Unlocking the Potential: Exploring the Archaeology of Suffolk's Aggregate Landscapes

An ALSF Funded Project administered and monitored by English Heritage

Final Report

Project No. 4838

An Outreach Project for Schools and Communities

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Suffolk County Council

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Suffolk Wildlife Trust
St Edmunds Borough Council - West Stow Country Park

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SCC Countryside Service
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John Seggar – Kiln Technician

List of Abbreviations Used in This Report

ALSF	Aggregates Levy Sustainability Fund
EH	English Heritage
HWTMA	Hampshire and Wight Trust for Marine Archaeology
SCC	Suffolk County Council
SCCAS	Suffolk County Council Archaeological Service
SWT	Suffolk Wildlife Trust
YAC	Young Archaeologists Club
NC	National Curriculum
KS	National Curriculum Key Stage

1.0 Introduction

1.1 It is widely recognised that Suffolk has rich and varied cultural resources related to its gravel terraces and extractive activities. There have been significant discoveries made in advance of quarrying, such as the multi-period landscapes at West Stow and Lackford Bridge on the river Lark, and the extensive prehistoric and Saxon remains from Coddenham on the Gipping and Flixton on the Waveney.

1.2 The legacy of gravel extraction and its role in shaping the landscape must also be recognised. The evidence for extraction is present throughout the county, and is now particularly important in conservation terms through the creation of reserves and habitat. Archaeology has also benefited in the wake of extensive extraction, for example, with the creation of Lackford Lakes Country Park, in an area of the river Lark, which is also home to the reconstructed Anglo-Saxon village and experimental archaeology centre at West Stow.

1.3 The ongoing threat to what remains of Suffolk's gravel terraces has encouraged Suffolk County Council's Archaeological Service to bid to English Heritage for grant aid for a number of projects aimed at gaining a fuller understanding of the archaeological resource in the remaining aggregate areas. Through this work it is hoped to improve the delivery of Historic Environment information and inform recommendations and responses to the Minerals Planning process, particularly through the revision of the Minerals Plan and for development control issues.

1.4 These projects have included the publication and post excavation analysis of archaeology in the Flixton and Coddenham quarries (*Pnum* 3544, 2511 and 2727). The publication of rescue archaeology from the 1960's and 70's, carried in advance of quarrying at Lackford Bridge (4770), near West Stow. A geo-archaeological characterisation study of the Suffolk river valleys (4772), and an analysis of the historic environment resource in likely areas of future extraction (3987).

1.5 Whilst these specific projects are important in management terms, there has been little attempt to disseminate the results of this work and the role of archaeology and extractive industries to the public. Unlocking the Potential was therefore designed as an educational outreach initiative to explore the aggregates industry and the archaeology of the landscapes in which it works. Its intention was to work with school and community groups from areas around the county of Suffolk where aggregates extraction has had a major impact upon the landscape.

1.6 Working with young people aged 7 – 15 it would:

- Deliver a series of exciting and experimental archaeological events which would involve young people in practical and challenging activities where they would work together in designing, carrying out and evaluating solutions to problems based upon the archaeological evidence from Suffolk's river valleys.

- Give students a background to the quarry industry introducing the reasons for quarrying, its importance to the economy, its management responsibilities for lessening its impact upon the environment and how this is addressed.

- Work in primary and middle schools with students at Key Stage 2 (7 – 11) using a series of practical activities to excite and raise students and staff's interest in the archaeology of the landscape in which they live.

1.7 In addition the project would develop a lasting resource to:

- Provide a core of outreach experience and educational staff training in the practical aspects of experimental archaeology. The staff would represent a range of organisations within the county [SCCAS, SWT, SCC, Countryside, West Stow Anglo-Saxon village, teaching staff from partner schools] and would thus be in a position to influence a wide and diverse audience by acting as consultants to schools and community groups and continuing to develop the activities within their own organisations

- Leave kiln structures on site for future firings

- Provide a range of teaching materials, lesson plans and training packages to be placed on the SCC Education Portal [Slamnet] and SCCAS web pages. (Sec 4.3)

- Provide a trained web manager for SCAAS

- Post a copy of the project design, final report and documentary video on the web pages for the benefit of other agencies.

- Provide advantageous publicity for organisations concerned through the promotion of the project and its sponsors

- Promote greater awareness of historic environment issues and the value of the historic environment among partners and steering groups

- Provide the potential to explore with partner organisations, additional funding streams, perhaps related to the future sponsorship of a particular aspect of the project.

1.8 The project was built around clear and positive educational strategies with the aim of providing students with exciting and challenging situations which would be relevant to them, not patronise them and give them the interest and enthusiasm to go forward and discover more. For teaching staff it was felt that it was important to be seen as motivators with clear educational aims relevant to the most current educational initiatives. Using staff with not only practical expertise in their chosen disciplines but who were also confident in and committed to our educational aims was seen as essential. For this reason staff were carefully selected. It was necessary for example that two experienced and qualified teachers, now working in archaeology, formed the core project staff to lead and develop the project, with the help of specialists in distinct fields such as kiln building, butchery and food technology and green woodworking. All of these specialists were experienced in working with young people and some were also qualified teachers. All were committed to the project aims. Care was taken in the selection to ensure relevant skills for the planned activities plus a balance of personalities age and gender. All staff passed the necessary security checks. The time spent on selection, discussion and planning was a vital part of the development process and a fundamental reason for the project's success.

2. Educational Strategy

2.1 The project objectives were based on clear and positive educational strategies, which would consider student and staff development as of prime importance. Students should be engaged, active and inquisitive in situations where co-operation, tolerance and perseverance would be necessary. They should feel ownership of the project with the voice to influence and change the project's direction. The experiences should be, in Elaine Moss's vivid term 'free range' rather than 'battery' (ed. Styles 1992). Staff would develop the confidence, enthusiasm, skills and necessary contacts to continue and develop similar work within their own schools.

2.2 These learning strategies are at the heart of '*The Teaching and Learning in 2020 Review Group*' commissioned by the government and now under discussion in schools. The report is intended to establish the direction of teaching and learning over the next 13 years and is a vision which the project has developed as a means of offering high quality experiences for the young people involved. Whilst not included within the project's Aims and Objectives the project sees the following skills and attitudes, taken from '*2020 Vision*', (Teaching and Learning Review Group 2006) as underpinning the practical work. A synopsis of the report recommends that in engaging pupils

- Teaching must enthuse pupils and engage their interest in learning.
- Learners are active and curious.
- They are allowed to create their own hypotheses and ask their own questions.
- They are encouraged to coach one another
- They are able to experiment with ideas, safe in the knowledge that mistakes and being stuck are part of learning.
- Greater attempts are made by adults other than teachers to extend the range of skills and support for pupils

The emphasis on these skills and attitudes has made the project more relevant to the young people and staff involved and to those seeking help and information from the project's educational resource pack developed as a result of our experiences during the experimental camps and work in the classroom.

The report also emphasises so-called 'Soft Skills', which feature specifically within the project's aims and objectives despite, as the report points out.

> '*The National Curriculum giving them little weight nor requiring adequate measurement, recording or reporting.'*

These 'Soft Skills' are listed as follows.

- Being able to communicate at a high level
- Reliability and perseverance
- Knowing how to work with others in a team.

- Knowing how to evaluate information critically

- Taking responsibility

- Being confident and able to investigate problems and find solutions.

2.3 The project also fulfilled key ALSF priorities as stated by English Heritage (*See http://www.english-heritage.org.uk/server/show/nav.1315)* and as such has also featured within the projects specified aims and objectives, cross-referenced against the activities. These priorities are to

- Deliver to public and professional audiences the full benefits of knowledge gained through past work in advance of aggregates extraction.

- Promote understanding of the conservation issues arising from the impacts of aggregates on the historic environment.

- Offer training and professional development programmes to raise awareness of and promote best practise to industry, historic environment professionals and other steering group members.

- Develop the analysis and dissemination of important data from past work in response to aggregate extraction.

- Develop local education, outreach and community involvement, which raise awareness of conservation issues, communicates the knowledge gained through the extraction process and raises the profile of the positive benefits of extraction to communities living in current extraction areas.

- Disseminate ALSF funded and other related work to Steering groups.

- Deliver local education, interpretation, outreach and community involvement associated with past extraction, which raise awareness of conservation issues and communicates the knowledge gained through the extraction process.

2.4 In addition the following ALSF priorities have been important to the success of the project. These priorities are to

A1 Deliver to public and professional audiences the full benefits of knowledge gained through past work in advance of aggregates extraction.

A1. Promote understanding of the conservation issues arising from the impacts of aggregates on the historic environment.

A2. Offer training and professional development programmes to raise awareness of and promote best practise to industry, historic environment professionals and other steering group members.

A3. Develop the analysis and dissemination of important data from past work in response to aggregate extraction.

A4. Develop local education, outreach and community involvement, which raise awareness of conservation issues, communicates the knowledge gained

through the extraction process and raises the profile of the positive benefits of extraction to communities living in current extraction areas.

A5. Disseminate ALSF funded and other related work to Steering groups.

A6. Deliver local education, interpretation, outreach and community involvement associated with past extraction, which raise awareness of conservation issues and communicates the knowledge gained through the extraction process

A7. Provide a level of training to partner organisations that will allow the extension of similar outreach work beyond the life of the project.

A8. Promote safe working practices in student based outdoor activities.

3.0 Overall Aims of the Project

3.1 Based upon the aims and priorities the following aims for the project were developed.

A.i To engage and excite a range of young people in their heritage.

A.ii To develop the interest and knowledge of young people in their local area with -specific attention to river valleys.

A.iii To use archaeological evidence from Suffolk's river valleys to experiment with and experience ancient technology as a means to better understand and appreciate life in the past.

A.iv To work within a former gravel working site as a means of raising awareness of gravel extraction and the re-instatement of the site as a reserve for conservation and leisure.

A.v To work, co-operate and socialise with a range of adults and peers.

A.vi To provide a cross curriculum training package for all schools, educational centres and stake holders.

3.2 These were then broken down into specific objectives for each section of the project and cross referenced to The National Curriculum. (Full details of this can be found in the full project design - Unlocking the Potential: Exploring the Archaeology of Suffolk's Aggregate Landscapes*. An Outreach Project for Schools and Communities* to be found on our website http://www.suffolk.gov.uk/Environment/Archaeology/MineralsAndArchaeology/ArchaeologyAggregatesEducationProject/pdfstodownload.htm

3.3 The design for this project was developed between February and March 2007 and was accepted and approved by English Heritage in April 2007. Funding was granted for the period 1st May 2007 – 29th February 2008.

4.0 Task breakdown

4.1 **Task 1 Project management**

The project manager took responsibility for the day to day running of the project. This included the setting up and management of the experimental camps and the organisation and presentation of the classroom based sessions in schools. The development of the contents of the resource pack was undertaken in conjunction with the web manager. The project manager was responsible for ensuring that the stated targets, tasks and timetable were adhered to. All management activities were enacted through consultation and working partnerships with the web manager, film-company and steering group members. Additional managerial input was provided as required from stakeholders and further monitoring and advice undertaken in house, to ensure the success of the project within the agreed time frame.

4.2 **Task 2a Establishing a steering group**

After consultation with schools and relevant organisations such as the Quarry Products Association and West Stow Anglo Saxon Village, a steering group was formed to monitor the project's progress and more importantly, to provide input in the form of advice, expertise and practical involvement. The steering group members were selected to represent archaeologists (local and national), wildlife and conservation groups, the aggregates industry (planners and commercial operators) and education advisers. All steering group members were to a degree interrelated - all were committed to sustainability and all had a mutual goal in promoting the interests of their organisations in a positive light.

The steering group met on four occasions as specified within the project design. All meeting agendas and minutes are available on line at (http://www.suffolk.gov.uk/Environment/Archaeology/MineralsAndArchaeology/ArchaeologyAggregatesEducationProject/). These meetings were positive and productive and essential in guiding and developing the project outcomes. The project team would like to express their gratitude to all steering group members for their support and advice and hope that they too have enjoyed the experience. The full steering group consisted of

SCCAS Outreach Officer -	Duncan Allan. (Chair)
SCCAS Conservation team -	Jude Plouviez, William Fletcher
English Heritage -	Dan Aukett Tom Cromwell
Quarry Products Association (QPA) -	Alan Everard
SCC Environment & Transport, Minerals Planning -	Viv Codd
SCC Education, Adviser Teacher for Humanities -	Dale Banham, Hilary Pegum
SCC Health& Safety Manager -	Nick Wilding
SCC Outdoor Education Adviser (Health & Safety) -	Martin Hore
St. Edmundsbury Borough Council –	

West Stow Anglo-Saxon Village	Rachel Ballantyne Mary Ellen Crothers Lance Alexander
University of Birmingham -	Ben Gearey
Suffolk Wildlife Trust -	Judy Powell Emma Kerridge
Hants & Wight Trust for Maritime Archaeology -	Alison Haymer

Task 2b Schools Consultation

Consultation with schools and groups involved in education resulted in the selection of the following working partners to be involved with three experimental archaeological camps to be run in the summer of 2007. Staff and students from these organisations became directly involved in developing the project

Suffolk Wildlife Trust -	The Wild Bunch (Volunteer group of 12 – 14 year olds)
Education Otherwise -	Group representing home educated students
West Stow Anglo Saxon Village -	The Friends of West Stow
Supporting Contemporary Adolescence (S.C.A.) -	Group working with disenfranchised young people.
Claydon High School -	Talented and Gifted Group
Thurleston High School -	Students with a specific interest in history and archaeology
Young Archaeologists Club -	Bury St Edmunds Branch

4.3 **Task 3 To create a project website**

Using a site hosted by Suffolk County Council the project's website manager has developed a series of web pages devoted to the project. These pages are within SCC's Archaeological Service pages and introduce the ALSF, the project aims and the work of the aggregates industry to the wider public. They also track the progress of the experimental camps in diary form. They are lively and informative and attempt to capture the energy and success of the camps. Included are features on the camp kitchen offering advice on cooking over open fires, sourcing good ingredients and providing a range of recipes developed from the ingredients available to the early Roman and Saxon populations of this country. There are links to our partner organisations such as Suffolk Wildlife Trust and The Quarry Products Association (QPA) as well as links to useful suppliers and further information on topics such as oven building and flintknapping.

The films produced from the experimental camps are also promoted on the website through 5 trailers (see report in section 4.7). Schools will be able to order free copies of the full versions through our archaeological service.

Originally these educational resources were to be available through Suffolk's education portal *Slamnet*. This portal is no longer available and our developed resources are now available exclusively within our web pages. Included within these pages are the resources we have developed to support teachers in their work. These are in the form of *.pdf* files containing teaching materials for use in the curriculum. These resources are arranged thus.

- Classroom Activities
  A series of further activities for teachers were designed to compliment the classroom sessions undertaken as part of the project. These activities have all been developed and trialled by the project manager and are suitable for students aged 7 – 14 (Key Stages 2 & 3)

- Experimental Archaeology in Your School Grounds
  Small projects were designed to provide the opportunity to explore archaeology and re-create technology from the past through practical work. Projects include bread oven building, bonfire kiln firing and whittling and spoon making.

- How to Build an Iron Age Roundhouse
  Explanatory notes and photos to supplement our film are provided showing how this can be achieved. These resources help explain the more complex construction techniques, particularly the thatching. Additional support is also available from the archaeological service for teachers wishing to try this build. The support is negotiable depending upon the levels of expertise available within the school.

- How to Build a Romano British Kiln
  Explanatory notes and photos to supplement our film showing the building and firing of this type of kiln. These resources are intended as a support for schools wishing to try a more ambitious project with their pupils. Various levels of practical support are available to schools from the archaeological service. This ranges from full support throughout the work to basic advice and support when difficulties arise.

- Risk Assessment *pro-forma*
  A series of risk assessments is provided for each of the practical activities, which will give teachers the necessary guidance and confidence to embark on more adventurous activities.

- Archaeology Packs
  A pack of archaeological records, plans and pictures of discoveries made within quarries around Suffolk. These have explanatory notes, glossaries of archaeological terms and reconstruction drawings and photographs to explain aspects of life in the Iron Age, Roman and Saxon periods, the main study areas for Key Stage 2. The archaeological evidence is split into three main geographical areas mirroring the three major river valleys of Suffolk and the focus of our work. Schools accessing these materials should, therefore, be able to explore their local area giving more relevance to their work.

- Contact Details
  A list of contact details and places to visit has been created, which will help develop schools' history and geography curriculum. These include

- Suffolk Wildlife Trust (survival skills, working in a former quarry site)
- West Stow Anglo Saxon Village; Colchester Castle (Roman studies)
- The Gipping Valley Trail (heritage walk through an area of former gravel extraction) and contacts within the quarry industry for sites to visit.

- Links and Suppliers
  Details of other stakeholder groups and suppliers have been created including
  - A link to the Quarry Products Agency website which will allow access to their range of teaching materials
  - Lists of suppliers for tools and materials necessary for the building projects.

4.4 **Task 4 To develop an educational package including provision for school and classroom based visits**

Primary and Middle schools from the major gravel extraction areas of Suffolk (The Gipping, Waveney and Lark river valleys) were contacted and invited to take part in the classroom based element of the project. This would consist of day visits to participating schools from the project's outreach officer to work with Key Stage 2 pupils (7-11years) on activities designed to introduce them to the world of archaeology and its place within the aggregates landscape.

The project design set out target figures of 20 schools to be visited with 1000 pupils experiencing the session. Schools, year groups and numbers are set out in Table 1.

- Outline of the Classroom Visits
  Generally a complete session with a class of up to 30 pupils lasted for two and a half hours, allowing two classes to be visited within one day. Most visits were structured to begin in the classroom and then move into the hall area for a series of practical activities.

- Programme for the visits

Introduction	Pictures and plans and the work of an archaeologist - what they do, why their work is important and what we can learn from their work.
The quarry industry	What is it, why it is important and why there are close links to the world of archaeology.
Handling session	Getting to know what a find is. Reading the evidence from a find. Using this evidence to interpret life in the past.
Excavation session	Sieving artefacts from a soil sample. Reading the evidence. Dating the sample through research activity. Building a picture of a family from the assemblage recovered.
Review	Evaluation of the day.

All the schools visited were invited to complete an evaluation form following the visit. We are still receiving forms but on current evidence (70% of forms returned) it would seem that the visits were both popular as an experience for the students and valuable as a resource for teachers and teaching assistants.

The feedback questions and a representative sample of comments are provided in Appendix 1.

Details of the education package, which complements the classroom visits, are included in section 4.3

School	Invited	Accepted	Date visit	Year Group	No's	Notes
Barnby & N Cove	Y	Y	13/11/07 Am only	KS2 & Y2	23	
Barnham	Y	Y				Late booking oversubscribed
Beccles St. Benets	Y	Y	29/01/08	KS2	60	
Beccles Albert Pye	Y	Y				Late booking oversubscribed
Beccles Crowfoot	Y	Y	22/01/08 allday 23/01/08 am	Y3/4	90	
Beccles Middle	Y	Y	30/01/08 allday 31/01/08 all day	Y5/6/7	120	
Bramford P	Y					
Bungay P	Y	Y	20/11/07 all day 22/11/07 am	Y3/4	84	
Bungay M	Y	Y	17/01/08	Y5/6	60	
Bungay Cath Pr	Y	Y	16/01/08	Y3/4/5/6	55	
Bury Abbots Green	Y					
Bury Guildhall	Y					
Bury Hardwick Mid	Y					
Bury Hardwick Prim	Y					
Bury Horringer Mid	Y	Y	14/11/07 am/pm 21/11/07 am	5	74	
Bury Howard Prim	Y					
Bury Howard Mid	Y					
Bury Sebert Wood	Y					
Bury Sexton Man	Y					
Bury St Eds Cath	Y					
Bury St Eds CEVAP	Y					
Bury St James Mid	Y					
Bury St Louis Mid	Y					
Bury Tollgate	Y					
Bury Westley Mid	Y					
Bury Westgate	Y	Y	06/11/07	Y3	60	
Carlton Colville	Y	Y	24/01/08	Y3	60	
Carlton Colv Grove	Y	Y	28/11/07 am&pm 29/11/07 am	Y3/4	76	
Claydon	Y					
Great Barton	Y	Y	15/11/07	Y3 am Y4 pm	55	Late booking oversubscribed
Hartest Prim	Y	Y	17/10/07	Y3/4	31	Bread Oven
Henley Prim	Y	Y	16/10/07	Y5/Y6 pm	30	Field Visit – Rede Wood
Needham Mkt Bosmere	Y					
Needham Mkt Midd	Y					
Sproughton	Y	Y	4/12/07 AM	Y3/4	30	
Stowmarket (Chilton)	Y	Y	31/10/07 am&pm 08/11/07 pm	Y3/4	75	
Tuddenham	Y					
Worlingham Prim	Y	Y	01/11/07	3/4	64	
Worlingham Midd	Y					
TOTALS		**19**			**1026**	

Table 1: Unlocking the Potential Autumn & Spring Term Visits 2007/2008

4.5 **Task 5 To establish three experimental archaeology events (See Table 2)**

- *Rede Wood, Henley Nr. Ipswich (9th-11th July 2007 & 17th-19th September 2007)*

  This camp took place in a small reserve of established woodland of hazel coppice and oak, above the Gipping river valley, three miles outside Ipswich. Owned by Suffolk County Council and managed by Rangers from Mid Suffolk District Council the site was beautiful, secluded and local to our partner high schools Claydon and Thurleston. Our third partner school, Thomas Wolsey Special School withdrew from the project during detailed planning with reservations about accessing the site. The project manager feels that the issues raised here would benefit from further study as a separate project. We chose the site carefully as we wanted somewhere that was essentially timeless as we were keen for the environment to be as close to that of ancient woodland as possible. For some of our 40 student's aged 12-15 this would be their first experience of 'living' outdoors so the absence of any form of modern amenity was important.

  This was a big group to work with but part of the original plan. The camp would test how large a group it was possible to work with safely on potentially hazardous activities. We wanted to assess how many staff would be needed and how engaged the students would be, working within such a large group.

- *Lackford Lakes Reserve, Nr Bury St. Edmunds (31st July – 4th June 2007)*

  This is the site of a former gravel extraction pit reserve managed by Suffolk Wildlife Trust (SWT). As a working partner SWT were keen to host one of the camps and use the event as a means of offering staff professional development and the sharing of skills and ideas with the rest of the team. The site also provided strong visual evidence of how, when properly managed, a former industrial site can become a beautiful and valued amenity for future generations. The aim of this camp was to see how a wide age range of students would work together and whether the younger students would feel marginalised or unable to benefit from the challenging activities we were offering. The project worked with 25 young people from two local groups, SWT's Wild Bunch and the Young Archaeologists Club. The Wild Bunch was made up from students aged 11-15, several of whom were home educated and the members of the Young Archaeologist's Club ranging in age from 8-11.

- *West Stow Anglo Saxon Village, Nr Bury St Edmunds (21st-24th August 2007)*

  This is the site of an early Saxon village excavated by Stanley West in the 1960's and now a visitor centre as part of a country park managed by Bury St. Edmunds Borough Council. It is a centre for experimental work where reconstruction's of early Saxon buildings are tested and monitored. The village is also the focus for a group of keen and committed re-enactors with a wide variety of traditional skills in metalwork, carpentry, textile work and food technology. The Country Park is also the site of historic gravel extraction and subsequent landfill and as at Lackford a clear illustration of

how sensitive management can provide lasting recreational facilities in an area of former industrial activity.

EXPERIMENTAL ARCHAEOLOGY CAMPS - Summer 2007				
Venue	**Date**	**Activity**	**Who Leading**	**Main Resources**
Lackford Lakes	31-07 - 04-08	Making pottery	BH	Suitable Clays
		Building and firing a Roman style kiln	BH RBa	Suitable Clays, Fuel (seasoned), Tools
		Building a Roundhouse	A A	Coppiced timber Thatching, Daub, Fastening
		Sleeping overnight in shelters	DA	
		Food Processing Meat Veg	JD	Carcass of rare breed pig Seasonal Anglo-Saxon veg
		Cooking & Eating above!	JD	
		Firemaking	JP	Suitable flint
West Stow	20-08 - 25-08	Making pottery	AH	Suitable Clays
		Building and firing a clamp kiln	AH	Fuel (seasoned) Tools
		Food Processing Meat Bread in a Day Veg	JD RBa	Carcass prob sheep Relevant veg Unprocessed wheat/corn
		Cooking and eating above	JD	
		Building and testing a smokehouse	A A	Coppiced timber, Thatching Daub
		Spoonmaking	RB	Wood cut from local area
		Dying from natural sources	JP	Plants from locality
		Sauna or cooking pit? - Test	MEC	Suitable clays, Flints, Timber lining Fuel – seasoned timber
Rede Wood	17-09 - 19-09	Making pottery	BH	Suitable Clays
		Building and firing a Roman style kiln	BH	Suitable Clays Fuel (seasoned) Tools
		Shelter building	A A	Coppiced timber Thatching Daub Fastening
		Working with wood	A A	Green wood
		Food Processing meat veg	JD	Rare breed pig carcass Seasonal prehistoric veg.
		Cooking & Eating above!	JD	
		Spoonmaking	RB	Hazel cut from surrounding woodlang
		Flint Knapping	JP	Flint
		Sauna or cooking pit?	JM	Suitable clays Fish Flints Timber lining Fuel – seasoned timber

BH – Beryl Hines, Pottery & Kiln Building Specialist
AA – Alan Armer, Woodworking Specialist
JD – Jane Dale, Food Technologist
DA – Duncan Allan, Project Manager
JP – Judy Powell, Suffolk Wildlife Trust
JM – Jezz Meredith, SCC Archaeology Service
MC – Mary Ellen Crothers, St Edmunds BC (West Stow Village)
WL – Will Lord, Flintknapper
RB – Rob Bevington, Survival Specialist
AH – Alan Hamilton, Saxon Pottery Specialist
RBa – Rachel Ballantyne, St. Edmunds BC (West Stow Village)

Table 2: Table showing the choice of site and a breakdown of the young people involved in the Experimental Archaeological Camps

The focus group for this camp was a group of 14-15 year olds from the nearby town of Mildenhall plus young people from the local area aged 10-15. The Mildenhall groups were young people identified as in danger of exclusion from school. The project was keen to work with this group as it would set different challenges. How would the young people react to the tasks? Would they become involved? Would they be enthusiastic? Would they integrate with the rest of the group? Would they even turn up after the first day! We were also interested in how effective the staffing ratios would be given the perceived reluctance of the group to participate in organised activities.

4.6 **Task 6 Develop health and safety risk assessment procedures and manage risk during the project.**

Working with Nick Wilding, SCC Health and Safety Manager and in conjunction with our partners in the experimental camps the project has produced a series of risk assessments, which allow young people to work in potentially hazardous environments using a range of tools.

From its outset the project was keen to challenge the reluctance many schools and organisations have to allowing young people access to any situation, which has the potential of risk. Much of this is fear of legal action and the potential for high levels of compensation to be awarded. This has had the result of schools becoming increasingly protective of their students and community organisations becoming disillusioned about the prospect of managing the necessary paperwork to allow activities to take place. The project work needed to test the boundaries of what was possible and from this develop the necessary paperwork to support organisations wishing to try for themselves.

Risk assessments were produced for each of the activities and a basic safe on site practice was developed, adjusted and modified to core activities as necessary.

The main areas of concern during the camps were open fires and edged tools. It was agreed that there would be no compromise in either of these areas, and if the students were to prepare and cook for all the participants in the camp then they had to be allowed access to the knives, ovens and fires. The kiln needed to reach a temperature of 900*C or the process wouldn't work and tools such as axes, knives and billhooks needed to be sharp as there is nothing more dangerous than a blunt tool.

It was felt that if compromises were made in any of these areas, then participants would cease to have ownership of the project and feel resentful that they couldn't be trusted. The project considers that this climate of avoidance is doing young people no favours at all. Young people who have never been in hazardous situations do not have the experience to manage them and make sensible decisions, as they become older and more independent. They need to be exposed to risk whilst being given the knowledge and guidance to deal with it in just the same way as every parent teaches their child to cross the road.

4.7 **Task 7 To produce a video diary and film record of events.**
Originally the project design outlined a proposal for a two-film package

- A documentary film outlining the development of the experimental camps and the students' reactions to this.

- A staff training resource on developing experimental work within school grounds.

A film company was commissioned to undertake this work and they were present at each of the experimental camps capturing images of the work as it happened. As work progressed the aims were re-assessed and it was decided that the initial two films would not be sufficient. The film company have now produced a package comprising of 5 separate films.

Film 1 - A documentary film detailing the development of the experimental camps.

This first film has a commentary, which was written and narrated by a group of students from Claydon High School. Students were also responsible for editing decisions within this film. The film is intended to be an introduction to the project with the aim of enthusing teachers and outreach workers and encouraging them to undertake some of this work for themselves.

Film 2 - A documentary film about the quarry industry.

This 8-minute film was shot at the CEMEX Quarry in Flixton near Bungay in Suffolk and tells the story of how aggregates are extracted sorted and distributed. It also explains the partnership between the quarry industry and archaeological contractors and why this is important. The film finishes by explaining how the quarry owners re-instate the landscape once their work is finished. The film is intended as a resource for teachers, outreach workers and quarry managers involved in working with schools and community groups.

Films 3 & 4 - Two films offering a step-by-step guide on how to build and fire a Romano British kiln and how to build an Iron Age Roundhouse.

These films are intended to support teachers and outreach workers in setting up and completing these ambitious projects. Supplementary guidance is available in support of the films as further material downloadable from the website. There is a further opportunity to buy in the expertise from Suffolk County Council Archaeological Service.

Film 5 - A short film of feedback from young people involved in the experimental work at the three camps.

The feedback was shot by students and staff whilst the project was in progress, and this film is intended to provide teachers and outreach workers with young people's reaction to the experiences they have had. Topics covered include how the project helped participants to learn; the teaching methods employed; working in potentially dangerous situations and what the young people got from the project. We hope this will encourage schools and organisations to embark on similar work.

4.8 **Task 8 To produce a full report of the project.**

This document is considered to be the project report, detailing the aims objectives and outcomes of the project, and providing evidence of the feedback and legacy.

5.0 Results, Conclusions and Evaluation of the project

5.1 **The classroom visits (section 4.4)**

An analysis of the evaluation forms shows these sessions were universally popular with staff and pupils alike. Of the 17 evaluation forms returned (most schools chose to return a single form rather than individual class feedback) there were no negative comments and responses ranged from 'very good' to 'excellent' and 'brilliant.' Teachers commented that they found the resources well-designed and very effective and the presentations lively and inspiring.

The sessions were all-inclusive, irrespective of ability and often pupils who tended to withdraw from regular activities in the classroom were fully involved and motivated, working with enthusiasm and interest. Teachers and more often teaching assistants, who had a responsibility for supporting such pupils regularly, commented on how engaged the pupils were and how the activities allowed them to integrate thoroughly with their peers. The response of the students was enthusiastic and focussed with the highest levels of engagement and concentration. Through talking with them during the practical sessions and during the final review it was clear that these were very popular events.

The success and popularity of these sessions with students at Key Stage 2 and the relevance of the content to teaching staff is clear and demonstrates how effective practical archaeology is as a means to enthusing and exciting both students and staff. There is clearly a need continue and extend the opportunities for schools to access the service

The element of the work introducing the quarry industry was changed substantially during the period of the classroom sessions and now offers a much more effective way of introducing the subject. In its first 'draft' the presentation was a series of photos and plans, which detailed the quarry industry. When the trial was undertaken it became clear that student were finding the presentation uninspiring and the link to archaeology was difficult to understand and interpret.

To that end a new short documentary film was produced about quarries with two commentaries, one for 7-9 year olds and one for 10+ years. The film was shot at Flixton quarry near Bungay with the co-operation of Cemex and the quarry manager Brian Beales. Although we have not had the opportunity to use the film in many schools, early indications suggest that it offered a clearer and more entertaining way of introducing the industry. The film will be available to schools via our website and Brian Beales has requested copies of the film to use when working with local schools. There would seem to be an opportunity here to make this available to all quarry managers who promote and encourage school links. The QPA representative will promote the film within the organisation.

5.2 **The experimental camps (section 4.5)**

Throughout the duration of the camps discussions were held with students and staff about their experiences and the value of the camps. The film crew recorded all of the events, and this material was used to create the teaching and guidance materials for the professional development work. It was also used to create a short feedback film from each of the camps. This will also be used as part of the training resource for teachers and outreach workers.

The footage speaks for itself in the unanimous support and praise the students had for the project. The young people were articulate and clear in what they had gained from the experience and many spoke of how it was something they would never forget. A summary of this feedback is given in Appendix 2, and although the team tried hard to find some negatives, there were none.

A few months after the event at Rede Wood 6 students from Claydon High School were asked about their memories. This was to try and understand how time might alter the student's perceptions of the experience, whether they would be dulled or the enthusiasm lost. The session was kept informal, just allowing them to chat with no agenda.

Of the project one said,

> *"This is how we should be learning. It makes learning easy. When you do things you remember them."*

In terms of socialising and self-development another said,

> *"When I went there (Rede Wood) in July I was very quiet and found it difficult to talk to people….I didn't mix much. Since then I find it much easier. I talk to people and mix more easily. When I got home from the camp in September my mum kept trying to do things for me and I got really frustrated. I kept saying to her 'mum I can do this myself!'"*

The experience of working and sleeping under shelters through the night seemed to justify our care in choosing the isolated site.

> *"I remember the silence of the night and how every sound seemed so loud. It's something we will never forget."* And from another student, *"We were sitting under the shelters and everyone else was around the kiln. It was very good having the glow of the kiln in the woods when everything else was so dark. It made you feel safe. But suddenly there was this horrible barking and we were so scared. It was Rob* [our survival specialist]. *He had crept up on us and was only a foot away. He had got so close and we didn't even know he was there. How did he do that?"*

5.3 **Staff – Student Relationships**

The project had been careful in its selection of staff (Section 1.2), although they [the staff] varied in age, some had unconventional lifestyles and each was quite different in individual approaches to the students. So how had this worked, and how did the students relate to the staff?

The students had clearly enjoyed working with staff. This is clear from the film footage. Relationships are relaxed; staff and students treat each other with mutual respect and the students are engaged and interested. It is also clear that students do not see strictness as necessarily a negative attribute provided they could see reasons for it.

The kitchen is perhaps the best example of this. It was a busy, high pressure-working environment where students were responsible for producing up to three meals a day for all the students, staff and visitors. Cooking was over open fires where the smoke and heat made the working conditions uncomfortable and food preparation was from raw, natural ingredients, albeit of the highest quality, requiring butchering, chopping, dicing and mixing. The potential for food

contamination was high and the necessity for the highest of standards of discipline and hygiene of paramount importance.

Students understood what was required and what their responsibilities were. They responded well and many saw it as an enjoyable challenge.

> *"The staff were really nice. Working in the kitchen was a real challenge. It seemed a bit like Hell's Kitchen but Jane was really nice even though she was strict about what we did. I got really annoyed with myself because after sleeping overnight I was so tired and just couldn't think clearly. I kept making mistakes and Jane would say, 'No, not like that. It won't work if you do it that way' and she was right and always explained what would happen if you didn't get it right"*

5.4 **Meeting our aims and objectives for the classroom visits and experimental camps.**

Using the feedback from the experimental camps and the classroom visits it is possible to assess the effectiveness of the project in terms of the priorities for learning as set out within the original project design. It is impractical and unnecessary to try and assess the impact of the experimental camps upon each of the students. For the purposes of this report a broad assessment of the project's effectiveness is all that is necessary.

In terms of our overall aims, did the project:

- Engage and excite a range of young people in their heritage?

  Students at the camps talk of the project being 'brilliant'; of 're-creating history' and 'incredible'. Our most sceptical group of young people who were on the margins of the education system were after four days, keen to return and as one lad said, 'The worst day was the day I couldn't come.' Another student from the group summed it all up by saying 'If you have the chance to do it then do it. It's good': A satisfying response from a student who had refused to do anything for the first half of the camp.

  Teachers from one of the primary schools wrote that the children were 'engrossed'; and that they [the children] had gone home 'buzzing' and all wanting to become archaeologists.

- Develop the interest and knowledge of young people in their local area, with specific attention to river valleys?

  Here the camps and classroom sessions looked at the archaeological evidence from the students' local area and how this evidence was often concentrated within the river valley. When out on site students were able to work within these river valley environments and experience the benefits of being close to vital natural resources. At West Stow and Lackford Lakes the proximity of willow and alder, which could easily be cut and transported; show how your surroundings could be exploited. Similarly the easy cutting of turf in the light soils was utilised for the building of the smokehouse and gave an insight to how having resources close at hand made living easier.

  At Lackford Lake the closeness to water led to the trapping of crayfish as part of the students' meal: Too much of a challenge for some who

underwent a steep learning curve as the crayfish were dropped into the boiling water!

For the primary school classroom visits, learning about river valleys without the opportunity to go out and visit one is a bit of an abstract exercise. At best we could use the term 'raising the awareness of…' through slides and maps.

- More importantly and ultimately of more lasting benefit would there be a tangible interest and curiosity raised in the children's immediate surroundings, usually their school grounds or own gardens.

  Many scoured the flower beds at break times for pieces of pottery and bone or went home to dig in their back gardens and one would hope that this fascination would be long lasting. In anticipation of the wonton destruction of the Suffolk countryside by hundreds of enthused 7-11 year olds a booklet was produced called 'How to Dig Your Back Garden' showing how to excavate and record test pits responsibly. This will be available to teachers and students via the project's website.

- Use archaeological evidence from Suffolk's river valleys to experiment with and experience ancient technology as a means to better understand and appreciate life in the past.

  This was the focus of the work during the experimental camps. Evidence from the student's local area in the form of site records and photographs plus back up material featuring reconstructions of similar buildings was used as the starting point for our own work. Students either worked on site or, in the case of Thurleston and Claydon High Schools at school, to discuss, plan and produce working drawings for the roundhouses, kilns and smokehouse's. These plans were then used to build the structures onsite.

  For the smaller projects such as bread ovens the students planned as they went along, testing different structures and learning how to adapting their design as the project progressed. At Lackford, for instance the original bread oven was seen as inefficient because the opening was too big, allowing an excess of heat to escape when raking out the embers prior to baking. The second version had a smaller doorway. Fuel for the ovens was also an issue. Various experts on site had differing views on this but an elderly visitor at the open day put them right. She had the job of collecting faggots for the farm bread oven in the 1920's. These were supplied by the local hurdle-makers working in the hazel coppices nearby and they would sell bundles of brash to the local farmers and villagers. We tried this with dry brash collected locally and found the faggots heated the oven in about 45 minutes compared with the hour and a half when using cord wood or offcuts.

  We took this knowledge to our camp at Claydon, which was sited within a re-established hazel coppice. The new information was shown as an example of how to use to the full all the resources available. Thus once we had cut the hazel for wattling the brash was then bundled up and transported back to site to be stored for future use as fuel. This left no waste to clear and made maximum use of the resources available.

- Allow the students to work within a former gravel-working site as a means of raising awareness of gravel extraction and the re-instatement of the site as a reserve for conservation and leisure.

  Two of our camps were sited in country parks created from old gravel working sites and here we were able to use old photographs and particularly at Lackford a corner of the site not yet fully re-established. This was vivid evidence of how a former site can be re-instated to become a beautiful and relaxing environment. For classroom work we now have an 8-minute film about the quarry industry, which is also part of the hard copy of this report. This film will be available as part of our education package to schools.

- Allow the students to work, co-operate and socialise with a range of adults and peers, was an aim that incorporated many of the soft skills that the project was so keen to emphasise within the project design. These were things like being able to communicate at a high level, showing reliability and perseverance, team work, taking responsibility, knowing how to evaluate information critically and being confident and able to investigate problems and find solutions. In particular, allowing students to be active and curious.

  These skills were central to the project's success. Students gaining experience and an increasing aptitude when working in this way will be far better placed to handle the pressures and choices not only of their life in school but within the wider world and particularly the workplace.

  The project sees the resource of archaeology when used in this way as a powerful one. It not only educates about heritage but also uses heritage as a path to education.

  Without doubt the feedback and the film footage showed students extending their competence in all of these areas: And this was the important thing. It was clear that even when working with well over 1000 students either outside or in the classroom, of different ages and different abilities with very diverse backgrounds and yet faced with exciting and challenging activities they worked responsibly and with increasing confidence. It was noticeable that in the teams where we also saw no friction or aggression. As the students reported themselves, 'It's a team. Everyone works together and gets to know each other. It's satisfying.' And 'It gives us more responsibility. A lot of people don't trust us. Since we got this opportunity it's kind of proved to people that we can respond and not like mess with it.' In terms of young people evaluating information critically we, as teachers and the providers of education, should sit up and take note of their voices and what they have to say.

- When considering who should participate in the three camps the project selected groups of different sizes, ages, attitudes and perceived levels of motivation to assess the suitability of the project for young people and the value for money aspect of running the camps.

  Rede Wood

  At Rede Wood the project worked with 40 students of high ability but in some cases limited social skills. The group size was high but for the camp we set our student to staff ratio at about 8/1, higher than that at Lackford where there were 25 students taking part with a ratio of about 6/1. From the evidence of the camp, it is possible to work with a group of this size. The

potential problem with such a large body of students is not so much the higher ratios of students to staff with the knock-on effects of less close supervision and the potential for injury. These were a bright and articulate group of students who learned quickly. Their average age was considerably higher than Lackford, the youngest students being 12 years old.

Once procedures for safe working were established and proficiency in using tools monitored, students were able to work fairly independently. The main difficulties were the sheer size of numbers on the site. Allowing students enough space to work safely and not endanger others was difficult. The boundaries of the site were set put in advance, and the ground cleared as much as possible. The site was only just big enough. Towards the end of the project the boundaries were increased, but the effect of this was that the project manager was unable to assess what was going on across the whole site with the potential for problems to develop and go unnoticed.

In summary working with such a large group is possible and can be very rewarding but assessing the abilities and learning potential of the group is of paramount importance before making final decisions.

Lackford Lakes

At Lackford Lakes the group numbered 25 but the age spread was wide, 8 - 15 years. A concern was that the younger members of the group might feel marginalised or over-supported by the older members of the group. This was an issue but the value of choosing experienced outreach workers and teachers was demonstrated here with staff monitoring and influencing the way the group worked together and ensuring that younger participants were allowed full access to activities. In the feedback from young people the wide age range did not seem to be an issue, either from the youngest or the oldest members of the group but an awareness of the potential for disaffection should be a priority for anyone managing such a group.

A potential issue was whether the youngest of the group would become resentful of the fact that we would not allow them use of the axes and knives. Interestingly this was not necessarily the case. Most were happy to use alternatives (potato peelers are a good alternative to whittling knives) and because there was a wide range of activities on offer, they were able to be involved constructively in the biggest projects, such as the building of the roundhouse and the kiln, and they feel valued members of the team.

The high ratio of staff to students also gave the opportunity to support younger members of the group on an individual basis allowing increased access to activities they were unable to succeed with unsupervised, for example the sawing of firewood and the butchering of meat.

As with the Rede Wood camp the success was in having the experience to predict and manage potential problems before they happen.

West Stow

West Stow presented other issues to consider. Before the camp began it was assumed that working with disenfranchised young people would require a higher level of staffing and generally this proved correct. Concentration levels were lower as was motivation. The group was also reluctant to mix widely with other young people from the camp and to a large extent this remained the case throughout the five days we were there. They did,

however, arrive every day with their support workers and there was a real noticeable improvement in their attitudes through the week. In fairness the weather would have tested anyone's patience as it rained almost continuously for the whole week. As the feedback shows the group enjoyed the experience and were happy to recommend it to others. For anyone managing similar project staff ratios have to be high to allow for long periods of one to one support and it certainly helps to employ members of staff who have training and experience in working with challenging young people.

In retrospect it was felt that more could have been achieved in encouraging the group to mix more freely, although for the first two or three days the group, despite their outward bravado, were nervous and insecure and gained strength in staying together. It would, therefore, have probably have been unwise to actively split them. Given the appalling weather there were other priorities, such as the need to keep up general morale and ensuring safety in wet and slippery conditions.

5.5 **Health and safety risk assessment procedures and managing risk during the project (4.6)**

The results of this project work were very encouraging indeed. Yes, there were some injuries sustained during the camps, but so there are in every playground during a busy lunchtime. Some participants had small nicks and scratches from carving knives and accepted these as a matter of course. Two of them were more serious but didn't need stitching, but both students were back on site within two hours and straight back to work. Assessment of how the injuries occurred showed both were the result of poor concentration: The first through the ignoring of basic good practice and the second when the student was being filmed by television cameras. This is a cautionary tale for all projects. Publicity may be advantageous to the organising bodies but perhaps requires its own risk assessment. Both students showed a renewed respect for the tools but did not lose confidence.

So it is possible to work safely in a range of hazardous environments and still allow young people ownership and the chance to develop responsibly. What did surprise the tutors was the awareness and the appreciation of the young people for the trust the project had given them. The young people were very articulate about this as elements of the feedback film show. They showed a desire to prove that they could be responsible given the chance and spoke of how in other situations they felt patronised and treated as children. Others spoke of overly long health and safety talks, which they didn't listen too anyway. Much better, they said, to have someone going over the points as they showed you what to do, kept an eye on you once you got started and then left you alone once you had shown you could work in safety.

Nick Wilding (Suffolk County Council Health & Safety Manager) was very happy with the outcomes of this element of the project and it is hoped that an article can be prepared for publication detailing the work of the project. All the risk assessments are available on the website and it is hoped that these, along with the resource materials will give tutors the enthusiasm and confidence to try things for themselves.

5.6 **The video diary and film record (4.7)**

Whilst it is clear that the diary and training films of the events are informative and engaging there is a potential for them to be underused if they are simply loaded onto the website. Feedback is limited at present but responses from

steering group members and some early target groups of high school history teachers suggest that whilst they admire the project and see the educational impact. They would not however feel confident in taking on the responsibilities unsupported.

The project will need to develop this element of the project through further promotion to teacher groups and outreach organisations. It will also need to offer the practical support for any school willing to undertake a project. The support will need to be flexible, and based upon the levels of confidence and expertise available.

An important part of 'growing' the project is to encourage schools that have gained experience in experimental work to act as mentors to partner or feeder schools, with students and staff acting as mentors and trainers. In the case of partnerships with feeder (primary) schools this would offer valuable opportunities to enhance schools' transfer and liaison policies.

6.0 Project Legacy

6.1 The legacy (see 1.7) of the project was always designed to be strong with elements over and above those laid out in the project design. The main outcomes, results and the project's legacy are laid out below

6.2 To provide a core of outreach experience and educational staff training in the practical aspects of experimental archaeology. The staff would represent a range of organisations within the county [SCCAS, SWT, SCC, Countryside, West Stow Anglo-Saxon village, teaching staff from partner schools]. They would be in a position to influence a wide and diverse audience by acting as consultants to schools and community groups and continuing to develop the activities within their own organisations.

- *The project has provided valuable opportunities for developing the confidence; skills and expertise in the development of practical experimental archaeological projects and members of staff are now well placed to develop this work.*

- *SCC Archaeological Service now has two members of staff both qualified and experienced teachers, trained in this aspect of outreach work. The project manager will continue to develop this work as outreach officer to the Service.*

- *The Suffolk Wildlife Trust has already begun to develop units of work related to archaeology and these will be incorporated within their educational provision. The inclusion of many of the Trust's enthusiastic volunteer staff in the Lackford Lakes camp will provide valuable support for the education officer based at the site.*

- *At West Stow the attendance of the experimental archaeologists employed on the site plus the inclusion of many of the re-enactors has provided them with a core of experience, which will be further developed through the many school groups and family events the site hosts.*

- *Suffolk County Council's Countryside Service and Mid Suffolk District Council have been very supportive of the project. A total of 6 staff from these two agencies have been directly involved in the camp at Rede Wood as well as subsequent follow up activities with their volunteer groups and Junior Rangers.*

- *For the High Schools involved there remains the opportunity for teaching staff to build on the experiences and they are currently planning to use their experience and the experience of their students to develop a mentoring programme where staff and students support other schools in similar projects. This will be an exciting and groundbreaking development within Suffolk and with the continuation of the outreach officer's post schools will be able to access this support and expertise.*

- *The classroom visits have involved 37 classroom teachers in 19 schools and a similar number of teaching assistants. Their growing understanding of the opportunities for the use of archaeology as a resource and their obvious enthusiasm as shown in the returned evaluation forms (Appendix 1) leads the project to believe that future development of their schools' history*

curriculums will be enhanced through their own input utilising the support materials from our website (4.3) and the contracting of the services available from SCC Archaeological Service. Continued contact with these schools by The Service will encourage them to develop their work in neighbouring schools through 'cluster meetings' and professional development activities.

6.3 Leave kiln structures on site for future firings

- *At Rede wood the kiln has been covered and remains in place for future firings. The partner schools have expressed their desire to repeat the experience, possibly in conjunction with their feeder primary schools as a liaison and transfer activity or as an element of summer activity weeks. Mid Suffolk Countryside Rangers, not originally partners in the project, see the kiln as a valuable addition to their outreach resources and are keen to involve their volunteers, both adults and young people, in future experiments.*

- *At Lackford Lakes the kiln has been backfilled as a resource for the future. It will be re-excavated at a later date using standard excavation and recording procedures and then be re-fired. The SWT education officer for the centre was involved with the whole event as were many of the Trust's volunteers. She was very enthusiastic about the possibilities for including and extending her experiences as part of SWT's education package and has already organised and run a family day on the site using the completed roundhouse as a focus for the day.*

- *At West Stow the project experimented with possible solutions to Saxon pottery production. The results were very poor with a less than10% survival rate of pottery. Since then we have provided advice and expertise to a separate project in Suffolk and the results have been improved dramatically with a greater than 95% rate of survival. This activity is now being offered to Suffolk schools as part of our web based resource pack.*

6.4 Provide a range of teaching materials, lesson plans and training packages to be placed on the SCC Education Portal [Slamnet] and SCCAS web pages (See sec 4.3).

- *The project has developed teaching materials, lesson plans and training materials, which will support teaching staff and outreach workers in developing archaeology as a learning resource. Full details of the contents are detailed in section 4.3.*

- *Suffolk County Council's Education portal [Slamnet] has recently been closed. As a result of this action the project has included all available materials on its web pages as downloadable files.*

- *In order to ensure that teaching staff will be aware of these resources and support, SCC Archaeological Service will continue to monitor and develop the use of the site.*

- *The comprehensive range of support materials and opportunities for experimental projects, detailed on our website, will continue to be made available to schools in Suffolk, North Essex and South Norfolk.*

6.5 Raising awareness of the availability of resources is a priority. It is intend to pursue this immediately using the following strategies.

- *The production of a brochure advertising the resources to all Suffolk schools plus north Essex. This will be circulated using schools' electronic post plus distribution to all partner organisations.*

- *Personal calls to individual schools where work has already taken place. Most of these schools have indicated that they would be interested in re-booking sessions in the future and would consider paying for the service.*

- *Presentations at school cluster meetings, three of which have already been arranged.*

- *Promotional work will be undertaken with bodies who are not partners but provide educational opportunities for schools and community groups e.g. The Broads Authority. This work will be funded by SCC Archaeological Service and any subsequent work arising from this will be funded by schools and participating groups.*

6.6 Develop a project website (see 4.3) and provide a trained web site manger for the project

- *The project's web page author/manager is now trained and experienced in the compilation of SCCAS material. She will continue to update the project website by monitoring its use and any feedback we receive, as part of her wider role as Suffolk County Council Archaeological Services new web agent.*

- *The project web manager has worked hard to produce an interesting and informative series of pages within the limitations of the host site (Suffolk County Council). The range of resources is comprehensive and meets all the requirements stated in the original project design.*

- *The project has considered the needs of teachers in that the resources are quick to access and provide relevant opportunities to enrich their curriculum planning. The time frame in which the project has been developed has not yet allowed sufficient time to publicise resources or evaluate their effectiveness.*

- *The main challenge will be raising the awareness of the existence of the website and the resources available to teaching staff and other agencies working in education. The website will be promoted through teacher networks and information leaflets distributed electronically to all schools in the county. It is hoped to make the existence of the site more prominent through advertising on the welcome page of SCC's website and be able to monitor the number of 'hits' over the next 12 months.*

- *The intention of the education authority to develop a new portal to support teaching resources is welcomed and with promotion from SCC Archaeological Service and SCC History Advisor awareness of the site, its resources and opportunities should be enhanced significantly.*

6.7 Post a copy of the project design, final report and documentary video on the web pages for the benefit of other agencies.

- *A copy of the project design has already been posted on the site. This report, when approved, will provide a complete record of the process from inception to completion. In addition all agendas and minutes from the Steering Group Meetings will also be included.*

- *The website is unable to support the full version of the documentary film. Instead a 1 minute clip can be previewed and the full version ordered free of charge. Preview clips of each of the 4 further films available from the project are presented in the same way. It will be possible to order the resulting films directly from the Archaeological Service. Details of how to do this will also be widely available.*

6.8 Provide advantageous publicity for organisations concerned through the promotion of the project and its sponsors.

- *The work of the project has generated a considerable amount of publicity throughout its lifetime. A number of press events were held to publicise aspects of the work, this included a visit, by a high profile Local Government Official to the Rede Wood camp. Coverage of this event spanned local newspapers, radio and television. The project also was the featured article for the autumn edition of the Suffolk County Council magazine and was prominently displayed on the on the main County Council website.*

- *Partner organisations have used there own industry magazines to promote the project and to date articles are in preparation for the QPA and a Health And Safety journal.*

- *In all promotional material the work of stakeholders and has been prominently represented and all publicity has included logos of, and links to project partners. The main project website also includes logos and web links to the funding body, English Heritage and all project stakeholders*.

6.9 Promote greater awareness of historic environment issues and the value of the historic environment among partners and steering groups.

- *The project has demonstrated the value of the Historic Environment Sector within education, both in partnership with the quarry industry and the other project partners. Through the classroom visits and through the participation in the camps, workshops and stakeholder meetings, awareness of the archaeological issues have become a core part of the teaching, but the work has also shown that the Historic Environment can be used to engage young people in a range of issues. Archaeology is a demonstrably good way of engaging young people when presented in this fashion, and allows them to think about a wide range of issues including gravel extraction, its role and its function within society.*

- *The project has further confirmed, particularly through the films and the filming process, that taking a historic environment stance can provide multiple objectives. In this case bringing a subject such as quarry function and quarry activities to a young audience, even whilst the engagement is through a primarily archaeologically focused exercise. The QPA and local*

quarry managers, for example, have asked to be able to use these films in the future for there own education purposes.

- *Other stakeholders, for example, The Suffolk Wildlife Trust have become engaged with the historic environment side of this work because it has shown new and unusual approaches to understanding former quarry sites, the reclamation of old gravel workings and the reconstruction of past landscapes.*

6.10 Provide the potential to explore with partner organisations, additional funding streams, perhaps related to the future sponsorship of a particular aspect of the project.

- *In delivering a successful project however, it has been shown to schools and stakeholders that this sort of work is valuable and need not be cost prohibitive, nor should it be excluded on grounds of Health and Safety.*

- *Discussions are ongoing as to how best to approach the funding of a second phase of the work, however, due to the wealth of positive feedback and the potential generated by the project Suffolk County Council Archaeological Service will continue to fund the outreach post.*

- *This will allow further development of the work initiated during this project, such as the continued development of classroom based activities suitable for the curriculum requirements at Key Stage 3 (11-14 years).*

- *It is hoped that the position will be partly funded through Schools buying in the Service from their curriculum development funds. Additional funding streams to allow the further development of this project will be sought through the investigation of grants and grant aiding bodies. It is also hoped that by demonstrating to English Heritage and to the ALSF that a different approach to outdoor teaching can be delivered safely and successful that permission to seek additional funds will be given allow the development of some of the themes in a wider context.*

- *Additional funds are now being sought through the stakeholder group to continue to undertake aspects of the project. In particular, the QPA and local aggregates producers have been approached to find a site on which to establish a semi-permanent experimental teaching camp which can deliver both an archaeological and an industry perspective.*

Bibliography

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Appendix 1 Feedback from Classroom Visits

Example of the Evaluation Form handed to schools following a classroom visit.

Archaeology in Schools – Unlocking the Potential
Evaluation Form

School Teachers Name Year Group/ No in class	St Edmunds Bungay Pat Mylnll Yrs 5+6/28
Was the session effective in addressing • The archaeological process • The National Curriculum e.g. using primary sources, interpreting evidence	Excellent Lots of hands on
Was it a useful resource for your curriculum?	Yes
Did the children • Enjoy the session • Feel inspired by the subject	They were totally engrossed and were really fired up to find out more
Was the activity valuable in promoting • Language development/ communication skills • Working with others/ tolerance, perseverance	Excellent questioning skills from presenter and made the children question too Work in pairs - team work
Was the session content • Appropriate for your children's needs • Well organised and presented	Exactly right for their level V. well organised with plenty of time for exploration
If you had the funds is this a session you would pay for?	Yes
Any other comments	Brilliant !

Please return to: Duncan Allan, SCC Archaeology Service, St Edmunds House, Ipswich IP4 1LZ

A breakdown of the feedback from the evaluation forms

1) Was the session effective in addressing:-

- The archaeological process?

  'Brilliant – step by step guide to process and tools.'

  'Very good and clear.'

- The National Curriculum e.g. using primary sources, interpreting evidence?

  'Yes, at appropriate level for mixed year group'

  'Excellent'

  'Lots of hands on work with artefacts and discussion.'

  '*Fantastic for this. Fitted in well with our Romans topic'*

2) Was it a useful resource for your curriculum?

  'Definitely

  'Very, very useful'

  'Yes, dovetailed well into our project on Anglo Saxons.

  'Absolutely. It has generated lots of talk & interest in the subject.'

3) Did the children

- Enjoy the session and feel inspired by the subject?

  'They were totally engrossed and were really fired to find out more.'

  'Absolutely, inspired the children.'

  'We had a parents evening last night and without exception the parents were full of praise for the work you did…. You certainly made a big impact.'

4) Was the activity valuable in promoting -

- language development/ communication skills?

  'Children drew their knowledge together to recognise and interpret evidence.'

  'Excellent team work.'

  'Yes, excellent rapport between archaeologist and children and between the children themselves – all about the subject and not straying.'

  'Excellent questioning skills by presenter and made the children question too.'

- Working with others/ tolerance, perseverance?

  'Yes, excellent resources enabled all the children to support each other and enjoy all parts of the activity.'

'Lots of co-operation and mutual support.'

'Excellent team work.'

5) Was the session content:

- Appropriate for your children's needs?

  'Very well matched to the needs of pupils.'

  'Yes, the children were able to follow well, ask appropriate questions and apply their new skills and knowledge well.'

  'Yes, age appropriate and lots of practical work.'

  'Exactly right for their level.'

- Well organised and presented?

  'Well organised with a good mixture of listening, watching and doing.'

  'Superb, very good classroom management.'

  'Very well organised with plenty of time for explanation.'

  'Excellent organisation and presentation'

6) Any other comments

'It was a thoroughly enjoyable experience. Teachers and children learnt a lot and wanted it to be much longer!'

'Please keep the school aware of other sessions.'

'This was a most enjoyable and informative activity and gave the opportunity for the children to get a real taste of history, bringing it to life for them.'

'Would hope to include this in our curriculum.'

'Thanks, I got lots from it too!'

15 th November 2007

Dear Duncan
I lernt lots of
information I think
I Shod be more meticulous
some times! for Roman
Stuf. I am happy you
are a archaeologist
When I get home I am
going to digup the
gardon
love Joshua. V

Duncan Allan

From: Alison Maskrey [alisonmaskrey@yahoo.co.uk]
Sent: 16 January 2008 20:36
To: Duncan.Allan@et.suffolkcc.gov.uk
Subject: Archaeological dig

Hi Duncan,

I just wanted to thank you for the arcaelogical dig session on Tuesday, both children and adults enjoyed it immensley. Everyone was 'buzzing' after the session. I look forward to hearing about future opportunities to explore History in such an exciting way.

Many Thanks,
Alison Wroe and all at Sproughton Primary.

St Edmund's RCVAP
Bungay.

Dear Duncan.

Thankyou so much for giving the children such a superday, they all thoroughly enjoyed it. Several have decided to be archaeologists and have made a start on their gardens!

Class 3 wrote some Thankyou letters, I hope you enjoy reading them.

Do come again if you can, we'd love to see you.

all The best

Kate Mills.

Great Barton Primary School
School Road
Great Barton
Bury St. Edmunds
Suffolk

15th November 2007

Dear Duncan,

On behalf of myself, Mrs Bailey and the children, I would like to thank you for the fantastic experience which the children had today. Everyone thoroughly enjoyed the hands on activities and found them both fascinating and inspiring, several children believe that they would like to become archaeologists. It is always great to see every child able to access these types of activities.

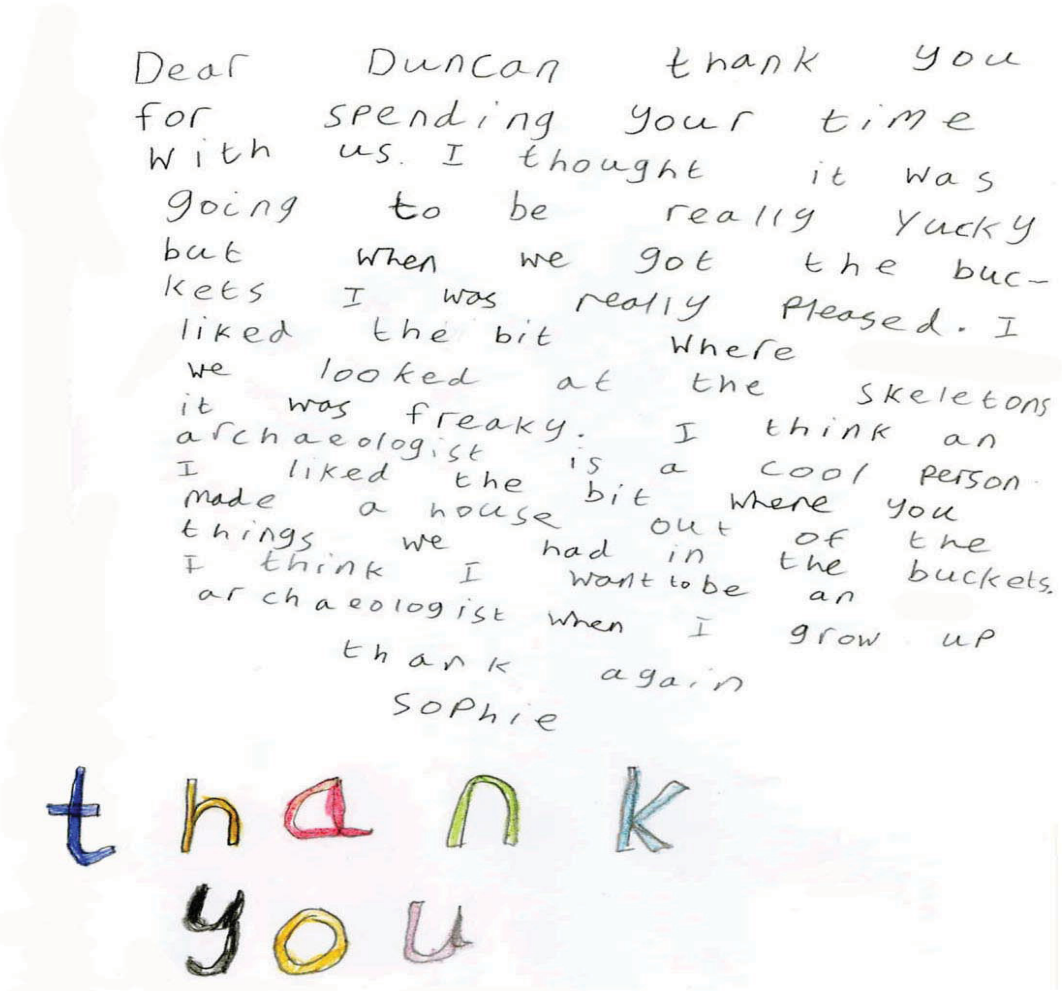
I am just hoping that not too many of them go home and excavate their gardens tonight otherwise I will not be very popular with the parents!

If you are running any similar programmes in the future please let us know. We would also be interested in the packs that you mentioned to give ideas of similar activities that we can carry out in school.

Best wishes,

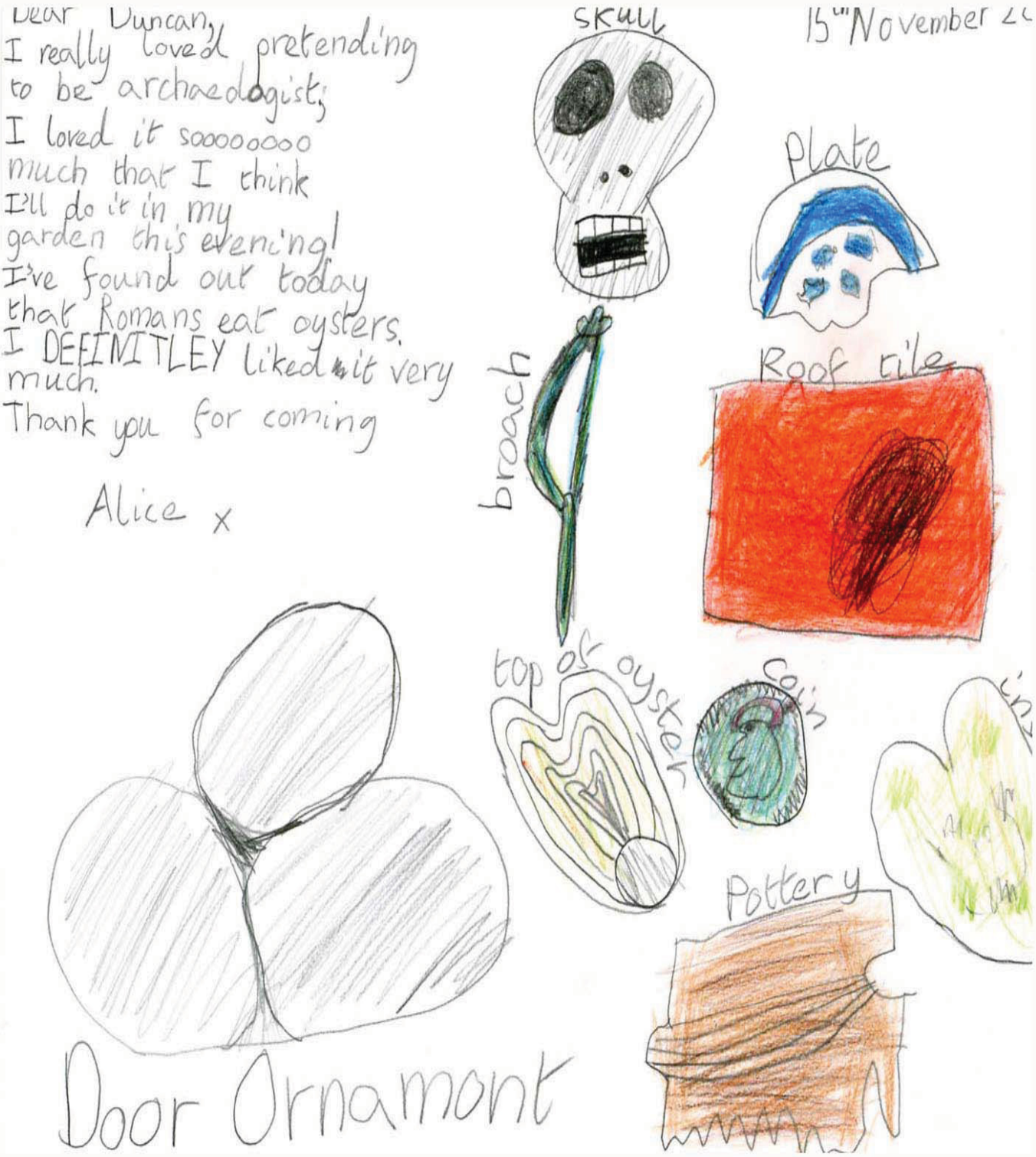
Lindsay Bance

Lindsay Bance



Dear Duncan,
I really loved pretending to be archaeologists; I loved it soooooooo much that I think I'll do it in my garden this evening!
I've found out today that Romans eat oysters.
I DEFINITLEY liked it very much.
Thank you for coming

Alice x



Duncan Allan

From: Humanities Bungay Middle School [HUMANITIES@bungaymiddle.suffolk.sch.uk]
Sent: 23 January 2008 09:28
To: Duncan.Allan@et.suffolkcc.gov.uk
Subject: RE: Visit to Bungay Middle School

Hi Duncan,

Just another quick note to feedback on your visit. We had Parents' Evening last night and without exception parents were full of praise for the work which you did with the children. Pupils had gone home full of the day and obviously very enthusiastic, talking about what they had been doing and wanting to share it with their parents/grandparents, etc. You certainly made a big impact and I felt that you should certainly be informed of the difference you made on Thursday. Your next couple of visits are eagerly anticipated. No pressure!!
Meanwhile , if there are any other archaeological projects which you feel may be of interest of us, then we would love to know.
Many thanks once again.
Best wishes
Sally
----Original Message----
From: Duncan.Allan@et.suffolkcc.gov.uk
Date: 18-Jan-2008 17:10
To: "Humanities Bungay Middle School"
Subj: RE: Visit to Bungay Middle School

RE: Visit to Bungay Middle School

Hi Sally,

Your e mail got through!

Thanks for your kind words. I enjoyed the day very much and once again thanks for your hospitality. Will be in touch about future sessions.

All the best,

Duncan

-----Original Message-----

From: Humanities Bungay Middle School

[mailto:HUMANITIES@bungaymiddle.suffolk.sch.uk]

Sent: Friday, January 18, 2008 1:20 PM

To: Duncan.Allan@et.suffolkcc.gov.uk

Subject: Visit to Bungay Middle School

Dear Duncan,

Many thanks for your excellent visit yesterday. The response from staff and pupils alike, has been the most positive I have had for a long time. The activities were refreshingly different and practical.

‘

Appendix 2 Feedback From the Experimental Camps

In summary the students made the following comments:

On the way the project helped people to learn.
“It’s very hands on. You do it all yourself and you learn that way”
“If something is fun you want to know more information. If you are doing you learn more than if you are just being told.”
“It’s a different way of learning…. Children are not inspired to learn (in school) *and we don’t get to do anything like this”*

On the teaching methods.
“The workers get everyone involved”
“It isn’t actually teaching, it’s more like doing a project together rather than being taught how to do something.”
“It’s not so much teaching as doing.”
“It’s good to see how the young people’s opinions have changed from the beginning to the end and now they don’t want to leave.”

On working with potentially dangerous tools and materials.
“It gives us more responsibility. A lot of people don’t trust us. Since we got this opportunity it’s kind of proved to people that we can respond and not like mess with it.”
On what young people got from the project.
“It’s a team. Everyone works together and gets to know each other. It’s satisfying.”
“It’s challenging.”
“There is a sense of achievement.”
“It’s been brilliant.”

More comprehensive feedback on the experimental camps is available as a DVD included within this report

Appendix 3 Written feedback from staff involved in the experimental camps

Anglo Saxon Village – PAYP Summer Project

The young people of the PAYP Group (Positive Activities for Young People) were looking forward to spending the week at the Anglo Saxon Village if a little apprehensive.

The small group of 6 young people were a little put off by the poor weather conditions but continued to persevere through it and the wet conditions seemed to bring the group closer together as a unit.

The facilities and activities at the village were superb and a pleasure to work in, giving it a real Anglo Saxon theme, all the staff as well as other people taking part were all very friendly and helpful and gave the place a calming atmosphere.

The boys of the group really enjoyed the woodwork and cooking side of the activities, where as the girls of the group seemed to enjoy the Tye dying and the cooking side of things the most.

Overall the group really enjoyed themselves over the week which is a huge compliment to the staff at the Village because the weather all week wasn't in their favor and I think if it wasn't for the staff the young people would of stopped participating by the middle of the week.

Hopefully, there will be another opportunity for us to take the same or different group again as I feel that the project was very beneficial for the young people in learning, teamwork, self – esteem, respect for others and the surrounding as well as perseverance!

I would like to say thank you so much on the behalf of the all SCA Staff & the PAYP Group!

Yours Faithfully

Phil Green – PAYP Project Coordinator

[redacted] **COMMUNITY DIRECTORATE**

St Edmundsbury
BOROUGH COUNCIL

August 31, 2007

Mr. Duncan Allan
SCC Archaeological Service
St Edmund House
Rope Walk
Ipswich
IP4 1LZ

Dear Mr. Allan,

Experimental Archaeology Camp at West Stow

On behalf of the Village Team, I would like to convey our thanks and support for the Experimental Archaeology Camp that you held at West Stow last week (20th–24th August). Despite the difficult weather, the enthusiasm of all the participants was apparent and it was wonderful to see so many experiments underway. The new smokehouse and remains of other experiments have brought to life an under-used area of our Village, which it is now hoped to consolidate further.

As noted at the Steering Group meeting in May, practical activities for young people at West Stow have been limited in recent years by the prevailing interpretation of Health and Safety legislation. This event demonstrated clearly that tasks requiring sharp tools and hot fires can have an acceptable level of risk, if planned and structured carefully. The level of responsibility displayed by the young people was also great to see, as it showed that they are more than capable of judging appropriate behaviour. The event also successfully combined participants from the Friends of West Stow, 'The Wild Bunch' of Suffolk Wildlife Trust, and the Bury St Edmunds branch of SCA (Supporting Contemporary Adolescence) to produce excellent teamwork.

Good luck with the rest of your events as part of this Aggregates Education Project.

Yours sincerely,

Rachel Ballantyne

Rachel Ballantyne

Village Team: Lance Alexander, Alan Armer, Mary Ellen Crothers

Heritage Services
Alan Baxter • Heritage Manager•
West Stow Anglo-Saxon Village, The Visitor Centre,
Icklingham Road, West Stow,
Bury St. Edmunds, IP28 6HG.
T•01284 728718 • **F** 01284 728277
E-mail weststow@stedsbc.gov.uk
Website www.weststow.org

Beacon Council 2000-2001 Dealing with Waste

INVESTOR IN PEOPLE

X:\Rachel Ballantyne\07 08 31 ALSF event feedback.doc.doc R6

Appendix 4 Photographic Evidence of Classroom Visits

Getting to know what evidence is

Imagining how a pot looked from a single sherd

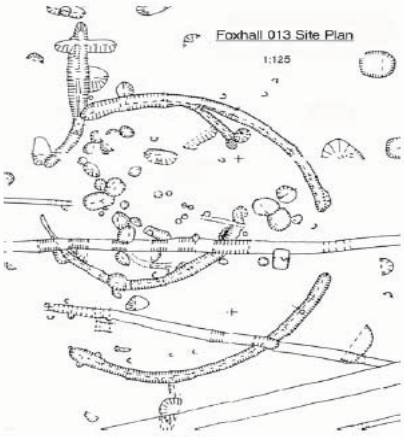
Beginning to piece the vessel together

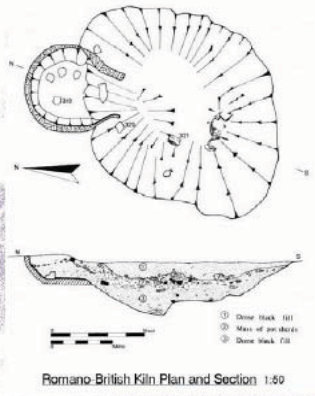
Working together to reconstruct the pieces

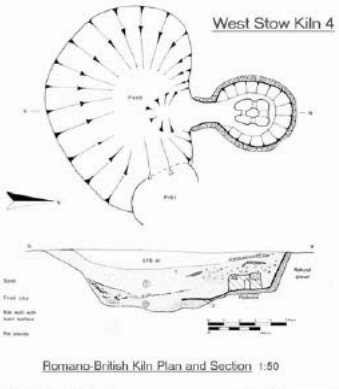
The vessel fully reconstructed

Looking for evidence by sieving

Appendix 5 Photographic Evidence of Practical Work from the Project







Romano-British Kiln Plan and Section 1:50

Romano-British Kiln Plan and Section 1:50

Using archaeological records as primary source material

Planning the Roundhouse design

Our new logo is born

Learning to handle sharp tools

Learning where food comes from

Cooking on site using traditional methods and recipes

Experimenting with different cooking techniques

Baking a fish in a clay case

Building a smoke house

The camp fire

Constructing a bread oven

Working together to build the Roundhouse

Learning to thatch and daub

The finished Roundhouse

Working with experts to build a Romano-British style kiln

Different age groups working together on a 'quick build' kiln

Hand building pottery using archaeological designs

Loading the kiln ready for firing

Camping out during the overnight firing

The 'quick build' kiln is opened

Sleeping out in the Roundhouse

Checking the temperature

Opening the kiln in front of press cameras

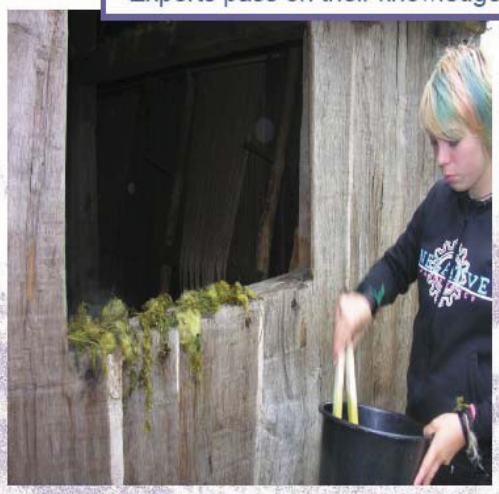
Stoking duty for the Romano-British kiln

The open day at Lackford Lakes, passing on what we have learnt to the public

Bushcraft sessions helped to develop communications skills



Experts pass on their knowledge and skills during hands-on sessions




Some of the team that helped make the camps a success

St Edmundsbury Borough Council
Quarry Products Association
Suffolk County Council Archaeological Service
English Heritage
Suffolk Wildlife Trust