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Source: *Oral History*, AUTUMN 2011, Vol. 39, No. 2, PAST AND PRESENT (AUTUMN 2011), pp. 83-94

Published by: Oral History Society

Stable URL: <https://www.jstor.org/stable/41332167>

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Storytelling, floods, wildflowers and washlands: oral history in the River Ouse project

by Andrew Holmes and Margaret Pilkington

Abstract: Like other extreme weather events, floods loom large in people's memories and recent interdisciplinary work has sought to harness these accounts. Following work that showed oral histories may be able to provide the most vivid accounts of past land-use, the River Ouse project used oral history narratives alongside ecology and geography in order to inform a flood alleviation experiment in Sussex. This paper takes a look at the challenges of using oral history in order to gain ecologically measurable benefits and the new methods that emerged as the project integrated local people into the project. The article illustrates the wealth of information beneficial to washland flood alleviation that can be gained when oral history narratives are interwoven with archival, photographic, cartographic and ecological field surveys. The article describes the benefits that oral history accounts have brought to River Ouse flood alleviation efforts and concludes that oral history has a vital role to play in ecological research.

Keywords: Flooding, wildflowers, ecology, agriculture, nature conservation, interdisciplinary research

In October 2000, the river Ouse in Sussex flooded, devastating the town of Lewes, which became the worst affected town in the widespread floods occurring nationally at that time.¹ As a result, flood alleviation measures were pushed higher up the agenda in the county. Recognising a need for creative thinking in the face of the increased flood risk, and an evident loss of biodiversity in the river catchment area, the initial framework of the Ouse project was formed in 2006 at Sussex University's Centre for Continuing Education (CCE). The germ of the idea had come from an ecologist, who in conversations with, a historical geographer, and an oral historian, discussed the idea of creating an arcing project which could harness all these disciplines.

The project would focus on grassland and woodland areas along the river Ouse where recent theoretical work had suggested that flood alleviation measures could be linked to biodiversity objectives. Many flood alleviation measures depend on managed water storage in ponds or farm reservoirs. Another strategy, however, is to allow land bordering streams to flood and drain over time, from as little as three days to more than two weeks, depending on the time of year and natural geography. Such areas are known as 'washlands.'² Because the flooding of the latter is of short duration it makes them ideal for flood alleviation because the site quickly becomes available to store water again. However, the vegetation of washlands has to be

able to withstand long periods of time without standing water as well as the brief periods of flooding. Conservation efforts, then, cannot be directed just towards wetland species of vegetation. Instead, in the Ouse project, the idea emerged to use Meadow grassland which can tolerate short duration flooding provided this is followed by relatively quick drainage of the land. By combining historical research into past agricultural methods and land-use with ecological research into present day habitats the project aimed to demonstrate how land-use might be managed around the river in the future.

Oral history and interdisciplinary research to meet ecological challenges

The value of oral histories to studies of local weather have been discussed in the *Oral History* journal as far back as 1986, when Robert Gant described the long-lasting memories that people had of extreme weather events.³ In the accounts of local residents of the Honddu Valley, Gant showed how the wealth of local detail had the potential to expand otherwise sparse climatic records. More recently, the Lewes U3A Oral History Group interviewed local people affected by the floods of 2000 and, again, the project uncovered '...detail which would be least likely to be recorded in other ways.'⁴

Oral history has since emerged as an important component of interdisciplinary research into flooding. Two prominent examples of this are the Centre for the Study of Floods and Communities at The University of Gloucestershire⁵ and the Understanding Environmental Knowledge Controversies project at Oxford University.⁶ In both, oral history narratives have been used as part of interdisciplinary work which aims to bring down barriers between experts and non-experts and as a means of engaging communities in areas where flooding has been a major problem.

The River Ouse project shared the view that there needed to be more public engagement in the production of environmental science. However, at the outset, the initial idea was to use oral history narratives to simply explore past land-use alongside the river Ouse. This would build on the recent research carried out by Mark Riley and in particular his work in the Peak District which had led him to suggest that oral histories of farmers – those who had worked in hay meadows for a number of years – could provide the most conclusive observations on the cumulative effects of management changes over the decades.⁷ Such was the quality of information in this context that Riley and Harvey contended that oral histories had considerable potential for the way in which the British landscape is managed by means of 'destabilising' the scientifically derived narratives of the landscape.⁸ Riley and Harvey noted that despite this

and despite increased interest in such contextualised accounts of the countryside, the methodological approach of oral history still remained 'a fairly neglected toolkit'.⁹

Recognising this potential in the 'toolkit', the River Ouse project would attempt to fuse local, oral accounts with research from other disciplines and produce ecologically-measurable benefits.

Oral history and ecology – creating a new relationship

Traditionally ecologists have used the presence of wildflowers of grassland or ancient woodland, to make assumptions about past land-use and then used these assumptions to inform conservation management. However, Riley's work, had suggested that there may be inconsistencies in this approach and that assumptions based on ecological research needed to be tested and re-developed *alongside* historical research.¹⁰

In this respect the River Ouse Project shared another aim with the aforementioned Understanding Environmental Knowledge Controversies project, the idea of bringing different disciplines and local people together at the same time to produce new, interdisciplinary, environmental science.

The River Ouse project benefited in this aim by being based in Sussex University's Centre for Community Engagement (CCE), which had existing, strong links with local communities and had been the base for the previous Ouse Valley oral history project. As a result, a network of local people, interest groups and conservation societies was already in place, ready to be utilised.

Riley's research had demonstrated how oral history narratives could offer previously unknown information about a piece of land and similar interdisciplinary flood-research projects were utilising oral history as a valuable means of integrating the public and disciplines in flood debates. The River Ouse project would add grassland ecology to this disciplinary mix, developing important understandings about land-use and biodiversity by way of a detailed ecological survey of present day grassland habitats combined with the narrative histories of the same sites. The project hoped that this combined approach would reveal key features about colonisation and survival of species, as well as allowing us to resolve discrepancies between ecological research and oral history narratives.

Utilising a big box of oral histories

Aspinall described a communication phase at the outset of interdisciplinary research when the 'discussions and debates' between disciplines generate processes which, in time, become 'genuinely productive'.¹¹ Reflecting such a

phase, the River Ouse project began by testing out different means of disciplinary collaboration.

At the start of the Ouse project, we decided to reinvestigate a large box of transcripts, clippings, photographs and cassettes from the 'Ouse Valley Oral History project', which had been carried out between 1998 and 2000 and was funded by the Sussex Downs Conservation Board. Although that project did not focus in detail upon the historical relationship between ecology and land use, and was much more general in its focus, it did generate contextual accounts of twentieth century farming history. It also resulted in a list of potential informants and key contacts, such as farm owners, farm workers, and others involved in land and river management who have a rich store of detailed memories about changes in land use and local ecology. During a month spent reading these transcripts and listening to the recordings we made notes of what we thought were interesting pieces which related in some way to the river and the land around the river. For example, one retired farmer described how he used to, 'gather water cress from the streams... [and would] swim in river cuts where they were silty and shallow.' Another interviewee spoke of how the 'brooks were drained in the 1960s,' and, 'more of the river is now under crop.'

It seemed, even unprompted, that there were people who had memories of the Ouse as it was and how it had changed. Having found these accounts the question now was what to do with them? Could they be used in a project that had an ecological goal?

Revisiting oral history interviews in this way – adapting them for a different purpose and in a different context – did raise theoretical and ethical questions. Just as Joanna Bornat asked in 'A Second Take',¹² what should be done about researchers who go back to archived interviews with quite different intentions and questions than those tackled at the original interview? Bornat suggested that a full and open acknowledgement of the varied and different contexts should be included in the newer research. However, although the Ouse project was revisiting old transcripts, we were also attempting to reconnect with the original interviewees in the hope that they could describe ecological changes at specific times throughout their lives. In this way, we hoped that they would be able to understand the new theoretical framework in which their stories were being set and enable them to voice any concerns.

The experiment begins

Given the differences between an ecological survey and an oral history account it was clear from the outset that we needed a method in place which could generate suitable ecological

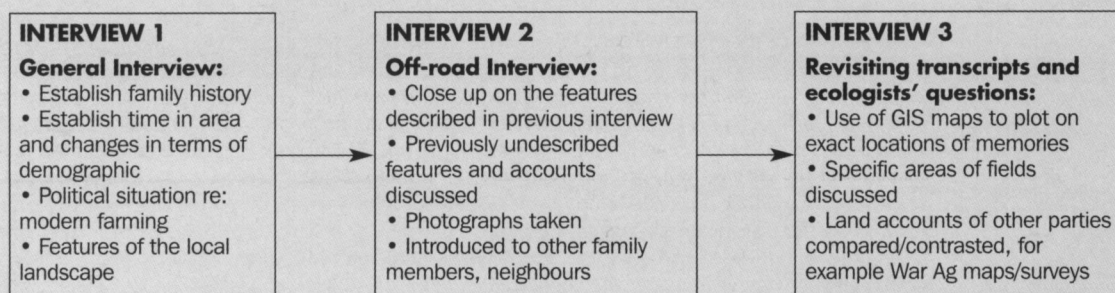
information whilst at the same time creating a relaxing experience for the oral history interviewee. We wanted to engage in, as Thomson put it, 'active, human relationships in the course of our research'.¹³ Such relationship-building can have another effect which goes even further beyond the positivistic goal of mapping out blank fields for the academic and that is to give what Evans describes as 'social therapy'.¹⁴ Evans described oral history as enabling the older generation who have been 'shunted into the scrap-yard' to transmit the skills just as they did in former generations¹⁵ and it was clear that in order to investigate some of the questions provided by the ecologists, we would need the knowledge of older people extensively. Yet, as we began contacting some of the previous interviewees from the former Ouse Valley project, the precarious time frame of such research became apparent. For example, many of the interviewees had been very elderly when the Ouse Valley project had taken place and through contacting them – intrigued by accounts which painted a picture of the river as a former source of food and recreation – the project received news that some participants had died in the intervening years. However, some, including an ex-farmer, now aged 98, who had previously worked the land adjacent to the Ouse, were ready and willing to help.

As the oral history contribution began to look promising, a further problem occurred when it appeared that we were inadvertently 'blinding' the respondents with the project terminology. For example, words like 'ecology' and even 'Sussex University', words which we hadn't thought of as particularly problematic, had the effect of unnerving potential interviewees who felt that they were 'not qualified to comment.' In light of this we had to re-think our methods.

In an early project meeting, a 'wish list' of ecology-driven questions was provided by the ecologists, including such questions as 'What was the frequency of lime and fertiliser application on the land?' and 'Can you give any details of seasonal grazing: numbers, stocking density?' These questions were built into a pilot-interview guide which opened with a general talk about the respondent's life before gradually moving on to more focussed questions on streamside ecology.

The pilot interviews: the wayward walks

The first pilot interview was with Mrs Woods,¹⁶ who, we had established from an earlier interview, had been walking the tributaries of the river Ouse for fifty years and who had a good knowledge of the local wild flowers and trees. On the telephone she also appeared slightly reluctant to be interviewed. On arrival at her

FIGURE 1

house we found Mrs Woods was already strapping on her walking boots and fastening her wax jacket. She insisted she would be more comfortable walking the streams than she would be talking about them in her house. Quickly assembling cameras and audio equipment, we followed Mrs Woods deep into the Ashdown forest. We walked and talked for three hours during which Mrs Woods pointed out wild flowers, such as wood sage and marsh marigold, as we walked along points at which the stream had flooded during the 1987 hurricane, washing her, 'beehives downstream'.

When we fed back the summary of the pilot interview to the ecologists back at the university we discovered that the new information was not as relevant as we had at first thought. Closer analysis revealed that, although still very interesting from a historical perspective – Mrs Woods had been a Wren in the Second World War and had spent a lot of time travelling and working all over the world – her account of the local area had largely included heathland plant species and not the desired streamside habitat species which the project was particularly interested in. A further problem was that, although Mrs Woods had relaxed into the interview by walking in the familiar paths of her life, we had inadvertently veered out of the project research area and into a different geographical zone. This emphasized the importance of keeping the project team close to the information, which was coming from the interviewees. It also illustrated that for a project with very specific aims, a three hour dash along the river Ouse could result in a kind of information-overload. Slim et al suggest that breaking up an interview into separate sessions can take the pressure off the single session and remove the obligation of the narrator to 'cram everything in'. This was perhaps what we had seen with Mrs Woods' interview. Slim et al's methods of reflecting on ideas from previous interviews and exploring them further at later interviews appealed to us and we decided to develop an iterative process which could start generally and develop over two further sessions (see figure 1).

Case study illustrating the three-stage process

To best illustrate the iterative process which finally emerged, we will use the example of Nick Gray. Nick owned a mixed farm of approximately sixty hectares in the upper Ouse catchment. His farm included dense woodland, bogs and slopes and a lot of the land was adjacent to the river.

We first interviewed Nick in the summer of 2007. There had been a recent outbreak of foot and mouth in England and this latest disaster to affect British farming was perhaps the reason the interview revolved around risk, disease and politics. Nick showed us around his farm and we discussed the general state of farming. Intriguingly, however, Nick also described a change in land ownership which he felt was negatively impacting on the local farm land:

Loads of land around here is just left. In the last eight, nine, ten years a lot of land has been left. Bits of land sold to private people, ten acres, and they've just left it. A lot of people are buying a cushion (barrier) of land between them and their neighbour and just leaving it.¹⁸

As we interviewed other farmers in the area, similar accounts emerged. This thread greatly interested the ecologists in the Ouse project and would be something the project would later look to investigate.

During the same interview, Nick also mentioned his father, who had preceded him and who had worked the land as a youth in the 1930's until his recent retirement. Following our interview he said he would try and persuade his dad to see if he would be prepared to be interviewed.

At a team meeting back at the university, we were able to present the interview to other project members. Over the course of the meeting, the ecologists identified certain strands of text (see table 1) that could offer details on the past management of the river and which would need to be followed up.

Photo 1: Searching the archives in London.

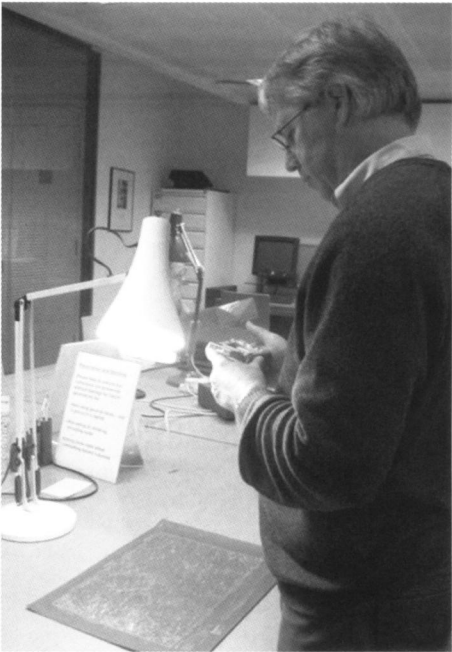
Based on the interview transcript, the geographers and historians drew attention to further records of Nick's land. These included the Environment Agency's records of local engineering work as well as historical records such as Land Utilisation maps,¹⁹ and the maps and surveys created for the National farm survey (1941-1943).²⁰ The latter documents offered a snapshot of life on a farm in the war years and from these accounts we were able to extract information such as the 'infestation' of particular 'weeds' on an individual's land at that time (See photo 1).

These maps and accounts had another important function as they could act as a stimulus during oral history interviews, replacing George Ewart Evans' "material object"²¹ and fulfilling a similar purpose. The manner in which the wartime surveys were carried out – often resulting in farms being ordered by the committee to grow certain crops against the farmers' judgement – meant that the materials were a useful means of starting a discussion on the historic role of farmers in land management decision-making. Although already recognised for their potential for the study of issues such as farm building history, farm size and structure, these documents would also act as a means of deconstructing the very ways in which this history was written.

Interview part two

Prior to interviewing Nick in September 2007, he successfully persuaded his elderly father, Peter, to join us for the interview. Peter had been very sceptical about being interviewed. As an elderly man who had farmed during a different era and who was wary of outsiders and experts, this interview would have to be carried out carefully, utilising the kind of 'empathy and sensitivity' that Joanna Bornat described as integral to the elicitation of oral histories.²² However, having already met his son and become more familiar with his family story and his land, it felt as if a divide had been partially crossed.

During the interview with Nick, we had talked about his father's time on the farm – util-



ising what Slim *et al* refer to as 'family tree interviewing'²³ – but we were now able to directly discuss Peter's life around the river Ouse pastures, from before the Second World War up to the present day. Peter took us back a further generation, adding specific dates of events such as floods and storms so that the project could add to a growing picture of these riverside habitats. Not only that but we were also gathering pieces of very specific, field-level information, which was of particular use to the ecologists, such as details about a field's drainage:

We were doing a little bit of draining down there [a field down by the road] and as I was digging one day, funnily enough I came across alder in the ground and it hadn't even rotted. If you use alder on a fence it's rotted in a year, but funnily enough, in the ground they don't rot. You could see water running down the alders where they'd put them in. Amazing. We were putting ordinary pipes in

TABLE 1: TEAM MEETING TRANSCRIPT POINTS TO FOLLOW UP	
Farmer Quotations	Next interview: discuss
"We can only get five to six months' grazing anyway because of the layout of our farm."	The pattern of grazing in these streamside meadows would be very interesting – which months of the year are the cattles there for; what sort of stocking densities (how many animals to how much land)?
"At the moment I'm in the stewardship scheme for ten years. I've been in one and a half year and a lot more yarrow is spreading down there."	Did they ever have Cowslips?

and yet you came across these alders that were draining the fields.²⁴

This piece of information meant that we had a picture – via the farmer's excavation – of a specific section of field where the outfall from under-field drains was being carried away from the land and into the streams and rivers. In addition, as the drains had been installed long before the present family had moved into the farm, we were able to take a more distant look at the management of the field.

By the second interview, Nick had begun to add names to fields which we could not locate through archival searches. These were often names which related to the fields' past usage and the flora it once contained, for example, 'Slaughterhouse field' and 'Gorse field'. In order to create an information-exchange, we offered copies of the documents we had gathered in archival searches to the interviewees. These documents served as a way in which – to use terminology from Valentine²⁵ – the project could 'give something back'. The oral history interviewers were able to offer the unique maps and documents, which often related to a participant's family-farm, in exchange for the 'time, experiences, thoughts and emotions' which the participant had offered us.²⁶

In the case of some of the more elderly respondents these archival records – such as the National farm survey records – provided a previously unseen document of their farms during their childhoods or even during their early working lives. These had to be handled sensitively as some of the documents – compiled by government officials – often included harsh descriptions of the farm and the farmer and so to avoid any discomfort, interviewees were asked first if they wanted to see the records. In one example, the records relating to an interviewee's farm included a description of the overall state of the property in 1941:

This farm could be greatly improved by ploughing up more of the pasture as it has been allowed to get very poor. The owner has no ambition as a farmer.

Having two sources of information – the farmer and the records – enabled minor, comparative studies which often led to further, new information coming to light. For example, in the interview extract below, the interviewee elaborates on the 1942 war agricultural survey which included details about his predecessor's management of the same farm:

Interviewer: It says here, for the management section [of the War Agricultural Survey], that the reasons for the farm failing, is the 'inability of the agent to gain



the necessary power and ready cash to farm the home farm properly.'

Photo 2:
Walking the
River Ouse.

Farmer: Yes, that was true, he was always drunk . . . There were two big fields by the river, one was twenty seven acres and the other twenty one acres, and the twenty one acres the war agricultural committee made them plough up, but they made such a mess of it that it didn't produce anything.²⁸

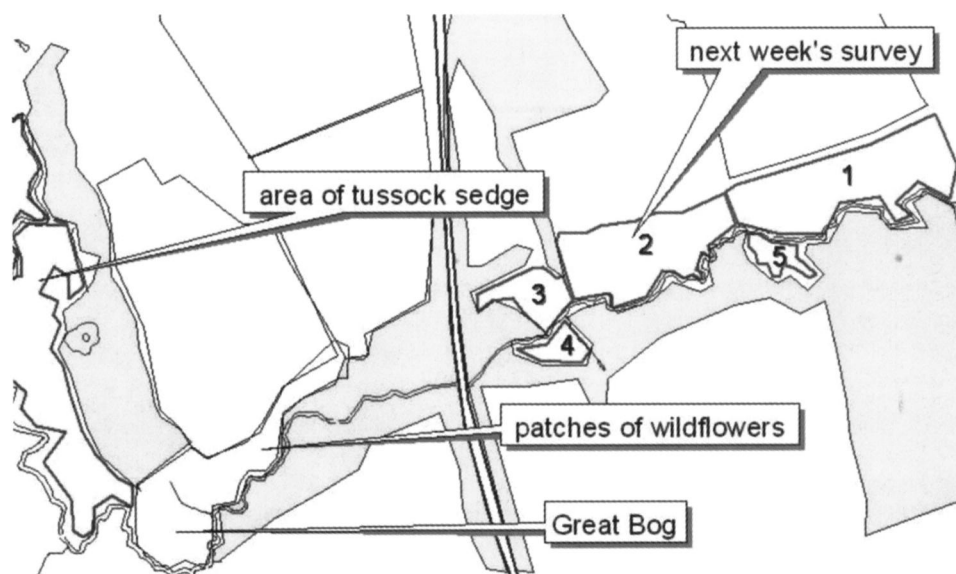
With the farmer's descriptions of the 'mess' created by applying the war agricultural committee's recommendations on ploughing we were then able to 'join up' the period detailed in the survey report to the undocumented proceeding years. This meant that by coupling the archival documents with the oral history accounts we could create a map of streamside land-change up until the present day.

Off-road-interviewing

During the pilot interview with Mrs Woods, we had noted the way in which, during our walk through the forest, she had become gradually more relaxed, as if she were more comfortable in the forest and trails that she knew well. At one point, as she traced an old walk she broke out into a verse of 'The Brook' by Tennyson, inspired by the sight of the water:

There's the Brown's brook again, running down. One of my favourite poems is 'I come from haunts of coot and hern'. Do you know that? Oh, it's wonderful – Tennyson. It describes the stream as it comes down. 'And sparkle out among the fern, to bicker down a valley...' And it ends up, 'For men may come and men may go, but I go on forever.'²⁹

Figure 2: GIS map in development.



Slim *et al* refer to similar “walkabout” interviews as “freeing the mind...allowing someone to recall the past more easily.”³⁰ Mrs Wood’s initial determination not to answer questions in a formal sense led to us later actively encouraging ‘off road interviewing’ with other interviewees. By adapting the recording equipment to deal with this outdoor, cross-country interviewing style, we realised that the features of the landscape acted like the ultimate ‘interview prop’ prompting the interviewee to talk about other accounts that may not have been described in a more formal interview. Some of these insights again enabled us to build up specific details of specific fields and the reasons for their current state. One example of this came when, during the off-road interview with Nick, we walked through a drainage ditch that had become clogged up over recent years:

But you see... there’s a pipe under here which should be kept free, and in the old days when you had more labour, there were certain times when they were obviously standing round out of season and you’d say ‘oh, go and dig that old ditch out and they’d go down with a shovel,’ but because you’re flat out all the time now on your own you don’t, where as you dig that back from the pipe and then this ditch would keep on running.³¹

Prior to the off-road interview, a small Geographic Information System (GIS) map of the area around Nick’s house was created by the ecologists and geographers of the team so that during the walk we could note features in ‘real time’. ‘Community GIS maps’ have been used in a similar way by geographers in other projects,³² but when we combined them with the

off-road oral history interviewing this further level of detail meant that the ecologists were able to specifically pinpoint interesting areas, such as wildflower meadows and sections of river (See figure 2).

Post-interview meetings

During the course of three interviews with Nick and Peter Gray, we opened out some of our findings to members of our steering group, which included representatives from the Environment Agency, Sussex wildlife trust, academics from other universities and members of local history groups. This enabled two things: firstly we were able to get advice on issues that had arisen during interviews and secondly, we could pass on our findings and the concerns of the interviewees. For example, during the Off-road interview with Nick he had pointed out large sections of the river where the banks had collapsed on account of ‘the river board dumping spoil from the bottom of the river onto the sides of the bank.’ By consulting with the environment Agency we could then begin to find out whether this had been a regular practice in the wider, upper Ouse catchment area.

Similar concerns had been expressed by another interviewee – Eric – who described in interviews how his local knowledge of the streams that ran through his farm had been consistently ignored over the years. The result of this had been that on one occasion he had seen a stream running dry on account of poor management of a sluice. As trust was built up between the Ouse project and the interviewees so we were able to bring forth concerns and address the problem of trust between farmers and experts. One farmer told me in an interview that, prior to the interview, the only time he ever came across people from the university was



when they had appeared on his land one time, unannounced:

I think ecologists and so forth have really antagonised a large section of agriculture by blaming us for reductions in birdlife etc. but I really don't think it is. I was on the hill one day and I saw some chaps in shorts, beards, white coats etc sitting down. I said, 'what on earth are you doing here?' They'd got papers out and said 'oh, we've come to count the birds.'³³

In interviewing older farmers such as Peter and Eric and seeing them visibly relax and talk openly about their often difficult relationships with experts and outsiders, it seemed to vindicate the oral history methods we were using. Although we were "outsiders" too, we recognised what Joanna Bornat referred to as 'the enabling and empowering qualities of oral histories – the result of which can be changed perspectives on both sides of the microphone'.³⁴

Interview 3

A copy of the customised GIS map (see figure 2), which had been populated with data from the first two interviews with Nick, served as a useful document in the development of the Ouse project, in that it enabled the project's

disparate disciplines to contribute to the research. Nick was by now familiar with the project and agreed to let the group as a whole walk around his land. By arranging regular project-walks based on routes taken during off-road interviews and by following the populated GIS maps, project members, such as geographers and historians were able to add to the oral history and ecology base. In photo 3, for example, the Ouse team attempt to find the location of an old photograph taken by a farmer in the 1950s who had been interviewed earlier in the year.

During the final interview the GIS map could finally be checked with the respondents who had originally provided the data. In this way an exchange of information between academic and local people occurred in a continual loop, with our interpretations of interview data checked by the interviewee and then plotted onto the maps with changes added.

Results: three phases of interaction

Over eighteen months, members of the River Ouse project interviewed twenty three people, gathering substantial information about an area that would never have been possible otherwise. Interviewees were recruited through a combination of existing links with CCE, snowballing and through simple knocking-on-doors. As new layers of information emerged it was layered

Photo 3: The Ouse project team following details from an oral history transcript.



Photo 4: How it looks today: The Scrase stream in 2009.

together – much like acetates on an overhead projector – or overlays on a GIS map. This information emerged in synthesis with the growing relationships between the project and its participants. As the relationships grew, so we could simultaneously narrow the focus of interviews to specific sections of a field.

At every stage in the project, the methods yielded unexpected results. Almost immediately, within the first set of interviews, preconceptions were tested when some of the farmers' attitudes towards flooding proved a lot more positive than we had expected. This is illustrated below in a response from a farmer to a question about flooding on his land:

Because the Ouse floods we've had people say, 'Oh well do you mind it flooding?' We bought this farm and it's flooded every year ever since I can remember. I've got nothing against flooding.³⁵

The responses, as in the example above, indicated that flooding was often perfectly acceptable, despite the problems caused to the farmer, mainly because it tends to occur in the winter when the cattle are kept-inside. Another finding, with implications for future washland creation in the area, was that the floods quickly drained away from the stream-side land on account of the free-draining soil:

This [land] drains off very well . . . I've got one field without any drains at all, and that can have two foot of water on it, three foot of water on it, which it has had at some time perhaps three days. Two days after that it's gone down and I've drove a tractor over it and you wouldn't see where I've been.³⁶

By developing relationships over time we were able to utilise the family and working-links of some of the respondents in order to gather more direct measures of change. As well as new people, the method also led to many sites which had not been ecologically surveyed being brought into the project, purely by recommendations from interviewees.

Mr. Norman was one interviewee recommended to us during an interview with his neighbour. Over three interviews he was much more comfortable drawing maps of his childhood memories than he was being interviewed. This proved useful because cognitive or mental maps can sometimes reveal as much, often more about a place than formal cartographies.³⁷ Norman was able to illustrate his childhood haunts – building the images up both during and in between interviews – and providing us with a picture of a changed environment (See photo 2). His maps included annotations such as 'the boggy area where we used to sink up to our knees in mud' and 'the snipe's nest' (See photo 3).

Such illustrations, when added to interview data from other local respondents and archival data of the parish, created a vivid picture of the past stream-side environment.

Through different kinds of maps – the ‘objective’ cartography from the archives and the cognitive maps of the interviewees – the project was also able to create an information-exchange. An interesting example of this was when some farmers subsequently started using field names shown on tithe maps just as we were then able to put names onto the GIS maps of previously ‘un-named’ fields.

When documenting the Lewes floods, Joy Preston described the ‘drama and excitement’ that interviewees conveyed in the immediate aftermath of the event. This was similarly reflected in the number of personal ‘flood photographs’ which interviewees in the River Ouse provided. Some examples show the extent of floods over that person’s lifetime while other photographs show the condition of meadows and fields prior to agricultural ‘improvement’. Both of these can help to build up a picture of the past landscape and, as other oral history projects have described, they can also be useful to the interviewer for stimulating reminiscence.³⁸

Ultimately, the data gathered in this phase of the project led to the development of a grassland enhancement field experiment. This experiment, which is currently taking place, will determine an effective method of increasing the plant biodiversity on the sites identified during the ecological survey work and historical land-use research as being suitable for grassland enhancement and flood alleviation. During the experiment, plots have been planted with wildflower plugs and compared with plots sown with seed of the same wildflower species to establish the most effective use of wildflower seed or plantlets. The local knowledge brought in via the oral history interviews was utilised by way of the selection of wildflower species to be included in the experiment. This will now include cowslip; a ‘flagship’ species which the oral history narratives have revealed as being part of these streamside meadows until fertiliser was applied in the 1950s. This is illustrated below in two quotations from farmers describing their respective farms:

When I came here, the Iron Gates was *full* of cowslips, and as soon as I applied some fertiliser, the cowslips disappeared completely and have never come back.³⁹

I remember back of [our farm] as a kid, we had a field we called the long field and the cowslips and oxlips that was in that were fantastic. The biggest problem with cowslips though is nitrogen.⁴⁰

By interviewing different generations of farmers, for example a father and a son, we have also been able to put together a detailed history of land-management at the field-level. Below are two quotations from different farmers of different ages, describing the same twenty-seven acre field and how it was used during their respective tenancies:

The grass [in Iron gates field] was a very fine grass and made beautiful soft hay, very suitable for feeding to calves . . . I think the floods in the Winter brought a lot of silt down with them which settled on the ground, and made the heavy clay much lighter, and encouraged the finer grasses to grow. I can’t think of any other reason.⁴¹

We actually burnt off the grass [in Iron Gates field]. We didn’t disturb the soil; we burnt it off and direct-drilled grass seed in because the productivity of the grass wasn’t very great. It made great hay, but I didn’t want to make hay I wanted silage and we used to make hay or silage down there and to make better silage we then reseeded it but without breaking the soil just drilled in.⁴²

A way forward

The success of the River Ouse project has been in using oral history as recognition of the human element of ecology. This recognition has led to disciplines working alongside each other in new, creative ways. As it has expanded between disciplines and university departments the project has also developed closer links to environmental policy-making. For example, the project has incorporated advisers from organisations such as the Environment Agency (EA), which as well as offering expert advice on hydrology and river management, has also received our accounts of local knowledge.

The River Ouse project not only engaged with the local communities, it harnessed their energy. This was achieved by way of the strong ties that existed between CCE and the local communities and was evident in the numbers of volunteers who helped with the oral history interviewing and ecological survey work. Many of these volunteers were past and present students from the university, who had been helping out with the research since 1997. As most of them lived within the study area they were also able to provide links to local networks.

Clark and Murdoch⁴³ draw attention to the potential of a hybridised scientific knowledge and local knowledge approach in addressing environmental problems, like flooding, in creative ways. In the Ouse project such mutual enhancement was realised, with farmers and local people informing and then steering the direction of this research as a whole. For exam-

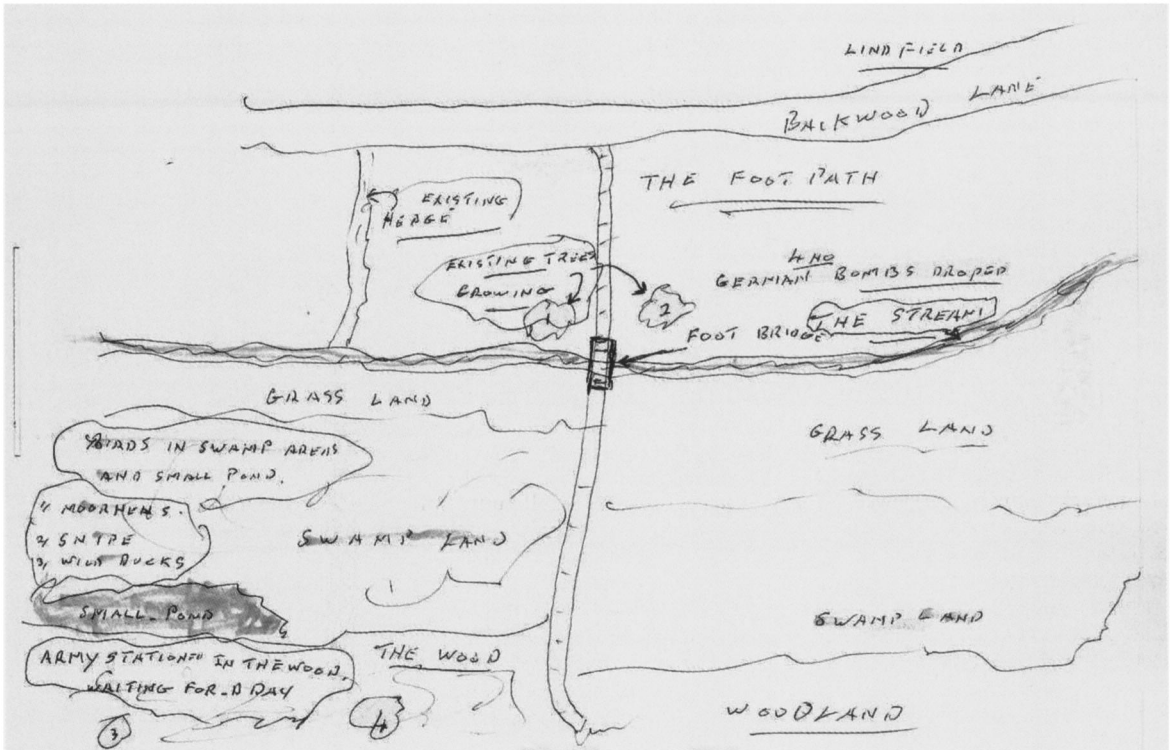


Photo 5: Mr Norman's hand-drawn map.

ple, one site, which has been a particularly rich source for oral history and has produced several interviews with four farmers of different ages, has, as a direct result of these interviews, emerged as a potential future location for wildflower meadow re-creation. As the interviewees had farmed the site through different periods we have been able to gather, from their accounts, the types of wildflowers that have come and gone as farming methods and land-uses on the site have changed. Another important finding has been the recurrent 'theme' in interviews of demographic change and its effects on the stream side ecology. According to the accounts of established residents, such as Nick, a transformation in land management is happening in the upper Ouse area:

[Our former] farm land was bought and it's not farmed... I do cut the grass off it and there's a neighbour of mine that puts sheep on it in the winter just to keep it tidy but we've noticed now that because it's not being farmed properly there's the likes of thistles, stinging nettles, docks, are all coming up which quite honestly they come under the, I think it's the 1947 Act of likes of ragwort and things like that that should be taken down, you mustn't let them seed and this sort of thing. And that land is now back up for sale because the chap that bought it though again, has got no farming connections, they moved into the area,

wanted a couple of fields to put some ponies in for his daughters and when they grow up that's it.⁴⁴

A future aim for the Ouse project will be to find out the extent of this demographic shift and its effect – if any – on the wildflower populations. This will be achieved by seeking out interviews with the 'newcomers' that the farmers describe and applying the methods detailed in the sections above.

Conclusion

Because of the dramatic nature of flood episodes, there are often vivid oral history accounts to be gathered. Interdisciplinary research into flooding has been able to utilise these and use them as part of community engagement strategies. The River Ouse project added a grassland ecology discipline to this field of research, and it culminated in a series of grassland experimental sites in the upper Ouse catchment.

The Ouse project has illustrated how oral history narratives can have an important, legitimate role in ecological/flooding research. Further, the project has allowed room for members of the public to contribute to knowledge in a way that has gone beyond simply providing answers to our initial research questions and has led to disciplines working alongside each other in new, creative ways. The project has illustrated how knowledge gathered

from more than one source is needed in order to take account of the complexities of managing a piece of land. The vast and varied information produced by the project required the bridging of disciplines and yielded superior results to that

of any single-discipline research. And it is fitting that the oral history interviewees who contributed so much to the project and helped fulfil its aims have also contributed to the future direction of the research.

NOTES

1. Source: East Sussex County Council, <http://www.eastsussex.gov.uk/NR/rdonlyres/00016FE4-50D0-4AD8-99BB-BB06D7BEEF22/0/lewesflood.pdf>
2. Joe Morris *et al*, 'Integrated washland management for flood defences and biodiversity', *English Nature Report*, no 598, 2004.
3. Robert Gant, 'Oral History And Local Meteorology', *Oral History*, vol 14, no 2, 1986, pp 67-69.
4. Joy Preston, 'Collecting Personal Accounts of the Lewes Floods of October 2000', *Oral History*, vol 30, no 2, 2002, pp 79-84.
5. For further information on the interdisciplinary work being done at the Centre for the Study of Floods and Communities see, <http://www.glos.ac.uk/research/csfc/Pages/default.aspx>
6. For further information on the way oral history interviews were used in the project, see The Understanding Environmental Knowledge Controversies web pages <http://knowledge-controversies.ouce.ox.ac.uk/>
7. Mark Riley, 'Ask the Fellows Who Cut The Hay: Farm Practices, Oral History and Nature Conservation', *Oral History*, vol 32, 2004, pp 42-51.
8. Mark Riley and David Harvey, 'Landscape Archaeology, Heritage and the Community in Devon: An Oral History Approach', *International Journal of Heritage Studies*, vol 11, no 4, 2005, pp 269-288.
9. Mark Riley, David Harvey, 'Oral histories, Farm practice and uncovering meaning in the countryside', *Social & Cultural Geography*, vol 8, no 3, 2007, pp 391-415.
10. Mark Riley, 2004, pp 42-51.
11. Cited in A Holt and T Webb, 'Interdisciplinary research: leading ecologists down the route to sustainability?', *Bulletin of the British Ecological Society*, vol 38, no 3, 2007, pp 2-13.
12. Joanna Bomat, 'A Second Take: Revisiting Interviews With A Different Purpose', *Oral History*, vol 31, 2003, pp 47-53.
13. Alastair Thomson, 'Making the most of memories: The Empirical and Subjective Value of Oral History', *Transactions of the Royal Historical Society*, vol 9, 1999, pp 291-301.
14. George Ewart Evans, 'Approaches to Interviewing', *Oral History*, vol 1, no 4, 1970, pp 56-71.
15. George Ewart Evans, 'Approaches to Interviewing', 1970.
16. All names used in this article are pseudonyms. These are a reader-friendly alternative to the more formal project pseudonyms, such as 'Farmer A' or 'Resident C'.
17. Hugo Slim and Paul Thompson with Olivia Bennett and Nigel Cross, 'Ways of Interviewing' in Perks & Thomson (eds), 1998, pp 114-125.
18. Interview with Nick Gray, farmer from Sussex, recorded by author, 2 May 2007.
19. The Land Utilisation Survey of Great Britain was compiled during the 1930s by schoolchildren throughout the country under the direction of Professor Sir L. Dudley Stamp and his team based at the London School of Economics. The maps, which are held at the LSE, illustrate how individual fields were being used at this time by denoting forest and woodland, meadow land and arable.
20. The National Farm Survey was commissioned to assist the work of the County War Agricultural Executive Committees by assessing the extent to which Britain could feed itself during wartime. The survey produced a record per farm which covered farm type, cropping, stocking, machinery, labour, farm size, land ownership. The boundary of the farm during the survey was also plotted on a separate map.
21. George Ewart Evans wrote: 'Before I go to [an interviewee] I have a fair idea of his background and I know what his work was, the chief thing in his life, and I take along a material object connected with his work which I think will light him up.' (p 56).
22. Joanna Bomat, 'A Second Take: Revisiting Interviews With A Different Purpose', *Oral History*, vol 31, 2003, pp 47-53.
23. Hugo Slim and Paul Thompson with Olivia Bennett and Nigel Cross, 'Ways of Interviewing' in Perks & Thomson (eds), 1998, pp 114-125. The quotation is from page 146.
24. Interview with Peter Gray, retired farmer from Sussex, recorded by author, 21 August 2007.
25. G Valentine, 'At the drawing board: developing a research design', in M Limb, and C Dwyer, (eds), *Qualitative Methodologies for Geographers*, Arnold, 2001, pp 41-54.
26. G Valentine, 'At the drawing board: developing a research design', 2001, p 50.
27. War Agricultural Record for an interviewee's former farm in Sussex, 1941, accessed at The National Archives, Kew, 5 February 2007.
28. Interview with Mr Williams, retired farmer from Sussex, recorded by author, 9 March, 2007.
29. Interview with Mrs Woods, Sussex resident, recorded by author, 23 January 2007.
30. Hugo Slim and Paul Thompson with Olivia Bennett and Nigel Cross, 'Ways of Interviewing' in Perks & Thomson (eds), 1998, pp 114-125.
31. Interview with Nick Gray, farmer from Sussex, recorded by author, 21 October 2007.
32. For a useful example of community GIS work, see Michael Brown and Larry Knopp, 'Queering the Map: The Productive Tensions of Colliding Epistemologies', *Annals of the Association of American Geographers*, vol 98, no 1, 2008, pp 40-58.
33. Interview with Mr Cunningham, retired farmer from Sussex, recorded by author, 18 June 2007.
34. Joanna Bomat, 'A Second Take: Revisiting Interviews With A Different Purpose', *Oral History*, vol 31, 2003, pp 47-53.
35. Interview with Eric, farmer from Sussex, recorded by author, 22 May 2007.
36. Interview with Eric, farmer from Sussex, recorded by author, 22 May 2007.
37. Gavin Brown, 'Listening to Queer Maps of the City: Gay Men's Narratives of Pleasure and Danger in London's East End', *Oral History*, vol 29, no 1, 2001, pp 48-61.
38. See for example, Kim Walden, 'Photo-Reminiscence Project: The Time of Our Lives', *Oral History*, vol 19, no 1, 1991, pp 56-59.
39. Interview with Mr Williams, retired farmer from Sussex, recorded by author, 15 February 2007.
40. Interview with Eric, farmer from Sussex, recorded by author, 22 May 2007.
41. Interview with Mr Williams, retired farmer from Sussex, recorded by author, 9 March, 2007.
42. Interview with Mr Williams Jr, retired farmer from Sussex, recorded by author, 13 June 2007.
43. Judy Clark and Judith Murdoch, 'Local knowledge and the precarious extension of scientific networks: a reflection on three case studies', *Sociologia Ruralis*, vol 37, 1997, pp 38-60.
44. Interview with Eric, farmer from Sussex, recorded by author, 22 May 2007.

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