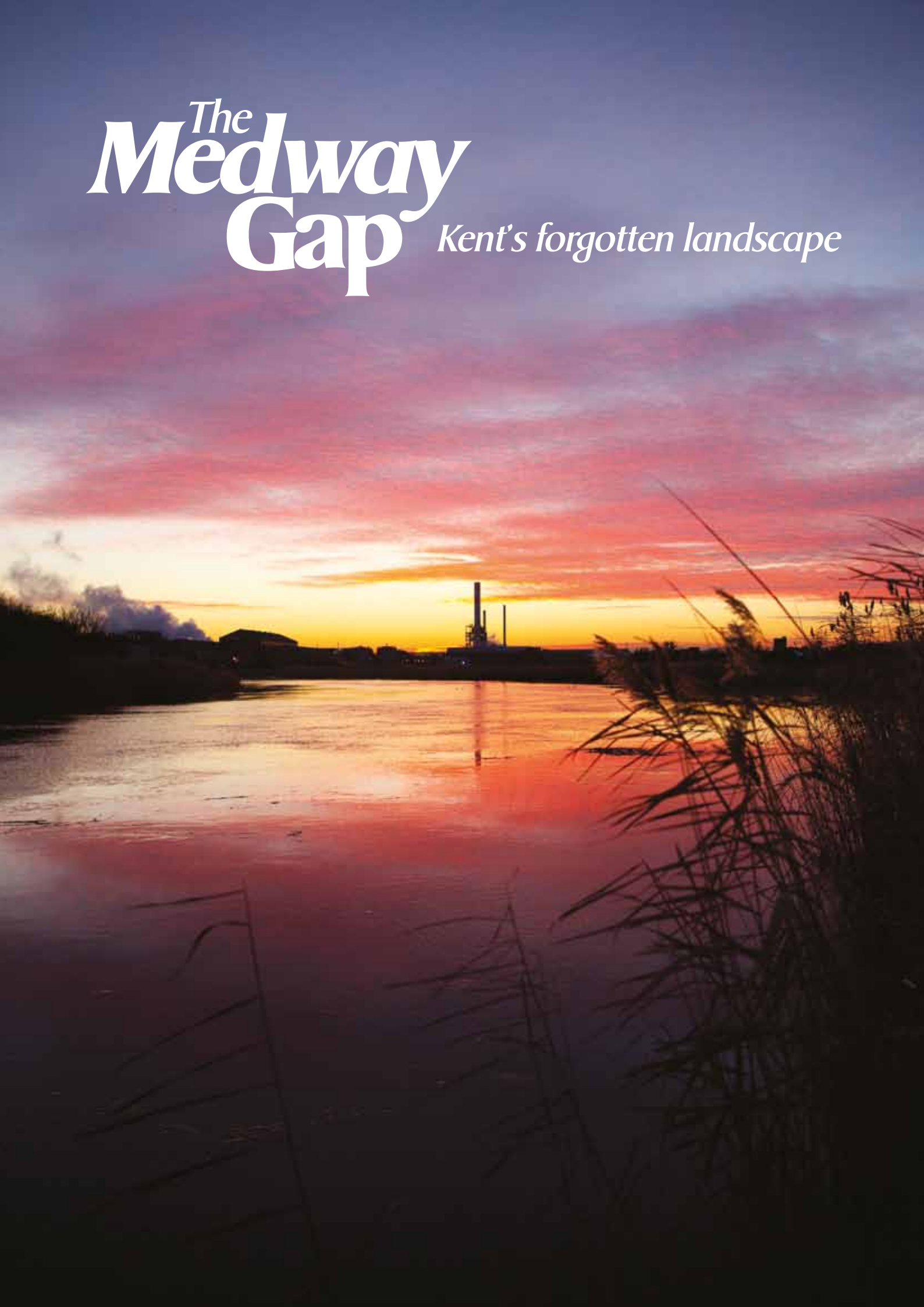


The Medway Gap

Kent's forgotten landscape



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Front cover photo: Snodland paper mill alongside the tranquil River Medway

Back cover photo: The stunning view of the Medway Gap from Wouldham Common



The Medway Gap may not be an area known by everyone yet once visited, its iconic views, vibrant communities and impressive ancient monuments, make it an area you won’t forget.

Nestled between Maidstone and Rochester in mid Kent, the Medway Gap is a distinctive valley that cuts through the North Downs and is full of opportunity. It hosts a suite of nationally and internationally protected designations including the Kent Downs Area of Outstanding Natural Beauty (AONB). In 2007 the Medway Gap became the focus of the Valley of Visions Landscape Partnership Scheme which has successfully worked with landowners, communities and conservation organisations to enhance the landscape and celebrate its beauty.

So much awaits the visitor in an area easily accessible by train from London and across Kent. Steep wooded chalk hills with farmland on lower slopes provide a contrast to the vast expanse of the wide-bottomed valley with the meandering River Medway through its middle. Villages and towns, each with its own distinctive character and features, are dotted throughout the valley.

It is an area steeped in history from its impressive collection of 6,000 year old Neolithic monuments, the Medway Megaliths, to the medieval churches and remains of the Bishop’s Palace and more recent industrial heritage. Pockets of old chalk quarries with their sheer, bright white faces scattered throughout the landscape are a reminder of the area’s once dominant cement industry which played an important part in shaping the landscape for over 150 years. Many quarries have now been so successfully reclaimed by nature that they have become attractive nature reserves.

The Medway Valley Rail Trails, with a walk from each station along the line, are a fantastic way to start exploring what the area has to offer. We hope that this magazine reveals something of this fascinating and for some, forgotten landscape, and encourages you to explore and enjoy the beauty and unique character of this area known as the Medway Gap.

Nick Johansson

Nick Johannsen, Director of the Kent Downs Area of Outstanding Natural Beauty.

The diverse landscape of the Medway Gap

Discover the gap

On the beaten track: celebrating the
landscapes and history of the Medway Gap

Words by Gemma Hall

Enjoying a stroll along Nashenden Down



The charming village of Aylesford



The panoramic vista from Holly Hill



The 6,000 year old Kit's Coty House



A carpet of vivid bluebells at Ranscombe Farm Reserve

Through an opening in the trees at the Coldrum Long Barrow prehistoric burial site near Trottiscliffe, arable fields fringed with poppies roll towards the Medway floodplains as if straight out of a Rowland Hilder watercolour. Enclosing this idyllic scene is the North Downs escarpment that forms an expansive arc around the valley. Like the open countryside and river basin below, humans have shaped this chalk ridge for thousands of years. The signs are all around: in the coppice woods, hedgerows, old trackways and quarries.

An ancient landscape

The natural and human history of the Medway Gap's ancient, well-trodden landscapes have been documented many times over the last few centuries (see pages 12 and 16) but there's still a lot experts don't yet understand. 'We've barely started unravelling the landscape and it's likely that there is a great deal more to discover,' says archaeologist Dr Paul Garwood in an article on the Medway Megaliths on page 10.

To fully appreciate the Medway Gap's complex history, says Sarah Daly on page 12, you have to look back several thousand years to the first farmers who cleared the forests and made pastures for the fertile river plains. They built burial chambers to protect the dead, arenas for community events and paths to travel along – some of which are still visible. Animal grazing and crop growing continue to give the Medway Gap its open character today, but farming practices have changed of course, particularly during the Agricultural Revolution and since the mid 20th century when land management became more mechanised. With traditional farming techniques declining, grasslands lost much of their biodiversity, and those species that did survive were pushed to the field margins.

Active management

To correct this imbalance, conservation organisations working in partnership with landowners have begun mimicking the time-honoured ways of managing the land in order to encourage the return of plants and animals that thrived under earlier regimes. If you were to wander through the recently restored grasslands near Ladd's Farm today, for example, you may see Hebridean sheep grazing on woody shrubs. Keeping scrub growth in check means that rare plants

that need open sunny fields to grow, are blossoming once again (see page 32). Think of the sheep as four-legged conservationists – a concept and practice that our ancestors would no doubt find puzzling.

It's not just farming that has had a deep impact on the environment and communities in the Medway Gap, however. Paper mills, chalk quarries and cement and brick works account for much of the present character of the towns and landscapes in the region (see page 16). Though undeniably environmentally destructive initially, some industries have had unforeseen beneficial consequences for wildlife. Next time you walk along the old railway lines to the River Medway, look out for rare chalk-loving orchids. They grow there because of the calcareous spoil heaps created by waste materials spilling out of wagons. And when you look at the hillsides pitted with chalk quarries, bear in mind that these sheltered bowls are now a refuge for all sorts of birds, plants and rare butterflies (see page 14).

"If you take the time and look, it's all happening out there."

A partnership approach

Thanks to the Valley of Visions Landscape Partnership Scheme (www.valleyofvisions.org.uk), primarily funded by the Heritage Lottery Fund and delivered through the Kent Downs Area of Outstanding Natural Beauty, the Medway Gap has been reinvigorated since 2007 by major investment in projects supporting local communities and landscapes. Habitats have been restored for the benefit of wildlife and people, pioneering archaeological projects funded, and through the production of community walking leaflets, locals and visitors are better able to access the countryside. Over the following pages, some of these inspiring initiatives have been highlighted and indicate how you can get involved in discovering the unique and often unexpected history and wildlife in the region.

The Medway Gap may be a busy corner of Kent that is continually developing and changing, but if you know where to go and what to look for, you'll find tranquillity, natural beauty and fascinating historic monuments and buildings. In the words of local reserve warden, Steve Weeks, from the Kent Wildlife Trust: "If you take the time and look, it's all happening out there".

The Ebb & flow of the River Medway

These days, the River Medway may seem little more than a pleasant backdrop to local life. However, the Medway Gap has been shaped by this watercourse for thousands of years, says Paddy Daly.

In prehistoric times, the Medway carved its valley through the surrounding chalk hills to create a wide, fertile plain that was ideal for farming. It also made for an obvious route for travellers. Before roads and railways, travelling by river was a smart move. The tidal nature of the Medway meant it quickly became an important, fast and safe trade route. With the growth of industries needing the Medway Gap's natural resources (including chalk, clay and pure water) the river came alive with boats, providing transport for both workers and goods.

The increasing use of cement in the building industry meant that the demand for chalk reached fantastic new levels. Paper and brick production were also key 'boom' industries. The Medway Gap had the raw materials, skilled workers to extract it and a navigable, tidal river to get the finished product to the customer - an ideal set up. At this time the river was a major thoroughfare for goods equivalent to the M2 or M20 today. As these industries grew, nature quietly withdrew.

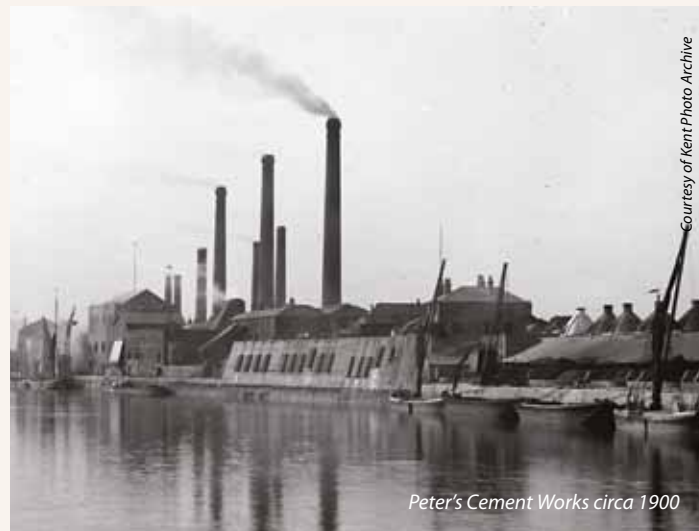
Nowadays, as heavy industry too recedes, road transport has replaced the barges and ferries. The villages along the Medway's banks are once again attractive riverside communities. Nature has reclaimed most of the space and the river itself has reverted to a quiet waterway with an abundance of wildlife, tidal marshland, reedbeds, wildflowers and wildfowl. Several rare species are making this area a stronghold including nightingales, kingfishers, water voles and bitterns. It's a world away from its industrial past.

Possibly one of the reasons why nature has been so successful lies with the fact that much of the riverbank is difficult to access. Industrial tracks and tramways ran to and from the river, rather than along the banks and pathways following the river just weren't needed. This means that nowadays disturbance is still kept to a minimum, with just the occasional small boat passing by.

With no bridges at present in the lengthy stretch from Cuxton to Aylesford, the cross river traffic is non-existent. The eastern bank is noticeably less built up and has plenty of internationally and nationally protected areas for wildlife both along the river and up the gently sloping hillsides onto the chalk escarpment. Much of this area is also being sympathetically restored to its pre-industrial state allowing once common plants, flowers and animals to thrive again.

One of the best ways to see the river these days is to let the train take the strain. The Medway Valley rail line (Strood to Paddock Wood) follows the river for much of the route allowing you to experience both the rural and populated sections. Leaving the train and taking one of the Medway Valley Rail Trails from the station (see page 23) also allows you to enjoy the heritage and natural beauty first hand.

If the population of the area continues to grow, as could be expected with the proposed new housing developments at Snodland, Wouldham and beyond, there is a real chance that the recreational use of the River Medway will increase. Walking, fishing, boating and other pastimes could see the river enter another, possibly more peaceful chapter in its eventful life.



Peter's Cement Works circa 1900

Courtesy of KentPhoto Archive

"The Medway Gap had the raw materials, skilled workers to extract it and a navigable, tidal river to get the finished product to the customer - an ideal set up."

History at the water's edge

There are a few places where you can walk along the river and enjoy the peaceful ebb and flow of the tide today. The historic village of Aylesford is undeniably beautiful and has buildings dating back to medieval times. The settlement dates back much further and the river crossing, possibly at this point, was the scene of a decisive battle between the Romans and ancient Celtic tribes of Britain. One of the oldest structures is the 14th century bridge that spans the Medway. Now only used by pedestrians and cyclists it leads down to a riverside walk that allows you to follow the banks as far as Snodland. At Halling you can take a footpath, past the remains of the Norman Bishop's Palace, as far as its salt marshes. On the other side of the river the Medway Valley Walk runs from Aylesford, right up to Wouldham. For most of the route you are in sight of the river rather than alongside it, but you can walk along the banks as the Medway loops around industrial remains at Burham. From Wouldham you can walk along the river bank as far as Wouldham Marsh.



The medieval village of Aylesford



A snowy view from Blue Bell Hill



The pretty flowers of bird's-foot trefoil

Who looks after the birds and butterflies in the Medway Gap? Gemma Hall meets Steve Weeks who spends his working week climbing hills and traipsing through marshlands to help wildlife.

"It's not big and exotic and not always immediately noticeable, but there's a lot of wildlife out there," says Steve Weeks from the Kent Wildlife Trust, pointing to the green slopes of the Medway Valley. Steve should know: for 13 years he has worked as an area warden in the Medway Gap and has much responsibility for caring for the unique local wildlife and habitats. You'll find Steve at reserves including Wouldham Common, Holborough Marshes, Blue Bell Hill and Burham Down.

"What I like about this valley is the diverse landscapes and wildlife you find in a small area," says Steve. "You've got the whole range from the dense woods on the top of the North Downs, the classic chalk slopes with an array of plants and insects and the floodplains where there are marshes, reedbeds and the river."

The chalk downlands have a particular draw. "They are one of the reasons I moved to Kent," he says. "I've always been interested in these grasslands because they are unique in Britain and support many different plants and insects."

Making connections

Of course, the Medway Gap is no pristine wilderness (where in England is?) and many of the wildflower grasslands and wetlands have become fragmented over time with roads, housing developments and industry all requiring space in the valley. What Steve and his colleagues are doing is connecting the green (and blue!) patches to allow species to disperse and inhabit new places. In layman's terms, we're talking about giving wildlife room to breathe. "Many of our invertebrates and plants are not very good at colonising new areas so they need sites which are either close to one another – or are linked. We're creating stepping stones for wildlife," explains Steve.

By working with landowners, the Kent Wildlife Trust has been able to connect reserves. So if you see an unkempt strip of land at the side of a field of wheat, this could well be a 'green corridor'. It's a simple enough idea and the impact on wildlife can be tremendous. The rare Adonis Blue butterfly is one species in the Medway Gap that should benefit from this method. The brilliantly coloured butterfly is not one of nature's great travellers, so moving to a new grassland on, say, the other side of a river, housing estate or woodland, is unlikely unless there is a strip of its favourite flowers leading the way.

In the past conservationists focused on conserving individual nature reserves, but now they are thinking and working on a much bigger scale. Indeed this 'stepping stones' approach is revolutionising nature conservation across the UK.

"Then, on Christmas morning I got a call from a lady saying she'd seen a couple of reindeer on her land."

Hardy helpers

Of course, the stepping stones themselves still need looking after and much of Steve's work involves the day to day management of reserves: putting up fences, coppicing, altering water levels in the marshes using sluice gates, surveying wildlife, dealing with fly-tipping and off-road vehicles and removing scrub. He doesn't do all these jobs alone though and hundreds of people in the Medway Gap volunteer their time to help with practical tasks. Steve is also assisted by livestock such as Exmoor ponies, goats and Hebridean sheep.

"They are hardy animals that can survive on rough, woody vegetation," says Steve. This trait makes them ideally suited to the job of removing scrub from grasslands. However they are not always the easiest employees to manage and Steve and his colleagues are always on call, ready to catch escapees. There was one memorable winter a few years ago when some goats escaped over a fence by climbing on a tree that had fallen under the weight of snow.

"I rounded up all of them bar two," recalls Steve. "Then, on Christmas morning I got a call from a lady saying she'd seen a couple of reindeer on her land. By the time I got there the two animals were on the run again." Steve finally caught up with the two (long-horned) goats on New Year's Day. "It can be a stressful job, but it's really enjoyable and varied too."

Does Steve have a favourite spot to relax and take his mind off the latest livestock on the run? "When I'm working I rarely have the time to stop and enjoy the views so sometimes on my day off I head to Wouldham Common with my camera. On a clear day you can see the whole of the Medway Gap. It's pretty special."

It is because of conservationists like Steve that the Medway's downland vistas are more open and buzzing with wildlife now than at any other time this century. With the continued support of volunteers and local landowners (as well as several hundred four-legged helpers) the outlook is bright for the Medway Gap's unique landscape and natural heritage.

If you would like to volunteer a few days of the month (or more!) to help Steve and his colleagues at the Kent Wildlife Trust conserve and enhance the Medway Gap landscapes, call 01622 662012 or visit www.kentwildlifetrust.org.uk

"What I like about this valley is the diverse landscapes and wildlife you find in a small area."

Steve Weeks, Kent Wildlife Trust Reserve Warden

Nature's helpers



Grazing goats help keep the scrub under control at Wouldham Common

Mysteries of the megaliths



Kit's Coty House

Archaeologists are only just beginning to understand the Medway Gap's complex Neolithic stone structures, but new discoveries are providing exciting leads. Words by Gemma Hall.

"People in the Medway Gap have something on their doorstep which is really exciting and important on a national and international scale," says Dr Paul Garwood, a Lecturer in Prehistory from Birmingham University, who is attempting to unlock the secrets of the 6,000 year old Neolithic monuments in the valley.

You might think archaeologists must have recovered all the evidence of prehistoric activity at famous stone sites like Kit's Coty House, the Countless Stones (also known as Little Kit's Coty House) and Coldrum Long Barrow considering how often they have been studied and excavated over the centuries. But you'd be wrong. "We've barely started unravelling the landscape and it's likely that there is a great deal more to discover," says Dr Garwood.

Unearthing evidence

New carbon-dating evidence and survey techniques like Ground Penetrating Radar and laser scanning are helping to gather new evidence about the monuments, many of which are noted for their large sarsen stones – the same type found at Stonehenge. Ten years ago archaeologists talked in 300 year blocks of time; now they can be precise to a century and even date some sites to within 30 years. This is significant because experts can start to see how prehistoric societies evolved over short periods of time. They are learning that, far from having slow-evolving cultures, Neolithic farming societies like those in the Medway Valley, evolved relatively quickly. "They are much more dynamic, complex and shifting than we would have thought until quite recently," says Dr Garwood.

Archaeologists also want to better understand the purpose of the Medway structures and how they relate to each other. Are they all the remains of destroyed prehistoric buildings, or are some actually just naturally occurring clusters of rocks? How do they compare to early Neolithic structures elsewhere in Britain? Could there be more sites hidden underground?

Ancestry

"There is a complex set of stories to be told about these monuments," says Dr Garwood, who is surprised by how diverse the Medway stone sites are despite their close proximity to each other. In fact, some show more similarity with monuments in south west Britain, Scandinavia and northern Germany than their counterparts in parts of southern and eastern England.

The Medway Megaliths do have one thing in common, though: a connection with the dead. "The people who built these structures were very concerned with the past," believes Dr Garwood. "It is significant that the biggest architectural structures in their world are specifically concerned with dead people." The complex arrangement of bodies and body parts that have been discovered within tomb chambers also suggests a concern with ancestral worship.

"People in the Medway Gap have something on their doorstep which is really exciting and important on a national and international scale."

New discovery

Tombs were not the only major architectural structures built in the Neolithic landscape however. Just north of Burham village, the Birmingham University team have uncovered a new site which is quite unlike the other Medway monuments, both in scale and function: there are no standing stones or burial chambers but instead a massive double-ditched enclosure 230 metres by 170 metres. This site, which was partially excavated in 2010, is known as a 'causewayed enclosure' and dates to around 3700 BC.

"We are talking about an arena where hundreds and hundreds of people came together and ceremonial activities were conducted," says Dr Garwood. "This was not a place where people were buried." Evidence of possible feasting and deposits of pottery and animal bones at the arena entrances have been unearthed, but new excavations are needed to learn more about this fascinating addition to the Medway group of prehistoric structures.

Samuel Pepys, writing in the 17th century, famously described Kit's Coty House as "...[stones] of great bigness, although not so big as those on Salisbury Plain. But certainly it is a thing of great antiquity, and I am mightily glad to see it. "To think of how many people over millennia have wandered past the same immense stones and felt similar awe and delight is quite humbling. What is most astonishing though, is that the Medway monuments have survived at all in such a developed and rapidly changing landscape.



Coldrum Long Barrow

Coldrum Long Barrow TQ 654607

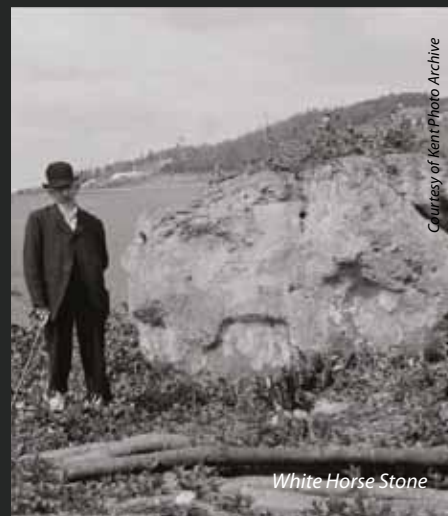
One of the most visually impressive and complete of the Medway monuments with its ring of sarsen stones, tomb entrance and hilltop position. The mound is unusual in that it is square and not rectangular like most long barrows.

Signed off Pinesfield Lane, Trottiscliffe, ME19 5EL. Short walk along a wooded track from a small car park.

Kit's Coty House TQ 745608

Archaeologists believe that this long barrow with its striking stone entrance is more unusual and complex than previously thought. It may have been extended and developed over several hundred years before reaching its final form.

In a field south of Blue Bell Hill; west of the A229 two miles north of Maidstone.



White Horse Stone

White Horse Stone TQ 754604

This large stone that some say is horse-shaped could have been part of a dwelling or a religious building.

On the Pilgrim's Way, south east of Blue Bell Hill at Burham and just east of the A229.

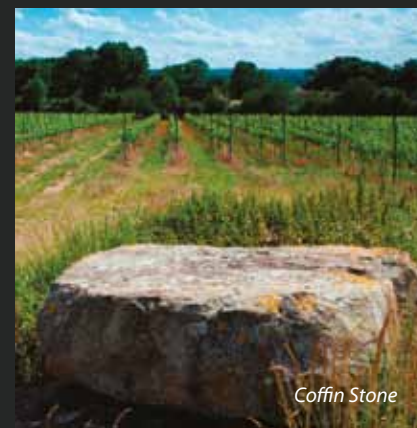


Coldrum Long Barrow

Addington Long Barrow TQ 654591

A collapsed chamber with a long mound surrounded by at least 25 sarsen stones. This is unlike other sites in the Medway Gap and shows similarities with monuments in Jutland and northern Germany.

Just off Trottiscliffe Road in Addington. Private site.

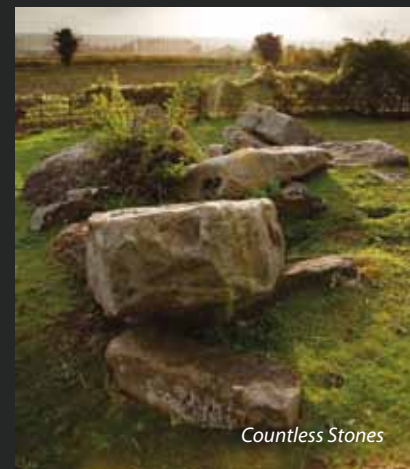


Coffin Stone

Coffin Stone TQ 738605

Excavations in 2008 and 2009 revealed that these stones are not the remains of a collapsed tomb. It seems they were moved to the present site around 1500 AD though they may have originally been part of a burial chamber elsewhere in the landscape.

Private site, west of the Countless Stones and the A229.



Countless Stones

Countless Stones TQ 744604 (or Little Kit's Coty House)

Also known as Little Kit's Coty House, it is unclear if this cluster of large stones was the site of a long barrow at all because the structure is so unusual.

In a field off of Rochester Road south of Blue Bell Hill and west of the A229.

The Chestnuts TQ 651592

A re-erected ruined tomb structure comprising massive sarsen stones, probably the remnant of a large Neolithic tomb.

Just off Trottiscliffe Road in Addington just to the north of Addington Long Barrow. Private site.



Map of the Medway Megaliths



A valley full of life

In the past people didn't choose to settle in an area on the basis of its natural beauty. Feeding your family was a far more pressing aim and the natural resources of the Medway Gap made it the perfect spot to choose, almost from the time humans set foot in Britain.

Surviving the Ice Ages

A huge, sharply-pointed hand axe known as a 'ficon', found in the village of Cuxton, dates back a staggering 220,000 years. According to Dr Francis Wenban-Smith, an Archaeologist at the University of Southampton, the people of this early prehistoric era would have roamed as bands across the downs and into the valley hunting rhino, horse and deer, and fighting over the carcasses with other predators such as lions and hyenas.

"Life really would have been nasty, brutish and short," he says, "and you'd have to prefer your meat raw." Lacking clothing, fire, modern technology and shelter, Francis says, "these early occupants were vulnerable to climate change and, like the rest of England, the Medway Valley was abandoned a number of times during Ice Ages lasting tens of thousands of years."

"Life really would have been nasty, brutish and short."

The imposing Medway Megaliths (see feature on page 10) are proof that they returned at the end of the last Ice Age, a striking legacy of the people who settled to farm this part of the Medway Valley nearly 6,000 years ago. A thousand or so years later and it looks as though the people here had begun trading with other areas: what's fascinating about the bracelet-making industry that thrived in the village of Burham for hundreds of years is that the shale used is not found locally. Instead it would have been imported.

The Medway Gap is a unique and distinctive part of Kent. Sarah Daly finds out about the people who have shaped its past and made it what it is today.

Before long the Romans hit the shores of Britain, but they didn't establish a stronghold in Kent without a fight. The famous Battle of the Medway brought them face to face with the Cantiaci (the tribe that gave this county its name). It's likely that this was a turbulent time for those who inhabited this corner of Kent as Romans and Cantiaci lived together and learned from each other. According to legend, Hengist and Horsa fought Vortigern, King of the Britons, at the Battle of Aylesford in the fifth century AD. Although Horsa was killed, the victorious Hengist went on to found the Kingdom of Kent.

Prosperity and devastation

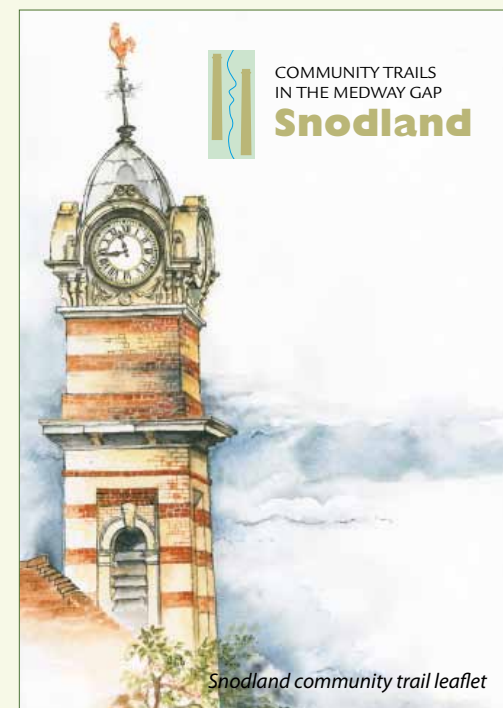
The medieval period would have seen prosperity and growth despite the devastation of famine and plague for the valley's inhabitants, most of whom were farmers as their ancestors had been. They would have grazed sheep on the chalk downlands, grown crops in the fertile lower valley and fished along the river, all using methods largely unchanged for centuries. But all that was about to change.

As the population grew and the industrial revolution swept across the country, making a living became ever more important to the people of the Medway Gap. They were blessed with an area rich in natural resources which they were quick to exploit. The area soon became known for cement, paper and brick manufacture and the people living here were sacrificing natural beauty for economic growth. Feeding your family, after all, was still a priority for most.

The Medway Gap today is beautiful. Over time its people have shaped the landscape into a rich blend of ancient and industrial history, where nature once again holds its own. These days we're all more likely to fight with the traffic than wrestle an animal to the ground for our evening meal. It's hardly surprising though that this corner of Kent is as appealing to the people who live and visit today as it was to our naked ancestors in the distant past.



"Hengest and Horsa fought with Wurtgern the king on the spot that is called Aylesford." Anglo-Saxon Chronicle



Battle of the Medway

This famous battle took place in AD43 when the well-disciplined Romans swam across the river and surprised the forces united under King Togodumnus. The exact location is unknown, but it's likely they followed the old Pilgrim's Way which would have taken them across at Aylesford or that they crossed the river further up, possibly between Snodland and Burham Marshes. Despite fighting bravely for at least a day, the Britons were defeated and fled.

People today

The communities of the Medway Gap are celebrating the beauty and history of this area and sharing it with visitors. Together with the Valley of Visions Landscape Partnership Scheme, they have created Community Trails highlighting their heritage and local distinctiveness.

To download copies of trails for the communities of Aylesford & Eccles, Birling, Burham, Cuxton, Halling, Snodland, Strood and Wouldham, go to <http://goo.gl/5uwhq>



A slow worm - actually a legless lizard, not a snake!



Corncockle - an increasingly rare arable plant

It may not be an untouched wilderness, but rare wildlife is thriving in the diverse habitats of the Medway Gap, says Gemma Hall.

There may be two motorways, a train line and several major urban centres packed into the Medway Gap's 25 square miles between Rochester and Maidstone, but this busy valley is remarkably rich in wildlife. You just need to know where to look.

There are obvious places like reedbeds and old woodlands but wildlife is also thriving in unexpected places like quarries, the dry, steep slopes of the Medway Valley, roadside verges and the borders of arable fields.

For many people, the old chalk quarries in the valley are unsightly scars on the hillside. But for others, they are dramatic features of the landscape and fascinating refuges for unusual wildlife. Since the demise of the cement industry, nature has colonised abandoned quarries like the Culand Pits near Eccles which have become a sheltered home for creatures that love the warm, dry environment. Adders, bee orchids, slow worms and rare butterflies like the silver-spotted skipper and Adonis Blue have all benefited from this secluded man-made habitat.

Farmland edges are also good places to search for wildlife. Look out



The unmistakable yellow of a male yellowhammer

for birds like yellowhammers and nightingales in hedgerows and rare plants on the fringes of arable fields. Generations of cereal farmers in the Medway Gap inadvertently created prime habitat for chalk-loving arable plants like Venus's looking-glass, narrow-fruited corn salad, poppies and corncockle. Though once a familiar sight in cereal fields, such species became increasingly rare as farming intensified from the middle of the 20th century and herbicides were routinely sprayed on the land. Despite this, some of these delicate plants have managed to cling on, especially along field edges that have escaped chemical treatment. They can be enjoyed at places such as Ranscombe Farm, near Cuxton.

"Ranscombe is important because of its rich botanical heritage," says Ben Sweeney from the wild plant charity Plantlife, which has a base near the farm. "In fact, Ranscombe is probably one of the richest and most important places for arable plants in England." This is partly explained by the current wildlife-friendly farming methods, but also because the fields have largely remained unchanged since the 18th century.

From the poppy fields at Ranscombe Farm and butterflies of Blue Bell Hill, woodpeckers in the woods above Halling and the wildfowl and wading birds gathered by the River Medway, you are never far from wildlife in this bustling, unsung corner of Kent, even in the most unlikely of places.

Running Wild in the Medway Gap

"Ranscombe is probably one of the richest and most important places for arable plants in England."

Ben Sweeney, Plantlife.



Poppies at Ranscombe Farm



The panoramic view from Wouldham with rolling arable land, pockets of houses and reminders of the area's cement industry past

When a 'valley of desolation' becomes a rural idyll

The fascinating industrial heritage of the Medway Gap has transformed its landscape, says Sarah Daly, as well as leading to some interesting surprises.

Any journey around the Medway Gap today reveals the legacy of its industrial past. From abandoned quarries, now full of water and teeming with wildlife, to dazzling white chalk cliffs, it's obvious that this isn't an area untouched by human hand.

The reason for this is that the Medway Gap had all the ingredients needed for a number of industries and a navigable river to transport the goods produced. The most obvious natural resource is probably the chalk of the North Downs, which forms an arc around the river valley at this point in its course.

The cement industry exploited this chalk and the clay found in abundance locally. In fact the recipe for Portland cement, still in use today, was perfected near here. Although it covered the valley in a layer of white dust, the cement works that sprang up from Aylesford to Rochester were vital to the prosperity of the area. These works would have dominated their communities and often would have appeared to consume the land around them with the quarries that fed them. There were also surprising by-products to the industry. Entirely created by the quarrying of chalk, the Blue Lake near Halling has an unearthly turquoise colour even on an overcast day. It's caused by light reflecting off chalk particles suspended in the water.

Another industry that shaped the area, both above and below ground, was brick-making. Bricks would have been exported yet many would have been used locally, as need for housing grew with the expanding workforce. Again the natural resources found in the valley were crucial to this industry: clay and sand were both found at its surface.

The river was more than just a means of transportation in the heyday of the valley's industry. The sheer power of fast-flowing streams into the river meant paper making had been thriving on its banks since before the 17th century. Many of these small paper mills closed in the middle of the 19th century and the industry, like others in the area, became dominated by large-scale producers. In fact two very modern paper mills still exist in Snodland and New Hythe today.

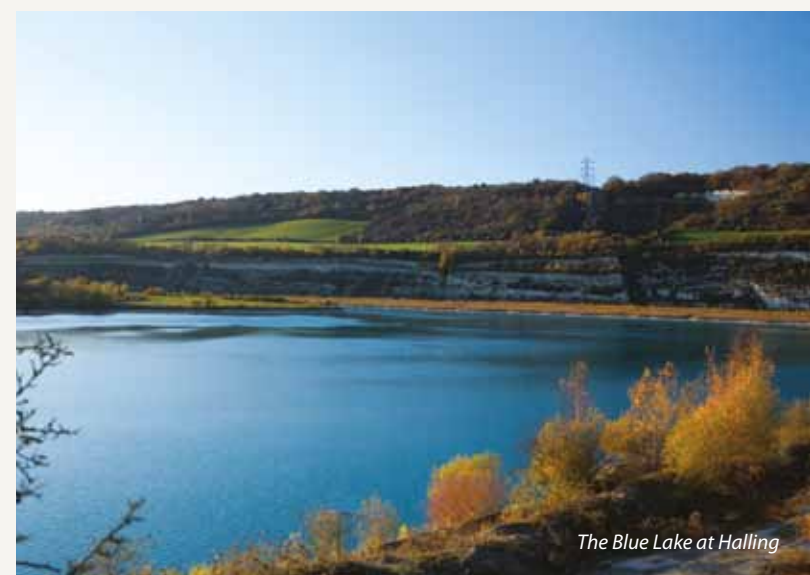
The existing pockets of industry in the Medway Gap, while vital to its economy, are far less intrusive than in the past. For the first time in over a hundred years, cement isn't made in this valley. It's possible however that the coming years will see one of the largest cement works in Europe set up camp in the chalk fields of the Medway Gap once more. Time has shown that, even when this landscape is transformed beyond all recognition by industry, it can and will be reclaimed by nature. Often the process creates new habitats and beautiful landscapes. You only have to look at the Blue Lake to be convinced of that.

"Stained by sordid manufacture, a lovely valley has become, they say, a valley of desolation – its villages black with the smoke of the furnaces and its fair hills devoured by the encroaching works." Maxwell, Unknown Kent, 1921.



Courtesy of Kent Photo Archive

The former Peter's Cement Works at Wouldham's riverside



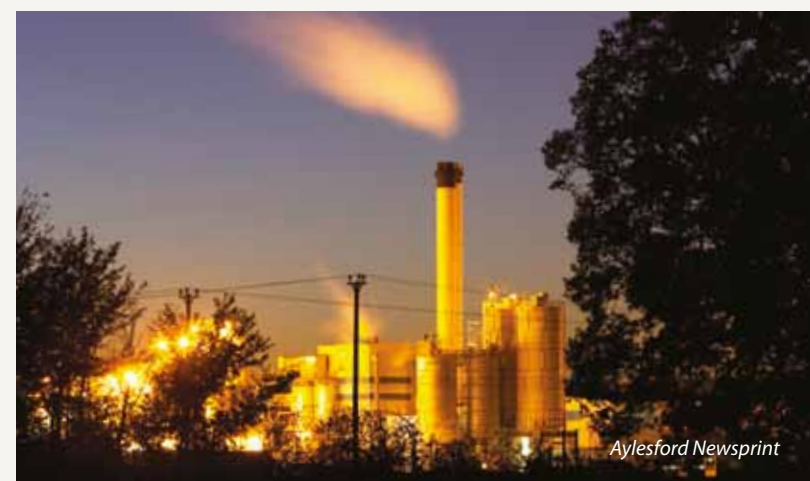
The Blue Lake at Halling

The industrial north

In parts of the Medway Gap you could be forgiven for thinking you'd wandered out of Kent and into an industrial town much further north. The huge success of the quarries, paper mills, cement and brick works in the area brought with it thousands of new inhabitants: in the last half of the 19th century, Snodland's population alone increased almost seven-fold. The terraced homes created for these workers still survive in this town, and other communities throughout the Medway Gap today. The influx of labour undoubtedly changed the area, as did the industries in which they came to work. It all helped to shape the character and identity of this unique place, however, and of the people who live in it today.



Snodland



Aylesford Newsprint

'Born with a brick in their mouth.'

The children of the Medway Gap weren't unusual in the 19th century in working for a living. Often their income was vital to keep the home together. Local children would have worked on farms and large estates as well as in the area's main industries. Tasks would have involved sorting and cutting rags for paper-making, carrying and turning bricks and helping their parents in the cement works. Even when compulsory schooling was introduced, many children were absent during the industries' busy times.



Walking the Medway woods

The six mile (10km) walk from Halling train station to Cuxton train station takes you through marshland, rare beech and yew woodland on the top of the Downs and attractive farmland in the lower valley. The woodland sections follow the North Downs Way National Trail. For a full route description, please see the Medway Valley Rail Trails leaflet: Farming & Ferries (Halling) which can be downloaded from: <http://goo.gl/xchlH>

Time: 3½ hours (approximately)

Terrain: Woodland and meadow paths are muddy in places. Some steep sections. Three stiles, two flights of steps and some gates. A short stretch of road walking with no pavement.

A magnificent oak tree

Under Ancient Boughs

Clinging to the uppermost reaches of the Medway Valley escarpment from Rochester to Trottiscliffe is an almost unbroken belt of woodland offering miles of prime walking countryside.

This leafy habitat is a refuge for many plants associated with old woods like yellow archangel, wood anemone, wild garlic and bluebell. Notable birds include the lesser-spotted woodpecker, hawfinch and nightingale. The trees also protect a number of archaeological features that have lain hidden under the canopy for hundreds – and in some cases – thousands of years.

“There are many clues in the Kent Downs woodlands that tell us about our past,” says Dr Nicola Bannister, a landscape archaeologist who has surveyed many sites in the Medway Gap. “Woodlands are not destructive in the way that building developments and some forms of farming often are so we find well-preserved evidence of old industries like hop-pole making, flint and chalk quarrying as well as prehistoric farming. The woodlands on the Medway’s western escarpment, for example, hide old army training trenches, coppices, ancient pathways and quarries” says Dr Bannister.

Ancient tracks

One of the best ways of exploring this historic landscape is to follow the North Downs Way National Trail that runs the length of the Medway Gap escarpment through ancient forests of yew, beech and sweet chestnut coppice. Several minor paths connect to the national trail from the towns and villages in the floodplains making access on foot very easy. What’s more, walkers following a linear route can make use of the many train stations for their return journey.

There’s no getting away from the fact that to reach the woodlands on the top of the Downs, you have to make a steep ascent. But, once you reach the scarp top, the path flattens and you can enjoy a more leisurely walk – and take in the views. With that in mind, don some stout boots, take a deep breath and set foot from Halling village making for the foot of the escarpment at Upper Halling.

Some of the trails leading up the steep slope have been in continuous use for hundreds of years and have become hollowed out from the pounding of many feet, wheels and hoofs. “As a rule of thumb,” says Dr Bannister, “a deep trail with yew trees lining the banks often indicates antiquity.”

Coppice woods

Turning right at the top of the escarpment (after you’ve caught your breath!) will take you onto the North Downs Way that leads all the way to Cuxton. You’ll soon be walking through coppice woodland.

The ancient technique of cutting trees just off the ground and allowing the stump – or stool – to sprout, has provided wood for

A walk through old woodlands on the tops of the Kent Downs reveals a wildlife-rich landscape shaped by traditional industries. Words by Gemma Hall.



A stroll through Lower Bush

many purposes over thousands of years. In the post-medieval period, coppice wood has been used in mines, for pit props, fencing, poles for hop gardens and for fuel. There are some very old blocks of sweet chestnut stools in the Medway woods (identified by the thick girth of the stool and sometimes by the presence of a line of hornbeam trees which once marked the boundary of coppice blocks, known as ‘cants’).

“As the markets for wood fuels are growing, due both to the popularity of wood stoves and the recent introduction of the Renewable Heat Incentive which is a feed in tariff for heat, you may see coppice management returning and once again becoming a common feature of the Medway Valley,” says Matthew Morris from the Kent Downs AONB who is helping develop the local wood fuel industry.

“Coppicing also has the advantage of benefiting wildlife,” says Matthew. Cyclically opening up the woodland creates a ‘mosaic woodland landscape’ of open glades (large open areas good for ground flora and butterflies) and dense old growth (appreciated by birds foraging for insects and looking for nest sites). If you need advice on woodland management, woodfuel and biomass heating please contact Matthew on 01303 815170. All support is free and funded by the EU ERDF MULTIFOR project.

Farmland views

After just over a mile on the North Downs Way, you reach a crossing of two paths. Take the left hand track downhill and into open farmland. For the final stretch into Cuxton, the trail dips and rises in and out of woods and fields. In summer, swifts and swallows are seen catching airborne insects and wild arable plants, like poppies and corncockle, colour farmland edges.

The fields and woods of the 560 acre (227 hectare) Ranscombe Farm Reserve are particularly rich in wildflowers (look out for orchids in spring and summer) and are worth exploring if you have time before catching your train back to Halling.

The Medway Gap

- ① Ranscombe Farm
- ② Ladd's Farm
- ③ Leybourne Lakes Country Park
- ④ The Bishop's Palace
- ⑤ Holborough Marshes
- ⑥ Burham Marshes
- ⑦ Nashenden Down
- ⑧ Wouldham Common
- ⑨ Culand Pits





A family stroll across Ranscombe Farm



Nightingale; a secretive bird with an impressive song



The train line to London

Making tracks

Robert Ashton hops off the train and into the hidden landscapes of the Medway Gap.

As a former resident of London and the South East I'm used to the frantic pace of life in the UK's busiest city. It's said that, on earnings alone, the South East of England would qualify as one of the richest 'countries' in the world. On a recent visit to the Medway Gap, I was amazed to find that this area can also provide access to the rural escapism that many of us would expect to find much further afield.

Medway Valley Rail Trails

My road to relaxation came in the form of a small wallet of leaflets entitled *Medway Valley Rail Trails*. This colourful, well presented and easy to carry collection of 13 leaflets sets out a series of walks that take you away from the stresses of urban life and deep into the countryside. Each starts from one of the railway stations of the Medway Valley rail line that runs from Strood to Paddock Wood. Some are circular and others start at one station and lead you neatly on to the next. Varying in length from just under two to just over seven miles, the routes are easy to follow. The leaflets also provide some lovely snippets of background information to keep you interested along the way.

The Medway Gap has long been associated with the cement, paper and brick industries which, by their very nature, tend to leave semi-permanent reminders of their passing. As the train draws into New Hythe station, for example, you pass a derelict concrete site. However, following the Lakes and Marshes leaflet's instructions, within five minutes of jumping off the train, you are into an environment where nature is thriving.

The former extraction lakes around New Hythe are deep, crystal clear and form the main feature of an area that is teeming with wildlife. Nightingales and wetland birds of many types are common. Joggers, dog walkers, families and cyclists all take advantage of the well maintained paths. So man is now successfully living side by side with abundant nature.

Coppice and corncockles

For anyone seeking a great walk in the woods I would suggest the five mile Coppice and Corncockle walk from Cuxton railway station. It's just 45 minutes on the train from London St Pancras Station but a world away in its tranquillity. You need to be reasonably able-bodied, as the ground covered is uneven and occasionally hilly in places but the rewards are worth the effort.

The walk crosses Ranscombe Farm, a combination of a working farm and nature reserve which makes for a great diversity of fauna and flora. Wildflowers, such as corncockle, man orchid and narrow-fruited corn salad are found in sufficient numbers to mark it out as being 'of national importance.' As you walk through the meadows,



Stunning views from Ranscombe Farm

admiring some stunning views over the valley, you may also hear the wonderfully cheerful song of the skylark.

Following the path through coppiced woods of hazel and sweet chestnut you eventually reach the fantastic and recently restored Darnley Mausoleum, built on the top of the hill and finally finished in 1783. Constructed to the highest standards from expensive Portland stone, it set the family back the equivalent of over £1 million: a little rich for a graveyard. Worse news was to follow though. The Bishop of Rochester thought it was a bit showy and decided it wasn't suitable. The Darnley family were left with an undeniably lovely but windowless building right at the top of a hill. It now stands splendidly alone, surrounded only by ancient trees.

On the final descent back into Cuxton you emerge from woods into open farmland. You also re-engage with the 21st century in all its mechanised glory with the M2 and Eurostar trains passing no more than half a mile away. The route now passes over farmland, which is largely flat or downhill. It's not too long before you can flop down in the armchairs of the local pub with a refreshing drink as you wait for your train - the station is just around the corner.

The next time you think about trying something new, getting out for a breath of fresh air or just fancy a walk before a pub lunch, jump on the train and head for the Medway Gap. All the hard work has been done for you. Just get the leaflets and go.

The Medway Valley Rail Trails was a partnership project between Valley of Visions and the Medway Valley Community Rail Partnership. All 13 leaflets can be downloaded from <http://goo.gl/sCdqN> or picked up from tourism outlets in Rochester and Maidstone.

Nestled by the River Medway, Holborough Marshes are packed with easy-to-spot plants and animals throughout the year, but there's one creature that only the very lucky encounter, says Gemma Hall.

Magical Waterways



Lapwing: a beautiful, pigeon-sized bird

“You have to be really quiet and listen out for a ‘plop’ as they enter the water,” says Kent Wildlife Trust warden, Steve Weeks, as he scans a ditch for one of the UK’s rarest mammals – the water vole.

There’s no doubt in Steve’s mind that this endearing creature of Wind in the Willows fame (remember Ratty?) lives along this unremarkable channel in a wetland reserve sandwiched between Halling and Snodland. The signs are all along the bank: oval droppings on mud patches and the chewed stems of plants abandoned like crusts after a picnic. There are plenty of aquatic plants for the water voles to dine on because of the excellent quality of the water that is filtered through the chalk rock.

Wetland wonderland

It’s not just water voles that benefit from the clean water though. The Holborough meadows hum with bumblebees, dragonflies and damselflies all summer long thanks to the moist environment and the staggering array of flowering plants including yellow rattle, clovers, marsh marigolds, buttercups and several species of orchids. Of course, where there are insects, there are birds: lapwings, swifts, herons, tits, warblers and finches, and that’s just in summer. Come late autumn migrating bitterns, teal, redshank and snipe will make this unsung watery reserve their home for the winter.

“We are very fortunate in this part of the world,” says Steve. “We have a huge range of wetland habitats in a small area: grazing marshes, reedbeds and the river itself, which are inhabited by many different creatures. A lot of people don’t even know about this reserve because it is hidden behind some industrial units and a railway line, but if you take the time and look for it, it’s all happening out there.” Indeed, if it weren’t for the occasional whoosh from the Strood to Maidstone line, you’d think you were far from human habitation such is the tranquillity and richness of the site.

Triumphant nature

In some instances, wildlife has actually benefited from man’s shaping of the Medway Gap landscape. “Holborough Marshes are a good example of how quickly nature can recolonise areas that have been affected by humans,” says Steve. Take the man orchid – a rare and striking plant that is restricted to chalk grasslands in South East England. One place where the man orchid blossoms is by the sides of the old steam train line that runs through the reserve. Steve explains how over the years, discarded spoil from the trains shuttling between the river and the cement factories built up by the sides of the tracks. These chalky ridges became a perfect habitat for this curious plant that has flowers shaped like the figure of a human wearing a helmet.

“The natural world is very complicated, but very forgiving,” says Steve. Following the demise of heavy industry in the area and the involvement of the Kent Wildlife Trust in managing the marshlands, rare, timid creatures like water voles, great crested newts and water shrews slowly returned to the network of ditches that crisscross the low-lying meadows in the valley. However, the Medway Gap is a landscape that is always undergoing change and in the future, as sea levels rise, Holborough Marshes may be deliberately flooded to prevent inundation of nearby towns. This would transform the fresh water habitat into a salt marsh which would benefit some species, but not all.

For now, the water voles and all the other creatures that inhabit this wetland wonderland are dependent on Steve and his many volunteers (both humans and grazing cows) to keep their habitat in tip-top condition and ensure brambles and bushes don’t smother the wildflowers and waterways. How does Steve know they are doing a good job? A “splosh” as a water vole belly-flops into the water and the fresh leftovers of another good picnic say it all.



The picturesque Holborough Marshes



The charming but much-threatened water vole



The nationally scarce man orchid

Water rats

Despite his name, Ratty from *The Wind in the Willows* was actually a water vole. These charming creatures are plumper than rats and have a rounder face and shorter tail. They are rare and protected and live in the banks of slow-moving rivers, streams and other waterways.

Visiting

Holborough Marshes can be explored throughout the year and can be accessed on foot by following a path from Snodland train station, which runs along the east side of the railway line. Alternatively, take the footpath that goes under the train line due east of the Holborough roundabout on the A228.

For more information about Holborough Marshes and to find out about events and volunteering, go to www.kentwildlifetrust.org.uk or call 01622 662012.

Holborough Marshes is part of the Snodland Community Trail (<http://goo.gl/EqnLa>) and also the Lakes and Marshes Rail Trail (<http://goo.gl/WDAqg>).

“You’d think you were far from human habitation such is the tranquillity and richness of the site.”

From seat of power to cement works

It's easy to see why Gundulph, the 11th century Bishop of Rochester, chose Halling as the site for his official home: 900 years later the views from the site of his palace are still beautiful.

All that's left of the building today is one medieval wall with three elegant arched windows and tumbledown ruins. But when you stand on the banks of the River Medway, on a footpath flanked by modern housing, and look across at the North Downs, the outlook appears to have been unchanged for centuries.

At the time rivers were by far the safest way to travel. For an ambitious bishop working closely with the Archbishop of Canterbury, communication with the outside world was vital. There were, therefore, very practical reasons for choosing this particular spot on a meander of the river – the old ferry. An ancient track crossed the river here and before the river was dredged to allow boats through, it was shallower and wider, but still tidal. This bend in the river is narrow and would have made a natural place to cross. This would have been a big point in its favour for someone with as much power and wealth as a Norman bishop: traders, travellers and migrants crossed the river here and they would have done so right under the windows of his very impressive home.

Changing fortunes

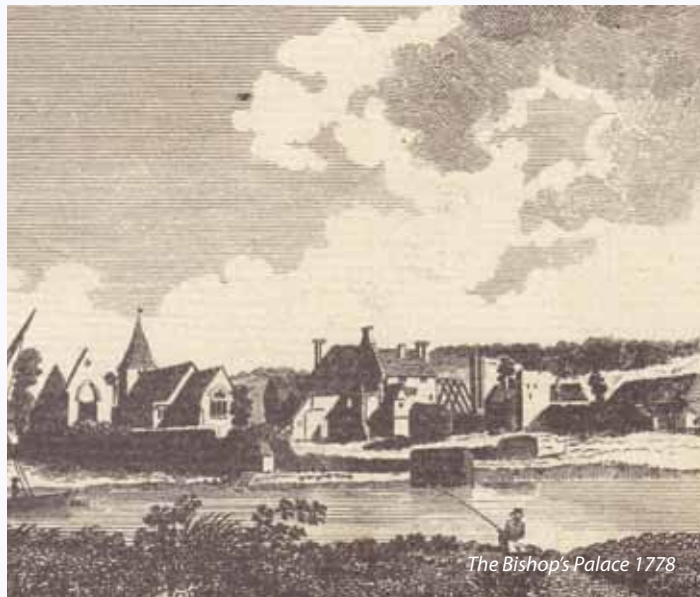
Over the next 500 years the fortunes of the palace waxed and waned as it was in turn neglected, cared for and expanded by the bishops who lived in it. In time the palace then became a wealthy family residence. Despite these promising beginnings though, the palace was abandoned in the 17th century. In 1720 it was badly damaged by storms and it briefly became a workhouse for nearby villages. Offering a home of sorts for those with nowhere else to turn, it had an awful reputation. It slid further into decline, becoming a farm for a while, before the demands of the cement industry in the 19th century sealed its fate.

Possibly unaware of the heritage of the site and with their eyes on the profits to be made, the owners built an engine shed in the heart of the medieval palace, destroying much of what remained. A railway embankment was built across the site to connect parts of the cement works. A tunnel carved through the centre of the embankment to allow cement to be taken to the river, meant the majestic legacy of the site was all but forgotten. With a rich and fascinating history, it was hoped archaeological work undertaken in 2010 would reveal a little more of the story of this once imposing building. Yet it was not meant to be; the thick layer of industrial heritage stood its ground keeping the site's earlier secrets hidden furthermore.

Sarah Daly looks at the changing fortunes of the Bishop's Palace at Halling and what the future holds for this rich site.

Witness to great events

The bishops of Rochester were important political players on the medieval scene. Gundulph enjoyed the confidence of William II and the friendship of his younger brother Henry I. Gilbert, who was bishop from 1185, was at the coronation of Richard the Lionheart and later excommunicated the king's brother John, fleeing when John became king. The last bishop to occupy the palace was John Fisher. John was an advisor to Henry VIII and was, to his cost, consulted by the king in 1527 when he wished to divorce Katherine of Aragon. By all accounts a man of integrity, John became one of Henry VIII's strongest opponents as events unfolded: hardly a safe position to hold. In fact he was executed for treason by order of the king in 1535, after his possessions at Halling were confiscated.



"It's easy to see why Gundulph, the 11th century Bishop of Rochester, chose Halling as the site for his official home."



The Bishop's Palace: today and tomorrow

You can get to the Bishop's Palace on foot from the village of Halling and follow the river up to the nearby salt marshes. Over the last three years the site, protected as a Scheduled Monument, has been cleared of sycamore trees, opening up the views once more. Conservation work is taking place to protect its medieval and 19th century heritage and to create a unique open space, blending medieval and industrial history, for public use.

The restored site includes a natural play park for children with modern and attractive landscaping using native plants and plenty of places to sit. It may not be a seat of power any more, but the Bishop's Palace is set to become a relaxing place to kick back and enjoy the views across the river once again.





"Our volunteers are our eyes and ears."
Andrea Griffiths, Medway Valley Countryside Partnership



A mute swan gliding along the River Medway

Guardians of the Medway

It's out with litter and in with wildlife for the volunteer river wardens of the Medway Gap, as Sarah Daly discovers.

The Medway Gap is home to an innovative scheme bringing local people directly in contact with the river that runs through their valley. Spanning the villages and communities along the banks of the river, the scheme has had a dramatic impact on the appearance of the area and is providing a safe haven for its wildlife.

"Our volunteers are our eyes and ears," says Andrea Griffiths, Partnership Officer for the Medway Valley Countryside Partnership and in charge of the scheme. She says, "they pick up litter along the paths around the river and record wildlife activity of all kinds. They'll also let us know about anything that needs our attention." Andrea says that litter causes a serious hazard to many creatures: "small mammals often get stuck inside cans and animals can choke or get tangled up in the rubbish that collects along the river banks."

Andrea has been running the scheme in this area for about three years now and it's working really well. With about 25 active wardens, covering pretty much the length of the river, she says, "safety's vital. We give guidance as well as equipment to all our volunteers." As the river is tidal it can also be hard to reach some areas in safety. "But our volunteers do what they can and do an amazing job," says Andrea.

The wardens have made a huge difference to the area and really help to foster a sense of community pride as well as allowing the wildlife to thrive, according to Andrea. She says, "in the Medway Gap, the river is unusual in that there are plenty of paths leading to it, but less running along it. It often seems as though the river and marshes are tucked away and we're very keen to encourage people to explore and embrace them. It's been a real eye opener for a lot of local people that they're within a stone's throw of such beautiful countryside."

Stroll along the banks of the Medway today and you're likely to find it teeming with wildlife, full of birdsong and almost completely free of litter. It's a real tribute to the hard work of the river wardens throughout the valley and to the vision of those behind this far-sighted scheme.

A day in the life

Shelley Watson is one of the river wardens who patrols the salt marshes and banks of the Medway in Halling. She says: "I've been volunteering for nearly three years and thoroughly enjoy it. I was quite new to the area when I first joined the scheme. It's been a great way to find out more about local wildlife and to feel as though I'm contributing something to my village."

I have a dog, so I take him with me along the river. I also have a teenage son, who was just 11 when I took on the role and he often comes with me. He's always been responsible, but it's really taught him the value of caring about your surroundings. We've both enjoyed learning more about the wildlife on the river and we've had training through the scheme

in recognising different species. I'm learning about butterflies next!" Shelley says that the scheme has given her an appreciation of the immense variety of insects, animals and birds that use the Medway. "There are a few of us volunteering in Halling and since I first became a river warden, we've seen a massive improvement in cleanliness. I've really seen the number and variety of species increase while I've been doing this. We see little egrets come up the river now as well as lots more swans. I'd love to think it's because we're creating a better environment for wildlife to thrive."

Shelley is currently training her dog to retrieve rubbish from the river bank at low tide. She says: "It's too dangerous for us to try to reach it but he loves it. If we see a plastic bottle we get him to bring it back to us and give him a treat if he does!"



River Warden Shelley Watson



The peaceful River Medway

Find out more

If you live in the Medway Gap and would like to find out about becoming a river warden, contact Andrea at medwayvalley@kent.gov.uk on 01622 683695 or visit www.medwayvalley.org. If you plan to visit the valley and walk along the river to enjoy its wildlife and industrial heritage, www.valleyofvisions.org.uk is a great place to start with information on sites to visit, circular walks and events taking place across the area.

Community Archaeologist, Andrew Mayfield, talks to Gemma Hall about the search for medieval roads and Bronze Age burial mounds in the Medway Valley using new aerial technology.

Lost landscapes of the Medway Valley

“If we’ve found things in Cobham and Birling, then there’s bound to be finds in there that we don’t know about,” says Andrew Mayfield from the archaeology team at Kent County Council spreading his hand over an Ordnance Survey map of Halling.

Considering the Medway Valley countryside is so well accessed and documented, particularly for its Neolithic monuments and ancient trackways, you may find it surprising to know that experts are still searching for new archaeological sites. Laser technology, funded by the Valley of Visions Landscape Partnership Scheme, that captures images of the landscape from the air, is helping experts learn more about the ancient Medway landscapes – and revealing historic man-made structures that have remained hidden – until now.

Laser detection

LiDAR – or Light Detection and Ranging – involves firing thousands of laser beams from a machine fitted to the bottom of a light aircraft that builds a detailed topographic picture of the land below. What makes this technology different from, say, Google Earth that uses satellite imaging, is that the lasers are able to penetrate through natural barriers such as trees. “Because the machine projects so many beams, enough of them manage to get through the canopy,” explains Andrew. For the first time, experts can see aerial pictures of places overgrown or concealed by trees.

“The more you look at the images, the more features start to pop out of the landscape that you didn’t know existed – or just couldn’t see from ground level,” says Andrew as he looks at LiDAR pictures of Shorne Woods captured in spring 2011. With the trees stripped away, the digital images of the woodland floor make it look like a lunar or moorland landscape. Etched across the terrain are lines – some stronger than others – revealing long lost trails and field boundaries. These are fascinating finds for the Shorne Woods Archaeology Project team because they can begin to place known historic monuments and buildings within a wider context of field systems and roads that can’t be seen on the ground. For instance, they’ve discovered a medieval hollow way leading to the ruins of Randall Manor and a mound where a medieval windmill may once have stood.

“To make these discoveries would normally take months of survey work. LiDAR speeds up that process and reveals how historical sites and features relate to each other.” Equipped with the LiDAR images, Andrew and a team of volunteers then set

foot on the ground to inspect any features of interest, eliminating those that turn out to be modern and investigating those that appear to be of some antiquity. Known as ‘ground truthing’ this land-based survey work is time-consuming but a vital part of the detection process.

Community archaeology

“Local knowledge is also really important,” stresses Andrew. “If someone knows a crater-like indentation is an old clay pit or remembers a bomb going off, we can discount it more easily... it’s puzzle solving really,” he says. “For example, at Whitehorse Wood near Birling we discovered a barrage balloon tether comprising a series of concrete blocks. This tallied with a memory from the landowner of the defensive balloons floating over the wood during the Second World War.”

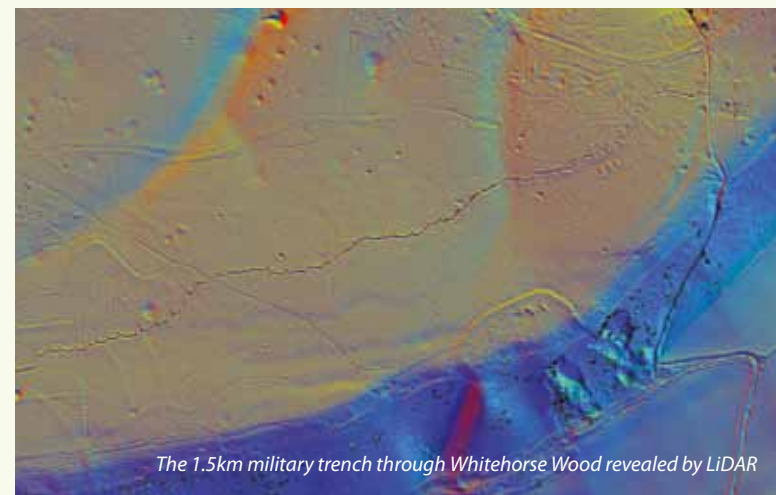
Anecdotes, old maps and photographs all help with filling in pieces of the landscape puzzle the LiDAR images can’t explain. To that end Andrew is keen for local people to get involved with checking the LiDAR images against what is on the ground. Those with no experience can download a woodland survey pack from www.sewaf.org.uk. LiDAR images are supplied on request. Over the winter of 2012/13 the focus of the work will be on Shorne and Cobham Woods and the Ranscombe Farm Reserve, as well as returning to Whitehorse Wood near Birling. Anyone who is interested in getting involved should call Andrew on 07920 548906 or email andrew.mayfield@kent.gov.uk. Keep up to date with the latest news at www.facebook.com/archaeologyinkent.



Ground truthing at Birling



Ground truthing exercise in winter at Ryarsh Wood



The 1.5km military trench through Whitehorse Wood revealed by LiDAR



The same photo without LiDAR - the trench is hidden from view underneath the trees

Detective work in the woods

By Andrew Mayfield

We all enjoyed the series of LiDAR adventures we had on the Birling Estate in spring 2012. We started in Ryarsh Wood, a challenging place to walk through with lots of brambles, but nevertheless we identified a series of woodland and field boundary banks that had shown up on the LiDAR images. Most surprising were the sarsen stones we found, half buried in the ground. We hoped that they were part of some long forgotten prehistoric monument, but it seems more likely that they were purely natural and had been moved during past field clearances.

In Whitehorse Wood we encountered the densest concentration of features in the whole survey: the overgrown remains of a Second World War training camp. Concrete paths snaked through the trees and the bases of Nissen huts (for accommodating troops) emerged all around us from the undergrowth. Most impressive was the 1.5km long military trench running across the wood. Still in good condition, this is one of the most striking finds to date.

Having spent years exploring Shorne Woods Country Park on foot, we already had a good idea about what was there, but pouring over the LiDAR images has allowed us to validate a number of existing theories and ask new questions about the historic landscape hidden under the chestnut coppice. Not only can we show the extent of the 20th century clayworks and identify lost RAF and Army camps, but for the first time through LiDAR, we can reveal how much of the medieval landscape has survived within the woods around Randall Manor – a lost medieval building complex.

“The more you look at the images, the more features start to pop out of the landscape that you didn’t know existed – or just couldn’t see from ground level.”

Bring on the flowers

For decades, the Medway Valley's flower-rich grasslands were being choked by invasive scrub. Now, they are making a comeback, says Gemma Hall.



Bee on common spotted orchid



The vibrant-coloured chalkhill blue butterfly



Hebridean sheep grazing



The delicate musk orchid

Standing on a grassy slope high above Holborough Marshes, almost the entire chalk ridge of the Medway Gap is in view. The escarpment sweeps up the western side of the valley, arches around the head of the Medway Gap at Cuxton and continues on its journey south to Burham and out towards Boxley. Indeed, the line of sight is so uninterrupted that on a clear day you can see all the way to Essex.

You couldn't always enjoy such expansive views from this spot though. In the post-war years, scrub and woodland began encroaching on the open hillsides, fragmenting the grasslands and squeezing the panoramic views. But that process was put into reverse in 2008 with the launch of one of the largest ever grassland restoration projects in South East England.



Wild strawberry

Traditional grasslands

The steep, grassy slopes of the Medway Gap were once grazed by livestock which inadvertently prevented brambles, bushes and trees from establishing. Chalk-loving plants like bird's-foot trefoil, wild thyme, fairy flax, wild basil, kidney vetch and rarities like the man orchid

and musk orchid flourished on the exposed ground. But, in the latter half of the 20th century, the decline of sheep-grazing in the Medway Valley resulted in the loss of this rare grassland habitat.

It is estimated that around 85% of chalk grasslands have been lost in the Kent Downs since the 1950s.

"A few of them have done a Steve McQueen and made a bid for freedom over the fence."

Restoration

Work is now underway to bring back the traditional grasslands of yesteryear. Spearheaded by the Valley of Visions Landscape Partnership Scheme and Lafarge Cement, who owns many grasslands in the valley, the restoration project aims to link reconditioned fields together so wildlife can move more freely across the Medway landscape.

"Rather than restoring a field here and a field there, we are working on a landscape scale," says the Valley of Visions Landscape Officer, Naomi Vincent. "We can't get a continuous ribbon of grassland along the chalk escarpment, but we can get close."

Nine fields above Halling have already been cleared of scrub. "It was a mammoth project," says Naomi, who had to find a use for 800 tonnes of wood (it was eventually used as energy-efficient wood fuel). But that was the easy stage of the project. Now the tough job of encouraging the wildlife to return to the 30 hectares of recovered grassland and preventing new scrub growth has begun. To help, a motley crew of 100 Hebridean sheep have been put to work on the steep slopes.

"A few of them have done a Steve McQueen and made a bid for freedom over the fence," says Naomi, but despite the odd escapee, they are taking to their new home well and doing what this hardy breed does best: eating scrub. It's difficult to believe but these robust creatures will happily feast on bramble and nettle any day.

New shoots

"Some of the fields had scrubbed up so badly that they were almost beyond the point of no return," says Naomi, as she inspects new growth in a field near Ladd's Farm. It's still early days but the grassland seeds that lay dormant under the thicket for so many years are starting to germinate. The fields may not look impressive just yet, but they are certainly starting to smell good. As we walk over the recovering grassland, the smell of wild basil scents the air. Naomi spots a wild strawberry plant and then we see other species dotted about the field: bird's-foot trefoil, St John's wort and even a musk orchid (a very encouraging sign). A bright red cinnabar moth flutters by as if inspecting the new real estate. In years to come Naomi hopes rare invertebrates like the Adonis Blue butterfly will return to this hillside.

However, it is not just fields that are being restored. The grasslands in some former cement quarries like the Culand Pits are also being enhanced for wildlife. The exposed chalk in these hillside carvings perfectly mimics the thin, calcareous soils of traditional grazing fields and they have become a surprising haven for many plants and animals. "Their important biodiversity was recognised back in the 1980s and since then we've been developing strategies to conserve the wildlife," says David Simms, Land and Planning Director at Lafarge Cement.

The company has plans to build one of the biggest cement works in Europe on the Medway's western escarpment, just below the fields where the Hebridean sheep graze. It will be an active quarry for 50-60 years and then, like in the old cement pits elsewhere in the valley, the rare, chalk-loving wildlife of the Kent Downs may one day reclaim the land.

Chalk grassland

Millions of years ago the North Downs was a marine environment inhabited by exotic plants and animals. Over time, the calcium-rich skeletons of innumerable marine plants collected on the sea bed, forming the steep-sided chalk ridge that sweeps round the Medway floodplains.

The calcareous soil is typically dry and low in nutrients which is just how some plants like it. Wild herbs like basil and thyme and striking plants including bee and man orchids, thrive on the exposed, stony ground.

Chalk grasslands are also famed for their butterflies. Species like the chalkhill blue, Silver-spotted skipper and Adonis Blue can be seen flying along several sunny slopes in the Medway Gap.

"Their important biodiversity was recognised back in the 1980s and since then we've been developing strategies to conserve the wildlife."



The cement wagons that lay hidden for almost 100 years

Chris Down, quarry industry historian, explains why it was so important to rescue a Victorian Medway Valley cement wagon.

Chalking it up to experience

In 1997 Lafarge Cement discovered a small part of the Medway Gap's industrial heritage that had lain hidden in dense undergrowth. In a corner of their land in Halling, three derelict quarry wagons, still loaded with chalk, stood on a length of railway track.

They were abandoned in the late 1920s when the old Hilton Quarry closed down and they had been largely forgotten. In 2010 work was completed on restoring one of the wagons. The other two trucks are still in their original condition and the restored truck now stands with them outside the Lafarge Cement offices in Snodland.

Chris Down is an expert on the history of cement making in the area, having worked in the industry since 1975. He was asked to oversee the historical accuracy of the restoration project, agreeing the specification and inspecting the work as it progressed. Here he explains why the wagon is so important.

Were wagons of this construction in common use in quarries in the Medway Gap?

They were pretty similar all across Kent, Essex and elsewhere, but this one is quite unusual as it is an end-tipper and the front axle forms the hinge. More common was the side-tipping design (these were known as 'ship canal' wagons, as they were widely used in building the Manchester Ship Canal between 1887 and 1894). Both relied on a delicate balance, allowing the wagon to tip its load with relatively little effort. The choice between the two styles depends on exactly where and how the chalk is to be tipped into the "washmill" (this is where the chalk is crushed, mixed with water and turned into a slurry ready to go into a kiln to make cement). Side-tipping wagons are more convenient as a train can be drawn past the washmill, with each wagon being tipped in succession. With an end tipping wagon like this, one wagon has to be tipped then pulled out of the way to make way for the next.

How significant are the wagons in terms of the area's heritage and why?

It is only a small part of the area's heritage but it is a tangible and unusual reminder of days gone by. Its interest is increased by the fact that these three wagons are just about the only such pieces of equipment surviving. It brings history to life and helps people to imagine the old days of working the quarries by hand.

The wagons were pretty derelict, how did you know what they would have looked like to reconstruct one?

There are almost no other such wagons in existence to my knowledge and no photos that we found showing this wagon's working location. Instead we used photos of more or less identical



Workers at Peter's Cement Works

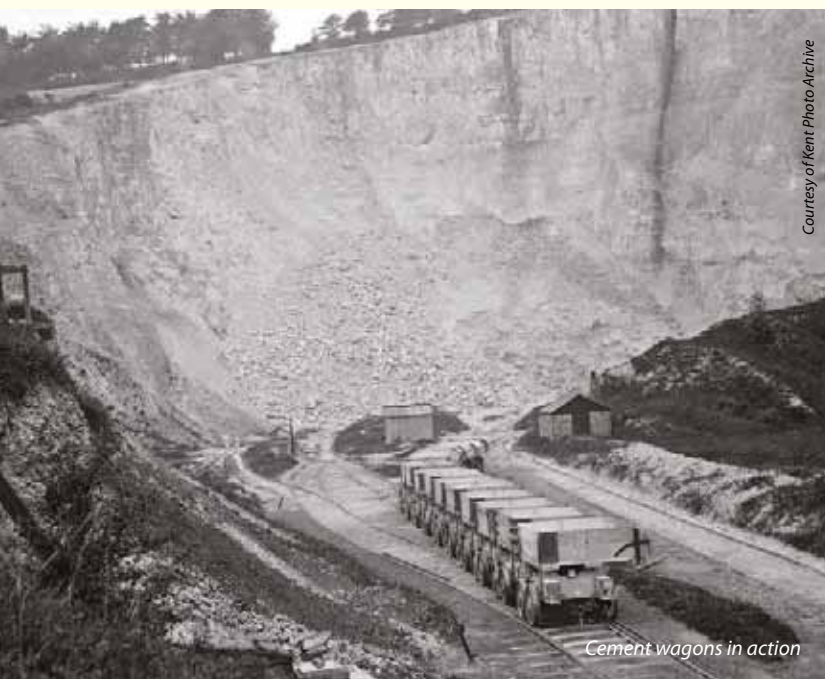
wagons in use at other cement works near Dartford. These, together with what remained of the original wagons and our understanding of how the trucks would have functioned, helped us to build quite a clear picture of what work was needed.

"These three wagons are just about the only such pieces of equipment surviving."

How were the wagons originally used?

This is a standard gauge wagon, the largest size which would carry around four tonnes of chalk. Medway wagons would be pulled for around half or three quarters of a mile and these distances increased over the years as the quarries developed further into the hillside. After about 1865, the wagons were usually moved by steam locomotives rather than horses. This was partly because the often very wet and muddy conditions would have been too much for horses to cope with. The problem for a horse would be to control the wagon and stop it running away. At least two men would normally have been needed to move an empty wagon. A hundred years ago, about 300 to 400 men would work in a large quarry and cement works, in quite filthy conditions. They would use about 50 or 75 wagons like this one and produce about 50,000-100,000 tonnes of cement in a year.

Times have changed in the Medway Gap and wagons like this will never again see active use to make cement. The men who worked at the quarries in the 1800s had hard lives. This wagon serves as a solid reminder of just what they endured as they toiled in the quarries spreading across the local landscape and contributed to the building boom that swept Victorian Britain.



Cement wagons in action



The Victorian way of extracting chalk - by hand!



The impressively restored railway cart



Railway cart in original condition



Keeping encroaching vegetation under control at Leybourne Lakes Country Park



Using modern methods to manage Nashenden's historic landscape



The sparrow-sized Skylark with its distinctive, chirpy song

When life comes full circle

Sarah Daly looks at farming in the Medway Gap and how land use has changed through time.

Walk across Nashenden Down in late spring and you'll hear the uplifting song of the skylark, the hum of insects and see fields stained red with poppies. Corn buntings and grey partridges are found here, as is the rare, dainty little flower known as fluellen. Unchanged you may think for hundreds of years.

In fact, Nashenden's story is typical of many farms on the chalk downs that rise from the river plains to arc around the Medway Gap. "We can trace the farm's history back to 1260," says Medway and Mid Kent Downs area warden Alison Ruyter, "and it really didn't alter much for hundreds of years. It began life as a mixed farm like many others. It was mainly arable with a significant amount of pasture on the chalk uplands and some meadows. A lot of wildlife evolved with this style of farming and it would have been amazingly diverse as it even included pockets of woodland." In fact, although the fields gradually got larger and some hedgerows disappeared, the farm didn't change dramatically until about the 1960s. At that point intensive agriculture swept across the arable fields and pastures. "Pretty much all that was found on the farm was wheat," says Alison. So for nearly 50 years, the colourful fields that had once been thrumming with wildlife were an almost silent, unbroken sea of yellow.

An evolving landscape

Of course people don't live in a landscape without changing it and the Medway Gap has been shaped by the people who've lived and worked here for thousands of years. The first farmers to tend the earth in the sheltered basin below the North Downs and beside the river, made their mark in style. The remains of the burial chamber they built at Kit's Coty, near Aylesford, offer a solid and formidable reminder of their presence here nearly 6,000 years ago.

In fact, until the 18th century, most inhabitants of the valley would have lived off the land. The chalk and clay that lay under the soil and the pure waters of the river didn't go unnoticed, however, by those keen to exploit these natural resources. As the industrial revolution took hold, everything changed. By the 19th century its grip on this corner of Kent must have seemed unshakeable and it had transformed the landscape beyond recognition. The tide is turning for the Medway Gap again, however as the landscape emerges from its industrial past.

Kent Wildlife Trust has owned Nashenden Down since 2008 but has actively managed it since 2009. Alison says, "we're using modern methods to mimic the results of traditional farming techniques and trying to regain the site's former balance. We're recreating and grazing the chalk pastures and planting barley on the arable land. We've seen really dramatic results already."

It's a heartening story and one that's repeated across the Medway Gap. The landscape is again filling with wildlife and regaining the beauty for which it was once famous. The people who built Kit's Coty House would no doubt marvel at the changes that have taken place in their valley, but they'd probably find it easier to live in the Medway Gap today than if they'd walked back into the industrial valley 150 years ago.

Leybourne Lakes: a phoenix from the flames

"I tell people I've got the best job in the world!"

Phil Outram is a Ranger at Leybourne Lakes Country Park in New Hythe.

He is carrying out work on cutting vegetation away from paths on a cool spring day in the park. While nightingales trill in the background, he explains how the area has changed:

"Originally this was farmland but thousands of tonnes were extracted from gravel pits on this site from the 1950s to the 1970s. The old quarries are fed by natural springs though and once they were abandoned they filled with fresh water. Although it was private land there were a number of public rights of way across it and it became an area for anti-social behaviour and mis-use. The wildlife thrived around all that but it wasn't a pleasant place to be. There's now a large upmarket housing development adjacent to the lakes and the developers put £2.8 million into creating a site for visitors as well as wildlife." Phil says, "we're carrying on the work they started and are providing more diverse habitats such as wet woodlands." With 180,000 visitors a year and a Green Flag Award for being an excellent open space, what was once Larkfield Farm has been transformed again. It really is a beautiful place to spend time. "If you're lucky you'll even spot water voles or bitterns here," says Phil.

Find out more: To find out more about Nashenden Down go to www.kentwildlifetrust.org.uk.

Tonbridge and Malling Borough Council has a page on its website devoted to Leybourne Lakes Country Park <http://goo.gl/cVO7t>. Both sites are open to the public and have a number of footpaths crossing them.

Leybourne Lakes Country Park is also part of the Snodland Community Trail and Lakes & Marshes Rail Trail leaflet. Download these leaflets from www.valleyofvisions.org.uk

Both sites are open to the public and have a number of footpaths crossing them.

Bridging the Gap



The distinctive Medway Bridge

High speed lines, once exclusive to Eurostar, have now opened up to allow fast rail services from Kent to London's St Pancras station. Although not confirmed at the time of writing, the rumour that a scheduled stop for one of these high speed trains will be a Medway station refuses to go away. With the demand for residential property in the South East of England already high, developers have long had their eyes on the brownfield sites left behind by the area's industrial past. Industry no longer defines the Medway Gap though and it's likely in the future that people will be drawn instead to the beauty of its surroundings and the gentler pace of life.

There's now a luxurious housing development on the outskirts of Snodland and more houses are planned over the coming years. Now within easy commuting distance of London, these are prime sites. It could well mean that the Medway Gap is poised on the brink of a new economic prosperity.

Raw materials also play a key part in this economic future. Snodland is set to become home to one of the largest cement works in Europe. Although this may seem potentially damaging to the renewed wildlife in and around the river, modern cement works bear little resemblance to their ancestors. Environmental regulations ensure that disruption to man and nature will be minimal. Industry historian Chris Down says, "it will use sophisticated environmental controls and be a lot cleaner than the filthy and dusty methods of the

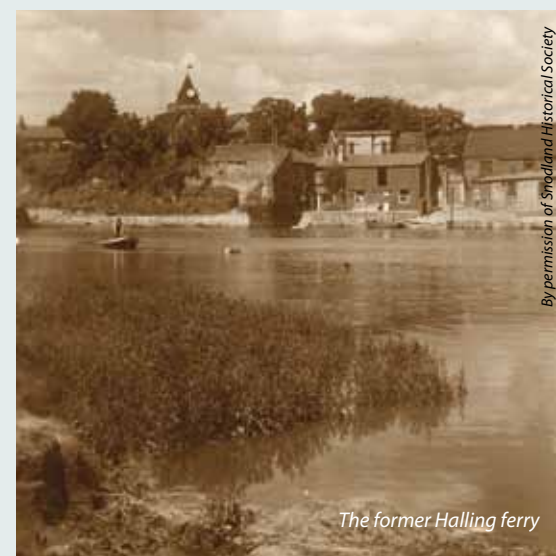
past. The new works will create around a hundred direct jobs and produce about 1.4 million tonnes of cement a year – way more than traditional methods ever achieved." Planning permission also requires that the site be fully landscaped once decommissioned.

Possibly the most dramatic change will come as a result of a proposed new road bridge across the River Medway, linking a new residential development to the A228 on the west side of the valley. Currently it requires a drive of over 20 miles (via Rochester or Aylesford) to get to the opposite bank just a stone's throw away. The new bridge will unite the two sides of this part of the Medway Valley in a way that hasn't been seen since 1964 when a ferry rowed between them. Situated on the site of the old Peter's Cement Works, which closed down over 100 years ago, the proposed 'Peter's Village' between Burham and Wouldham is roughly opposite the settlements of Snodland and Halling. It has planning permission for up to 1000 dwellings and will incorporate a school, local amenities, open spaces and a new riverside walk.

The last few years have seen a renewed focus on this valley as a unique area in terms of its rich wildlife, heritage and landscape. With it has come funding to protect and celebrate this very special place. The proposed new village, cement works and other new housing developments will undoubtedly have an effect on the valley, but this can be positive if done in the right way. With local organisations and communities continuing to take an interest in and care for the valley's landscapes, and with assistance from protected designations, the beauty and unique character of the Medway Gap will remain for all to enjoy, long into the future.



The diverse landscape of the Medway Gap



The former Halling ferry



Peter's Cement Works hugging Wouldham's riverside in 1912

By permission of Snodland Historical Society

Courtesy of Kent Photo Archive



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