the Second World War the German occupying forces built a number of fortifications in prominent geographical locations.

VIII. Importance to the economy

Jersey's economic history has been largely shaped by its natural environment. As early as the 13th century ships carrying wine from France and the Mediterranean to England hugged the coast so passing close to Jersey and indeed the proceeds of shipwrecks proved to be a valuable

addition to the economy. After Jersey became part of the English Crown in 1204 the conflict with France meant that Jersey became fortified, providing a natural boost to the economy.

Now, the sea is often seen as a barrier, but before the advent of modern forms of transport the sea was more of a highway and Jersey's location enabled it to prosper in trading goods as diverse as cider and stockings. With everyone living close to the sea, fishing has been an integral part of the Jersey economy for many centuries, and this developed in such a way that the huge cod fishing industry developed in the 18th and 19th centuries. The sea provided another additional valuable resource in the form of vraic, a type of seaweed, which has been available in plentiful amounts and has served both as a fertiliser and as a source of fuel.

The north to south slope of the Island with the resultant streams has provided the basis for water Mills which were essential to grind corn.

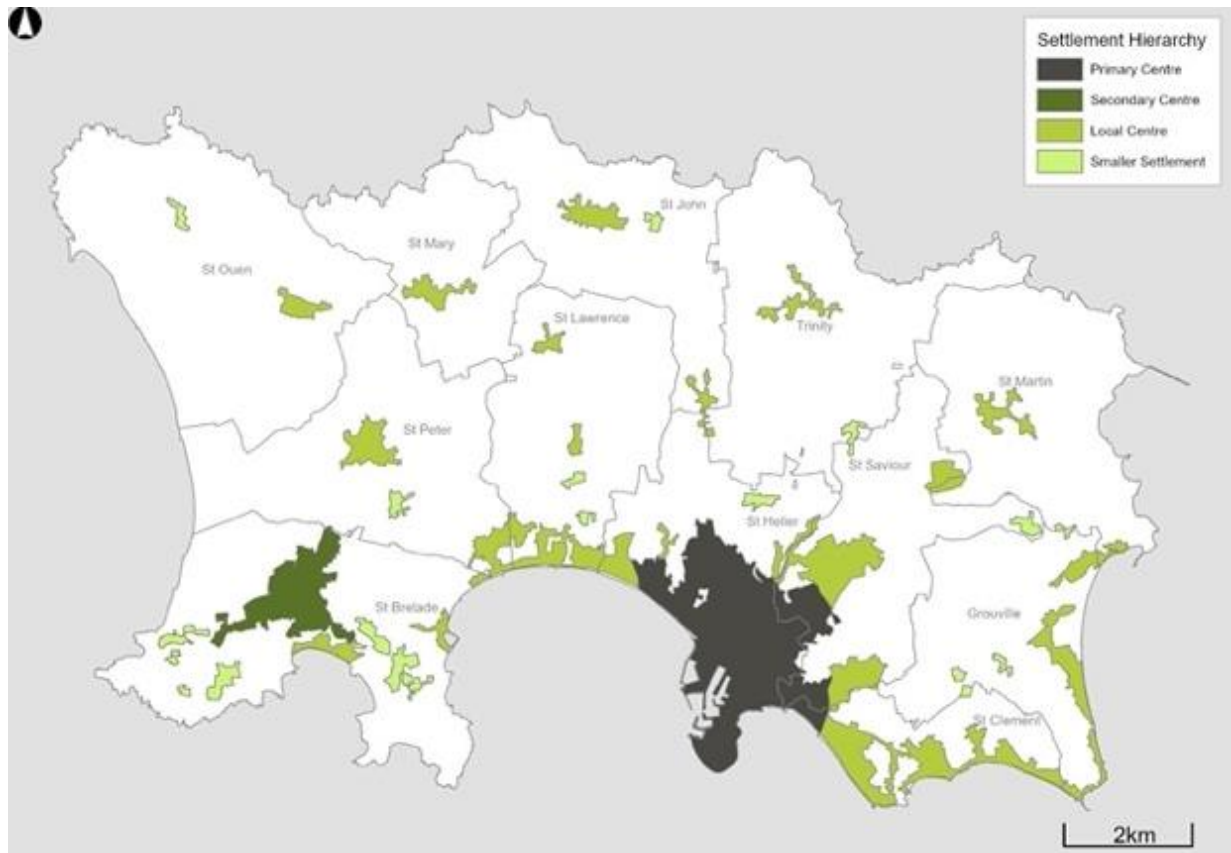
VIII. Land use

Table 2 shows how the land area of Jersey is used.

Table 2 Jersey land use

Use	Area Vergées 000	Percentage of total
Cultivation	62,902	52.2
Natural environment		
Woodland	6,786	5.6
Grassland	3,862	3.2
Scrub/bush	6,218	5.1
Other	4,718	3.9
Total	21,585	17.9
Inland water		
Inter-tidal	929	0.9
	216	0.1
Built environment		
Building		
Gardens	6,060	5.0
Roads	12,137	10.0
Driveways	3,821	3.1
Car parks	3,363	2.8
Pavements	1,127	0.9
Other	1,020	0.8
Total	2,038	1.7
	29,566	24.5
Total	120,511	100.0

Table 2 shows that 5% of Jersey's land is accounted for by buildings about half of which is housing. It will be noted that gardens and driveways account for much more land than housing. The population is concentrated in the southern parishes, illustrated in the map below which shows settlement patterns.



The map clearly shows the primary population centres in St Helier and the secondary centre in St Brelade. The local centres are predominantly based on the centres of the country parishes.