



tilting@windmills

Perspectives on changing values and
changing landscape in a changing climate

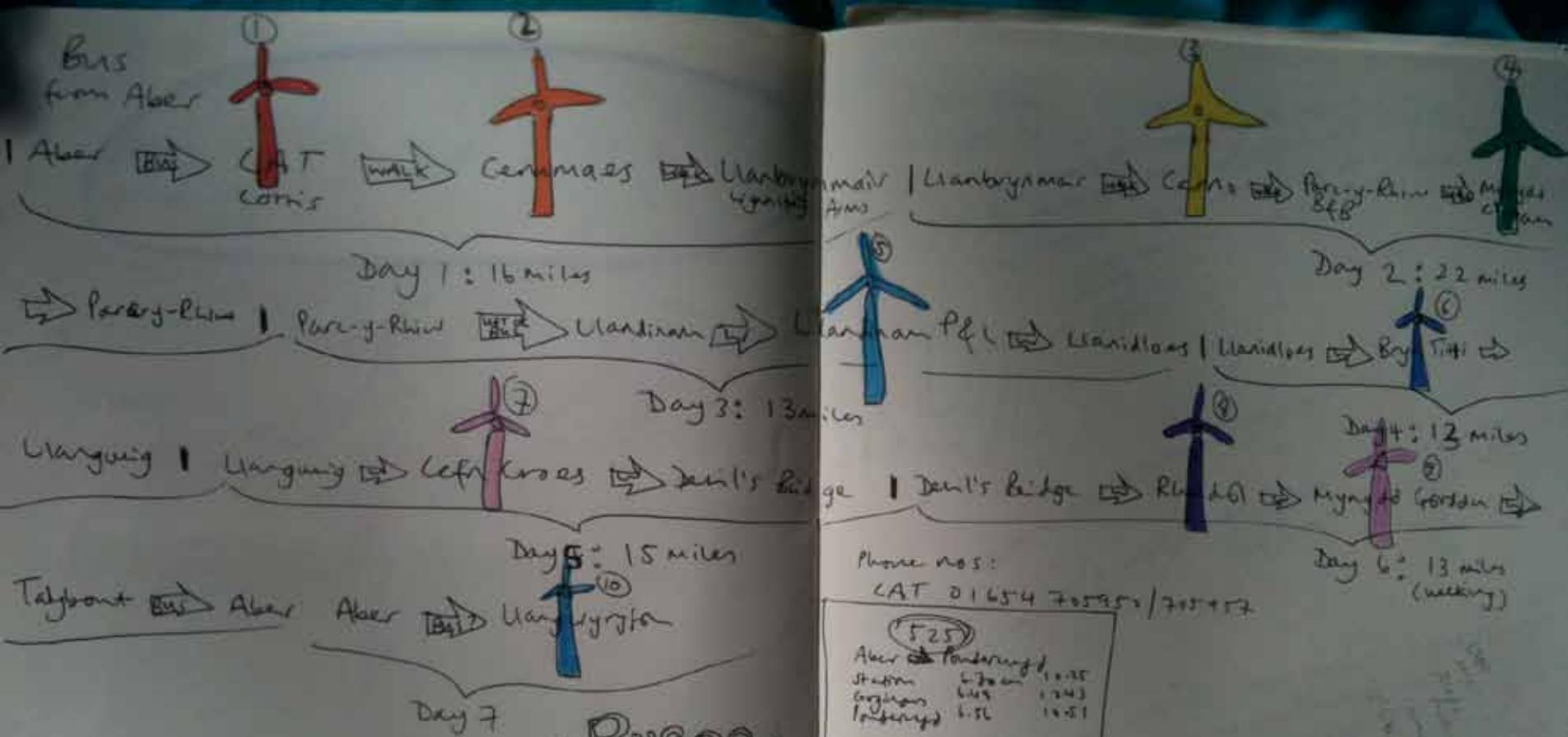
Jess Allen
Mid-Wales
August 2010

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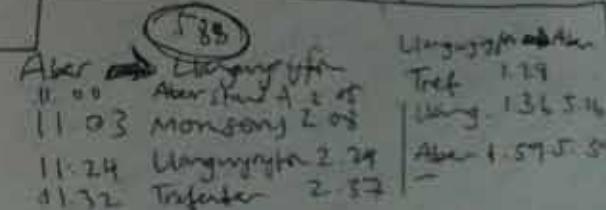
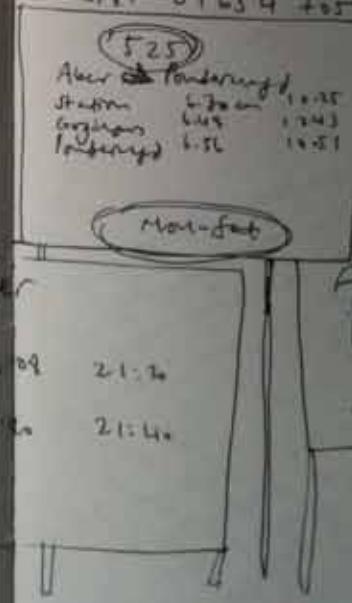
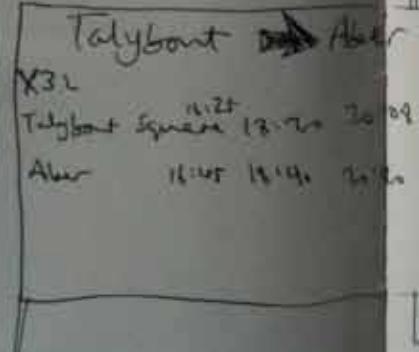
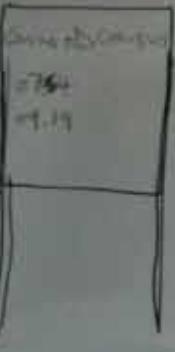
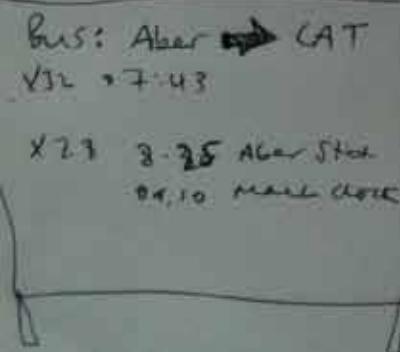
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Buses



Mon-Fri

Llangynidr Trefeidi 1:19
Llangynidr Aberystwyth 2:15
Mynydd Cwman Llangynidr 2:08
Llangynidr Trefeidi 2:39
Aberystwyth Trefeidi 2:57

tilting@windmills is a land-based performance research project which seeks to explore communities' response to change in the landscape, specifically wind energy development in rural Wales.



This book presents recordings and interviews collected from the people encountered on an eight day journey, on foot and public transport, between the wind farms of Mid-Wales in August 2010. It is intended as a companion to the accompanying film *Tilting at Windmills*, produced in collaboration with Sara Penrhyn Jones.

Through the practice of walking, meeting and talking to people in their natural environment, this project seeks to offer a more embodied perspective on changing values in changing landscapes in a changing climate. It also offers a forum for debate, outside of the charged environment of the village hall or political chamber.

I thank all the people I encountered who gave their time and opinions so freely and articulately. This is *your* book and a shared record of a collective consciousness, changing in response to a changing climate. Diolch o'r galon.

A note on the text

All interviews were collected on a H4N Zoom digital audio recorder and were subsequently transcribed. They are presented here in plain text and quotation marks. *My own notes and transcribed recordings are presented in italics.*

Further writing and an account of the walk is available on the accompanying blog www.tilting-at-wind-mills.blogspot.com



"The image of a wind turbine... it's just such a clichéd image now. It's got so much baggage, good & bad. You get people being happy with them and you get people saying 'oh well, I do like them but they're not the whole solution', obviously expecting something to come along which *is* a silver bullet, that is the solution to everything"

"Wind turbines have become such a politicised symbol; you see them all over the media, when, actually, when you *do* see them around, they're so sort of, passive... they're just pale things on the horizon"

"Because they're so obvious, people immediately know what a wind turbine is, where they'll be, what they look like. So, it's a good image for sustainable practice. But in reality they don't represent a huge proportion of our energy production... There are other things to concentrate on, not just wind turbines"

Centre for Alternative Technology, Machynlleth,
Saturday 7th August

"It's a shift in mentality, because those people who complain about the aesthetics of wind turbines... often think that their car is a beautiful thing or something, which is kind of hypocritical almost"

"Maybe it's just the way people think in this country? I don't really know. It seems quite.... the way people kind of automatically react in this country maybe, to something that's different and change they don't understand. And they're so used to looking at a hill and a view and something suddenly arrives. Because wind turbines obviously have to be in a place where there's wind which generally is an open space which has to be countryside. So as soon as they go up, it's an obvious thing and people react generally in a negative way because they're so used to the view. The way it was."

"Things have to change... it's a new thing isn't it? Sustainable energy. People have to get used to it. But eventually they will, and things will change."

"Definitely if they had more school trips to wind turbines and they became part of the community...it's like anything... if you come to know something then you begin to love it for what it is"

Centre for Alternative Technology, Machynlleth,
Saturday 7th August



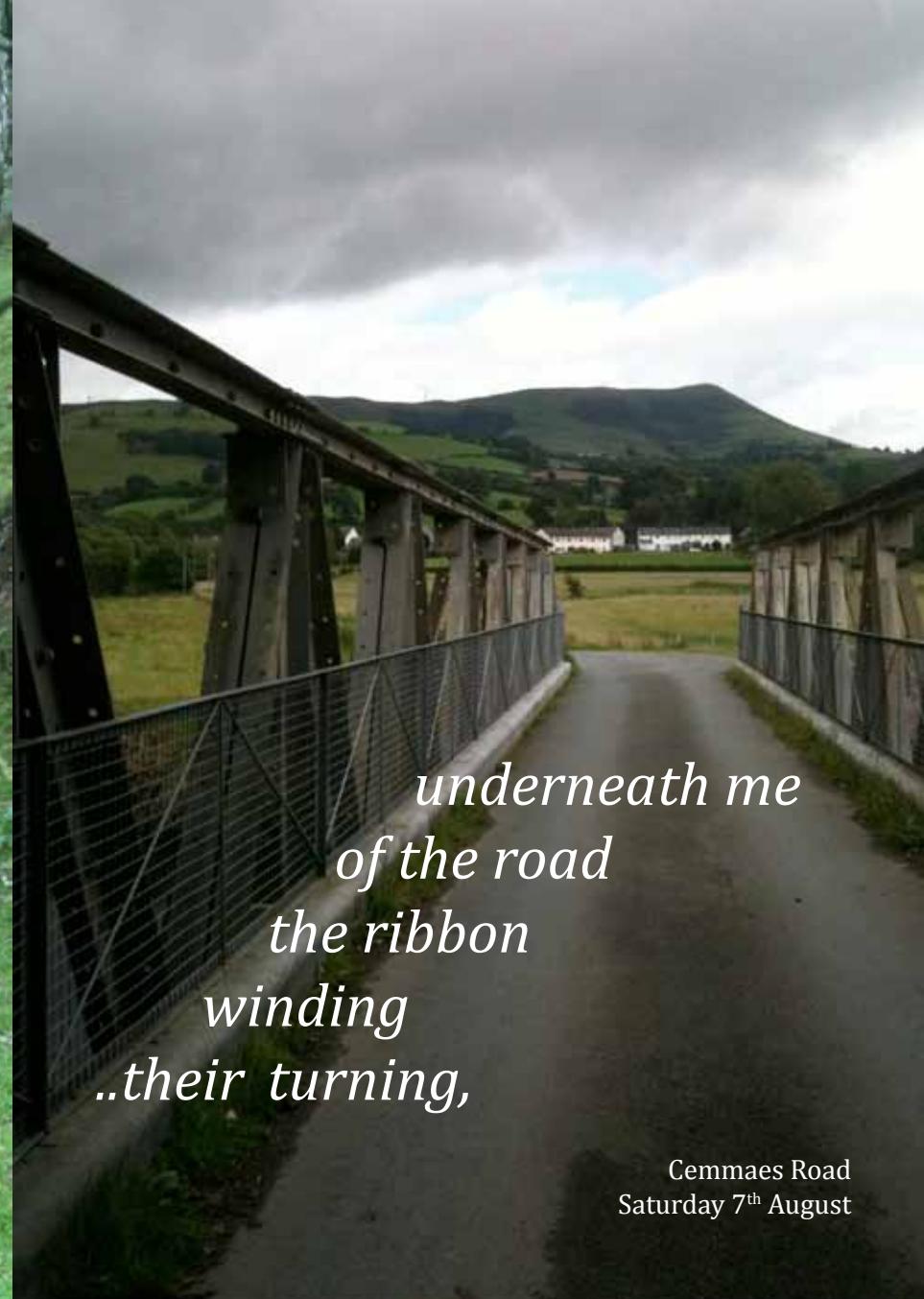


"A lot of people that are pro-wind don't really look into other things. And if you look at it in the question of plants...it's a monoculture; we're in danger of having an energy monoculture if we're not careful"

Centre for Alternative Technology, Machynlleth,
Saturday 7th August



*It feels like they're
drawing
me
towards them...*



*underneath me
of the road
the ribbon
winding
..their turning,*

Cemmaes Road
Saturday 7th August



Pantperthog to Cemmaes
Saturday 7th August



Mynydd Cemmaes, Saturday 7th August

SH 864065

Powys

2002

18 Turbines

Vestas V52 0.85 MW

15.3 MW total installed capacity

38 GW.h estimated yearly production

38,232 m² total wings surface

8,080 annual homes equivalent

Developer First Wind Farm Holdings

Operator EDF-EN

Hub height 40 m

Rotor diameter 52 m

Source:

The WindPower

www.thewindpower.net/wind_farms_europe.php

BWEA

www.bwea.com/ukwed/operational.asp



"The big ones, if you're near them, and you see them going round slowly, it's relaxing isn't it?"

"The ones in Wales I've got nothing against at all. And we don't want any more nuclear so how many alternatives have we got?"

"Well it's something new, that's the thing. I'm an ex-forester and when you plant trees everybody says 'no, no, we don't want trees' then when you cut them down 'oh no!... don't cut them down!'. Because it's a change, that's all it is"

"I was just walking up here thinking, we would be in a complete forest. Everything we look at now, except for the high tops, would be forest. Even the river valleys would have alders... It's all man-made in Britain. So, what's another thing?!"

Llanbrynmair
Saturday 7th August

"It's all over the National Curriculum in Wales, the fact that we have to respond to the world as it is and how it's changing, I suppose... We don't preach about it...we allow the children to make their own minds up and formulate their own thoughts and opinions... You can't then say 'you're wrong we *are* going to have wind energy, it *is* the future'. You've got to value their opinions. They're going to be the adults of the future and all you can do is educate them to make their own decisions and create their own viewpoints from there.

"Children, generally speaking, are more concerned with themselves than they are with others - there are exceptions - but generally they're going to be interested in their own lives. Now, if you can convince them that this [climate change] is going to affect their own lives then, great. But to try and then convince them that it's going to affect their children, their grandchildren, at that age - 9, 10, 11 - they're not going to be interested.

"The facts and figures are relatively short term. As in, things are going to happen quite fast to do with climate change, to do with non-renewable resources running out. My daughter was born when I was 32 and up to that point I was only really interested in the next 50 years which is when I was going to be alive, to be honest. So now that's extended. And, I'm absolutely certain when she has children it will be extended again. So, to think that there's a good chance that I'll be thinking 100 years from now once I've got grandchildren, that does concern me greatly because all the evidence points to a very, very different

climate, a very different set of circumstances, a very different population, many, many... geographical differences that will effect us"

"We've harnessed the wind for a long, long time. I suppose now it's the *need* to, rather than...just a benefit or something useful in the past. We've *got* to do it

"I still think everything ultimately... all power, wherever it's gathered from, is going to be owned by someone and sold to someone. And I think ultimately, certainly in towns, very few people will end up will providing their own energy. I think there will always be companies there who are making sure they harness it and then sell it on to us"

Llanbrynmair
Saturday 7th August





"When the big drought came in AD1130 [the Pueblo Indians of the Chaco Canyon] were vulnerable - population growth had already diminished the society's ecological base through the overuse of forests and agricultural land. Most people died, whilst the survivors went on to eke out a living in easily defended sites on the tops of steep cliffs. Several locations show evidence of violent conflict - including skulls with cut marks from scalping, skeletons with arrowheads inside the body cavity, and teeth marks from cannibalism"

Mark Lynas (2007) *Six Degrees Our Future on a Hotter Planet* London: Harper Perennial pp. 5-6



Sheep skull: Cemmaes, Saturday 7th August 2010
Sheep bones: Llanbrynmair, Sunday 8th August 2010

"It's everything... Llanbrynmair means a lot to me. Because my parents are from here....we brought up the children here. You can't pinpoint something that... that's special.

"We can see two [turbines] from here, that's all. But we used to see them but they've moved them. And I miss them. Quite a bit. And when my husband and I go around the countryside, we often stop and pinpoint 'oh, that's so-and-so wind farm and that's so-and-so...' And it's very odd how different the landscape is to you once you've known them

"My husband's been inside one of those in Trannon... I used to walk up there, posting. Yeah, before the post vans came, my dad posted up in Pennant for 37 years. And, you know, when he was on holidays or wanted a day off, it was us children that used to do the runs for him. We used to walk...

"It was hard-going but it was hard times in those times... I'm talking in end of 40s beginning of the 50s

"Everybody expects everything on their plate these days don't they?"

Hendre, Llanbrynmair
Sunday 8th August



"We didn't aim to be off-grid, we just liked the property and it happened to be off-grid and we've learnt to adapt to do that. So we learnt to live without great energy usage. But we don't want for anything. We still have a washing machine, we have computer connection, we have TV, we have electric light, central heating.... so we don't do without.

"But living off-grid teaches you to be careful with energy usage. So at the back of your mind, you look and see what uses what amount of power.

"As far as large-scale renewable energy's concerned, I'm not a fan of it, in the wild parts of the UK, because we've very few true wild areas. And large-scale industrial buildings such as wind farms, in our best countryside, for the returns they give, aren't feasible.

"We should be building more efficient buildings and educating people to use far less. The problem is, I see many, many people throughout the UK who don't really have a clue as to what energy consumption is involved with items of equipment they have. As far as they're concerned it's still relatively cheap enough to use, in a profligate way...

"In my kitchen, I've got 45 watts of lighting at its maximum. A typical kitchen you go into for a householder who isn't aware of energy needs is consuming almost half a kW, just purely in lighting, in halogen downlighters.

"So I think we should follow the route of making it easier for people to conserve energy. More available grants for installation and energy efficiency... Because a fraction of what they're spending on subsidies for large-scale wind farms would actually have a better effect on consumption and power emissions in the UK, than building large-scale windfarms.

"... In the right place, they're fine. But I know from practice, even with a small wind turbine, which will work at lower wind speeds than a large turbine.. I know, on average, that you can't rely on that full-time.

"I think we're going to have to see more of built-in generation within houses And also small-scale generation projects, like photo-voltaics which are relatively easy to put in. But we should be building all new houses with solar heating and solar voltaic systems."



Cwm-Calch, Sunday 8th August



SSSI, Carno, Sunday 8th August

*Feel like I'm on a journey...
well obviously, I am... but I'm learn-
ing a lot about people's perspectives.
About how many arguments and
counter-arguments...*



I can't decide if they offend my sense of tranquillity and remoteness. I don't think they do. I'm very attached to the Welsh landscape; it's the most beautiful landscape in the world to me. Because of what it means to me. And I've spent a lot of my teenage years, riding... riding round on horse-back trying to be more in that landscape, or being more in that landscape. And I've had some really beautiful, spiritual experiences, just me and my horse... finding our way across country...

And I'm just trying to work out if the presence of these beasts, these things, these things that work - that are just 'there and work' as the girl at CAT said - I'm trying to work out if they offend me. But I just can't make them.





Carno II, Sunday 8th August

SN 915960
Powys
March 2009
12 Turbines
Siemens 1.300 MW
15.6 MW total installed capacity
36,228 m² total wings surface
8,723 annual homes equivalent
123 GWh estimated yearly production
(Carno I&II)
Developer Amegni
Hub height 49 m
Rotor diameter 62 m

Source:
The WindPower
www.thewindpower.net/wind_farms_europe.php

BWEA
www.bwea.com/ukwed/operational.asp



"We've got solar panels on our campsite up there.... they were expensive to put in at the time. I sort of *questioned* the expense but it's one of the best moves I've ever made... I've even thought about it for our house here....maybe selling it off to the grid as well...that's a little dream at the moment."

I was talking to a lady who farms over in Llanbrynmair. She was saying that her father was a postman and they used to walk up all over the mountain to Trannon and people were much more self-sufficient then. Do you think that we need to become more like that?

"Oh yes, yes, and not just electricity and things like that... I think people start growing their own vegetables... a lot more as well. We've started doing that as well, and it's, it's great, growing our own potatoes and things like that again...it's, it's healthier food, it's *nicer* food and, you can't beat it"

There's a lot of talk about climate change now and how things might be in the future unless we do something quite radical really...is it something that you hear much about or think about?

"No, not enough really... I mean, a lot of people do this sort of thing now, but whether they're putting a lot of thought and energy into or not, or do they see it as something that, sort of, *should* be done...? But nobody *talks* to us about it, but I see a lot more people doing it. Perhaps we talk less about things anyway, I don't know, the answer to that!"

What do you think when you see wind turbines? The first thing that comes to mind...

"The first thing that comes to mind to me always is magic... it's just something magical about something like that.

Some people say that they destroy the wildness or the tranquillity...

"No, no, no, they don't do that it's been *proven*... the two farmers on top of the hill over there, we've been through this and I've spent quite a bit of time up there. There's *hares* up there, there's *curlews* up there...there *is* wildlife up there...wildlife get used to anything don't they?"

What do you think about people being reluctant to see change?

"Well....there's too much of that isn't there? We've got to change, year in year out we've got to change and move on with all sorts of different ideas...*This is* change, *recycling* is change, camping, for us, is a change. We couldn't survive on 80 acres of ground so we had to diversify... We had a little bit of help off the Welsh Tourist Board to do that and... it's working. OK, things have tightened up a bit this year because of the financial situation the way that it is. But... it'll come back again..."

I think that's what people forget, that everything's cyclical, you know, we have economic depression....



Gorsaf Carno Station Nawr/ Now!

But the one thing that unfortunately isn't cyclical is climate change, in that if we don't do something about it, it's going to go on a big trajectory, I think

"I think we will get a grip on that, it's beginning to happen now isn't it?"

I hope so... but not as fast as it needs to

"No, perhaps you're right there. But people are looking at smaller cars and getting efficiency out of different engines and things like that. It is happening on a small scale, definitely because, you know, friends of mine talk about it and change their cars because of this or because of that, they go on trains....and it's so easy going on a train...there's one just coming down now!"

"Another friend of ours on top of the hill there, he's fighting to get the station open in Carno here...and I'm hoping that that will happen. Because...you know, we have people from Manchester and Birmingham and from the cities, all cities, come up here to stay with us and I'm sure a few of them have said, if the train, if the station did... it would be nice if they were dropped off here in the village and then they could cycle or...walk. They like to walk...they would do that."

Cledan Valley, Carno
Sunday 8th August



I think most of the time they seem to blend with the countryside... When we first came we lived just above Montgomery and there were... beautiful views across there and you could almost see 360° round. And at a distance you could see the windmills. And to me it just seemed like a sort of, *feature* of the country. And it was a kind of a place that on a clear day, yes, it was nice to see the windmills at a distance.

Close up, I'm not sure. But I've never been that close to experience that..."

"We're going to have to look at alternative ways of energy so, what would be the alternative? I don't know. I lived up at North Wales and seeing them on the sea, they're OK. Because, to me, it's a bit like sea gulls going round."

"I try and like to think that I do what I can... in terms of recycling.... and how you use water and energy and so on. But I don't let it rule my life.

"I hate recycling days...but you do it and you just can't imagine never having done it.... We've been too careless, haven't we , in the past?"

Llyn Mawr, Mynydd Clogau, Sunday 8th August



I'm walking to Mynydd Clogau. It's evening. Well, after 5, nearly 6 I think. Beautiful sun on the turbines. Really strong shadows, which makes a lot more movement...

It's been a very hard walk here again across open country. A lot of track dodging and fence climbing and going off piste. Which is OK. I just liked the idea that I had Merlin with me and that I'd be able to go along tracks that he would be able to go along but... maybe I'll have to teach him to climb fences...

Mynydd Clogau, Sunday 8th August





Mynydd Clogau, Sunday 8th August

S0 030990

Powys

April 2006

17 Turbines

Vestas 0.85 MW

14.45 MW total installed capacity

36 GW.h estimated yearly production

36,108 m² total wings surface

8,080 annual homes equivalent

Developer Novera

Operator SKM

Hub height 45 m

Rotor diameter 47 m

Source:

The WindPower

www.thewindpower.net/wind_farms_europe.php

BWEA

www.bwea.com/ukwed/operational.asp



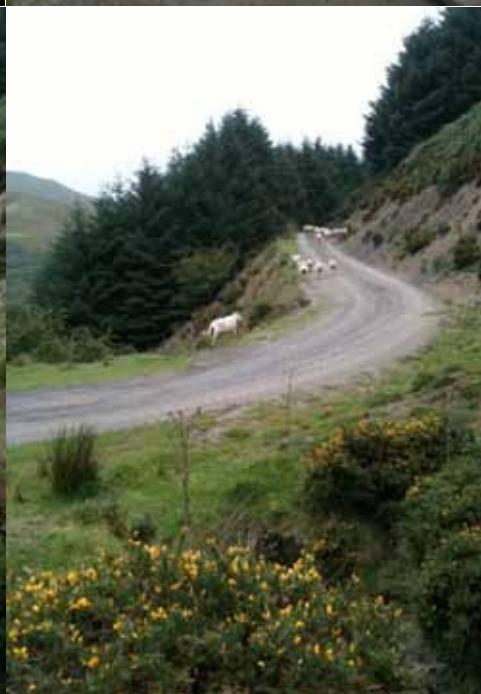
"The sunset... the sunset we look for at night. We quite often sit out when the sun's going down. It's lovely....

"I'm 40 now, in a couple of weeks, and I've noticed a change in how the seasons have been changing and they *are* changing, and in the short time that I've... d'you know what I mean? Definitely. And, you know, with being on the farm as well, definitely.

"It's scary. It *is* scary to think of what will happen with the children. But you've just got to with it haven't you? There's not a lot you can do, d'you know what I mean? You've just got to go with the flow."

Gilfach, Carno, Sunday 8th August





"It's been a wonderful thing for the farmers...It's obviously helped them tremendously, so obviously some good has come of it that way. I think with all the cutbacks with agriculture...I think it has become hard. The guy down the road that's got some ground up the top, he's a dairy farmer. I think they've been squeezed quite hard by some of the supermarkets. The amount they get per litre is very little.

I think the one guy who's got the dairy – there's very few dairy farms about here now, they've all gone – I think he does it for the love it as much as anything, so his wife tells me... He'd actually farm the cows for nothing... because his father bred them prior to that... So obviously it's been a great thing for him that he can still carry on that, with cows, and still get the money off the wind farm..."

"I do a lot of organic gardening here and the thing is, you can only grow so much in season obviously. So there comes a time when things are out of season. And I think probably our tastes have changed a lot. We probably wouldn't eat half the things that they may have been able to grow in the winter. I mean, how many children like swede or curly kale? Whether we'd go back to that... I think we'd find it very difficult to go backwards. Nobody really wants to go back do they?"

"Everybody wants all the mod cons now don't they?... Who would want to be washing all day by hand on a Monday? I don't think people will do it will they?

As much as we pretend, we all say we'd like to go a bit greener. We'd find it very difficult. Because we've been spoilt, obviously, haven't we?"

We waste so much don't we? The things we do for pleasure... We're wasting so much fuel and money, just for a bit of joy

People will find it very difficult. Unless they're forced to go back. Unless it becomes a time when things become really serious....

I've farmed here this piece of ground for about 25 years organically. Things that we've noticed that are disappearing... hedgehogs have definitely decreased in the last 25 years. On the other hand, we have actually found great crested newts... and seen a tremendous increase in toads. The cuckoo until this year had been almost scarce. But this year it sang its head off almost for a fortnight. So whether singing for a fortnight is good, whether it can find a mate or it's still looking, I don't know. People could say 'the cuckoo sang a lot, it's coming back' but you could turn it round and say 'well he was still looking for a mate for two weeks and couldn't find one'...

Glanfeinion, Llandinam, Monday 9th August

NO UNAUTHORISED ACCESS TO MOTOR VEHICLES
Access on foot, bicycle, horse

For your safety and to assist
with our ongoing Habitat Management
please keep to the Windfarm tracks

Please keep all gates shut
and do not leave litter.

Please adhere to the Country Code

For further information
Please call 01686 629803

THANK YOU

Llandinam P&L, Monday 9th August
(Penrhuddlan & Llydiartywaun)

S0 048837

Powys

December 1992

103 Turbines

Mitsubishi 0.3 MW

30.9 MW total installed capacity

36 GW.h estimated yearly production

36,108 m² total wings surface

17,278 annual homes equivalent

Developer Novera

Operator SKM

Hub height 30 m

Rotor diameter 30 m

Source:

The WindPower

www.thewindpower.net/wind_farms_europe.php

BWEA

www.bwea.com/ukwed/operational.asp



19
mph

"I don't think we should ever let go of it, because when you start letting go of aesthetics you're just talking about a kind of banal survivalism..."

"Sometimes I think 'that looks rather elegant and exciting'. And sometimes I think 'that looks like too much... engineering stuff up there on top of that hill. I don't like it. Sometimes you get a small group that doesn't look regimented and it looks better than when you've got a whole, like, 50 or 100 turbines or something and they're all in rows and you know there's roads all over the hill top as well. And you know the roads have damaged the peat bogs which makes the whole business of wind farming....very questionable anyway, because of carbon retention issues..."

"I think there is a risk of alienating people from renewable energy systems by putting too many wind turbines on land. At sea it's much more efficient and I think it could also create new habitats... around the base of the masts for... molluscs and seaweeds and associated fish and so on. And it might have some useful impact on reducing the amount of trawling that's going on.

"Pound for pound, money spent on energy conservation is, at the present time, much more effective... We could really hack it right back and that's not happening. I think the government needs to legislate. Hard, tough legislation."

Llanidloes, Monday 9th August





What do you see when you look at landscape? Do you see in terms of historical elements or features... what things stand out for you?

"Well, perhaps I'm a bit of a romantic but I sometimes think of what went on in the past, in the Dark Ages I think you'd probably call it. Where our cottage is, there are Roman remains nearby and I often wonder about the Bronze Age people and how they farmed there. So, actually, it's a rather strange answer but I get a feeling of ancient presence in some of these, especially the moorland landscapes and especially when walking along old tracks. Because many of the drovers' roads were formed on Dark Ages roads which were formed on Roman roads which were formed...and so on. So I suppose that's what I, I *feel*..."

"What I *see* is, is the beautiful curving backs of the hills, especially when you get up high and look over the landscape, you can see more hills. The top of Plynlimon, for example, is a bit like looking at a lot of puddings... all little bumps everywhere. That is why I suppose, something coming into the landscape which is slightly alien, is a little bit upsetting for me. I spy wind farms in the distance and somewhere deep down, I am not offended by them but then I start to imagine our beautiful remote countryside covered everywhere with little eyebrows of white in the distance, turning..."

If I've done this whole journey just to hear that description it will have been worth it! So it's more a fear of invasion and accumulation?...

"Well I think invasion and accumulation are the same threat really. My feelings about wind farms in this landscape are entirely NIMBYist!... And all the things which people talk about of course... like noise, danger to other creatures as well and the destruction of the infrastructure of the landscape, for example peat bogs and draining systems which supply various hamlets and cottages, like our cottage, with water..."

"There was an interesting story – I don't know if I should tell you this one – it is hearsay, but one of the ladies that helps us who works in a primary school told me this: that a local school was encouraged to go to a wind farm somewhere near Machynlleth on a day trip. They were young, primary school children, probably infant even. And they'd got lots of packs of information before they set off. They went there and then the children started finding piles of dead birds below the turbines and they started crying –



the children, not the birds – and so they had to get back on the coach and come away from it. So, I do worry about the effect on nature in the broadest sense. Somehow that sense of ancientness that I was talking about – which is romantic, I know, because I'm a realist, or try to be – is, I think, offended by, by their presence....their overwhelming presence anyway”

So in a way, they're disrupting the time depth of landscape with a very modern imposition?

“Yes, the time depth, that's a good phrase. I hadn't thought of that...But that's what I honestly feel when I go out walking, especially on my own... I often concentrate on the non-visual aspects of the track [Glyndwr's Way] and what happened on the track and the legends involved in it.

“We have many hundreds of walkers coming along the route... and as it turns into the north of Powys, it will be completely dominated for two days of the walk by large wind farm developments, if they all go ahead. At the moment there's a sort of limbo... At the moment all around our cottage – this is where the NIMBYism comes in – large numbers, something like 200 turbines, all within about a kilometre or so of our building are planned. Whether any or all of them get the go-ahead has yet to be seen. But some of them are as near as 800 m from the building. And in fact the boundary of the wind farm is within about 20 m of the building. So theoretically in the future, it would be possible for them to put a turbine right by our cottage... unlikely, but possible...”

Are there other elements in landscape that offend you, here or in other places?

“Monoculture. That's an obvious one isn't it? Whether that's in East Anglia, seeing fields of flax or that yellow stuff, oil seed rape... that seems a little bit *unfair* on the landscape. And the same with forestry. Although now large pieces of forestry are not planted usually these days without some diversity, especially round the edges, so if you're travelling near them it's not so obvious. It's only when you're walking in the hills and you suddenly see that, in fact, there's hundreds of acres of the same tree.”

It is recognised, even by sustainability 'aficionados' that, we're in danger of having an energy monoculture, that wind alone is not enough and offshore wind is probably going to be a better option...

“Now, interesting you should say that. Because I don't see the sea as a landscape – and it isn't in a way, it's a seascape! But, East Anglia...an elderly relative took us to a place called Sea Palling, and I'd been there as child... The coast of Norfolk is desolately beautiful as well. But it's not... not exciting. It's just sand dunes and water and the North Sea... But at Sea Palling, there was an array of about 20 medium-sized turbines in the water. And I found that interesting and exciting. I don't know why: it enlivened the scene and also made something like a little lagoon almost. People were fishing inside the protection of the half circle of the turbines.”

One thing that really interested me is something that you said about what has gone on along Glyndwr's Way, not necessarily the a physical presence but this historical presence of tracks and who's walked along them before. Because obviously, as I've been walking, that's been on my mind. Could you talk a little bit about your feelings about walking in the landscape and how there might be a...not necessarily a trail across space but also a trail through time?

"Why do we go walking? What is it about humans moving through the landscape that seems to be important? I think it may be a very primaeval association. Perhaps when we were nomadic? It makes much more sense to sit down on the sofa with a book and a cup of tea and save your energy, doesn't it? We can all do that. But no, we don't. Some people choose to walk over difficult terrain to go from A to B... So there must be something deep down inside us which actually wants to move on, to move within the landscape and see it passing by us."

Llanidloes, Tuesday 10th August





Bryn Titli, Tuesday 10th August

SN 935755

Powys

July 1994

22 Turbines

Bonus 0.45 MW

9.9 MW total installed capacity

24 GW.h estimated yearly production

5,536 annual homes equivalent

Developer RWE NPower Renewables

Operator Beaufort Wind Ltd

Hub height 30 m

Rotor diameter 37 m

Source:

The WindPower

www.thewindpower.net/wind_farms_europe.php

BWEA

www.bwea.com/ukwed/operational.asp





"We lived down the back road, opposite side of the valley to where Bryn Titli was built... And leading up to the construction... it proved really controversial. It almost split the valley, really...

"I have to say I've always *wanted* them to work. It's like a lot of people I think – renewable energy, we all *want* it to work. But whether... the kind of conservative side of me says 'I don't know, *do* they work?', as well as they are portrayed...

"I felt quite excited about them really. All this new technology and it's been brought here in Mid-Wales, where you don't see a lot of brand, spanking new technology do you?

"The thing is, if they're going to build as many as they say they are going to have to create the energy that we *do* use, we'll *all* be covered in them. And I don't know that I want my landscape to be *totally* covered.

"You could persuade people they are a better thing and there is some advantage to them if you could give them a



percentage off their electricity. Or could a turbine be sited near their community and whatever electricity goes into the National Grid is spent in that community directly? It's especially important in rural areas, cause, we do sometimes feel a bit abandoned. We live our lives fairly independent. We go along *in spite* of government, not because of it sometimes.

"There's always going to be change isn't there? But if you perceived the benefits outweighed the disadvantages, well that's the way to go isn't it?

We're only small communities, just ordinary people, we haven't really got the power, you know... I think government does need to listen a bit more. I'm afraid that government and big business play the shots don't they?"

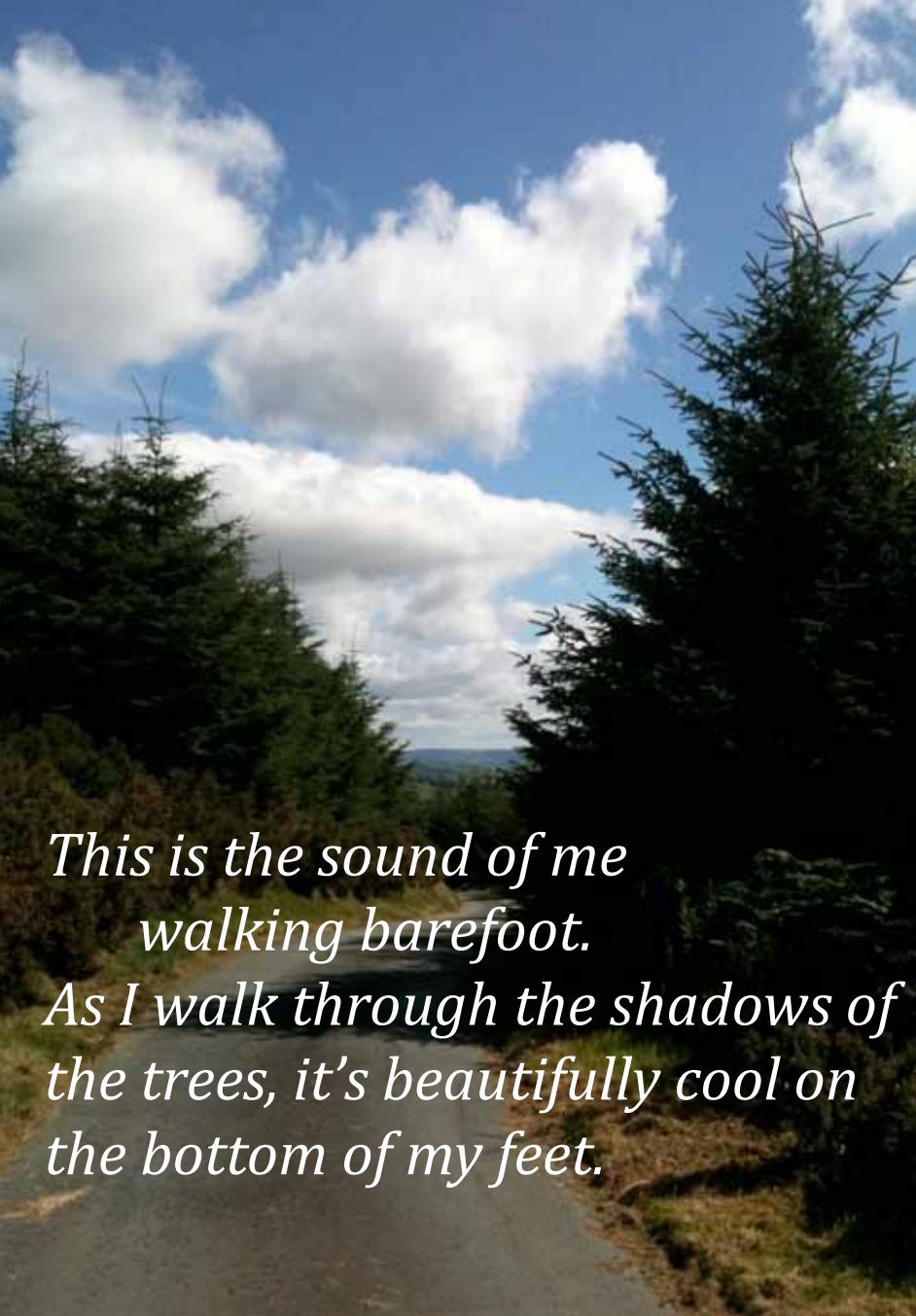
Llangurig, Wednesday 11th August







Llangurig to Cefn Croes
Wednesday 11th August



*This is the sound of me
walking barefoot.*

*As I walk through the shadows of
the trees, it's beautifully cool on
the bottom of my feet.*



Llangurig to Cefn Croes
Wednesday 11th August

Cefn Croes, Wednesday 11th August

SN 810800

Ceredigion

June 2005

39 turbines

GE 1.5 se 1.5 MW

58.5 MW total installed capacity

146 GW.h estimated yearly production

152,256 m² total wings surface

32,710 annual homes equivalent

Developer RDC

Operator Falck Renewables

Hub height 70 m

Rotor diameter 70 m

Source:

The WindPower

www.thewindpower.net/wind_farms_europe.php

BWEA

www.bwea.com/ukwed/operational.asp







"I think I would prefer to see them cut down all the forestry trees around Cwm Einion and replace them with wind turbines! Because the conifer plantations I think are a real blot on the landscape.

"And when I was a child the river Einion was dead. There were no fish and we did a school project... I did a school project with you!... and tested the river water, and I remember it was 5.5 and I think that's too acidic for your average fish.

"And they started clearing the conifer forests about 20 years ago and when I was about 11 or 12 we started getting minnows. And now we have trout. So it comes back. But I think it was massively destructive. Because I think partly they use pesticides but partly it's just that they plant them so close that they make the ground incredibly acidic.

"I think I'd say forestry is one of the most destructive things that's happened as well as, you know, the flooding

of various valleys, which was obviously extremely destructive to communities. But so was the forestry. I mean, loads of people ended up selling their farms and moving away. Because they were given offers that they couldn't refuse, sort of thing. And I think that was really destructive to rural communities as well. So I think wind farms are more positive than forestry. And basically you know, there was a point when virtually every single hill seemed to be covered in trees. And fortunately we seem to be moving away from that now.

"But what's also quite interesting is, you see how quickly the land recovers itself. So, they cleared the forest and within about 10 years, things started looking a bit more normal... not so bleak and destroyed. You see native species returning. And I guess within about 20-30 years you probably wouldn't even know that there'd been a conifer plantation there."

Images: Cefn Croes, Wednesday 11th August
Text: Waunfawr, Saturday 14th August



"I just like the fact that they're creating energy for us to use in an environmentally friendly way and that they're quite... they're so big aren't they? Such big structures, and travel with the environment, with the wind and the speed, so it's always sort of in tune. I know they're great big honking metal things but I don't really see that, cause it doesn't stick out so much against the background. I really like them. I think they're a good idea."

"I think they should be off the coast more. And I also feel that they fit that environment cause they kind of look like sails, don't they? I feel their impact would be less in most ways if they were off-shore more."

"Something'd be a bit more eerie and a bit more mysterious about them as well I think, then. They look, they look slightly alien which I... I like that part about them... sometimes, they look like sculpture. Yeah, sculpture....it's like, what is it? The Angel of the North? That's just sort of put there in the middle of nowhere isn't it? I like that sometimes."

"A tranquil area to me would be somewhere out in nature where you have all the natural movement...the wind turbine would therefore just emulate that, wouldn't it? Because it's showing you something physical in natural movement. And then we're also harnessing it for us and our big bad wide world of energy using, guzzling."

The Arch, Devil's Bridge
Wednesday 11th August





After two days of walking, my achilles tendon is inflamed by my trainers. After three more days of walking injured, my left tibia slides forward over my talus and overstretches the cruciate ligaments in my knee; I don't know this at

the time, but the pain makes me much more aware of our amazing but vulnerable anatomy. The irony of putting a (melting?) ice pack on my knee is not lost on me. I think: "this is really turning into a climate change pilgrimage now..."

Bones: Llanbrynmair, Sunday 9th August

Leg: Mynydd Clogau, Sunday 9th August

Ice pack: Hafod Arms, Devil's Bridge, Thursday 12th August

"In the 1930s, my grandfather said, that they didn't have any electricity. So sometime, about 80 odd years ago, we must have had pylons appearing. And telegraph poles and also that sort of thing. But pylons in particular because they're quite big and ugly. And people must have said, 'oh they're really ugly.'

"Or maybe they didn't object because it brought them something and they could see real benefits to it. But I'm sure there *were* people who objected to it.... But people get used to it, you know... After a bit, people don't remember what it was like before."

Waunfawr, Saturday 14th August

Rheidol Wind Farm: Ystumtuen, Friday 13th August
Masts & Pylons: Cemmaes Road and Llanbrynmair,
Saturday 7th August





Rheidal, Friday 13th August

SN 720800

Ceredigion

January 1997

8 turbines

Bonus Mark III 0.3 MW

2.4 MW total installed capacity

6 GW.h estimated yearly production

1,342 annual homes equivalent

Developer RES

Operator E.ON UK Renewables

Hub height 30 m

Rotor diameter 31 m

Source:

The WindPower

www.thewindpower.net/wind_farms_europe.php

BWEA

www.bwea.com/ukwed/operational.asp

"They came probably about 10 or 12 years ago and we went on holiday for about 2 weeks during the time when they were being put up. So we saw the lorries arriving for the first few days with the big blades on the back and the large sections... And we saw the concrete bases being poured... And then we came back 2 weeks later and there were 8 turbines, almost complete. It was quite impressive.

"They built this track up to all the turbines and we started walking up here and came to look at them quite often then.

"I think they're elegant. I think they're really nice to look at. I think they're quite calming to be near. And it's nice to know you're getting energy in an even more environmentally-friendly way... energy being supplied in a better way than coal, and other such things. But I also think we need diversity in getting energy and this is one the ways that I approve of.

"I like the turbines, despite the fact that they're really close to where we live. The only noise you get is on windy days. And on windy days you get the noise of the wind anyway. So I don't mind the noise of the wind turbines at all. It's actually quite soothing... I've done lots of sailing as well and you get the clatter of rigging when you're in the harbour... that's really noisy, whereas the noise of the turbines is really a quiet and soothing, mellow sort of noise."

Rheidol Wind Farm: Ystumtuen, Friday 13th August



"We started feeding them here about 11 years ago, so that we could help them with the numbers, especially over the winter. Numbers of kites average around 60-70 but up to 200 in the winter time, when they really are searching for food.

"We haven't had any problems ourselves from the wind farm being next door. And... with the amount of kites that come through here, if there was a problem, we'd have probably known about it a long time ago.

"We also work with the RSPB on site, whose policy on wind farms are, as long as they are put in sensible places, not migratory routes, then they don't tend to have a problem. So, yeah, we're quite satisfied that the two get along OK.

"Especially in the winter on cold, dry days when there's no wind at all, you'll see them actually sat on the wind turbines. So they know they're there, and, well, they fly around them I suppose."

Forestry Commission ranger, Bwlch Nant yr Arian
Friday 13th August





Nant yr Arian to Bontgoch,
Friday 13th August





"Well, a hundred years before I came into being, it was... mining. If you look at the headstones now in the cemetery on the left here... people were, *men*, were being buried before they were 50 because of the *dust*. And poisonous lead in their stomachs.

"You said what did I think of those things? Well, by golly, I think they're *much* better than people going underground and having the lead in their lungs and *dying* before they were 50!

"I don't agree with people complaining that those are taking over the west coast... Nant-y-Moch for instance... Has people got to take their car up there to *look* at them if they don't *like* them?"

"Of course we were more self-sufficient then... Bontgoch was better off when I was going to school because they had a bus once a week. On a Monday, 11 o'clock and he'd load people up and they'd all shop. And we had a *shop here*. There was a *school* here. There wasn't a car in Bontgoch in 1930s, only the doctor... The vicar had a car in the beginning of the 40s and that was the second car here. And now, most houses have *two* cars. Because mammy goes to work... at a different time to daddy. And now, with the children coming to 18, well first thing they do is to pass their test and *they* must have a little car..."

Bontgoch, Friday 13th August

Mynydd Gorddu, Friday 13th August

SN 670860

Ceredigion

April 1998

19 turbines

NEG Micron 0.5 MW

10.2 MW total installed capacity

23 GW.h estimated yearly production

5,703 annual homes equivalent

23,864 m² total wings surface

Developer Amgen

Operator RWE NPower Renewables

Hub height 33 m

Rotor diameter 34 m

Source:

The WindPower

www.thewindpower.net/wind_farms_europe.php

BWEA

www.bwea.com/ukwed/operational.asp



"There's 19 on Mynydd Gorddu and I can see two from my kitchen window. And first thing I do when I get up in the morning is 'where's the wind today?'. I'll have to do a bit of cutting in the autumn, otherwise I won't see them!..."

"Well, it's *cleaner* than so many things. Just think now about what's happened in Trawnsfynydd in the past.... They spent a lot of money and created and generated electricity. And now they've got *stuff* they're trying to keep underground... and there's so many people looking after the damn thing!"

Bontgoch, Friday 13th August

"I don't get the feeling that people think 'Ooh, where am I going on my holiday. Oh I think we'll go to Aberystwyth. Oh, no, I'm not going there because there are wind turbines.' I just don't think people think like that. I don't think they make that much of an impact. I mean people still go up to Snowdonia, they go up by Trawnsfynydd and they've got a nuclear power station there. I don't think you saw a massive drop in tourism because of the nuclear power station and that's absolutely hideous. And it's hideous even though it's not operational any more..."

"It's just a big concrete box in the middle of this beautiful mountainous landscape. People have just got used to it haven't they? OK, it's big but it's not so big you can't escape it and that's the same with wind turbines."

Waunfawr, Aberystwyth, Saturday 14th August





Mynydd Gorddu to Llangwyryfon via Talybont & Aberystwyth
Friday & Saturday 13th & 14th August



Llangwyryfon, Saturday 14th August
(Repowering)

SN 618696

Ceredigion

June 1993/February 2004

11 turbines

Vestas V52 0.85 MW

9.35 MW total installed capacity

23 GWh estimated yearly production

5,228 annual homes equivalent

23,364 m² total wings surface

Developer First Wind Farm Holdings Ltd

Operator Cumbria Wind Farms

Hub height 40 m

Rotor diameter 52 m

Source:

The WindPower

www.thewindpower.net/wind_farms_europe.php

BWEA

www.bwea.com/ukwed/operational.asp

So, it's my last day of the walk today and I've come to Llangwyryfon wind farm, which is very close to where I used to keep my horse Merlin. And I often use to look across the hills and be proud, actually, that we were the next hill on from the wind farm. And from their I could see the Rheidol wind farm and the Bontgoch wind farm and now the Cefn Croes wind farm. And that's also what I can see from here.

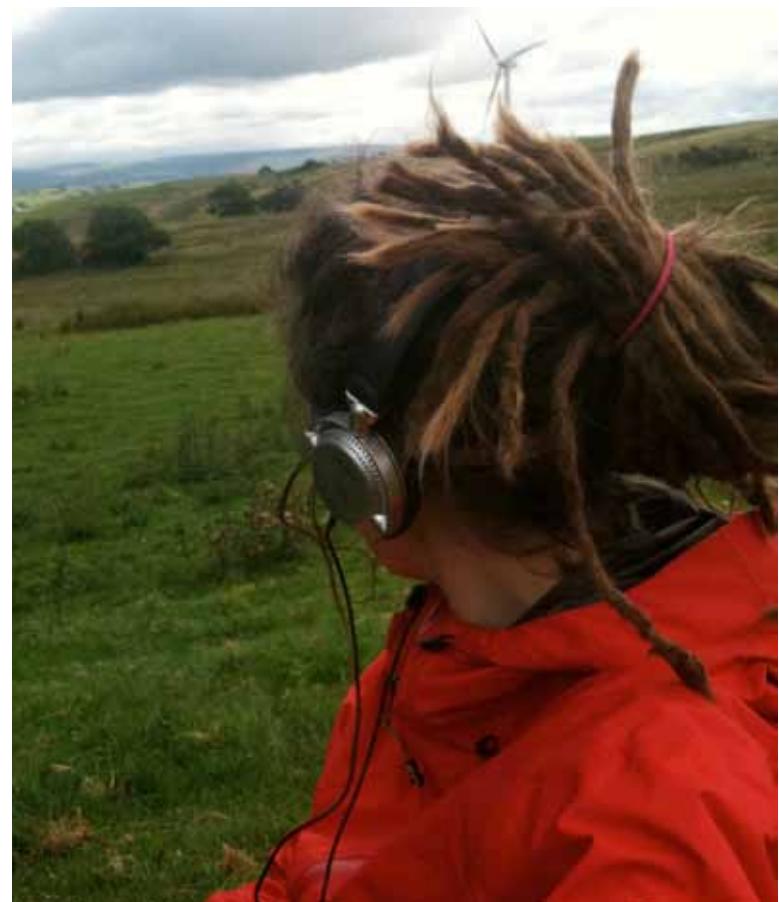
It feels relatively soothing to me, still, the sound of the wind turbines. And when I look across the hills I see them as any other element in the landscape, now. Though they're significant to me because of this journey. I also see hedgerows, trees, rough grassland, wetland, grazing land, farms and large-scale monoculture forestry. Bits of light and bits of dark. Movement of cloud shadows on the land. Movement of clouds. Movement of trees. And movement of wind turbines.

In the foreground, nettles and thistles moving. Wind-blown thistle seeds. Bees. Sheep's wool blowing in the wind, grass blowing in the wind. The reeds moving. So landscapes seem to be me to be full of movement... Birds flying...

If feels quite tranquil and I feel alone. I don't feel that my sense of solitude is disrupted by the presence of the turbines. Or the fact that their presence here means that some time in the past, one other person at least was here. That man must have been here... To me, man has probably been across all of the landscapes of Wales. Probably set foot on every square inch of Wales, maybe... It's really hard to say. And if it wasn't man, maybe it might have been some other creature when the land was under the sea or.... on top of a mountain in the geological past.

It's just like listening to amplified wind sound but more rhythmic, repetitive. Maybe people don't like them because they don't like being reminded of their own breath and heartbeat, and the repetitive rhythm of life and death... the cyclical nature of it all. Maybe on some deep level it makes us more aware of our mortality.

Llangwyryfon, Saturday 14th August



When I worked in Swansea in the geography department, we taught the first years. We had this exercise and we divided them up into groups about this wind farm that was going to be off the coast in Swansea Bay. So we divided them up. We gave them groups and we got them to have a debate about wind farms.

We sort of took straw poll at the beginning 'how do you feel about wind farms? Do you think it's a good thing, or a bad thing?... I remember there was one girl who didn't put her hand up for good thing or bad thing.

And I said 'oh, so, do you sort of feel ambivalent about them?' and she said 'no, I just don't care'. Ahh, and it was just *heartbreaking*, just to be so apathetic... just that she didn't have an opinion, she really didn't *care* about whether we were all going to be flooded or see massive habitat loss with climate change. It was *really* depressing.

Waunfawr, Aberystwyth, Saturday 14th August
Image: Cefn Croes, Wednesday 11^h August





Llangwyryfon to Aberystwyth via Llanddeiniol
Saturday 14th August

"I suppose I've got quite a romantic view of the landscape, you know. I quite like it as it is and I don't really like it changing that much. I find it hard to picture that it might get significantly warmer or significantly colder and then the whole place will completely change.

"It's difficult to tell whether things really have changed... I have this kind of feeling that things are coming out a little bit earlier than they used to when I was a child. On the other hand I don't know whether I'm just imagining that because there's been a lot of talk about climate change. But that isn't something I'd particularly welcome...even if the winter gets warmer, I feel that winters aren't supposed to be warm...they're supposed to be cold. I don't like the idea of habitat loss. I don't particularly want it to change an awful lot.

"At the moment they're proposing a wind farm at Nant-y-Moch which is going to reach the top of Cwm Einion which I live at the bottom of. So it's actually quite close to me. I think my mother feels quite against that. I feel slightly ambivalent...

"But the thing that made me feel a bit uneasy, and I think this is my main objection, is not actually to wind farms, it's to the way that they are part of the capitalist system. In that they're getting subsidies from the government but they're all made abroad, they're installed by big companies... and I know why that happens because it's only these big multinationals that can really afford to make them and install them. But I just think that community wind farms

would be much better... I just prefer the idea of..., you know, maybe not such big wind turbines that were sort of, closer to the village and that people sort of actually *owned* them as a community, and *ran* them as a community and I think that would be much better for the community because at the moment it's completely *disjointed* from the community.

"I think, just the fact it's come from the outside, people object to that. I think it would be better if somehow, it would be able to be harnessed at a more community and grass-roots level, because I think then people would adopt it. And also, I think people would feel more engaged. You know, because they could actually say '*I* am actually *doing* something about climate change'."

Text: Waunfawr, Aberystwyth, Saturday 14th August

Image: Devil's Bridge, Wednesday 11th August



I've been thinking through my legs & ears on this trip...the walking & the sound recording making me as much aware of the contours of the aural landscape as the visual one (which tends to dominate for me). The brush & swish of walking through rushes & grasses, the brush & swish & sometimes beat of turbine blades, my shod feet crunching over stones, streams & rivers, drips, the incessant shove of the wind, but layered onto or behind all this the hum, buzz & grate of insects, the bird song & sharp calls, animal cries.

So there's a paragraph in Mark Lynas's Six Degrees that disturbs me greatly & somehow makes sense of this trip for me... It's in chapter 2°C (i.e... with 'only' two degrees of warming, a level George Monbiot's Heat suggests we may already be committed to) and is a response to Chris Thomas's 2004 Nature paper which revealed that, according to their models, over a third of all species would be committed to extinction by the time global temperatures reach 2°C including a quarter of European birds (red kite, starling 'near the top of the list'). Lynas writes:

'Consider the thought that living species, which have evolved on this planet over millions of years, could be destroyed for ever in the space of one human generation; that life, in all its fascinating exuberance, can be erased so quickly, and with such leaden finality. As the biologist Edward O. Wilson has suggested, the next century could be an Age of Loneliness', when humanity finds itself nearly alone on a devastated planet. In tribute to Rachel Carson, I call this our Silent Summer - a never-ending heatwave, devoid of birdsong, insect hum, and all the weird and wonderful noises that subconsciously keep us company.'

Mark Lynas (2007) Six Degrees Our Future on a Hotter Planet London: Harper Perennial pp. 95-96

It makes me frightened of our apathy and think 'What on earth is that crashing loss set against the presence of wind turbines in an already changing landscape?'

Blog entry, Sunday 15th August





CAPLOR IMAGES

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Caplor Energy is a renewable energy provider for households, communities and small businesses, based at Caplor Farm, an award-winning sustainable business in rural Herefordshire. Specialising in solar hot water, solar photovoltaic, air and ground source heat pump systems, Caplor is passionate about empowering communities and individuals to reduce their carbon footprint through a diversity of small-scale renewables. The farm also supports local food production through its own 'veg and eggs' initiative, provides educational opportunities for schools and recent graduates and is active in the local Carbon Rationing Action Group. For more information about the full range of services they offer, please visit **www.caplor.co.uk**

LOGO