

290 million years ago the foundations for the land beneath my feet were formed. The rocks which underlie most of this area developed in ancient deserts and warm sea that rose and fell over time. The result is our Limestone Landscape and the unique ecology that thrives on it. These rocks shaped like cannon balls maybe one of the most remarkable textured rocks in the world and there is a huge variety of rare creatures and plants. The coastal grassland here is found nowhere else in the UK. In the 10,000 years since the last ice age the greatest changes to the landscape have been brought about by the people who came to settle here. They include the mediaeval farmers with their Rigg and Furrow, the miners, the quarry workers and the industrialists. The landscape today is diverse and varied with generally undulating farmland and dene's cut into the coastal edge. West facing escarpments are dissected by streams with broadleaved woodland and limestone grassland rich in species. The magnesian limestone landscape continues to evolve right to the present day. The Limestone Landscapes partnership was formed to plan and prepare for the 3 year project of renewal, discovery and celebration which began in 2011.

We are really delighted to have such an ambitious programme in a special place. The partnership itself covers an area that stretches from the Tyne to the Tees and inland as far as Newton Aycliffe. We have got 5 main themes, with 25 projects being delivered by a range of organisations and local people. By the end we aim that thousands of people will have been able to get involved and really understand more about our limestone landscapes.

Helping young people to learn more about the history of the limestone landscapes is an important part of the scheme. One project with local schools and teachers is using new teaching methods in unusual spaces like unused quarries to help local children learn about history and science.

“We are painting pictures using mud and materials that were just found lying around and my colleague has to describe what she sees without me actually looking and I have to try and paint it using her description”

What we are trying to get teachers to do is to think about how they can take their educational experience into the outdoors and appreciate the landscapes around them. The John Muir award is working for Limestone Landscapes to encourage young people of all ages to get out and connect with wild places. In the North East we are very fortunate that we have got such fantastic landscape features so the projects about really getting them stuck in to conservation activities and actually just to recognise the special qualities of their local area.

“We are here at the quarry that we've talked about and that we've learned about. And once upon a time they would have used this area to take lots and lots of limestone. Remember that limestone was waiting underground”

We have come here today because we are a school that is local to the area and we learnt about this space and that it is part of limestone landscapes areas that are trying to conserve so I am really keen to educate the children who live locally how to explore it and how to look after it. We are doing at the minute find 10 objects where they need to bring back to me, talk about them, they can be natural or unnatural objects to the area. “Arghh” That's a natural object. I think the young people benefit because they are learning and not stuck in a classroom at a desk. You know there are some people who don't respond well to sitting at a desk with pen and paper, so this is an ideal way for them to enjoy and achieve and feel successful and I think for teachers

it's knowing that there's another generation who are going to pick up on your beliefs of conserving and looking after the world.

This local landscape is shaped by its geology, the biodiversity it supports and the way its humans have used it over the ages are strongly influenced by the rocks below. Beneath the surface lies the story of a landscape, very different from the one we see today.

The magnesian limestone is something really rather special. It's not any old limestone.

The magnesium limestone is an interesting example of an ordinary limestone, but with the name magnesian you get the idea that there's something special happening here and it formed in a shallow hyper saline sea, something like the dead sea today, is a good example, is a good model and it formed under an arid climate so in those conditions there was a lot of evaporation of the sea water.

The field training programme is really about trying to instil in people who already work with the public to pass on the knowledge they are gaining from the days so that people will understand and learn more about the limestone landscapes.

What has happened here is that you've got underlying topography, so you've got sand dunes and dune ridges, originally, and then as the sea encroached it covered up and filled in the hollows but if you had pronounced ridges it would have banked over it and that's what we've got there.

What were trying to do today and on other programmes is trying to instil upon people who work with the public a greater sense of knowledge about the limestone landscapes so that could be around the rocks, the geo-diversity, having the greater knowledge of the magnesian limestone strata, because it is a very complicated set of rocks that we have got here.

Excitingly, the great thing about geology is that you never know what you are going to find; you turn over rocks and all of a sudden something like this turns up and it's got bony structure and there's what looks to be a sort of jaw bone along there.

Paul, our tutor said that you often don't need to have to split the rocks open, if you just turn the rock over you might find something interesting. At that second I looked down and there was this huge great conspicuous looking item in the middle of a large piece of rock. Fantastic to think it's been there for 200 million years or more and now we've found it – it's amazing.

The biodiversity of the magnesian limestone plateau is without equal; it supports a large number of rare plants and animals and is recognised as an area of international importance.

Coastal grasslands project is about maximising the potential for the mag lime grasslands in County Durham. Not just for wildlife but for the people that live here as well.

The grasslands around here for instance around Blackhall up to the 60's was natural grassland and then it was ploughed out for arable then up till 1997, when the turning the tide project took over and bought the land and from then on we've been trying to

get the condition of the grasslands start to approach a more biodiversity sort of rich scenario.

Gorse brushing is basically gorse clearance. So what we do is we're cutting the gorse as close to the ground as we can and then were treating it with a herbicide to stop any regrowth. And then were very carefully, because it burns quite easily and the stuff that's still growing is very dry underneath so we're burning it in small bits at a time so it doesn't get out of control. Some of the wild flower species we are hoping to see come back onto this hillside are bloody cranesbill, bird's foot trefoil, lady's bedstraw, field scapius really beautiful diverse collection of wildflowers which in turn is really great for invertebrates.

One particular butterfly which is quite unique to the area is the durham argus butterfly which its food plant is the rock rose which the cliff tops have a good covering of. The more that this becomes successful, I think the people do respect it a lot more and I've seen already people are respecting the area a lot more from just treating it as just some back fields, now I think they do treat it with a lot more respect and to me that's an achievement straight away.

This area is home to many settlements and communities. The Limestone Landscapes partnership is supporting local residents to improve their health and well being by encouraging exercise and contact with the environment. Creating safe and well signposted ways to get to the countryside is vital for this.

I think this project is particularly important because it actually addresses an identified need, that is the need for us to link up the boroughs bridleways and paths and also to try and explain more about the different people using different parts of the coast and hopefully building up a mutual respect, and its one of a number of projects where people have worked together achieving creation of the footpath but also in the organising of all the work that's gone on as well. Through groundworks there's been the organisation of splendid group of volunteers who've helped out as well.

"It's been great. I think I've learned a lot of other things like trees, planting. It's really good because everybody is mixing in but people are, you're getting to know different people in project"

I felt very positive about my personal involvement in the project but also organisationally the National Trust working partnership with others. I think it's a good example of partnership working and the results that can be achieved by sort of mutual goals.

The area is rich in human history stretching back over 3000 years. Mediaeval villages are among many archaeological finds. Over the last 200 years industrial and urban developments, such as mining and quarrying has seen the landscapes change from quite rural tranquillity to a pattern of urban settlements and densely populated colliery villages.

Well the village atlas projects really is about trying to encourage local people to look at their own back yard, so obviously we've got the history there; people can maybe remember sort of 30, 50 perhaps even 70 years ago.

"You couldn't see down the front street could you for people, everybody was out weren't they you know"

“Everything would be different completely, for a start off the front street has hardly any shops compared to when we were little, it was a very busy village and you just played around, it could be 10 o’clock at night but you were just out playing because your mothers were there watching you. They were stood at the gate talking to each other”.

I think one of the things that people gain from taking part in a project like this is that they begin to take pride in their community and their landscape. Things that they haven’t noticed before particularly start to make sense to them and they start to take pride in them for example humps and bumps in fields which they have noticed perhaps in the past or barely noticed and if they are made aware of them these are signs of old farming these are rigg and furrow you know caused by the horses ploughing the land sort of 400 years ago then that’s a sort of pride and interest.

We’ve been working on this for about 2 years. It’s now come to appoint where the delivery stage is very exciting and to sort of see local people getting involved looking at their own back yard, looking at the history, looking at the records and archives and maps. It is fantastic thing and I’m really excited that local people because its where they live, they care about where they live and want to know more about where they live and it’s a fantastic opportunity for the community, schools and groups to get involved.

So that’s an example of just some the work that’s already taken place. Over the next 2 years the partnership will continue with its important work.

It will engage with local communities and provide real opportunities for learning and development. This way the limestone landscapes will continue to be enjoyed for generations to come.