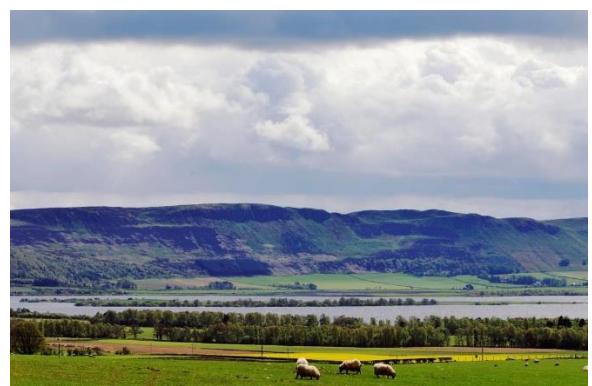




LANDSCAPE CHARACTER ASSESSMENT

FIFE LANDSCAPE EVOLUTION AND INFLUENCES



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Title Page Photographs, clockwise from top left

Isle of May National Nature Reserve. ©Lorne Gill/NatureScot

Pittenweem and the East Neuk of Fife © P & A Macdonald/NatureScot

Benarty Hill, Loch Leven ©Lorne Gill/NatureScot

Anstruther and Cellardyke. ©Lorne Gill/NatureScot

This document provides information on how the landscape of the local authority area has evolved. It complements the Landscape Character Type descriptions of the 2019 dataset.

The original character assessment reports, part of a series of 30, mostly for a local authority area, included a “Background Chapter” on the formation of the landscape. These documents have been revised because feedback said they are useful, despite the fact that other sources of information are now readily available on the internet, unlike in the 1990’s when the first versions were produced.

The content of the chapters varied considerably between the reports, and it has been restructured into a more standard format: Introduction, Physical Influences and Human Influences for all areas; and Cultural Influences sections for the majority. Some content variation still remains as the documents have been revised rather than rewritten,

The information has been updated with input from the relevant Local Authorities. The historic and cultural aspects have been reviewed and updated by Historic Environment Scotland. Gaps in information have been filled where possible. Some reports have been combined where original LCA area coverage was very small.

The new documents include photographs. They do not include the maps or sketches from the original LCAs, but these are still available from the [NatureScot Information Library](#). Additional information can be obtained from the websites of;

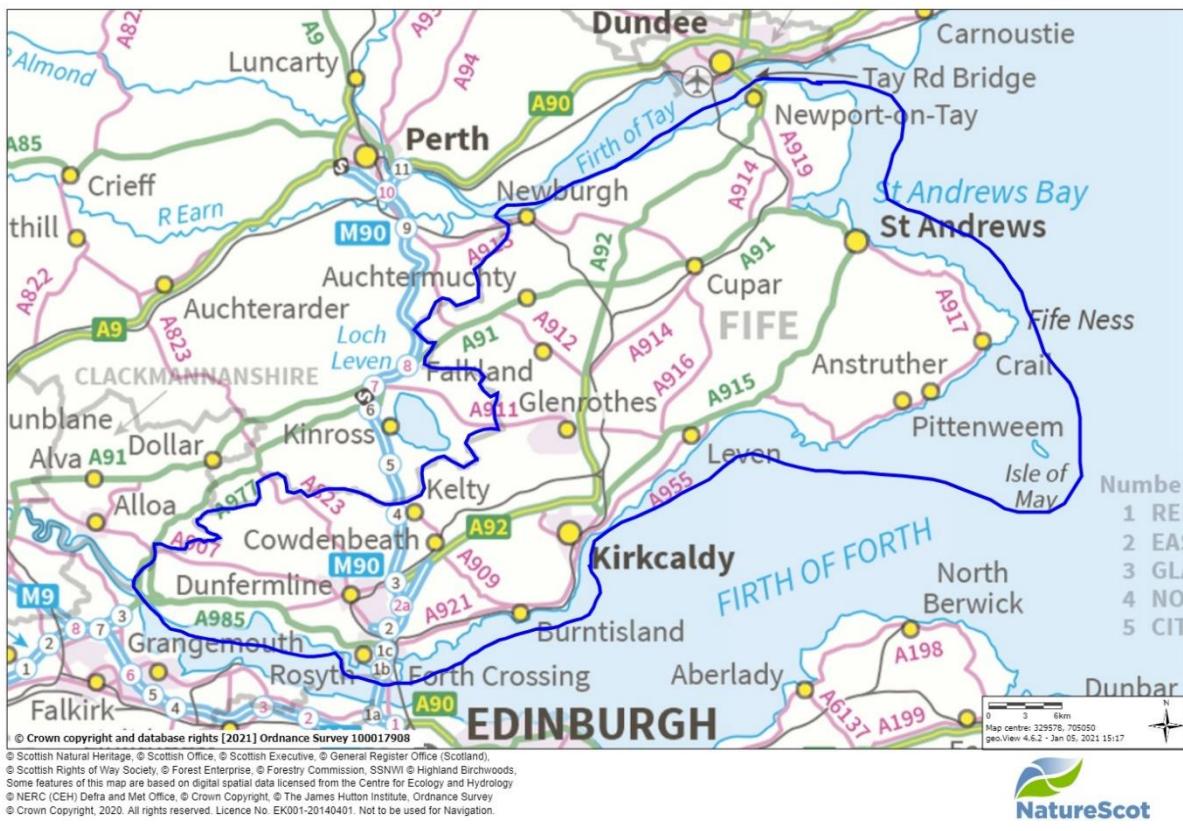
- [British Geological Survey](#) www.bgs.ac.uk
- [Historic Environment Scotland](#) (Historic Land use Assessment, Gardens and Designed Landscapes, historic features and their designations, etc). www.historicenvironment.scot
- NatureScot website especially [Landforms and Geology](#) (more specifically the “Landscape Fashioned by Geology” series) and [About Scotland’s Landscapes](#) soils; wild land; landscape character; designations etc.) www.nature.scot
- The relevant local authority, which will have information on landscape policies, etc.

The content of this document was drawn from the background chapter information in “Nature Scot Review 113: Fife Landscape Character Assessment” 1999, David Tyldesley and Associates.

If you have any comments, please email LCA REVIEW@nature.scot

Landscape Evolution and Influences - Fife

1. INTRODUCTION



Fife is a large peninsula of lowlands and hills located on Scotland's east coast, covering 1,235km². It is located within the Midland Valley of Scotland, a relatively low lying part of the country, between the Grampian Highlands to the north and the Southern Uplands to the south. The county is well known for its scenic landscapes and historic attractions.

The area is bounded by the Firth of Tay to the north and the Firth of Forth to the south. The coastline of Fife comprises the eastern seaboard to the North Sea and the major tidal estuaries of the Tay and the Firth, together with the much smaller Eden estuary, at Guardbridge. St Andrews Bay is a large, sweeping bay which forms the north east coastline of Fife, from Tentsmuir Forest to the promontory of Fife Ness which marks the edge of the Firth of Forth. St Andrews is a coastal town at the centre of the Bay. It marks a distinct change in the coastal landform of St Andrews Bay, with flat, sandy beaches and flats of the Eden estuary to the north and narrow, rocky shores with cliffs to the south. The coastline of Fife has changed many times over geological history with significant rises and falls in sea level.

Geologically the area is defined by two parallel fault lines, approximately 50 miles apart, between which land has subsided, creating an ancient rift valley (the Midland Valley). The valley is quite diverse in character ranging from low lying arable farmland to large areas of upland pasture and moorland. The area is dominated by rocks of the Devonian and Carboniferous periods, with approximately 75% of the area underlain with sedimentary rocks and 20% of the area underlain with igneous rocks of these periods.



Tentsmuir National Nature Reserve ©Lorne Gill/NatureScot

The lower lying, flatter landscapes have fertile soils where agriculture dominates, supporting a broad range of crops, including cereals, fruit and vegetables. Cattle grazing is also common on less fertile areas, with a small amount of sheep grazing. Also 17% of Scotland's total poultry production occurs in Fife.

Hills contrast strongly with these areas, tending to form landmarks such as the Lomond Hills, Cleish Hills and the eastern end of the Ochil Hills in the west, and more isolated hills in the east like Largo Law, Kellie Law, Lucklaw Hill and Drumcarrow Craig.

The Fife coastline is a very special environment which has distinctive rock formations, sandy beaches, delicate flora and a varied wildlife. The people of Fife have had a close relationship with the sea for centuries and there are several active harbours where fish is landed. Many of these utilise historic harbour structures or are extensions of these, with a number also in use for leisure craft. The varied coast is a popular reason for tourists to visit the area. The Fife Coastal Path runs for 117 miles, from Kincardine on the Forth Estuary in the south to Newburgh on the Tay Estuary in the north. The offshore islands of Inchcolm and Inchkeith are home to thousands of seabirds, with vast numbers of puffins found on the Isle of May, and evidence of historic use in Fife is found in a number of religious buildings and wartime defences.

There are several large natural water bodies, although many have been modified, including the largest such body, Loch Leven in the west, where the water level was lowered in the 19th Century after the canalisation of the River Leven. Loch Leven has multiple international and national nature conservation designations as well as being a focus for leisure activities. There

are also numerous smaller lochs, mostly in the south of Fife. The county has a cluster of reservoirs in the Lomond Hills as well as others scattered throughout central Fife.

Fife has a population of 367,000, and over a third of these live in the three main towns of Kirkcaldy, Glenrothes and Dunfermline. Elsewhere there are historic burghs (such as St Andrews and Cupar) and villages, often with a traditional character. Mining settlements are prevalent in south west. The East Neuk fishing villages in the south east of Fife, such as Elie, St Monans and Anstruther, are particularly picturesque, with distinctive harbours. They are popular with visitors, especially in the summer months. Proximity to Edinburgh has meant expansion of towns in south west of Fife in particular, such as Kirkcaldy. Many people from this area commute to Edinburgh for work, using the good rail and motorway links. Elsewhere in Fife there are A-roads and a network of minor roads, and a rail link to Perth and Dundee in the north. With industrial ports like Methil, Fife has relatively intensive development and land use compared to many parts of Scotland.

The Kingdom of Fife was the ancestral home of Scottish monarchs, and home to Scotland's capital for six centuries, and has been at the heart of the nation's history. Evidence of this can still be found in its wealth of castles, cathedrals, and places of historic interest. The most prominent sites in historical terms include the royal palaces at Falkland, constructed on the site of an earlier castle, and the royal palace at Dunfermline, both of which are now within an urban context, with the latter occupying a prominent location alongside Pittencrieff Park. Throughout Fife, many castles and tower-houses are sited along the coast – those such as Rosyth Castle, Ravenscraig Castle at Kirkcaldy and St Andrews Castle have perhaps the greatest visual impact. Together with the rest of the largely medieval burgh, St Andrews Cathedral still dominates the eastern Fife coastline and views from throughout eastern Fife. Inland, Dunfermline Abbey is a dominant feature of the town. The Augustinian Inchcolm Abbey on an island in the Forth is a prominent spiritual landmark and is often referenced in place names and street names along the southern Fife coastline. Dating from the 12th Century, and gradually expanded over the next 400 years or so, it was founded by King David 1st; Tradition has it that his brother Alexander 1st found shelter on Inchcolm during a storm. Other significant historical sites, such as the remains of Culross Abbey, have a less widespread landscape impact as a result of their secluded locations. The area has over 30 sites in the Inventory of Gardens and Designed Landscapes maintained by Historic Environment Scotland, many of them surrounding castles and historic houses, demonstrating the relatively favourable growing climate of Fife.

It remains a region with its own distinct identity. Despite its small size - barely fifty miles at its widest point - Fife encompasses several variations, with a marked difference between the semi-industrial south and the rural north. It is also known throughout the world as the Home of Golf and boasts more than forty courses, from the famed fairways of St Andrews and several traditional seaside links to parkland and heathland courses.

2. PHYSICAL INFLUENCES

Geology

Fife is located within the Midland Valley which is a relatively low lying part of Scotland, between the Grampian Highlands to the north and the Southern Uplands to the south. Geologically the area is defined by two parallel fault lines, approximately 50 miles apart, between which land has subsided, creating an ancient rift valley (the Midland Valley). This valley is quite diverse in character ranging from low lying arable farmland to large areas of upland pasture and moorland. The eastern end of the Ochil Fault, a major fault within the Midland Valley, runs through Fife, generally in an east-west direction, along the northern edge of the Cleish Hills and to the south of Benarty Hill.

Typically, the northern half of Fife is underlain by sedimentary and volcanic rocks of the Devonian period (359 to 419 million years ago). The southern half of Fife is underlain by sedimentary rocks of the Carboniferous period (299 to 359 million years ago), including extensive coalfields.

Devonian aged sediments formed the Old Red Sandstone which underlies the Howe of Fife. These less resistant rocks were eroded to form this lower-lying ground which extends westwards towards Loch Leven. These Devonian sediments represent deposits of rivers, alluvial fans, lakes and Aeolian dunes. Fossils, mostly of plant and animal remains from this time are found at Dura Den near Cupar.

In the Carboniferous period there was a change in the climate to more humid conditions. In the Midland Valley, large quantities of sediments were deposited; during occasional incursions of the sea, limestones and calcareous mudstones were formed. The luxuriant forests of this time eventually became coal seams. These coals, along with associated ironstones, limestones and oil-shales, formed the basis of the industrialisation of the Midland Valley during the 19th and early 20th Centuries.

Over most of the lowland area south of the Eden Estuary, the Carboniferous sedimentary rocks are composed of sandstones, mudstones and siltstones, laid down in lakes or by rivers and sometimes by marine environments. There are also areas of east Fife, inland, where the bedrocks are dominated by limestones.

Coastal exposures provide an insight into the Lower Carboniferous sequences. Rock layer sequences on the coast at Buckhaven help illustrate the palaeogeography and palaeoenvironment of the area during the Upper Carboniferous, when the great coal forests flourished around 308 million years ago. At Craig Hartle and Fife Ness they include marine bands and other strata in which fossils of diverse marine animals appear.

The sedimentary rock sequence also has world-wide significance for fossil remains. At Burntisland in Fife, the Abden Bone Bed has yielded a rich and diverse fish fauna; other 'fossil fish' localities include Ardross Castle, also in Fife. At Pettycur, there is one of the best preserved Lower Carboniferous plant petrifaction fossil floras known in the world.

Igneous rocks are found throughout Fife, where they are typically associated with the Old Red Sandstone and the Upper Carboniferous. Following the end of the Carboniferous igneous

activity, most of Scotland was uplifted, so that sediment deposition ceased in the Midland Valley.

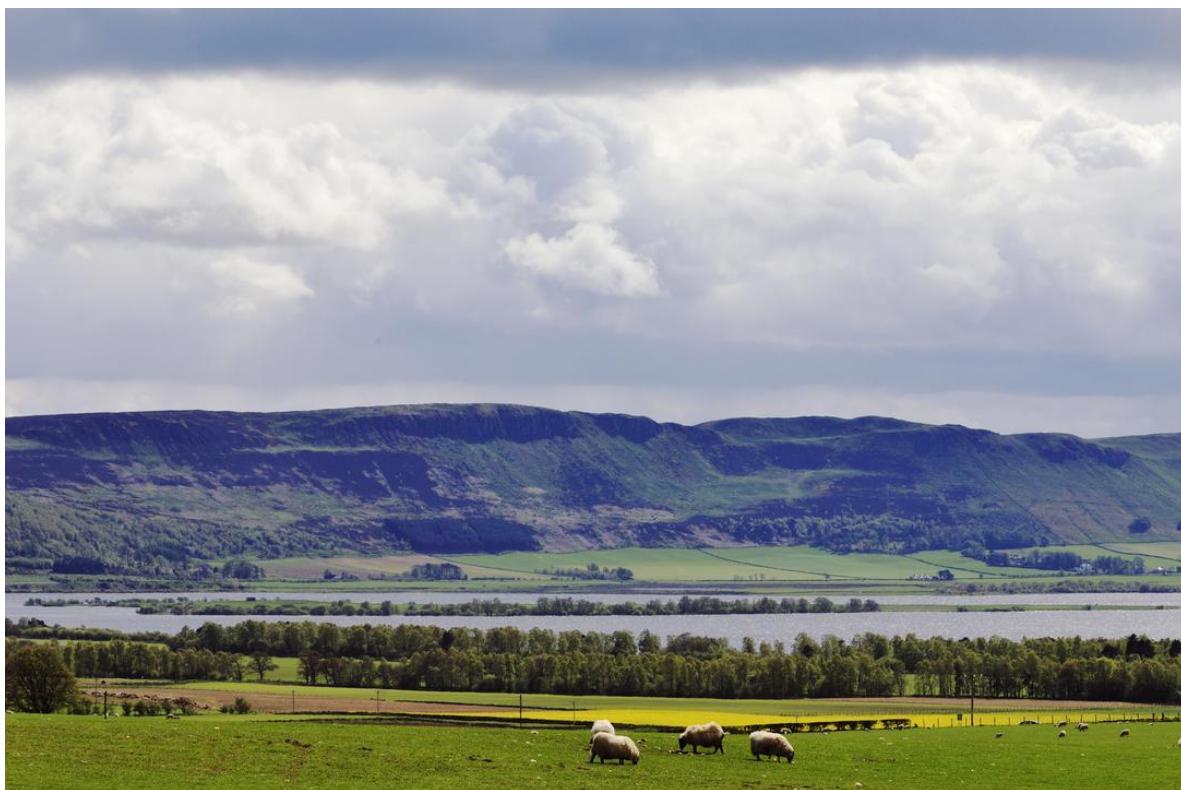


Craig Hartle, St Andrews ©NatureScot

The Old Red Sandstone is linked with one of the most extensive episodes of igneous activity in Scotland, and in Fife the Ochil Volcanic Formation of Lower Old Red Sandstone age is up to 2.4km thick and contains abundant extruded volcanics. These include felsites, basaltic lava flows, andesite lavas and rhyolites locally interbedded with tuffs, conglomerates, breccias, sandstones and mudstones; and including a fish band at Wormit shore. The lavas erupted from fissures onto low ground or into lakes and rivers. To the south, another extensive area of igneous quartz-dolerite rock forms the pronounced volcanic Cullaloe Hills. More localised exposures of both intrusive and extrusive igneous rocks occur throughout the area, creating varied landscape of undulating lowland with occasional, and sometimes very prominent, hills e.g. Largo Law and Clatto Hill.

Upper Carboniferous igneous rocks occur in Fife as extrusive and intrusive bodies. In central Fife, basaltic pillow lavas are known, whilst in east Fife over a hundred individual volcanic necks occur. These display a range of volcanic processes including doming, fracturing, venting and collapse allowing the formation of tuffs, basalts, pyroclastic rocks, and funnel-shaped pipes when ground water interacted with magma. Elie Ness is of note mineralogically for the Landscape Evolution and Influences - Fife

occurrence of xenocrysts of pyrope garnet, the famous ‘Elie Ruby’, found in a volcanic neck. The ‘rubies’, together with a range of other unusual minerals, provide an insight into the conditions under which the host rock, an alkali basalt, crystallised.



Benarty Hill, over Loch Leven. ©Lorne Gill/NatureScot

Intrusive igneous bodies are common in Fife and include widespread basic intrusions occurring as sills and dykes. Some of the sills were intruded into coal-bearing sediments, where they disrupted mining. Part of a major igneous body, the Midland Valley Sill-complex, is found in Fife where it forms a mass with a total thickness of about 200 metres. The igneous rocks which form most of the Lomond Hills are part of this sill-complex, which underlies much of the eastern part of the Midland Valley. The steep scarp of the Lomond Hills, rising abruptly above the surrounding lowlands, forms a prominent feature, as the igneous rock is much tougher than the surrounding sedimentary rocks. The distinctive summits of East and West Lomond are formed by volcanic necks - these are the remains of the vertical pipes which once carried magma to the surface, where it was erupted from volcanoes.

The Quaternary period of glacial activity with extensive erosion and deposition of material. Glacial landform features occur throughout Fife. Today, all land except the main hills is covered by fluvio glacial deposits, particularly sand and gravel, from the last glaciation which affected the Midland Valley in the latter part of the Devensian Stage (approximately 20,000 years ago). The deposits contain a mixture of local rocks and also rocks moved long distances by glaciers. The ice sheet was sufficiently thick to override all the hills in the area. When climatic conditions improved, the lower-lying ground of the less resistant Upper Red Sandstone was filled by a mass of ice, decaying and melting in situ. The debris, eroded by the ice, formed thick deposits of boulder clay, sand and gravel forming a typical fluvio glacial topography which is evident today.

The general direction of movement of the glaciers was in an eastwards direction, indicated by the orientation of striae in the Cleish, Ochil and Lomond Hills. When the glaciers melted they cut meltwater channels through the underlying hill, depositing what is still today a pronounced series of eskers, kames, drumlins and other mounds, adding important features to the topography, such as the series of eskers stretching from Nether Moss, to west Crook of Devon, and the morainic deposits forming hummocky mounds to the east and west of Milnathort. Within Loch Leven itself the islands are formed by masses of fluvio glacial sand.

Around much of the eastern and southern coast of Fife there is an almost continuous terrace of flat land raised above present sea level and lying at the foot of the landward hills. This results from fluctuations in sea level associated with periods of late- or post-glacial conditions. The terrace is actually a series of raised beaches which once were the shorelines of the coast and estuaries at times in the past when sea levels were much higher than they are today. In more recent times, after the sea levels had fallen, these raised beaches were good locations for settlements. They were flat and relatively sheltered, lower than the more exposed hills above, but well above the sea and any likelihood of flooding. Leuchars, Guardbridge and St Andrews are located on these raised beaches which form a distinctive coastal type of landscape.

Kincraig Point west of Elie demonstrates an exceptionally well-displayed sequence of raised shorelines, eroded in the volcanic agglomerate bedrock following the retreat of the last ice sheet between about 16,000 and 13,000 years ago. The erosional character of the shorelines is unusual and they are also striking landforms.



Raised beaches at Kincraig Point, near Crail ©Patricia and Angus Macdonald/NatureScot

In many places the coastal terraces and hills have been incised by fast flowing burns from the volcanic hills which have cut deep, narrow, often steeply sided and now well wooded gorges locally called "dens". The coast of Fife has a series of steep rocky cliffs, mainly on the eastern coast and steep, wooded cliffs, locally called "braes", on both the Forth and Tay coasts, forming a distinctive series of coastal features and occasionally a backdrop to coastal settlements and features in views from across the Firths. In geologically recent times, alluvial deposits and soils laid down by rivers and streams occur on the floors of the valleys and loch basins and in some of the dens. There are occasional areas of peat in natural depressions.

At the extreme north-east corner of Fife, the coast at Tentsmuir is key geomorphological site for the study of active beach and coastal processes, in particular those associated with coastal progradation (shoreline advance). It is exceptional in Scotland for the rate and amount of sediment accumulation since the time of the post-glacial sea-level high. This continues, due to the massive sediment load carried to the sea by the River Tay, building into extensive bar and spit systems.

Climate

The climate in and around Fife is typical of the British Isles, dominated by maritime air masses, which are generally benign, with few extremes of temperature. Occasionally Fife is influenced by Continental high pressure systems providing greater extremes in temperature and reduced wind speeds. With its location in the east of Scotland, and at a relatively low altitude, Fife generally receives less rainfall and more sunshine than areas along the west coast and higher ground inland.

The east of coast of Fife has less rainfall and more sunshine than the majority of Scotland. Here the rainfall does not vary greatly from month to month, although it is generally drier between February and June (39-50mm per month) than July to January (55-68mm), with the wettest month being August. The average annual rainfall on the coast is approx. 650mm. Average annual rainfall elsewhere in Fife varies from approximately 700 to 900mm, although more rain generally falls in the west of the area than the east, and substantially more falls on the higher ground (Ochil, Lomond, Cleish and Benarty Hills).

Fife generally experiences mean daily maximum temperatures in January of about 6°C and from 18° to 19°C in July. Within the area some two-thirds of the strong winds (greater than force 5) are from a south westerly direction. The proportion of winds from this direction increases as wind speed increases. Leuchars Airfield records a relatively low level (8 days) of annual average number of days with gales compared with other coastal locations in Scotland.

The Macaulay Institute Soil Survey of Scotland in its Assessment of climatic conditions in Scotland (Birse & Dry, 1970) has subdivided Scotland into a number of categories. It describes the lower lying land in the south and west of Fife as warm and moderately dry and the rising ground to the north and east as warm and wet. The tops of the Ochil, Lomond, Benarty and Cleish Hills are described as cool, rather wet and exposed with rather severe winters.

Hydrology

In Fife it is notable that the rivers frequently flow more or less west-east, rather than the shorter distances to the coast in northerly or southerly directions. Thus, some of the rivers, e.g. the

Ore and the Eden, are relatively long with a variety of valley stages and features. Numerous other burns are also present and a notable feature of Fife is the characteristic "den" typically comprising a small fast flowing burn in a deeply incised, narrow, often wooded channel cut through coastal hills and terraces. Much of western and central Fife drains either east (via the Rivers Ore, Eden or Leven) or west (via the Rivers Devon or Black Devon). Smaller catchment areas are present flowing southwards to the Firth of Forth, e.g. the Bluther Burn, Lyne Burn, Fordell Burn and Tarry Burn some of which have created the extensive depositional mudflats associated with the Firth, e.g. Bluther Burn forming Tarry Bay.

Inland, the burns drain into the main river systems e.g. the River Black Devon, or into inland lochs. Although much smaller than the basin of Loch Leven, in Kinross-shire to the north, most of these inland lochs have distinct basins.

There is a concentration of reservoirs in the Lomond Hills – Hearperleas, Ballo, Holl and Balgillie - as well a small number of others in south and central Fife. These often act as a focus for recreation.

Soils and Land Capability

Soils are related to the rocks from which they are made by natural processes. For example, the soils arising from natural coastal processes are an important part of Fife's coastal topography and land use. There are stabilised wind-blown sands and active dune processes on the Coastal Flats e.g. the Links at St Andrews and Tentsmuir Forest. These poor, dry, sandy soils have locally poorly-drained areas and therefore support a range of semi-natural habitats from dry acidic dunes to saltmarsh, marsh, fen and other wetlands, all very poor in lime because of their sandy nature. However, these soils can support a productive forestry and a limited range of agricultural crops.

By contrast the soils deriving from the glacial tills and the alluvial soils from river deposits may be fertile, easily worked loams of high agricultural value. In terms of agricultural land capability, the land in south, central and eastern Fife is generally better agricultural land than that in the north, reflecting changes in the altitude and geology of the area. This feature may be the origin of an old saying locally that Fife is "a Devil's mantle fringed with gold". In general, the majority of the lower land is Grade 3.1 or 3.2 on the Macaulay Institute Soil Survey of Scotland: Land Capability map, these are "areas capable of producing a moderate range of crops" but there are some areas of Grade 2 ("land capable of producing a wide range of crops"), most of which are under intensive arable cultivation (Soil Survey of Scotland, 1984). Grades 4 and isolated patches of Grade 5 are also recorded in some parts where glacial deposits dominated by sands and gravels reduce soil quality or where soils are very thin, with bedrock near the surface. On the Ochil, Lomond, Benarty and Cleish Hills, the land capability is at its lowest with extensive areas of Grades 5 and 6 (land capable of use as improved grassland or use only as rough grazings).

Natural Processes – The Ecology of the Fife Landscape

The natural landscape features and ecological relationships closely reflect the geological, geomorphological and climatic influences and processes described above. Thus, many of the area's topographic features, rivers and other hydrological systems and semi- natural habitats are important elements in the landscape.

Fife has a range of semi-natural habitats and landform features where impacts by human activity have been limited, such as on steep slopes (e.g. the dens and upland slopes), loch basins, coastal and intertidal areas. These have tended to maintain their ecological value to a much greater extent than other areas due to their poor or non-existent soils and relatively inhospitable environments which have deterred most forms of development and agricultural improvement. Despite its relatively intensive development and land use, compared to many parts of Scotland, Fife has a wide range and well-distributed series of sites of importance for nature conservation. The best examples of these have been designated Sites of Special Scientific Interest (SSSIs) and comprise a good range of coastal and upland habitats, wetlands, grasslands, semi-natural woodlands and important geological exposures. There are many SSSIs in Fife including islands, coastal features, intertidal areas, estuaries, dune systems, upland raised mire (bog), lowland raised mire (bog), valley mire and dune heath, open water and wetland, inland loch, calcareous grassland/heath, semi-natural woodland and gorge/den. Some areas now noted for their natural habitats incorporate relatively modern features and remnants of industry. The Firth of Forth SSSI, for example, includes the large promontory created south of Valleyfield. This is an area of land reclaimed from the Forth, formed from ash lagoons incorporating waste from Longannet Power Station. This promontory is now the Torry Bay Nature Reserve.

There are other sites within the area which have been designated as Listed Wildlife Sites of nature conservation interest by the Scottish Wildlife Trust (SWT). Some of these are included in a list of Sites of Interest for Nature Conservation (SINCs). Examples of these sites are: Moor Loch; Devilla Forest Mires; Loch Fitty; Benarty Hill; Loch Gelly; Moss Morran; The Clune and Loch Ore Meadows; Kenly Den; St Andrews Foreshore and St Andrews Links.

3. HUMAN INFLUENCES

In the landward area of Fife, the landscape has been influenced by millennia of human interaction. Over this time, inhabitants adapted the landscape to their needs and affected almost all aspects of vegetation cover, through drainage, clearance and planting, cultivation, soil management, etc. On the coasts intertidal areas dunes, rocks and coastal cliffs and braes have been less affected by human occupation.

There is prolific evidence of early settlement throughout the entire area and Fife has an outstanding heritage of historic landscapes with a record of change over thousands of years. The archaeological landscape is potentially rich although many of the former sites may have been disturbed or lost through urban development and mineral extraction. There are sites, buildings and features of national importance, from pre-history, through early historical times, and into the industrial history of the 18th, 19th and 20th Centuries.

Older features are an important record of the relationship between people and the landscape. They may be of important cultural and historic interest in their own right and help to interpret the unfolding story of changes in the natural heritage. Some, such as cairns or ancient earthworks, vary from significant landscape features, such as the fort on East Lomond Hill or the St Andrew's medieval skyline, to the less conspicuous; some may be relatively recent and highly visible, such as telecommunication masts on hill tops.



Forth Rail Bridge ©Lorne Gill/NatureScot

In this area, cairns, ancient earthworks, cropmarks, castles, churches, other historic buildings or buildings of special architectural interest, old bridges, mileposts, guide plates, ancient woodlands, designed landscapes and small historic settlements all contribute to the landscape's interest and the character of Fife. Of great consequence in this respect are the Landscape Evolution and Influences - Fife

four bridges over the Firth of Forth and the two bridges crossing the Tay. The bridges are outstanding features in the Fife landscape that are recognised across the world, with the Forth Rail Bridge designated as a UNESCO World Heritage Site.

Some modern industrial features are visible over large areas, including the Mossmorran chemical plant and the large power and industrial installations on the south coast, with their tall structures, flues and emission plumes. Most recently windfarms have been introduced as new large point features in some areas. On a smaller scale new housing, large agricultural buildings, quarries, the motorway, and masts such as those on the Cleish Hills have been introduced into the landscape.

The impact of the coal-mining industry has been extensive across Fife. Early mines extracted coal close to the surface, and remnants of these have either been superseded by larger mines, or were abandoned.



Lochore Meadows Country Park. ©Lorne Gill/NatureScot

Mesolithic Period (c. 8000BC to 4000 BC)

The Mesolithic is the period between the end of the last Ice Age and the introduction of farming. It was a time of great environmental change when hunter-gatherer communities colonised Scotland. These people hunted wild animals, fished, gathered plants and shellfish for food, and sourced all the materials for tools, clothes and shelter from their surroundings. They would have had a deep knowledge and understanding of the landscape as they moved on a seasonal basis to exploit the changing resources within their territories. Because of their reliance on natural and organic materials, remains relating to Mesolithic activity are rare and difficult to find; scatters of debris from flint and stone working activities or shellfish middens are often the only surface traces. Excavated sites at Morton and Fife Ness have revealed the remains of

hearths and shelters, and the presence of large waste middens at Morton show that this site was used repeatedly over decades.

The Neolithic and Early Bronze Age: first farmers and monument builders (c.4000BC-1500BC)

The Neolithic (New Stone Age) marks the introduction of farming around 6000-5,500 years ago. The origins and spread of Scotland's first farmers are hotly disputed, but farming appears to arrive as a “package” with domesticated animals and plants, new forms of stone tools, pottery and monumental construction projects. Evidence for settlement and agriculture is rare for this period but the early farmers also erected massive monuments such as henges, stone and timber circles. Fife is notable for having very few of some of the earlier forms of Neolithic monument such as cursuses and large communal burial monuments like chambered cairns or long barrows. This may reflect the early establishment of a clear regional identity, or may simply be the result of identification and survival of remains. Those monuments which do survive are usually in comparatively unobtrusive locations often on natural routeways. Excavation shows that they often evolve over time.

The major Neolithic ritual complex at Balfarg, on the north-east outskirts of Glenrothes, starts with a series of small rubbish pits, possibly indicating habitation or feasting activity. A massive timber mortuary structure in the shape of a house or hall is then built on the site and a henge and a number of stone circles follow. All of the structures show signs of repeated reworking and rebuilding, and of feasting activity during the construction and use of the monuments. Other standing stones are dotted through the Fife landscape. The stone circle at Lundin Links is an evocative example but like Balfarg its original conspicuousness has been somewhat subsumed into the surrounding golf course. Whatever the ultimate purpose of the monuments, it is clear that communal activity in the form of meeting, building and movement through the landscape is an important aspect of their function.

Between 2500 and 2000 BC, bronze artefacts start to appear in Britain. They are accompanied by a new form of pottery, known as beakers, and new ostentatious burial sites for individuals. These feature intact bodies with grave goods placed either in large round burial cairns or barrows, such as the cairns on the summits of East Lomond and West Lomond Hill, or in stone-lined “cist” graves often within or close to existing Neolithic monuments. Recent DNA analysis indicates that the individuals buried in this way are genetically distinct from the Neolithic farming community, hinting at an influx of new migrants with significant power and influence.

Later Bronze Age and Iron Age: house and fort builders (c.1500 BC to 50BC)

By around 1500BC, the archaeological record has shifted from ritual and ceremonial sites towards settlement and field systems. Circular houses known as hut circles are some of the earliest such settlements. They are usually found in small groups, sometimes with associated field systems, on the lower slopes of hills. While not common, they are widespread across upland Fife, but this upland distribution is likely to be an artefact of survival rather than their original distribution. A cooling in the climate around 1500BC, accompanied by environmental degradation and the development of peat in upland areas, meant these areas were abandoned and the archaeological remains have survived undisturbed by later land-use.

In the first millennium BC there is an increasing emphasis on building settlements with substantial defences comprising varying combinations of ramparts, ditches and palisades. In

Fife, such settlements are predominantly found on hill summits, coastal promontories and overlooking rivers; sites where the occupants of the settlements could command and control the land around and movement through it. There is a concentration of these hillfort settlement in the high ground overlooking the Firth of Tay. Apart from a few promontory forts along the coast and some rivers, there is a notable lack of large defended settlements in lower-lying areas which are dominated by unenclosed settlements comprising groups of circular houses. This is in marked contrast to the settlement pattern in the Lothians to the south. There is only one particularly large and dominant hillfort in Fife; East Lomond Hill. From its position on the summit of the hill, this fort dominates south central Fife and is also intervisible with similar sites in the Lothians such as Traprain Law and the forts on the hills of Edinburgh. Most hillforts and large defended settlements were abandoned by around 200BCE at the latest, but some of these large regional sites remain in occupation or sporadic use into the early historic period.

Change during this period was not limited to settlement. Technical innovations such as the introduction of iron tools and the rotary quern would have increased the efficiency of agricultural production, while the increasing influence of the Roman Empire brought luxury goods like glass and wine.

Later Prehistoric and Early Historic period

Evidence for the Roman army in Fife is slight, possibly indicating a different relationship here to other parts of Scotland. During their intermittent presence in Scotland from the AD70s to the 3rd Century, there is little evidence of soldiers in Fife: principally the temporary camp at Edenwood. The fort at Carpow west of Newburgh and the temporary camp at Carey by Abernethy which are close to the mouth of the Tay are just over the modern political boundary in Perth and Kinross. This does not mean their influence was not felt. Underground storage chambers known as souterrains appear in the unenclosed lowland settlements across Scotland and are widespread across Fife. One argument has been made that they could have been developed to store agricultural produce, possibly to trade with the Roman army or merchants who could resell it within the empire.

The influence of Rome may also have galvanised the development of broader political and social identities. In 297CE the first reference is made to a group called the Picts in an attack on Hadrian's Wall. Over the next five centuries, the Picts become one of the major powers in Scotland until their eventual amalgamation into the later kingdom of the Scots. Fife was the southern limit of their territory which extended up the east coast as far as Shetland. Settlement remains which can be clearly ascribed to the Pictish period are rare, but their presence is attested by burials in characteristic barrows such as those built around the much earlier standing stones at Lundin Links. The most obvious trace left by the Picts is their art; carved stones featuring stylised representations of people, animals, objects such as arrows and mirrors, and more enigmatic symbols such as z-rods, crescents and double disks. Later, with the coming of Christianity, the symbols evolve into more elaborate scenes with crosses decorated with knot-work tracery and scenes of hunting, feasting, warfare or biblical events. Standing stones featuring these symbols dot the landscape of central Fife and a carving of a bull or ox was found within the fort on East Lomond Hill, which continued to be used in the first centuries CE.

The most outstanding and unusual collection of such carvings is located in a group of coastal caves at East Wemyss. This unique site features panels of individual carved symbols cut into the bedrock of several caves, including what is believed to be the only depiction of a boat from Landscape Evolution and Influences - Fife

this period. It is likely to be no coincidence that the view from the cave mouths is across the Firth of Forth to the Lothians where shifting powerbases of British and Anglian groups held sway. The Wemyss carvings are a clear statement of Pictish identity in the face of the “other” just a short boat crossing away.

Medieval and Post Medieval

St Andrews, in particular its 12th Century cathedral, was the most important centre of pilgrimage in medieval Scotland and one of the most important in Europe. As a focus for pilgrimage, the economy of the wider town grew to serve this function, and in turn developed the economic and political influence of St Andrews in a European context. New monasteries were established across Fife – Dunfermline, in the 11th Century; St Andrews, Isle of May, Inchcolm, Newburgh and Lindores in the 12th Century; and Balmerino and Culross in the 13th. Remnants of all of these survive to varying extents, and equally have varying impacts on their surroundings – Dunfermline and St Andrews dominate their immediate urban contexts, whilst Culross has fewer remains surrounded by later developments and tree cover.

From the reign of King Malcolm III onwards, as the monarchs of Scotland gradually moved south from Perthshire, and until the 17th Century, Fife became an increasingly important royal and political centre. Successive monarchs were based in Dunfermline and the wife of Malcolm III, Margaret, was the main benefactor of Dunfermline Abbey. Until the 15th Century, the Earl of Fife was considered the principal peer of the Scottish realm.

A new royal palace was gradually constructed at Falkland, formerly the stronghold of Clan MacDuff, and was used by successive monarchs of the House of Stuart, who favoured Fife for its rich hunting grounds. In wider landscape terms, however, it is the numerous castles and tower-houses along the coast line – such as Rosyth Castle, Ravenscraig Castle at Kirkcaldy, and St Andrews Castle - that have a greater impact.

King James VI of Scotland described Fife as a "beggar's mantle fringed wi gowd" – this can be understood as describing the coast of Fife with its numerous ports and extensive trading links with Europe - the Low Countries in particular, but also the Baltic countries in the 16th and 17th Centuries. Wool, linen, coal and salt produced in Fife were exported in vast quantities, with a key feature of the wider Fife landscape – red pan tiles on the roofs of buildings – having arrived as ballast for the ships.

St Andrews is probably the only example of a Fife townscape where the medieval street pattern is readily and clearly understood. Other large towns have medieval remnants, but they are largely obscured by later developments, to the extent they cannot be understood as medieval in character – an example would be Dunfermline where industrialisation in the 19th Century, 20th Century redevelopment, and 21st Century infill has resulted in a much-altered townscape. Kirkcaldy retains its ‘lang toun’ moniker, but has spread to the extent that the pre-19th Century linear character is difficult to characterise as distinctive. Of the inland towns, Auctermuchty and Cupar were both significant, with the latter having been designated a royal burgh around the early 13th Century, and later the County Town of Fife. Although neither present particularly distinctive townscape characters in the wider landscape, both are smart and important historical centres, alongside Falkland.

It is the coastal towns of Fife that, in particular, dominated the post-medieval period, as alluded to by King James VI, above. In the late 16th Century, eight new coastal royal burghs joined

Pittenweem, flourishing through the 16th Century but followed by decline in the 17th. It is these coastal towns that saw comparatively little development from the 18th Century onwards, and therefore present townscapes of post-medieval character in generally tightly restricted coastal topography, that are particularly enjoyed today by both residents and visitors.



Crail and its harbour ©P&A Macdonald/NatureScot

Fife retains numerous surviving post-medieval structures such as tower-houses and churches, some with later urban developments, some isolated, and many roofless. The defining influences of ecclesiastical origin in most large towns and villages is that of post-Disruption churches of different denominations – and in particular their towers – rather than those of earlier character. However, some parish churches have earlier cores or components that are prominent, such as at Leuchars (St Athernase Church), St Monan's Kirk, or St Bridget's Kirk on the shore at Dalgety Bay. Fife was not a major frontier in the medieval period, so there are none of the significant 13th or 14th Century fortified sites that are characteristic of the Lothians or Dumfriesshire, for example. However, like the rest of lowland Scotland, there are numerous later fortified tower houses from the 15th to 17th Centuries, of varying prominence. Those along the shoreline still dominate their immediate context – the aforementioned Rosyth Castle, Ravenscraig Castle at Kirkcaldy, and St Andrews Castle are probably the most prominent. Inland examples such as Kellie Castle or Scotstarvit dominate only their immediate context. There are a small number of mottes in Fife – it is suggested thirteen likely or possible such sites – of which Duniface Hill was probably the most prominent albeit now largely obscured by trees.

Modern Period (1800 onwards)

Increased industrialisation

Railways and, earlier, ships were a main factor in the development of Fife's industry. Until well into the 19th Century this was primarily concerned with the manufacture of goods from agricultural raw materials. In Pathhead, Kirkcaldy, a late Georgian flourmill's office block was designed to resemble a villa, to mask its industrial purpose. Grain and barley were used in whisky making. One of the earliest commercial distilleries is the Grange Distillery at Burntisland - most of its ranges date from 1805. Much larger and with its own village is the Cameron Bridge Distillery at Windygates which was founded in 1824. Late 19th Century examples at Pitlessie, Ladybank and Newton of Falkland give distinctive character to that corner of north east Fife. By the late 19th Century linen manufacture was one of Fife's major industries, the former Eden Valley Works at Freuchie has been converted to residential use. Also converted to housing is the imposing Italianate style St Leonard's Works in Dunfermline. Kirkcaldy became the centre of floor-cloth and linoleum manufacture, which was housed in large, tall factory buildings.

Coalmining which had been undertaken in Fife since the Middle Ages underwent a huge expansion from the 1890s. Prior to the establishment of heavy rail links, most early coal mines served adjacent industries, such as salt-panning, evidence of which is found across the Inner Forth area around Culross and to the east in St Monans. Coal was also used in the production of lime for building and agriculture, with the most notable example being at Charlestown, where the plentiful supply of both coal and limestone resulted in one of the largest complexes of limekilns in the 18th Century – Charlestown itself was built as a planned industrial village to serve the limekilns, and the harbour was constructed to take the finished product to markets across the UK. The nearby village of Limekilns is indicative of earlier lime industries, albeit on a smaller scale.

Deep coal mining resulted in larger changes to the landscape, particularly where spoil was deposited, although much above-ground evidence of these mines – including the increasingly large and dominant pit-head buildings – has since been demolished and either re-landscaped or redeveloped. An example of a landscape that has seen considerable change is with the former Mary Colliery, which is now the Lochore Meadows Country Park. It is also notable that the construction of Glenrothes new town was associated with the nearby 'super-pit', Rothes Colliery, which closed after less than a decade of operation.

A greater impact in recent decades has been with open-cast mines, some of which have been re-landscaped, although others have only seen partial restoration as restoration schemes have been abandoned. The most notable of these is the former open cast coal mine at St Ninians, Lassodie, immediately north of Loch Fitty and adjacent to the M90. A significant re-landscaping designed by Charles Jencks was only partially completed, but is prominent in views along the M90 corridor.

The industry began contracting from the 1950s onwards. The most visible surviving relics are the string of former mining communities, each with an interwar miners institute that run from Leven south west to Oakley. The Mary Colliery's pithead gear of 1920 now stands in Lochore Meadows Country Park.

Agricultural improvements

Rural Fife until the 18th Century was essentially a medieval peasant society, farm buildings were grouped into ferm touns, each with strips of arable, meadow and rough grazing enclosed by a dyke to protect it from the stock that grazed on the moorland. This system was gradually replaced by a process of ‘improvement’. New agricultural principles were based on drainage of waterlogged clay soil, planting of shelterbelts and reallocation of the land to create separate, larger farms. This was an expensive process, that although well understood in the early 18th Century was not generally implemented until the end of the century. By the 1840s almost all of the land had been enclosed and what is recognised as a modern system of farming had spread across the county. The programme of improvement and rebuilding in the early 19th Century created the typically two-storey sandstone or whinstone slate-roofed farmhouses and associated pantile-roofed steadings that along with terraced single storey farmworkers cottages define much of Fife’s countryside. Octagonal horse-mills attached to the steadings are distinctive features. Larger, more prosperous farms invested in grander, more formal farm building such as the Georgian style farm buildings on the Over Rankeillor estate. Mechanisation from the mid-20th Century onwards has imposed new requirements on the design of agricultural buildings, most notably the need for larger sheds. These metal-clad structures have introduced a more industrial character to the agricultural landscape. Redundant traditional steading buildings have in many instances been converted to residential use.

Urban development

Fife is a region full of small towns and large villages. The Burgh Reform Acts of 1833 established a new system of local government which stimulated civic pride. Two of the county’s larger burghs acquired new town houses – designed in Baronial-style in St Andrews and French-style in Dunfermline. Space for public meetings were also provided by purpose built halls such as the steepled Cupar Corn Exchange (1861) or Normand Hall in Dysart (1883). Villages often acquired overly large halls, such as Queen’s Hall in Charlestown or Queen Victoria Memorial Hall at Coaltown of Balgonie. Public libraries, financed from the rates after 1854 also define the civic townscape of Fife’s burghs. One of the earliest is the steepled Duncan Institute in Cupar (1870). Other distinctive examples include Kirkcaldy Public Library and Museum (1923) and Burntisland Library (1906).

Along with Town Houses, halls and libraries, school buildings contribute significantly to the character of Fife’s towns and villages. The Scottish education system from the 17th to 19th Centuries was based on parish and burgh schools and a few urban grammar schools such as Madras College in St Andrews (1832). The Education Act of 1872 established a national system of school boards, resulting in new, purpose-built schools in towns across the county. Historically, the administration of justice through Sheriff and Burgh Courts was largely localised. Purpose built courthouses are few, Cupar’s Sheriff Court was created in 1836 by adapting an existing tenement in St Catherine Street. An exception is the imposing towered, Baronial style court in Kirkcaldy (1893).

Town parks were laid out from the mid-19th Century. Some, such as Cupar, Dunfermline and St Andrews, have retained focal Victorian cast-iron bandstands. Civic dignity was also expressed by the erection of fountains and statues that mark the centre of a town such as the Whyte-Melville Fountain (1880) in Market Street in St Andrews and the life-size bronze statue

of Onesiphorus Tyndall-Bruce in Falkland. A gigantic statue of Andrew Carnegie dominates the eastern entrance to Pittencrieff Park in Dundermline.

The architectural form of much of the character of Fife's towns and villages comes from housing. Worker's housing dominates many of the county's settlements. Mostly very simple in form, character and interest comes from the building materials, predominantly sandstone and whinstone or from the dominance of particular detailing such as the use of skewputts (stones at the corner of a gable, specially shaped to support the coping stones) and crow-stepped gables. Fife's only attempt at a Georgian style 'Palace-front' terrace, such as those found in Edinburgh, Glasgow or Perth, is in St Catherine Street in Cupar. In St Andrews early Victorian unified terraces of townhouse survive at Playfair Terrace and Abbotsford Crescent. Towns acquired large villas in the Victorian period, the most substantial are at St Andrews strung along The Scores.

From the early 20th Century, generous and imaginative layouts of workers' housing developments in Methil and Rosyth were influenced by the Garden City movement. In contrast, Coaltown of Wemyss is a picturesque planned mining village with broad eaves and rustic porches, intended to create an estate village feel. In the 1950s large scale redevelopment of a number of historic burghs, such as Dysart and Burntisland left only a few heavily restored old buildings set in new housing developments. Kirkcaldy and Kincardine-on-Forth have grouped tower blocks for architectural effect. Post World War Two mass house building is a significant characteristic of most towns, particularly outwith their historic cores. A limited range of massing, scale, layout and materials create a uniform character to towns' outer edges. Since the 1980s certain areas around the larger towns have experienced urban expansion. Dunfermline has seen the most significant growth, to the north and east, out to the M90. With more than 6,000 new homes proposed in coming years, as well as a new western distributor road and northern relief road, the landscape surrounding Dunfermline is likely to undergo notable change. Glenrothes and Kirkcaldy urban areas have expanded in pockets since the 1980s, mainly for housing, with Kirkcaldy proposed for more mixed growth in the future. Cupar has also experienced some change, especially to the east. A northern relief road is now proposed to help deliver another 1,400 homes and sizeable areas for business development and research. St Andrews is also expected to grow westwards with the addition of a business/science park and over 1,000 houses.

Smaller towns, such as Anstruther, Lower Largo and Leven have all experienced limited pockets of housing development in recent years, which has generally had limited influence on the landscape setting of these settlements.

The Fife Energy Park at Methil, Burntisland Port and Rosyth Port are all enterprises which have developed, and are still expanding, this century, with the large inshore turbine at Methil a particular addition to the skyline of the coast.

Country houses and designed landscapes

An important aspect of human influence of the landscapes of Fife is the creation and evolution of gardens and designed landscapes. Over the last 400 years or so amenity landscapes have been created around many of the larger houses and steadings. Many have been modified as a result of fashion or later development or agricultural changes but parts of the amenity planting and/or the gardens remain evident. In some cases the features consist of a modified private garden area with a blend of amenity and shelterbelt or policy planting around the larger houses or farm steadings.



Coastal defences and sea wall along at Kirkcaldy ©Alistair.Rennie/Nature.Scot

Some of the gardens are more extensive and complete, with policy planting around the houses and the transition from the formal garden to a parkland amenity landscape. Over 30 designed landscapes in the area are of national importance and are included on the Inventory of Gardens and Designed Landscapes maintained by Historic Environment Scotland.

The most common type of site on the Inventory is the estate landscape – the policies associated with an important house or castle, developed by country landowners for both pleasure and productive purposes. Other types of site on the Inventory include botanic garden collections, urban parks, golf courses, horticulturalist's gardens, and cemeteries. In Fife these include the rare mid-19th Century garden at Falkland Palace and the internationally-renowned golfing landscape of St Andrews links.

Designed landscapes can include castles or large houses. Estate buildings such as gate lodges, chapels, coach houses and doocots can also be important elements within the landscape. The remains of fortifications can be incorporated as follies in designed landscapes. They have formal gardens close to the main buildings and are set within large, designed policy

landscapes, providing a setting to the main building and a screen or frame for longer distance views.

Today the gardens and designed landscapes that remain may often be of smaller proportions than the original planting. In a number of instances buildings are ruined and parklands sold off or severed from the main buildings, for example by new roads. Nevertheless, the features that do remain, be they buildings, perimeter walls, gates, lodges, woodlands, policies etc., have a considerable influence on the character of the landscape. There are a range of undesignated designed landscapes in Fife.

20th century military defences

Rosyth dockyard was commissioned and completed in 1915, which made it a primary strategic importance, being a large naval base. Fife's coastline, with long flat beaches, lent itself to a sea-born amphibious invasion. Reinforced concrete batteries were established during the First World War. One of the best surviving examples is Carlingnose, North Queensferry which was equipped with facilities for a garrison to man guns, instruments, and a whole host of support facilities.

During the Second World War, the emphasis changed, and while amphibious assault was still a prime concern, airborne assault was considered more of a threat. Military airfields such as Crail Airfield which had been established during WWI, were adapted and expanded. The base at Crail includes four large runways, the footings and floor platforms of several storage buildings and hangars and low earthen banks. The airbase at Leuchars remains in military use.

Bridges

Railway bridges first linked peninsular Fife to the Lothians and Dundee in the later 19th Century, joined by road bridges in the 20th and 21 Centuries. The three North Queensferry bridges span three centuries of civil engineering innovation and design. The internationally acclaimed Forth (Railway) Bridge is one of the most ambitious and successful engineering achievements of the 19th Century. The bridge's monumental scale and striking form dominates the land and seascape of Fife's southern coastline. The World Heritage Site bridge is known for its distinctive paint colour, called Forth Bridge Red. The Tay rail bridge is the longest bridge in Britain and perhaps the biggest wrought-iron structure in the world. The rail bridge, along with the neighbouring 1960s road bridge, form significant features in the north Fife coastline.

Influence of Historical Land Use

Today, the predominant land uses are agriculture, urban development, mineral working, industry and forestry. The growth of the larger such as Kirkcaldy and Dunfermline towns in the 18th and 19th Centuries was linked to the readiness of transportation to markets for goods produced in both towns – for example damask linen in Dunfermline, and linoleum from Kirkcaldy. Cupar grew as a market and county town, at the centre of the rich and fertile farmland, whilst St Andrews grew from being a centre of pilgrimage to both a university town and a focus for golf. These towns have seen continuing and, in some cases, rapid expansion in the latter part of the 20th Century and early 21st Century, such that they now cover large parts of the landscape especially in the southern and central parts of Fife. In particular, the conurbation around Dunfermline, Rosyth, and Dalgety Bay is in effect now a continuous belt of suburban housing developments, providing accommodation for commuters to Edinburgh.

The 20th Century saw the diversification of industry in many of the main towns but the legacy of the coalfield remains in many parts of the lowland hills and valleys. There has arguably been less of a change in the East Neuk of Fife, where historic towns have seen limited expansion – both as a result of distance from the key rail and motorway links, but also as a result of the more challenging geography, and limited industrial expansion in the 19th Century. The historic character of the East Neuk landscapes is now much valued for tourism and leisure purposes.

There have been changes to the farmland over the years, the most obvious being the increase in arable cultivation, the removal of field boundaries and the consequential enlarging of arable fields. Many of the farm steadings have seen the addition of very large modern buildings, not always related in scale and location to the existing steading and built of atypical cladding materials. Re-use of farm buildings and the conversion of traditional steadings to small developments of up to five or six dwellings, has also occurred. These have generally involved new buildings clustered around the main farmhouse, often using newer materials and contrasting styles.

Large-scale forestry, particularly on the Cleish Hills, is also a 20th Century phenomenon that has masked much of the original landscape of Blairadam and the subtle topography of the hills and foothills. This has been a response, in part, to the poor capability of the land for agriculture. Upland agriculture is almost entirely open hill grazing on mainly unimproved or semi-improved and occasionally improved pastures. Today, new woodland planting is focused on the lowlands and there is a small but growing and significant land use change to small-scale broadleaved woodland in the better farmland. Woodland and tree cover on the lower hills are mainly small plantations, shelterbelts, parkland and policy planting and, locally, hedgerow trees. Some of these features are mature or over-mature and many are falling into neglect.

The steeper slopes tend to be a transition area from the arable lowlands to the hill pastures of the uplands. These slopes have a patchwork of fields - mainly grassland both improved and unimproved, with occasional arable cultivation where slopes are less steep, drainage more effective and soils deeper. Livestock farming remains important in most of these areas and field boundaries tend to be less modified although post and wire fences often supplement the low stone dykes and hedges where maintenance and management has not sustained a stock-proof enclosure.

The area has been subject to extensive mineral working: for coal, limestone, aggregates, industrial sands and other materials. This has changed the landscape character of the upland and lowland areas leaving, in the past, hills with open quarry faces and derelict bings often prominently located on skylines. Dumping of mining and other industrial waste at sea during the 19th and 20th Centuries also changed the character of beaches along the coast from Kinghorn to Leven. More recent restoration has been more subtle and incorporated art in some places, such as at St Ninians opencast coal mine north of Loch Fitty. During extraction the intrusion of the voids, working operations, plant, traffic and screening bunds and soil/overburden mounds can be conspicuous.

Roads are important elements in the landscape of Fife. For most of the area they form a network of small-scale rural roads which relate to the topography and drainage patterns and generally blend well with the landscape. Their roadside stone dykes and hedges are important linear features where they remain intact. In the Black Devon valley there is an area characterised by narrow relatively straight roads with wide roadside belts of trees forming a distinctive landscape pattern.

The A class roads are of larger scale and have been systematically improved to take the high levels of traffic associated with the large urban areas and important industrial installations. Most have been improved on their existing line but part of the A94 dual carriageway was constructed on a new line through the lowland valleys. The M90 runs north-south through the area towards the Forth Road Bridges and forms a large-scale linear feature sweeping in curves, through extensive cuttings and on long embankments between Dunfermline and Cowdenbeath.

Other development in the countryside has included wind turbines, golf courses, caravan sites, country parks and other recreational developments. There are also airfields, industrial factories and smaller-scale changes such as cemeteries.

Modern/Contemporary Land Uses

Wind Energy development

Fife currently has a range of wind turbine development, from small/medium height single/double/triple turbine groups associated with rural agricultural buildings scattered throughout the lowlands of the county, to large turbines grouped as small windfarms primarily concentrated in the southern parts of the area, such as Little Raith near Lochgelly and Earlseat north of Kirkcaldy. These often form focal point features in the landscape.

Transport improvements

Fife has benefitted from primarily road improvements in recent years, most notably the new Forth river crossings. The Queensferry Crossing road-bridge and associated upgraded motorways has enabled easier connections with Edinburgh and the south of Scotland for road users, as well as providing a notable new element to the landscape of southern Fife. The more low-key design of the Clackmannanshire Bridge, in the far south-west of Fife, provides improved links to the Central Belt of Scotland.

Elsewhere in the county road improvements have been at a more local scale. However, in the future, significant upgrading of the A92 is proposed, which may affect the landscape and visual character of central Fife, as well as around the north and west of Dunfermline, around Kirkcaldy and a relief-road to the north of Cupar.

Improvements to the rail network are also proposed to support future housing and business development. These particularly relate to the development of Rosyth Port, the Fife Circle railway in the Leven and Ore Valleys between Dunfermline and Kirkcaldy, and between Dunfermline and Longannet.

4. CULTURAL INFLUENCES AND LANDSCAPE PERCEPTION

Cultural connections with Historic Gardens and Designed Landscapes

Whilst Fife is well documented in map form from the early 19th Century, much of it is not well recorded in literature or painting, and photographic records are limited. However, good documentary evidence exists in the Inventory held by Historic Environment Scotland for the Gardens and Designed Landscapes of national importance.

The historic value of these designed landscapes is enhanced by associations with well-known or influential people, such as the Douglas family (Aberdour Castle and House), the Earls of Elgin and Dundonald (Culross Abbey House), the Earls of Moray (Donibristle), the architects Frank Deas and Sir Robert Lorimer (The Murrel), Andrew Carnegie (Pittencrieff Park, Dunfermline), and Viscount Keith (Tulliallan). The designed landscape around Valleyfield is the only Scottish example of the work of Humphrey Repton, one of the leading landscape architects of the English Landscape Movement.

At Blairadam, William Adam, the grandson of the builder of the house, was a notable lawyer and politician who became Lord Chief Commissioner. He was a close friend of Sir Walter Scott who was a regular visitor to the estate and he may have encouraged Scott's purchase of the neighbouring estate of Loch Ore in the early 19th Century. The two were part of a small group known as the "Blair Adam Club" formed in 1816, which met every year for a few days at Blairadam until 1831 and visited local places of historical interest, some of which proved to be the inspiration of later works by Scott. These historical, artistic and cultural associations, together with the outstanding documentary record and high quality of the design of the house, garden and policies of Blairadam, make it of national importance.

The “Home of Golf”

St Andrews, on Fife's east coast, is known and the “Home of Golf” because of the history, fame and quality of its courses. The Old Course at St Andrews is known by many to be the “Cathedral of Golf” because it was pivotal in the way that the modern game of golf developed and is considered the oldest golf course in the world. It is believed that golf was first played at the links in the early 15th Century. In 1522, Archbishop John Hamilton gave the townspeople of St Andrews the right to play on the links. In 1744, 22 noblemen, professors and landowners founded the “Society of St Andrews Golfers”. This became the precursor to The Royal and Ancient Golf Club of St Andrews, known as the R & A, which now is the world governing body for the game.

The Old Course today is a public course over common land, and is held in trust by The St Andrews Links Trust under an act of parliament. It is home of The Open Championship, the oldest of golf's major championships. The Old Course has hosted this major 29 times since 1873, and does so every five years, most recently in 2015. The 29 Open Championships that the Old Course has hosted is more than any other course. Several clubs have playing privileges on this course today, but the R & A clubhouse sits adjacent to the first tee.

St Andrews attracts a great number of visitors from all over the world to both play golf and see the courses.

The University of St Andrews

The University in St Andrews was the first to be established in Scotland. It has been a huge influence on the composition and character of the town. It was founded in 1410 when a group of Augustinian clergy from Paris, Oxford and Cambridge formed a society of higher learning in St Andrews. It offered courses of lectures in divinity, logic, philosophy, and law. A charter of privilege was bestowed upon the society of masters and scholars by the Bishop of St Andrews, Henry Wardlaw, on 28 February 1411. It was granted university status on 28 August 1413. King James I of Scotland confirmed the charter of the university in 1432. Subsequent kings supported the university with King James V "confirming privileges of the university" in 1532.

The University has evolved and had mixed fortunes in its history. As the 20th Century progressed, the university's student population rose sharply. The town has a population of just over 20,000, half of which are students and University staff, and the 11 halls of residence have 4000 bed spaces. Significant new building of large faculty buildings and halls of residence on the periphery of the town to the northwest has occurred in recent years, locally changing the character of these areas and contrasting with the historic town centre.

The Fife coast as a seaside holiday destination

The south coast of Fife was home to Scotland's first beach holiday resorts. From the 1870's seaside holidays became increasingly popular with the Victorians and thousands started coming to Elie, Burntisland and the East Neuk of Fife. The villages were dubbed the "Brightons of the North". Elie, with its imposing stone villas, was once known as the Scottish Riviera.

People came for the sea-bathing and fresh air, the golf and the restorative quiet that set this area apart from the bustle of the piers and promenades of the Clyde seaside resorts. In July and August holidaymakers arrived in droves from Edinburgh, Glasgow and Dundee, travelling on trains. Visitor numbers increased to a level where, in 1910 a weekend summer train started running ran from Glasgow to Crail on a Friday evening, returning on Monday morning. This enabled business people to locate their families on the coast in the summer, and to travel there themselves at the weekend.



West Sands, St Andrews ©Ann Jeffray/NatureScot

The crowds became more socially mixed after the First World War. Working class day trippers came from the cities and middle class families rented houses over July and August, sending their luggage on a week in advance. Campers threw their tents from the train to the fields. Temperance societies were drawn to this devout corner of Scotland where the churches were disproportionate to the population and many of the villages were dry. By the summer of 1933 around 150,000 holidaymakers were descending on the East Neuk. Many East Neuk residents would move out into the garden to rent their homes during the summer.

However, by the 1960s, many of the more rural Fife railway lines and stations were closed as a result of the Beeching Report following nationalisation of the railways. Little is left of these lines today. People were using cars and holidaying outside Scotland more, which reduced the numbers of people visiting the area in the summer. But today the Fife coast is still a popular holiday destination.

The landscape in the place names of Fife

The place names of Fife are often drawn from landscape features or land uses. As is common in much of Scotland there are lots of examples of Gaelic names, as well as some of Pict, Scots, English or Norse origin, with those of mixed origin represented too.

Examples of place names derived from Gaelic include; Anstruther, meaning “the little stream” (*an* - the, *sruthair* - little stream); Auchtermuchty, meaning “upper pig house” (*uachdar* - upper, *muc* - pig, *tigh* - house); Cowdenbeath meaning “birch woods” (*coilltean* - woods, *beithe* - birch); Elie meaning “tomb” (*ealadh*); Falkland meaning “hidden or concealed enclosure” (*falach* – hidden or concealed, *lann* – enclosure); Kinghorn meaning “at the head of the marsh” (*cinn* - at the head, *gronn* - mud/marsh); Strathmiglo meaning “valley of the boggy loch” (*srath* – valley, *mig* - bog and *loch*); and Wemyss which means “cave” or “hiding place” (*uamh*).

The extensive lands of Cairnie (a Celtic name) north of Cupar were divided early in the Scots-speaking period and have come down to us with Scots affixes such as Hillcairnie, Lordscairnie, Myrecairnie, and Newcairnie.

Examples of places with names derived from Scots or Old English include Newburgh meaning “new village” (*neowe* - new, *burh* - village/hamlet/stronghold).

Norse naming can be seen in the name of Wormit, which means “the serpent” (*worm* – serpen and *et* - the). Pictish/mixed origin naming is shown in the name of Pittenweem which means “the place of the caves” (*pit* - farm/place/piece of land (pictish), and *enweem* derived from *na h-Uaimh* which means caves in Gaelic),

The distinctiveness of Fife’s landscapes and how they are perceived

Fife is an extremely varied area with a wide range of distinctive landscapes within which there are many subtle differences. These give most local landscapes a distinct sense of place. Views across the lowlands are dominated by the uplands and other hill ranges with their distinctive skylines and shapes. From the uplands and the hills, views extend across the lowlands, usually to the coast and often embracing many differing Landscape Character Types. Views from the shores across the Firths or St Andrews Bay are extensive. There is a

strong sense of history and human influence on a natural environment that is still evident today.

The uplands of the Ochil, Lomond, Cleish and Benarty Hills have an elevated, pronounced physical landform with distinctive silhouettes and skylines often with recognisable shapes, peaks and slopes. They are landscapes of relatively large scale, exposure, openness, peacefulness and simplicity, which are typically quiet, calm, harmonious, semi-natural, enduring landscapes.

The steep hill slopes of the Lomond, Cleish and Benarty Hills, with their pronounced, vertical landform, are very conspicuous in their lowland setting, often defining the edge of other landscapes and the extent of views across the lowlands. They are the distinctive backdrops, edges and skylines to other landscapes which are typically balanced, harmonious, colourful, many-featured, vertical, open and semi-natural. The ruggedness and rocky outcrops of some of the slopes contrast with the sweeping patchwork of gentler, smoother more regular landform and land cover of the slopes elsewhere.

The foothills of the Ochils, Lomond and Cleish Hills are also very conspicuous, often defining the edge of other landscapes and the extent of views across the lowlands. The natural slopes of the foothills landforms are gentler and less pronounced than the upland slopes, but usually steeper and higher than the lowland hills. They too form distinctive backdrops to other landscapes. These are medium to large-scale, open, simple, sloping, curved, quiet and balanced landscapes with smooth or varied textures and muted colours.

The pronounced hills and crags at Blebocraigs, Ceres, Kettlebridge to Peat Inn, Largo Law, Redwell Hill, the Cowdenbeath Hills, the Cullaloe Hills and at KinCraig form often distinctive and recognisable hills or hill ranges, sometimes protruding high above the lowlands or extending the uplands or foothills. They form important backdrops to the lowlands. Their distinctive shapes, silhouettes and skylines, with recognisable shapes, peaks and slopes, give Fife a strong sense of place and direction. The upper slopes of these hills and crags can be steeply sided, rugged and open, contrasting with the shallower, smoother, more vegetated and more intensively used lower slopes. These are medium to large-scale, open, simple, sloping, curved, quiet and balanced landscapes with smooth or varied textures and muted.

Much of southern and central Fife comprises a series of lowland hills and valleys with a varied and subtle landform. This is generally a tended, safe, quiet, balanced and calm landscape, but in the more urban areas it can be busy, random, disturbed and noisy. These are lowland, settled, farming landscape with variety, continuity, maturity and subtlety and a long history of settlement. However, in some places these characteristics have been lost through mineral working and urbanisation creating anonymous landscapes lacking in distinctiveness and character.

The more open sloping farmland in the lowlands of eastern Fife forms a large-scale, open or exposed landscape where the character is strongly influenced by the weather conditions and views of the sky. This is a simple, sloping, balanced, active, organised, tended, farming landscape with regular or geometric patterns.

The series of lowland dens are deeply incised, sometimes narrow gorges or valleys cut by fast flowing burns across gently rolling coastal hills and terraces on the north, east and south -east coasts of Fife. These are confined, small-scale, intimate, sheltered, textured, colourful, balanced and calm landscapes. By contrast, the lowland valleys in northern Fife are extensive, with conspicuous sand and gravel quarries disrupting an otherwise generally organised, tended, balanced, open, locally busy and diverse landscape with regular patterns, smooth textures and seasonally variable colours.

The lowland river basins of the Rivers Leven and Ore are flat, wide, relatively low-lying valley basins contained by distant foothills or volcanic hills with an open, medium to large scale regular pattern of intensively cultivated arable fields with few animals. These are diverse, flat, active, planned, organised, tended and regular landscapes.

The lowland loch basins of Lochs Leven, Fitty, Gelly, Ore and Kilconquhar, in the south-west of Fife, are simple, shallow basins with large water bodies. Away from the motorway and main roads, the lochs and their islands and shorelines dominate a diverse, calm, settled, quiet, and balanced landscape with wildlife often on and around the lochs, and birds overhead in flight.

Around the coast of Fife there is a series of coastal hills mainly located above the coastal cliffs, braes, and terraces, which slope gradually towards the sea offering panoramic views of the Firths. They are characterised by their strong association with the sights, sounds and smells of the coast. These are medium to large-scale, often open or exposed coastal landscapes where the character is always influenced by the sea and can be particularly affected by the weather conditions and views of the sky and the sea. These coastal hills are generally a simple, sloping, balanced, active, organised, tended, farming landscape with regular or geometric patterns. They mark the transition between coastal and landward areas of Fife sharing the characteristics of both.

Particularly around the east and south coast of Fife coastal terraces and raised beaches are mostly flat or gently sloping towards the coast. These are coastal landscapes where the character is always influenced by the sea and typically they are a simple, undulating, balanced landscape with muted colours, varied textures and slow movement.

Kincraig and the eastern coast of Fife have distinctive rocky coastal cliffs which are dominated by the natural elements (sea, sky, climate, geology) and dynamic natural processes of the tidal cycle, coastal erosion and erosion by wind, rain, and ice. The rock exposures and landform features often have geological and geomorphological interest and a remarkable variety of vegetation cover and plant and animal communities. The landscape experience may vary depending on weather conditions and whether looking out to sea from a sheltered or exposed position. Views are invariably extensive in the seaward direction and towards land are generally confined by the cliffs, but from the cliff tops landward views can be extensive to the coastal hills or terraces.

In the prominent, high, steep-sided coastal braes of the north and south coasts the landscape experience varies considerably according to weather conditions. Most of the time they are small-scale, diverse, textured, colourful, calm and quiet landscapes with a contrast between the sheltered enclosure, vertical, sinuous lines of the braes and the vast scale, exposed,

horizontal, landscapes of the firths. In contrast at the very flat, low-lying, horizontal, open, large-scale, exposed coastal flats around the south coast and at Tentsmuir a close association with the sea is ever present.

The extensive areas of intertidal shores all around the Fife coast are natural landscapes dominated by the sea and the tidal cycle. These large-scale, flat, open or exposed, uniform or simple landscapes with smooth textures, sinuous lines and muted colours, are dominated by all of the natural elements. Here solitude may be found, dominated by natural noises and the naturalness of the areas, with sometimes huge flocks of birds and a wide range of landscape experiences depending on the weather conditions and the local permutations of mud, sand, shingle and rock, estuary or harbour. In places, on hot summer days, these are busy, noisy and colourful locations.

The North Sea surrounding Fife is an enduring, vast, horizontal and natural landscape dominated by the weather conditions and the colour of the sea and the sky and the movement of waves. There are small off-shore islands, the largest and most prominent of which is the Isle of May which, with its distinctive lighthouse, is a key feature of all coastal views along the East Neuk of Fife. There are frequent but very slow movements of a variety of vessels and navigation and shipping artefacts on the water. Invariably there are extensive views of and across the intertidal landscapes to the coastal landscapes with their many settlements, varied features, colours and textures.

The Firths of Forth and Tay are maritime landscapes studded with off-shore islands, navigational infrastructure and slow moving ships and vessels of many kinds. Dominated by the spectacular bridges these are a calm, bright, colourful and smooth landscapes with extensive views dominating the coastal scenery from north and south shores. They can also be forbidding landscapes in storms and may at times be concealed altogether by haars (cold sea fogs). The firths are large-scale, flat, horizontal and natural landscapes dominated by the weather conditions, the colour of the sea and the sky, and the movement of waves.