The Immersive Learning Project

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what is the Immersive Learning Space · 360 degrees of comment · how you might use this resource · design log

Contents

1. Introduction

1.1 Concept and aims

The Immersive Learning Project (ILP) was conceived, implemented and intimately managed throughout by Paula Briggs and Sheila Ceccarelli – creative directors of AccessArt (www.AccessArt.org.uk).

The project was born out of a desire to create digital learning and teaching resources that would develop the spatial and creative thinking skills of teenagers aged 12 to 16.

Throughout its two-year lifespan, from 2002 to 2004, the input and participation of teenagers (see 'Explorers', 4.1 below) remained central to the project's development – the starting-point being students' own experience of space and the built environment.

However, in its entirety the Immersive Learning Project is the result of many interactions between, and collaborations with, students, teachers and other adult professionals including designers, artists, architects, dancers and strategists (see 'Inspirers', 4.2; and 'Teachers', 4.3 – below).

Through shared participation in a series of workshops, visits, tutorials, interviews and events, the Immersive Learning Project aimed to 'bridge the creative adult and the creative child', giving inspiration and motivation to those who enjoy expressing themselves – across disciplines, demographics, and abilities.

Eloise, 'Explorer', Kettles Yard, Cambridge 2004

1.2 An organic brief – an ongoing journey

During the life of the project, the original brief evolved so that focus shifted away from explorers' experience of the built environment, towards an exploration by students of 'action in space'.

Additionally, the decision was taken to create a new area – named the Immersive Learning Space, or ILS – within the existing AccessArt website, to contain the learning and teaching resources created during the project.

This replaced the original intention, which had been simply to add such resources as new modules to the existing AccessArt site. It was felt that the digital arena to grow out of the project should be fluid and organic: modules should not be 'teachers' notes', but rather representations and celebrations of moments of teenaged creativity. Through the ILS, site navigation could be almost haphazard, and learning journeys self-led – drawn by inspiration and even accident, just like the creative process itself.

Alex, 'Explorer'

1.3 Outcomes and revelations

This report describes the Immersive Learning Project's objectives, structure, participants, activities and outcomes. It is hoped that as a result, the following will be revealed:

- That the Immersive Learning Project invests in new approaches to igniting and supporting teenaged creativity. The project recognises and celebrates individual creative journeys and experiences, and gives the teenaged explorers a platform for pushing their own creative expression.

- That the Immersive Learning Project exploits the web and its evolving multimedia applications in the development of the Immersive Learning Space, to deliver the wealth of content recorded and generated throughout the project – testimonials to teenaged creativity.

- That the Immersive Learning Project pioneers new approaches to using the computer and its 'add-ons' as powerful learning aides integrated into creative activity.

- That the wealth of content in the Immersive Learning Space has been built through a collective commitment to, and passion for, creativity, as embraced by all those involved in the project.

The authors of this report have been touched by the generosity with which participants have given their time and dedication; and by the extent to which the project has been embraced so enthusiastically by all who collaborated in it.

2. The Team

NESTA Project Manager
Sarah Maher

Professional mentors
Janis Jefferies; Vicky Mitchell

Creative directors (AccessArt)
Paula Briggs:
- Creative and conceptual director
- Design concept
- Principal Flash designer and
- design architecture
- Co-ordinated development of multimedia modules by other designers
- Project management
- Organisational management

Sheila Ceccarelli:
- Creative and conceptual director
- Design concept
- Education co-ordinator and mentor to teenaged explorers
- Partner in steering project
- organisational management

Organisational development
Jo Buffery:
- Marketing and dissemination
- Monitoring and analysing site statistics
- Bringing AccessArt to charitable status

Inspirers
With special thanks to:
Adam Brinkworth; Sal Coxon; Luther Jones; Stanislav Roudavski; Ingrid Schröder; Grace Sim; Helen Stratford; students at the Norwich School of Art Sculpture School; Nikki Turner; Martyn Welch

Designers
Concept:
Paula Briggs; Sheila Ceccarelli

Design architecture:
Paula Briggs; Cliff Manning

Multimedia modules (Flash MX):
Paula Briggs; Sheila Ceccarelli; Shaun Camp; Dave Evans; Ross Featherstone; Cliff Manning; Werner Singer; Nikki Shanahan; Luke Whittaker

Trustees
Special thanks to our trustees for their commitment to the organisation and to the project:
Alastair Haines; Siobhan Edwards

Extra-special thanks to our teenaged explorers and their schools, without whom there would have been no project.

Sheila Ceccarelli

Paula Briggs

3. Broad Project Management

3.1 Creative directors

The Immersive Learning Project was managed by AccessArt creative directors, Paula Briggs and Sheila Ceccarelli.

Paula, who had a solid and disciplined work schedule, carried out the day-to-day management from her shed in the back garden – realising the broad vision of the project, developing relationships with designers, managing budgets and paying bills. Paula describes herself as the 'conduit' of the project, and it is true that she had a pivotal role in bringing all of its facets together.

Sheila's time was balanced between going into schools collecting data; building relationships with teachers and explorers; and relaying her findings back to Paula. Her focus was increasingly on methods to get the best out of the explorers, and on building good and solid relationships with them.

Both directors worked together to create the workshops (see section 6, below), and to deepen relationships with inspirers and designers. While managing their own time on an individual basis, they interweaved different sorts of shared activities (meetings, supervisions, conversations); they also spent hours, days and weeks bouncing ideas off each other and then consolidating them – ideas both for the project, and for the development and future of AccessArt. Now and then a critical conversation would radically alter how the budget would be spent, or would turn resources to another use.

3.2 NESTA support

From the outset, the project directors have been very grateful for NESTA's ongoing support. NESTA's endorsement and encouragement gave AccessArt the confidence to realise the Immersive Learning Project both constructively and professionally.

Alongside the directors' main strand of activity – which was to realise the Immersive Learning Project, and within it, the Immersive Learning Space – was a huge push to develop AccessArt as an organisation. One of NESTA's most significant contributions was to enable AccessArt to buy-in professional expertise to guide the organisation's future growth.

With the aim of making what was actually quite a weak organisational structure legally more robust, the directors were able to pay for solicitors' advice, as well as to hire Jo Buffery on a part-time freelance basis. Jo became a major asset to AccessArt, working hard to achieve charitable status for the organisation and to promote and disseminate the project.

Paula working on the 'Immersive Learning Space' in her shed in the garden.

4. Participants

4.1 'Explorers'

Teenagers engaged with the Immersive Learning Project on three different levels and through three different phases:

4.1.1 Teenaged explorers who had a primary role in the project, and on whose personal creative experiences the project was modelled. The project worked with the same students for more than two years, and followed a small core group over three academic years: the end of Year 9; Year 10; and the beginning of Year 11.

Broadly, the project provided opportunities for explorers to:

- Explore their own individual creative expression
- Expand and broaden their experience beyond the classroom by attending trips and workshops tailor-made by AccessArt to match their requirements
- Investigate how they react and learn in 'space' and by 'doing'
- Record their experiences digitally with short-burst video and through audio interviews with the microphone
- Identify their preferred place of learning – action
- Explore different media and delivery of ideas (integrated into the creative activity)
- Verbalise (and rationalise) creative experience
- Understand the ideal venue and time for creative activities to happen – street, museum, studio, landscape, bedroom, urban space
- Seek advice and mentoring from creative adults in related fields, and from interested and supportive professionals

4.1.2 'Distant' explorers, who were not directly involved in the initial workshops, but whose responses to the Immersive Learning Space were monitored by Grace Sim and Luther Jones (see also 9.3, below). Distant explorers also shared interests with the teenaged explorers – for example, skateboarding, dancing, being outside.

4.1.3 Teenagers who were not involved in the project but who use the Immersive Learning Space via the web, as a source of inspiration or facilitation.

Overall, collaboration with explorers was wholly successful and provided the project with inspired visuals, created by the teenagers in their own time, as well as with heartfelt testimonials about their own creative processes and experiences.

In all of their encounters with the teenaged explorers, the project directors were impressed by the students' generosity in sharing their inspirations and anxieties, as well as by their ability to articulate both verbally and visually what moves them in the world.

Digital photo by James year 10

4.2 'Inspirers'

Introduction of the teenagers to the inspirers (creative adults) provided the backbone of content and recurring themes in the project.

There was far more common ground than there were differences between individuals' creative processes across the generations (for example, Ingrid Schröder, architect, shared with Isha and Isamaya a real interest in audience, object and venue); and general shared themes recurred and echoed. Originally, the adult inspirer had been seen as a facilitator – someone who would woo creative expression out of the explorer; or someone who would act as a mentor or role-model to the budding creative teenager. The inspirers did indeed fulfill these roles, but the relationships went beyond that. It was the shared experience that became important.

Venue and activity were crucial to the success of the workshop series, but still more important was the process of 'matchmaking' the inspirer to the skills and interests of the explorer. This requirement made full use of the AccessArt directors' in-depth knowledge of the creative industries, and of the individuals working within them. Numerous interesting practitioners were researched and met; explorers were consulted on an ongoing basis to ensure that the project remained 'on track'; and dialogue continued with all contact teachers.

In the long-term overview of the project, it was essential that all activities and workshops should provide a platform for discussion in the future – and for a full understanding of what had taken place. A continual process of evaluation and discussion, with both explorers and inspirers, of the workshop outcomes provided the building blocks for development of the Immersive Learning Space (see 7, below). Feedback from the workshops themselves as one-off, isolated experiences was important; however, the workshops also needed to be a springboard to a deeper experience for the teenagers – to create from their responses more evolved and relevant experiences.

It transpired that there was an overlap not only of interests between groups of inspirers and explorers, but also of creative process and experience. Common ground was discovered in brainstorming, consolidating and realising ideas[1]. The inspirers helped the explorers understand the relevance of their own interests to their own creativity.

Both inspirers and explorers added experience, testimonials and visuals to the final ILS, and their 'weight', both in terms of content and inspiration, was equal. In fact the explorer often became the inspirer, and vice versa. This interchange and exchange of roles was an unexpected outcome of the project.

[1] See www.accessart.org.uk; 'Launch Immersive Learning Space' (ILS); search icon; all modules in 'Brainstorming' and 'Getting Started on Creative Activities'
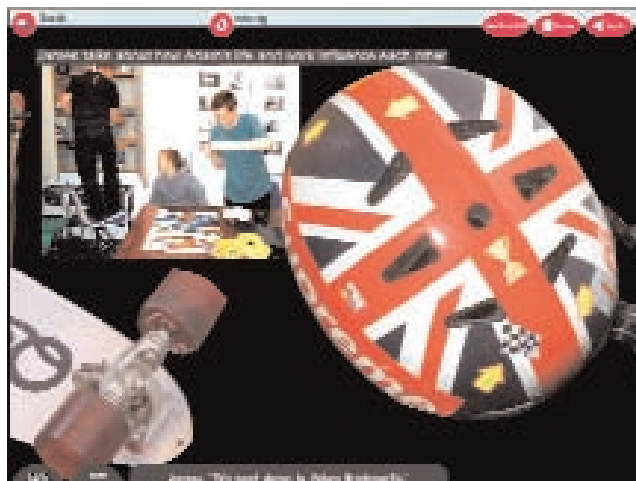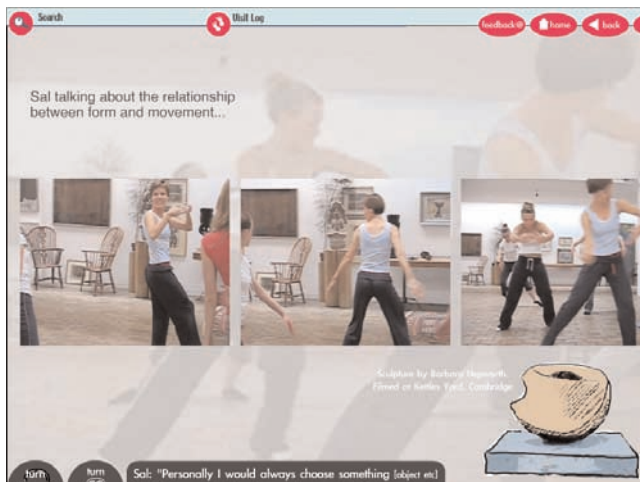
Explorers & inspirers: the shared experience

Orla was enchanted when she met Martyn at his home and studio in Norfolk[2]. She said how wonderful it was to meet 'someone who had been making their whole life'. She was amazed by their common interests – fish, scuba diving and nature – and they spent a long time talking about the birds in Martyn's garden.

Orla: " ... *Yeah, Martyn has his own studio in the Norwich area, it's out the back of his house in this kind of shed-like area... well when I first walked in, I just though 'wow' it's quite big actually, 'cause, I wasn't expecting it to be kinda big and everywhere there was a little something like a piece of wood or a piece of equipment, and it was slightly cluttered in some corners... it kinda showed me that he made things his whole life, and how much he enjoyed it, and it seems that everywhere you go it's something he's made not something he's bought from a shop... it's something he's made and he's proud of and it's beautiful really to see someone that old who's made stuff his whole life.*"

[2] See www.accessart.org.uk; 'Launch Immersive Learning Space' (ILS); search icon; 'Studio'; Sculptors' Studio'

Orla's visit to Martyn's studio

Adam Brinkworth, designer, shared with James a real interest in motorbikes, racing and general high-speed action. They felt a pleasure in detail when it came to high-tech design, and could talk for hours about the latest stunts performed in the US by performance skateboarders, and the videos and websites that captured these triumphs.

Together with James, Adam Brinkworth and Ben talked in detail about skate design, and how skateboards had evolved over the years. They shared a genuine excitement in how this had been led by the 'need' for speed, and loved the fact that skateboarding, snowboarding, and surfing had evolved one from the other and in response to the environment – that each small evolution informed the next advance and that of the next sport. The relationship between design and environment was such a key cross-over in interest that it became the topic for the first online module in the Immersive Learning Space[3].

James

"Me, Ben and Mrs. Shires took photos of Adam Brinkworth's place, to give a good understanding of how he works and how his environment is. For most of the day we were walking around his office. We went to look at some of his designs on the computer and the way they were set out is very realistic and the new designs look very modern. There's definitely a sense of playfulness and fun." James, Brinkworth's studio

[3] See www.accessart.org.uk; 'Launch Immersive Learning Space' (ILS); search icon; 'Inspirers – Adam, Designer' – then 'Designers' Studio (Materials)'; 'Designers' Studio (Studio)'; 'Adam the Designer (Inspiration)'
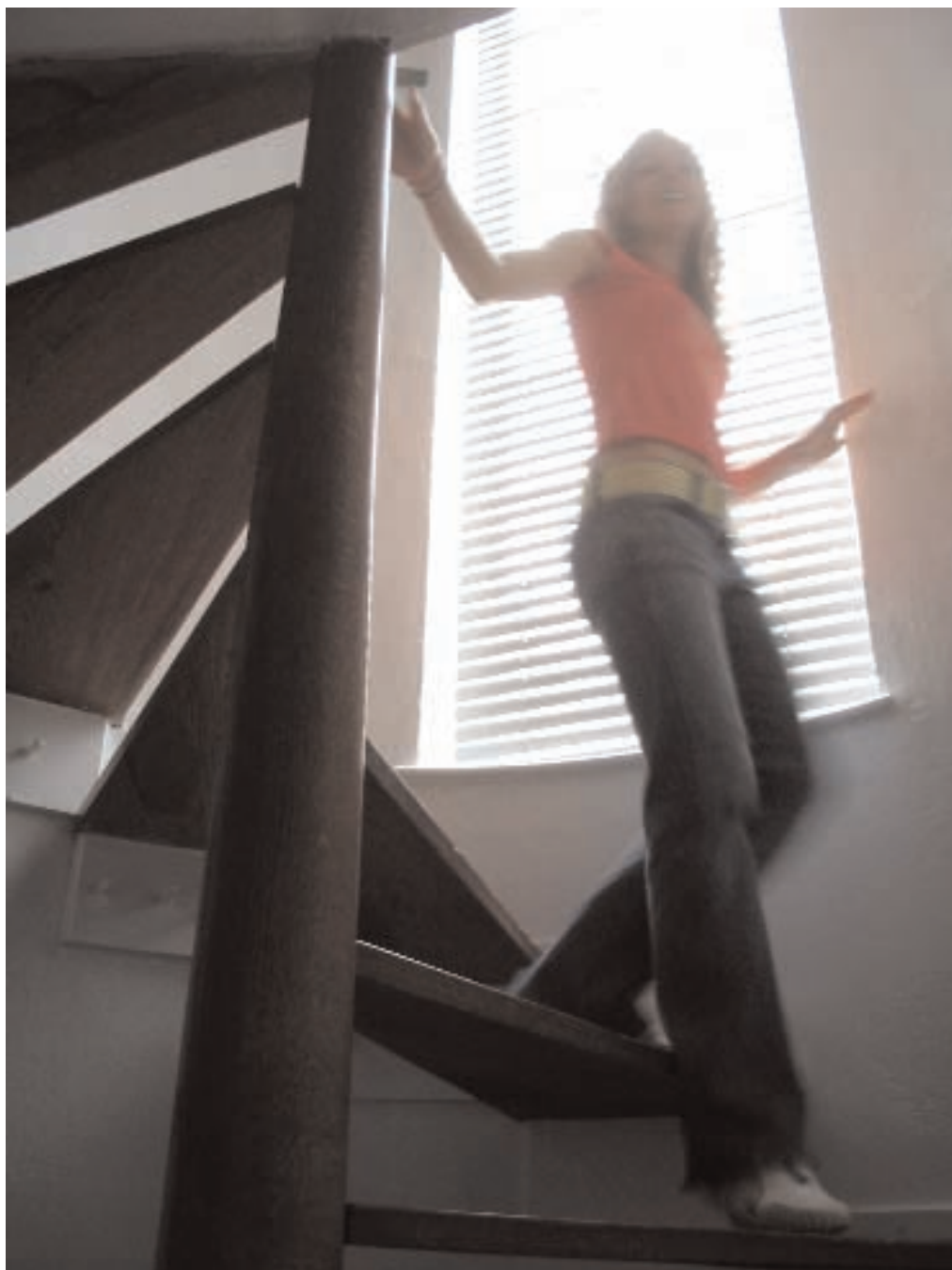
'Spiral' Digital photo taken by explorer Grace. Kettles Yard Cambridge

"I always have a stock of things that I know I really like... or images or books or bits of text or something I look at and then that refocuses my mind on what things excite me. If I'm writing or thinking about a project on my own then I'll probably either go and talk to someone or sometimes what I do is go down to London and look around at spaces, or er... exhibitions, or go to a good book shop and find a book that's full of amazing pictures... things like that." Helen, Inspirer

4.3 Teachers

The project benefited immeasurably from the solid and positive alliances built up with individual teachers. The teachers themselves helped select the core group of explorers, and worked to deepen relationships with them.

It must, however, be emphasised that these were teachers who were already concerned to further the creative development of their pupils, and so empathised with the project's desire to work with visual and kinaesthetic learners.

The project would have been impossible without the collaboration of the schools and teachers who have facilitated relationships with the teenagers:

- Rhys Wilson, Head of Creative Studies – Bassingbourn Village College, Hertfordshire
- Darren Coxan and James Durren, Media Studies – Parkside Community College, Cambridge
- Jane O'Connall, Head of Hearing and Language – Cottenham Village College, Cambridgeshire
- Priscilla Morgan, Peripatetic Teacher for the Blind – St Ivo School, St Ives, Hunts
- Carolynn Cooke, Head of Art – Impington Village College Cambridge
- Nikki Price, Head of Art – Bassingbourn Village College, Hertfordshire
- Rachel Shires, Art teacher – Bassingbourn Village College

'Responding to Space' Tate Modern workshop July 2003

5. Project Structure

5.1 Consultations – from the outset

From the outset, the project invested in building relationships with teenagers – working with them to try and answer some of the fundamental questions of what they need, from adults, in the way of resources and technology to further their own creative development. It asked the question, 'When and where does learning (creative action) happen best?' – exploring how the creative process can best be facilitated; raising awareness of what some of the underlying issues are for teenagers; and addressing what future actions may be piloted to address their needs.

In the project's ongoing interviews, discussions and consultations with the teenagers, the following themes emerged again and again, relating to the constraints that the students face within their schools.

Clearly, it was not desirable for the project to criticise the educational establishment and how it may or may not constrain the creative teenager; instead, it required a positive approach, using the ILS as a platform to raise awareness of shared experiences of the creative process.

The directors hoped to inform and guide those responsible for harnessing teenaged creativity and inspiration, through example and testimony; to gently raise awareness of the creative cycle and how educational providers could do better in nurturing the creative teenager and active learner by addressing issues such as time, space, resources and process.

5.1.1 Time

A recurring constraint, which needs to be addressed (by the educational establishment), is that of time. As adults we understand pressures of time, and the demands placed on us by home and work. As creative adults we may also understand the creative cycle and process – being aware that some days, producing 'art' is just not going to happen, while on others it may flow. Yes, this cycle of creativity can cause a lot of 'angst' – but how does it affect a teenager, whose flow is controlled by a strict timetable?

In the interviews with teenaged explorers, the issue of time came up repeatedly. All students emphasised the time pressures imposed on them in their everyday school routine, from timetabled events to extracurricular activities. One student said that in her school, they are actually assessed on 'Time Management'. In an action-packed curriculum, this must be of the utmost importance – but where does it leave the creative teenager, trying to pursue their creative impulses? Is there time and space within the current educational structure to allow creative potential in the teenager to develop and bear its fruits? Can teenagers reach their true potential if they are a) rushed and b) asked to 'create' on demand during a designated slot in the day?

One extreme example of time constraints was that of Harmony, a Braille reader, working during her GCSE ceramics lesson in a mainstream school. Her ability to reach the classroom on time – navigating her way, unguided, along corridors, up stairs, and through doors into the Art classroom – was amazing, as was the way in which she found her way to the desk, retrieved her pot from last week's lesson and set herself up with tools, water, and the sponge necessary to make her vessel: a teapot. Inspired by her passion for horses, it was Harmony's ambition that her teapot should be made in the shape of a horse.

Having set herself up, Harmony waited to hear the teacher stress 'how important it was to stick to the original design'. The class listened, itching to get on with it (one boy was actually reprimanded for touching his pot). Harmony's hands worked, feeling her way around the pot – feeling the water, rolling the clay, cutting the clay, feeling

the pot, sensing where was the 'right' place for her coil to go, cross-hatching, wetting and then feeling again and joining. She worked slowly, considerately, carefully … until the teacher said, 'Time to tidy up, put every thing away, leave the classroom as you found it.'

Harmony put her pot away, with an impressive lack of frustration at having to tidy up after having had time to put only two coils on her pot. And all this, with the added pressure of the teacher reminding the class that the lesson was the last such designated for making the coil pot; all those who had not finished would have to complete the work during their lunch hours.

This is an extreme example, but numerous such testimonials were collected from teenagers voicing their frustrations at the time constraints imposed upon them. Equally, unanimous feedback from the original workshops and subsequent trips and workshops expressed joy at having time to work an idea or process through from beginning to end.

In the Sculpture workshop at Norwich School of Art, students were given the opportunity to work all day on a sculpture, following their own impulses and exploring the materials provided. They worked alongside undergraduate sculpture students, diligently and with focus filling all the time and space that they were given. And the results were outstanding: Martyn Welch, Head of Sculpture, said that the work produced and ideas articulated were of BA standard.

The Skateboard workshop in Ipswich was another day that offered the opportunity to 'collapse' the timetable. A group of students – mainly boys, with one girl – spent the day skateboarding in Ipswich with digital artist Luther Jones and interior designer/skateboarder, Adam Brinkworth. This was an incredibly dynamic workshop, which gave students the chance to use new technology and meet likeminded professionals. In respect of time, the astounding thing was the discipline and stamina exhibited by all of the participant explorers. They did not stop skating all day: they arrived at the train station on skateboards, and skated throughout the whole workshop. The directors – exhausted from just watching – took a taxi home and happened to spot a group of them still skateboarding at the new skatepark in Cambridge.

[4] Testimonial: Orla – click www.accessart.org.uk; 'Launch Immersive Learning Space' (ILS); search icon; 'Teenagers – Orla sculptor'; 'Brewing'

[5] Testimonial: Zuza – click www.accessart.org.uk; 'Launch Immersive Learning Space' (ILS); search icon; 'Teenagers – Zuza sculptor'; 'Brewing'

The handful of teenagers who participated in the project were given the opportunity of 'time', as well as the opportunity to understand and articulate how time affects the creative process. In the Immersive Learning Space, time is a constructive element. One of the most resonant and poignant areas is 'Brewing'[4] [5], where Orla and Zuza are able to articulate how time affects their creative processes. Anyone who has engaged in creative activity will recognise what the girls are describing: the moment when all feels stagnant, but when, in fact, ideas are consolidating and germinating.

The project also highlights the fact that for creative individuals who need to perform, or to produce, time will be found – even if not within the perimeters of school itself.

'Brewing is quite, well interesting, because you're sat there, and you're, like, 'I want to do a picture, or something for my art' and you just can't and you try and it doesn't work and you get a bit… frustrated and you can't do it and you don't really want to do it, so it just doesn't turn out right, but then you come home, one day, and maybe you don't have to do any work for anything and you just pick up a pencil and start drawing and it all comes out… then progressively you do loads of other stuff as well and you can't really stop yourself and all the ideas come out all at once'.
Orla describing her creative process. Year 10

Photo: 'Bee', Orla, year 10

5.1.2 Materials and resources

Of course schools have to manage their budgets. Art teachers need to care for their limited resources; undoubtedly, children from a young age need to learn to conserve. However, is such careful management of resources resulting in students being deprived of the impulse to transform and manipulate the material world, and the real building blocks necessary for them to become articulate with their hands? Are they missing the opportunity to understand the physical and tangible properties of materials, of transforming and manipulating, of testing the strength and resistance, the temperature and the texture?

Opportunities presented to the explorers, through the workshops, to work materials and experiment with process presented the project with testimony of how few opportunities they had previously enjoyed. The Sculpture workshop in Norwich was overwhelmingly successful, with participants confirming – over a year later – how much it had impacted on their lives and even on their educational choices. The materials section of the I ILS aims to celebrate the material world and the need to explore material. It also hopes to gently inform teachers and schools that experimenting with materials does not have to be a drain on resources.

Sculpture made by Vicky at Norwich School of Art - sculpture workshop 2003

Stage design for 'Rusalka' at Opera North, 2003

"This was a scaled down model of it (set design for Rusalka Opera) we were shown. These are little cardboard cut-outs. It's little blocks of Perspex stuff... and the back's just white, I can't remember what it was made out of but it's just white painted stuff, which is covered in glue... and we were all really tempted to swing on the swing... 'cause there was a big swing hanging down in the first scene." Ben year 10

5.1.3 Space

Another major problem for both teachers and students in schools is 'space'. For teachers, the problems of storage and restrictive classrooms with large class sizes make facilitating larger-scale projects difficult; this in turn results in students being constrained and constricted in their activities.

How many GCSE students actually have the opportunity to explore ways in which to express themselves creatively (at school) without constraints on space?

Students from Bassingbourn said that the Drama department was a crucial creative space for them. A new Drama block, and active, inspired staff working towards delivering performances at the highest level, give students the opportunity to construct large-scale stage sets.

The Immersive Learning Space shows examples of different environments in which creative adults work: the sculptor's studio, the designer's studio and numerous examples of the spaces which teenagers themselves appropriate in their creative activities. In 'Studio'[6], the resource explores how the creative space can be the street, the bedroom or the dance studio, and tries to extend the perception of where creative activity may take place – beyond the at times restrictive walls of the classroom.

All students who participated in the AccessArt workshops responded to the exploration and use of space, and were able to recognise the importance of space as a tool in creative action. The explorers brought to the project glimpses of the sorts of spaces that they themselves appropriate and which become the arena for their creative activities.

[6] Click www.accessart.org.uk; 'Launch Immersive Learning Space' (ILS); search icon; 'Studio'

Creative Dance Workshop - Tate Modern 2003

Photo: Alex year 10

5.1.4 Making

The practice of making actually demands very different skills from that of drawing or painting: it is dependent on spatial and environmental considerations; it works in the round; and it analyses and reacts to the physical world. This is true whether work is born from concept or through the physical practice of making.

In their work in schools (below GCSE level), Paula and Sheila noticed that two-dimensional work is pushed much more readily than is '3D'. This is for obvious reasons: 2D work can be more easily controlled and confined to 'table work', is less dependent on a wide variety of materials, and teachers are often threatened by the mess and energy that 3D work can demand. Furthermore, teachers are rarely trained as sculptors.

In their interviews with explorers, the directors asked: 'What do you find easier – drawing or making?' The vast majority said that they found making easier. This reinforced the directors' anxiety that it is those children who learn best through making and doing who are often disadvantaged at school. There, even Art classes do not provide the opportunity for students to access their learning strengths: making, and exploring the physical world through making.

Zuza at sculpture workshop, Norwich School of Art, 2003
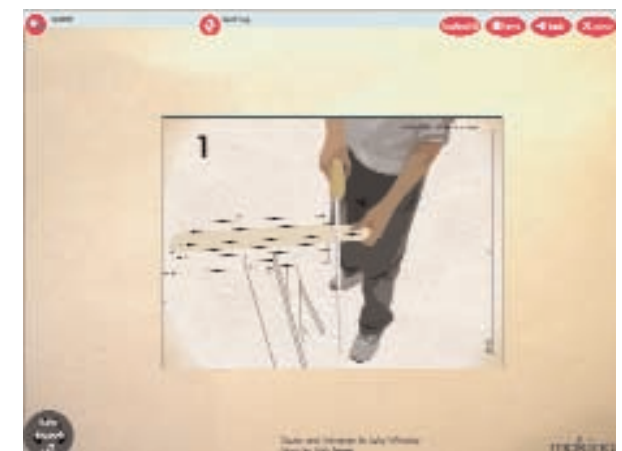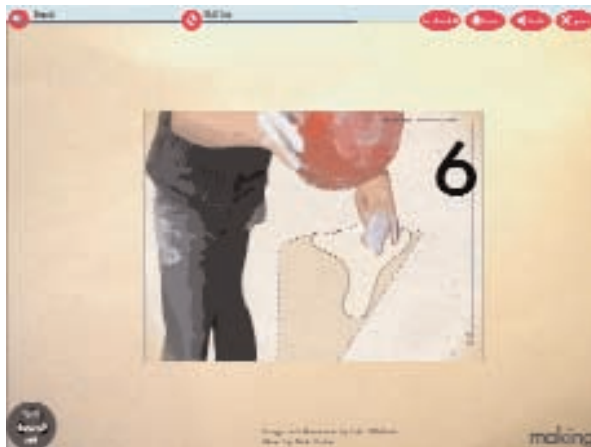
Julie: 'Hi Francesca. What do you think of your sculpture?'
Francesca: 'Well, I think it was very good… it looked like a magic carpet.'
Julie: 'So, what did you enjoy most out of your sculpture day?'
Francesca: 'Er… I liked having the freedom to do stuff and using new materials… and having your own work space'.Julie and Francesca year 10 after their workshop day in Norwich

5.1.5 Digital technology

Access to and use of digital technology[7] in the Art room and more broadly (in a cross-curricular approach) varied from school to school. Often the Art room had little in the way of digital resources, and a resistance to integrate digital technology with teaching process or methodology. A recurring theme with (Art) teachers was that they did not often have the technical skills necessary to keep up with the demands of the students.

The introduction, by the Immersive Learning Project, of digital technology being integrated into creative activity had positive results:

- As a creative tool in its own right[8], giving teenagers a 'voice'
- As a way of documenting creative activity
- By incorporating visual and aural content (see under section 7, below) directly into the web using multimedia applications

Throughout, the project dictated that technology should be guided by the students' interest in and engagement with it.

In the Unit for the Deaf in Cottenham, the will was there, and the technology – thanks to a small grant to buy a laptop for the Unit – but there was a lack of expertise in accessing the technology to its full potential. On the positive side, this gave some of the students an opportunity to explore the technology without adult interference. There was anxiety displayed by one teacher, in case the very expensive equipment should get damaged – evidence once again of the tussle between a need to conserve limited resources and a desire to push their potential.

Clearly, a shift in attitude is evolving as new generations of teacher emerge, with more current (digital) technological skills. This was seen clearly when Grace Sims went into three schools to evaluate the ILP[9]. Grace is a Cambridge graduate in Zoology, with an interest in the project because it centred on 'responding to spaces'. In the second year of the project Grace underwent some teacher training, so was very clued up about issues related to learning styles. When she went into the schools, the way in which she naturally integrated technology into her activity – be it interacting with the students, or packaging her findings for the directors – was striking.

Grace used short-burst video camera to record events, and helped the teenagers to do the same, as well as to make their own documentation of events. She used animation packages (Serif Draw) to animate the students' work in an exercise to demonstrate active learning, and PowerPoint in her icebreaker with the explorers.

Like Grace, Luther Jones, who ran a parallel evaluation of the project with 'distant explorers' in Lincolnshire, also integrated technology into his approach. As a digital filmmaker, the use of digital film and camera came naturally to him so that he was able to help the young people build confidence in their use of digital technology.

Of course, many of the teachers who collaborated on the project were incredibly able and had a deep understanding of the scope and application of digital technology and the Internet – indeed, it was precisely this recognition which allied them with the project. Rhys Wilson, Darren Coxan and James Durren are all highly informed in this area, and all integrate new media into their teaching. In conversations, all of them said independently how they appreciated the experimentation of the project with

[7] The PC, Internet, 'add-ons' (e.g. digital camera, microphone, drawing tablet and packages – i.e. multimedia [Flash], drawing, photographic [Photoshop], audio editing packages [Sound Forge])
[8] For examples, see: www.accessart.org.uk; 'Launch Immersive Learning Space' (ILS); search icon; then 'Filmmaking' (all modules); 'Tools' – 'Digital Cameras'; 'Tools' – 'Laptop, Microphone and Digital Camera'

integrating digital technology into a cross-curricular approach to learning. They confirmed that digital technology should not be seen as an isolated subject; rather, its potential should be championed across subjects and across applications[10]. Many students had computers for homework, games and access to the Internet; relatively few had software packages such as sound package 'Sound Forge', graphic package 'Photoshop', web package 'DreamWeaver, or animation package 'Serif Draw', and the computer tended not to be used for broader applications.

Conversely, there was a breadth of ability in using digital equipment. One group of skateboarders had access (through siblings/parents) to state-of-the-art equipment – laptop, camera and video, including a 'fish eye lens' for special effects and editing suites. This group was extremely able in using the equipment, as well as using the PC and software packages to edit and create short skateboard films of their own. In contrast, a group of boys in Bassingbourn, 12 miles outside Cambridge, had access to very limited digital technology outside school. None of this group had a digital camera and only one boy had access to the Internet – though most did have a PC.

This contrast in access to digital technology was reflected in a large split in students' fluency and confidence in using digital media – one reason why the directors chose to concentrate their work in Bassingbourn VC for the second part of project development (from September 2004). They thought that students there would benefit most from the opportunities with which they were able to present them.

9 April to May 2004; see also section 9.3 of this report
10 For examples, see www.accessart.org.uk; 'Launch Immersive Learning Space' (ILS); search icon; 'Time and Space' – 'Filmmaking' and 'Tools' modules

5.2 Workshops – Year One of the project[11]

The Immersive Learning Project passionately sought to work with teenagers to harness and support their own individual creative process and potential – with a view also to liberating them, albeit for a necessarily limited time, from the constraints upon that potential as were revealed through the project's ongoing consultation process.

Born out of the ongoing consultations with teenagers as described above, in Year One of the project a workshop series was created, highly tailored to the needs and interests of the individual students, and built in direct response to deep discussion with them. The workshops were not enforced by a curriculum saying what students should be learning, but were rather driven by what they wanted to be doing. They provided the fulcrum for the relationship to develop and the dialogue to deepen with the teenaged explorers. The workshops also provided digital materials for the subsequent development of the Immersive Learning Space (see 7, below).

[11] A further £1000 of funding came from South Cambridgeshire Regional Arts Development Fund, towards the costs of the workshops and equipment

The following workshops took place in Year One of the project:

- Creative Dance workshops – responding to sculpture/space/audience at Tate Modern, London, and Kettles Yard, Cambridge
- Skateboard and Film workshop at Ipswich Skate-park
- Large-scale Sculpture workshop at Norwich School of Art
- A trip to Opera North to explore set design
- Visits by explorers to inspirers' studios, workshops and offices

Overall, approximately 45 students (explorers) attended the first phase of workshops (ten at each workshop). The students were in Year 9 – 13 years of age.

Of this original group, the directors worked closely with a core group of 12 during their Year 10, through the second phase of workshops and the development of the Immersive Learning Space. Most of these students were from Bassingbourn Village College.

Tate Modern, 2003

Norwich School of Art and Design, 2003

5.3 Actions and inspirations – Year Two of the project

For some explorers, the workshops which took place in Year One of the project were 'isolated experiences', or one-off events; they celebrated activities enjoyed by the students, and pushed their boundaries by introducing adult inspirers and new technology.

However, for the core group of explorers, the original workshops were a springboard for creating further tailor-made activities and for deepening relationships with:

- Adult inspirers
- AccessArt creative directors
- Technology
- The evolving Immersive Learning Space

Though the original budget allowed for just one workshop series – in the first year of the project – by Year Two it had become clear that explorers required more such opportunities to build on themes and outcomes arising from the first series. Explorers needed to meet with adult inspirers in their place of work; those who had articulated an interest in stage design and theatre wanted to explore this further; and individual mentoring was necessary for explorers to deepen their own creative activity and explorations.

Extended dialogue and interviews, post-workshops, led the AccessArt team to develop a sustained relationship with a core group of explorers:

- Individual explorers were offered tutorial-based sessions
- Students were provided with short-burst video cameras to record their creative actions and inspirations in their own time
- AccessArt created tailor-made opportunities for explorers to meet adult inspirers who would encourage creative development and emphasise the potential of those creative skills in the adult world
- Regular 'feedback' interviews were recorded as audio-files on the laptop

This resulted in the following:

- A trip to Opera North, facilitated and organised by Vicky Mitchell (acting Education Manager for Opera North), with three explorers from Bassingbourn VC (September 2003)

- A visit by two explorers and their art teacher to Adam Brinkworth's design studio in London (November 2003)
- A visit by Orla Brandon, an explorer, to Martyn Welch's sculpture studio and foundry – at his home in Norfolk (February 2004)
- Interviews with Ingrid Schröder and Helen Stratford at 5th Studio, Cambridge (June 2004)
- A Dance workshop with Sal Coxon using 'Body to express sculptural form' at Kettles Yard, Cambridge, with four explorers from Parkside Community College and Bassingbourn VC (July 2004)
- Development of distant explorers' evaluation with Luther Jones, working with the explorers' peers in Lincolnshire, who had no knowledge or background of the project, to compare experiences and see how they responded to the evolving ILS
- A similar programme run by Grace Sim in East London

Additionally, AccessArt creative director Sheila Ceccarelli worked throughout the second year of the project to develop and deepen relations and dialogue with individual explorers at Bassingbourn VC, Hertfordshire – and subsequently at Parkside Community College, Cambridge; Cottenham Village College, Cambridgeshire; and St Ivo School, Cambridgeshire

'Inspirer' Ingrid, reflecting on 'space' with two year 9 students from Impington VC

5.4 Generation and creation of digital content

Images and concepts from the original workshops produced the backbone of content for the Immersive Learning Space (ILS). In Year Two of the project, the ILS was thus created from the teaching and learning resources that grew out of the workshop series and subsequent activities; these had generated a wide range of high-quality digital materials that provided its core content.

Producing the images during the workshops and subsequent activities also gave students the experience of integrating digital technology into the creative process. By the end of the second year, those explorers who worked with the project for its duration became very 'literate' and 'articulate' in using the technology as creative tools.

Digital content generated by explorers, or documented by them during workshops, was in the form of:

- Digital images (jpgs)
- Audio recordings (aifs)
- Short-burst video clips

Evolution of the Immersive Learning Space is covered in a separate section of this report: see 7 below.

Inspirers and Explorers at the Tate Modern, 2003

Kettles Yard, Cambridge, 2004

6. The Workshops

6.1 Methodology and ideas

The workshops were designed closely to meet the needs of the teenaged explorers who were consulting on the project.

The teenagers were interviewed informally as a group to put forward the sorts of activities they enjoyed, and where they enjoyed them. In-depth discussions focused on what is meant by 'reacting to spaces' and 'active learning'. (Echoes of these testimonials occurred later, when Grace Sim and Luther Jones worked in schools distant to the project.)

Students were selected by their teachers, but with a strict brief from the AccessArt creative directors. This required that explorers should:

- Benefit from working outside school and outside the curriculum
- Be considered by the teachers as active/spatial learners
- Engage in activities outside school which developed skills relevant to the project, and which 'reacted with space' – e.g. skateboarding, dance
- Possibly benefit from an 'art-school' experience with more self-led learning, and more opportunities to 'make'
- Be of mixed academic ability (neither academic success nor academic failure was a deciding factor)

The initial questions asked of the explorers were:

- What do you do outside school?
- Do you have access to technology?
- Which elements do you enjoy most in Art lessons and within the creative arts?
- If you could have an opportunity to do something related to your interests – an opportunity you have not had to date – what and where would that be?
- Do you prefer drawing/painting or making?
- If you had the opportunity to meet a professional in a field related to your current interest, whom would you select?

Many students were interested in stage sets and in seeing a theatre production being realised; there was a strong interest in television production too. Students wanted to meet an architect or designer and 'see what a real studio was like'. Likewise, one group of students wanted to see a sculpture studio and have the opportunity to work alongside an artist onsite.

There was a strong contingent of boys whose passion was skateboarding: given a chance, they said they would like to spend the day at a skate-park. They told us their favourite places to go and how frustrated they were, particularly in Cambridge, to have their movements restricted by the numerous rules on College-owned properties forbidding skateboarding. They described how they appropriated spaces then got banned and had to find fresh turf.

One group of boys had already created their own digital media of a very high quality – but thought that AccessArt could be useful as a publishing place so that other students could see what they were up to (more coverage).

A group of students loved street dance, liked the idea of being seen in public (in a very busy place), and were interested in the idea of 'audience'.

6.2 Workshops – first set, June/July 2003

- Creative Dance workshop – Movement and Dance responding to sculpture at Tate Modern, London. Led by dancer/choreographer Sal Coxon
- Creative Movement and Space workshop – responding to 'Audience and Space' at Tate Modern, London. Led by architects, Ingrid Schröder and Helen Stratford
- Skateboard and Film workshop at Ipswich Skate-park. Led by interior designer /skater Adam Brinkworth, and filmmaker Luther Jones
- Large-scale Sculpture workshop. Led by Paula Briggs and Sheila Ceccarelli at Norwich School of Art, and in collaboration with Sculpture BA students and Martyn Welch, Head of Fine Art Sculpture

The overriding theme of the workshops was one of wanting to work in partnership with the students: to acknowledge and even reward their creative enterprise and actions. The key aims were to stimulate them and provide them with opportunities to build on their natural activity and interests; to aid them in reaching their full potential as creative individuals; and to respond to them and their interests with a view to gaining their trust and respect.

6.3 Workshop outcomes

Though representing only six days' worth of workshopping in total, the initial series (June/July 2003) provided the backbone for the Immersive Learning Project as a whole. It is important to emphasise once again that the workshop series was highly tailored to the needs and interest of the students themselves, and had been built in direct response to detailed consultations with them. The workshops were not enforced by a curriculum saying what students should be learning, but were rather driven by what they wanted to be DOING.

A year after the original workshops, interviews with the explorers revealed that their experiences had had a huge impact on their creative development. Students remembered what they achieved and enjoyed; the exact process they used; and the problems they encountered. They remembered the adults who worked with them and the conversations that they had with their friends on the way home.

The AccessArt directors spent many hours analysing why this might be – concluding that in their opinion, the combination of new (exciting) venues, more time, a greater abundance of materials, and meaningful contact with interested and like-minded adults generated such new opportunities that in memory they became 'isolated experiences'. Perhaps the best example of this would be a day trip that one might remember with a parent or grandparent; or a trip to the beach on a sunny day; or going to the cinema for the first time (it may not be the exact detail of the film that is remembered, but the lights going out and eating ice-cream). What is interesting is the educational value of the isolated experience.

Schools can be reassured that they don't have to completely review their teaching – that actually the everyday reality of school gives the isolated experience even more impact on the overall creative development of the individual. Students are themselves generating and creating their own experiences.

The isolated experience has enormous educational value when it is tailor-made to the child's interest and guided by an inspirational adult.

Photo: Kettles Yard, Cambridge by Grace

Explorers & inspirers reflect on the project

'AccessArt was exploring new ways of exposing young people to unexpected and exciting activities. It is easy for young people to slip into the routine of mainstream education and, as a result, struggle to stay engaged and questioning. The activities that were undertaken were as diverse as their outcomes; the only unifying feature of all activities was that they allowed the young people involved the space and time to explore the places in which they exist, and to find new ways of defining them'. Luther Jones, 'Inspirer'

'For me it was very much about understanding the children's instinctive response to the places that they were in, and allowing their responses to inform the way in which we were teaching. In this way it was also about providing a framework within which the students could begin to make connections between their experiences ... in the case of the Tate workshop, looking / recording / re-enacting / running ... and using the relative freedom of this framework to find their own ways of experiencing space. I was particularly impressed with the eloquence of the responses – the students often showing a more astute understanding of the nuanced difference between public and private space than some Architecture undergraduates'. Ingrid Schröder, 'Inspirer'

'I found that the Immersive Learning Project gave Orla experience of Art outside of the school curriculum. It allowed her to try out different media through sculpture and photography. It helped build her self-esteem with regards to her talent, especially as her photographic work was deemed appropriate for the AccessArt Launch (much to her surprise and delight). She had the opportunity to display her work outside the school environment and this gave her a glimpse into the Art world which she otherwise would not have had.' Valerie Brandon, Parent

'It was nice to see people who put Art first instead of it having to take a back seat to Maths, Science and basically every other school subject. In a way I wish I could have introduced my friends to it in Year 9, because despite being talented at it they chose not to take it for GCSE due to it being (no offence intended) unimaginative, unenthusiastic and under-funded ... just plain ignored (well, that's the National Curriculum for you!). What kept me going was the compulsion to create and draw despite all obstacles, and AccessArt really brought Art to life again for me, it's been live and kicking ever since. In short I just want to say a huge big Thank You to all members of the AccessArt team for their input and for helping me make the most of our trips. PS: Please, Please, Please, if

you are running any more trips or stuff, can I come?' Orla Brandon, now Year 11, Bassingbourn VC

'I loved it. I can't quite explain why this project was so fascinating for me, but I think it combined my interests: Art, IT, Science, and Education. It was great to see educational research in practice, especially guided by such a free approach – a real breath of fresh air. I have realised that I am a very visual and kinaesthetic learner myself, which is perhaps why I found it so interesting to learn with and from the teenagers themselves. In many cases I felt there was a real connection in terms of a way of thinking. Likewise, with the other adults on the project; there was a similarity of creative approach that really sparked ideas'. Grace Sim, 'Inspirer'

'Thank you for allowing Alex to be part of your project. The work has enabled Alex to broaden his outlook and think about different areas he can work with for his GCSE Art. He thoroughly enjoyed his time as an explorer and was very proud to see his work on display at the launch party. The photographs and his text will give his workbook a truly unique content. For my part, the opportunity to work in different areas of a subject was invaluable and the ideas that have come from my involvement with you and your space are endless; the project planted seeds for future projects that may otherwise never have come about. Thank you again for your input and I look forward to being able to work on other projects with different students.' Lynda, Learning Support Assistant to Alex, Cottenham VC

Dance workshop at Kettles Yard, Cambridge, 2004

7. The Immersive Learning Space (ILS) (September 2003 – March 2004)

7.1 A digital sketchbook space

All of the above – the evolving pedagogy of AccessArt, dialogue, workshops, brainstorming, mentoring – comprise the 'real life' experiences of the Immersive Learning Project. However, it was never intended that the project should be rooted solely in the real world: fundamental to its realisation was the recording and digitising of those experiences and exchanges, and the creation of the Immersive Learning Space (ILS).

The directors had spent several years leading up to the project creating AccessArt, a 'highly visual learning tool, for the visual arts – unfolding in the present tense'. They had always been excited by the potential of the web for delivery of ideas and content.

The defining element of the ILS was the way in which it set out to trial ideas in a transparent and open way. At first it was simply a place where ideas and visuals could be held and accessed; a place where ideas could be trialled – organic, never static. It was to sit 'up there' and evolve in direct relationship to the content that was being posted on to it and to the audience looking at it. As Paula described it, it was to be a 'digital sketchbook space'.

Informing the development of the ILS was the question: Who is the site being designed for? For the explorers and distant explorers, certainly ... and in the end, for the teenaged user in the wider community of web surfers. But the space also needed to be useful to and inspirational for those who work with and teach teenagers, giving them another insight into teenaged creative activity.

Additionally, AccessArt had ambitions to drive the project towards key policy-makers, strategic people and organisations. It was hoped that this view of the 'immersed' teenager would inform policy and curriculum, and suggest new ways of supporting the creative teenager.

After the workshops, it was unclear how all the content generated should best be used. Should the site comprise a series of online workshops – as had previously been explored through the original AccessArt website? Or was it going to be something entirely different? How could a digital arena be created which reflected not only the real workshops, but also the ongoing philosophical questions being asked: *'Where and when does learning happen best?'*

All instincts pointed towards something organic and minimally prescribed. During one train trip, as the AccessArt directors discussed journey[12] and inspiration, and tried to understand how best to use the visuals and content being collected, they saw the entirety of the project together with common and familiar themes that crossed over during the workshops. A 'container' was therefore required in which ideas could be

placed, to demonstrate the commonalties and differences, shared and private, of the creative process.

This container or place was to become the 'Immersive Learning Space'.
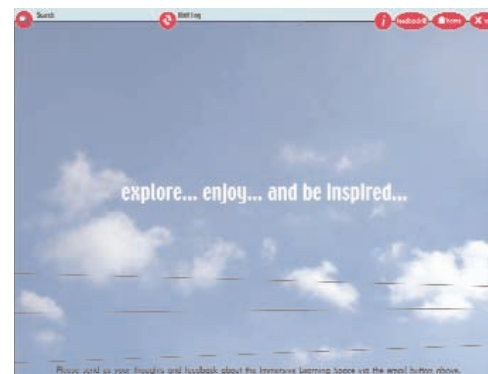
[12] See www.accessart.org.uk; 'Launch Immersive Learning Space' (ILS); search icon; 'Journey'

7.2 A broadband project

A delicate balance was needed between bringing together real people and experiences and experimenting with different ways of delivering content online. Another factor was the new media: this project was an ideal opportunity to see what happens when online delivery of media is pushed to its full potential. It became as much about trying to find a suitable platform – one which would fully exploit the media – for the creation of a new model in education, as it was about presenting content and ideas.

Clare Lovett, original NESTA Programme Manager, had given AccessArt some very good advice at the onset of the project: to keep an open mind as to what the outcomes would be. That included *how the project would be delivered*.

As the Immersive Learning Project evolved, access to broadband in schools and in the wider community was developing at a fast rate. Paula already worked with broadband, as did some designers; a few people involved in the project – such as Luther Jones – were frustrated that they could not yet get broadband, e.g. 'in rural Lincolnshire'. When the directors first met Rhys Wilson at Bassingbourn, there was no broadband at the school (though there was in the library next door) – but by the end of the project they had a high-speed broadband connection.

This development meant that suddenly, the opportunity to deliver high-quality visual images, animations and videos – hungry of bandwidth – to schools and beyond, was present. Teenagers were enjoying cutting-edge skateboard websites like www.dcshoecousa.com and www.billabong.com as well as more eclectic sites such as www.badgerbadgerbadger.com and www.benjerry.com. The advertising model was

already at the cutting edge of exploiting the web and the potential for broadband delivery.

One day during the project, Paula found the most inspirational site yet – www.absolut.com (Absolut Vodka). It was indeed groundbreaking: full-screen and surrounded by music and animation, with comprehensive and slick navigation, but yet organic, visual, aural and intuitive – 'stunning'. This provided a clue as to how the project content could be organised, and dictated the ambition for the Immersive Learning Space: to be unapologetic in its aim to exploit broadband delivery (at the expense of wider accessibility); to see what the full scope and potential of that delivery could be, and if a new kind of learning tool could be created.

www.dcshoecousa.com

www.dcshoecousa.com

www.badgerbadgerbadger.com

www.billabong.com

www.benjerry.com

7.3 Explorers and development of the Immersive Learning Space

The process of 360° evaluation (see 7.5 and 9.3, below), and the idea that all those involved in the project should have some sense of ownership of it, became in integral part of the site development. At the centre of the discourse and the themes emerging from the project were the AccessArt directors, in continuous conversation. Working with the teenaged explorers, the directors found parallels between their own creative processes and formative experiences and those of other creative adults. They began to get glimpses of the processes of creative teenagers, and talked about shared experiences while they worked on the evolving 'sketchbook' Immersive Learning Space.

Paula developed the ILS design from her shed. Through email she could draw upon the input of designers and the team that had been recruited (see 7.4, below). Email became a very powerful communications tool, around which the whole project pivoted.

By October 2003 the sketchbook space – and the concept of an open online area, where ideas could be trialled (visually) in dialogue with explorers, inspirers and the community at large – was launched. Key to its development was the involvement of explorers at an early stage. In a way, the space became a tool from which to start conversation with them.

7.3.1 Sheila's sessions – Bassingbourn VC

It was during this second year of the project, and the development of the Immersive Learning Space, that the project directors' relationship with individual explorers evolved and creative dialogue deepened.

Sheila went regularly to Bassingbourn VC, Hertfordshire, where she was welcomed by Rhys Wilson; he provided her with her own space in one of the music practice rooms, where she could run one-to-one and group sessions with explorers. (Initially, such sessions were held with teenagers who had attended workshops in the previous year, and who wanted to be more involved. Eventually these students were joined by others interested in the project.) Sessions evolved throughout their Year 10: September 2003 to July 2004.
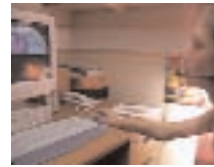
This was an informal set-up, and Sheila was always well received as an independent guest – viewed by the students as being separate from the school and from their Art classes. The staff saw the project as an extra asset to students' broad creative development, and were very welcoming. In its turn, the school showed enormous flexibility by accommodating the trial approach of students taking responsibility for their own involvement in the project, and slotting sessions into their own timetables: explorers were able to miss classes to attend sessions with Sheila. As her time during this period was completely dedicated to the project, she was able to come into the school to meet individuals and groups at times convenient to them; this had a very positive effect on the project and meant that both the ILS and relations with explorers could evolve fluidly.

Key to the success of the sessions was the fact that Sheila only worked with students who wanted to continue with development of the project. Her aim was that sessions should be positive and useful to each student's individual creative development – without becoming a chore or another responsibility that had to be fulfilled. Each session was based on the premise that Sheila was working in partnership with explorers as creative individuals: she was not there to teach, but rather to understand and facilitate.

Sheila took the laptop along to all her sessions, which were recorded using the microphone on 'sound forge'. In initial conversations with the explorers, she was able to draw from the visuals of the workshops which had taken place the previous summer – or to extend the experiences which had been created (for example, meeting Adam Brinkworth in his studio in London; visiting Helen and Ingrid at Fifth Studio, Cambridge; and seeing Martyn Welch at his home and studio in Norfolk). Images taken during those days together were considered, and the students ascertained which elements of the experiences had stayed with them and were most important.

7.3.2 Evolving the ILS methodology

During this time they also started looking at the ILS and other websites. One example of the evolving project methodology was the close work which took place with two boys from Bassingbourn: one had attended the Skateboard workshop; another, the Opera workshop.

Very early in the development of the ILS, Sheila spent several sessions with the boys at the school. Both were both interested in skateboarding and design. Initially, they considered websites and skateboard magazines together – to get a flavour of what the students' design sense was, and what they liked. It was clear that they were very eclectic in their taste: however, they especially liked high-quality graphics delivered in short isolated pockets; they liked strong, plastic graphics; and they 'liked to be entertained' by websites, which had to look good.

Watching them look at pro-skateboard websites, Sheila was amazed by how the students would watch the same clip of a skateboard 'trick' many times in succession. They were articulate in understanding what they saw – the drive to understand the clip was led by the drive to develop their own skateboard skills, and by an appreciation of the pros' advanced skills. It was clear from these observations that the web was a very good place for learning and for picking up information and skills. The boys were capable of surfing and differentiating between what was visually good and delivered to a high standard, and what was poor.

With the same boys, Sheila had a brainstorming session during which they looked at all the images taken during the visit to Adam's design studio. The visuals were spread out on the floor, and explorers given the opportunity to identify the most important parts of that day. They spoke from personal experience, and also suggested which elements they thought might be interesting, relevant or important to other teenagers of their own age. They were captivated by the idea of skateboard evolution – both of form and function – and came up with the idea of doing an online module in Flash, showing how the design of skateboards had changed over the ages due both to usage and to environment.

Following each of these meetings, the directors would get together and share, point by point, the boys' comments. They would discuss what the explorers wanted to achieve, and listen repeatedly to the session recordings.
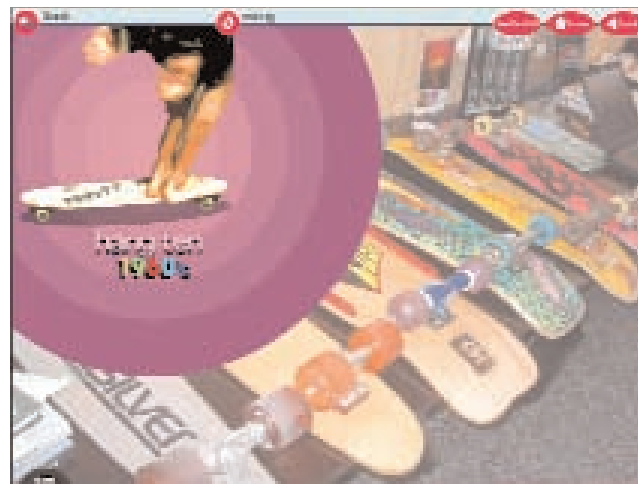

Above: photo taken at Adam Brinkworth's studio of his skateboard collection.
Left: Teenagers Ben and James were inspired, and commisioned designer Dave Evans to create a module on skateboard evolution - 'form and function'.

They then approached Dave Evans, designer, whom they knew worked in plastic flat images in a design-style liked by the boys. For this reason, and because of his interest in skateboarding, Dave was the ideal designer. He was asked to do a mock-up of the teenagers' idea, and sent a CD of the images they had taken. From the brief, Dave worked up a model in Flash MX, and a couple of weeks later it was ready to take back into school for the boys to see. They liked it, and had a few comments – they thought it needed speeding up, and wanted 'noughties' design to be added. Dave then worked the module up into its final shape[13].

Another example of the evolving methodology is James's reflections on the Ipswich day[14]. Considering images and short-burst videos taken during that trip, he discussed with Sheila the shapes of the concrete skatepark elements and showed a video of his skatepark tour. From there, ways of manipulating that tour to become more 'interactive' to the viewer were discussed. James had the idea of creating 'James's skatepark tour'; a mock-up was commissioned from Dave. Again, the process moved back and forward, to and from school, to verify the design: as a result, the 'boy icon' was introduced as a navigation arrow; James's video clips were incorporated into Flash movies; and his commentary and music were used.
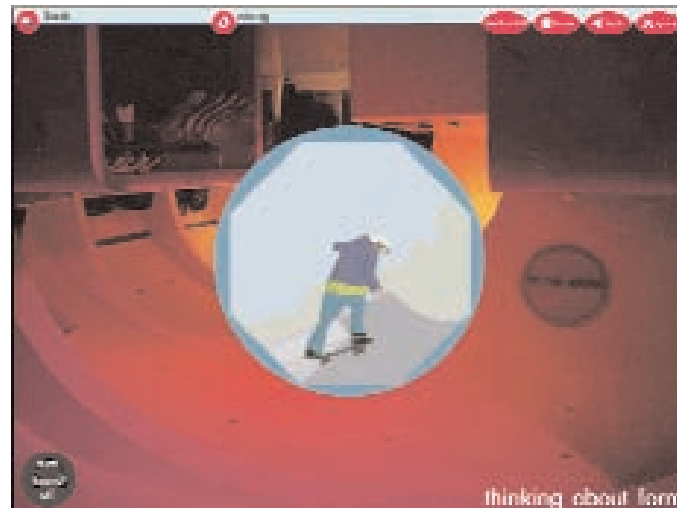
[13] See www.accessart.org.uk; 'Launch Immersive Learning Space' (ILS); search icon; 'Design'; 'Skateboard Design (Form)' – Flash by Dave Evans, concept Ben and James

[14] See www.accessart.org.uk; 'Launch Immersive Learning Space' (ILS); search icon; 'Teenagers – James, Navigator' (by Jack and Morgan too); 'Skatepark Tour (Spaces)' – Flash by Dave Evans

7.4 Finding designers – commissioning modules

Finding a pool of designers to undertake the task of translating the explorers' ideas and interpreting the directors' briefs was a major undertaking. A great deal of time was invested in research and recruitment.

Over time, an eclectic group of designers was put together via the following:

- Advertising (Macromedia; Arts Council noticeboard)
- Research (sites admired by explorers and the directors)
- Contacts (designers worked with on previous projects; designers who had visited and/or approached the AccessArt site; contacts at Norwich School of Art)
- Recruitment (at St Martin's Media & Design degree show)

Designers all worked from a distance and were self-employed: Shaun Camp (Norwich), Dave Evans (Brighton/London), Luke Whittaker (London), Ross Featherstone (London), Cliff Manning (Leeds), Nikki Shannon (Brighton), Werner Singer (Germany), Luke Whittaker (London).

One designer – Luke Whittaker – made his own module[15], where he became a 'virtual inspirer' and graphically illustrated what it was like to be a young designer working from home.

One of the positive strengths of the project was that by having a broad selection of designers, the project directors were able to match designers' aesthetics with the needs and ideas of both the individual explorer, and of groups of explorers. The eclectic breadth of aesthetic gave the site an overall spread of diversity and richness; it also gave the element of 'surprise' which explorers had said was key to a successful website.

For further examples of modules developed by designers, in consultation with students, see the following ILS modules:

- 'Teenagers – Alex, Modelmaker and Skater'; 'Model Stakepark (Materials) – Flash by Ross Featherstone and 'Materials and Skaters (Inspiration)' – Flash by Luke Whittaker
- 'Teenagers – Becky, Dancer' (by Grace and Anna too); 'Reacting to Cold, Dark Matter (Reacting) – Cornelia Parker, Flash by Nikki Shannon
- 'Teenagers – Eloise, Dancer'; 'Eloise the Dancer (Inspiration)' – by Nikki Shannon

[15] See www.accessart.org.uk; 'Launch Immersive Learning Space' (ILS); search icon; 'Inspiration'; 'Dave the Designer (Inspiration) – Flash by Luke Whittaker
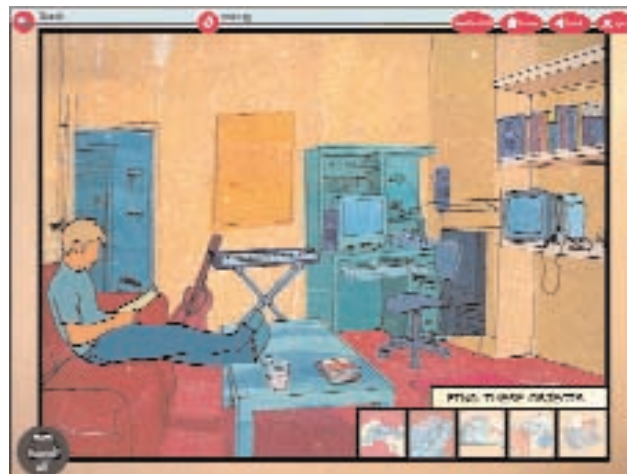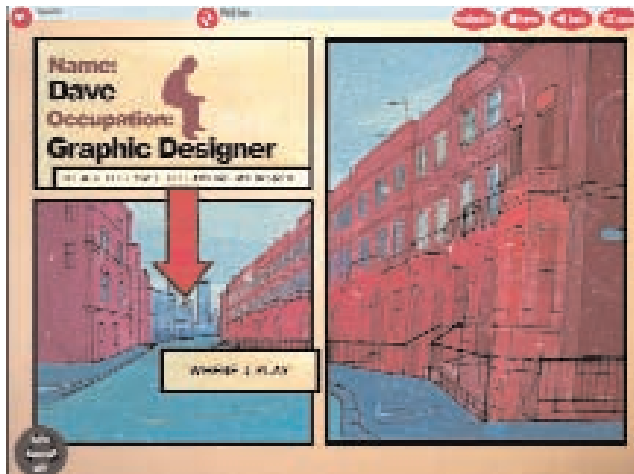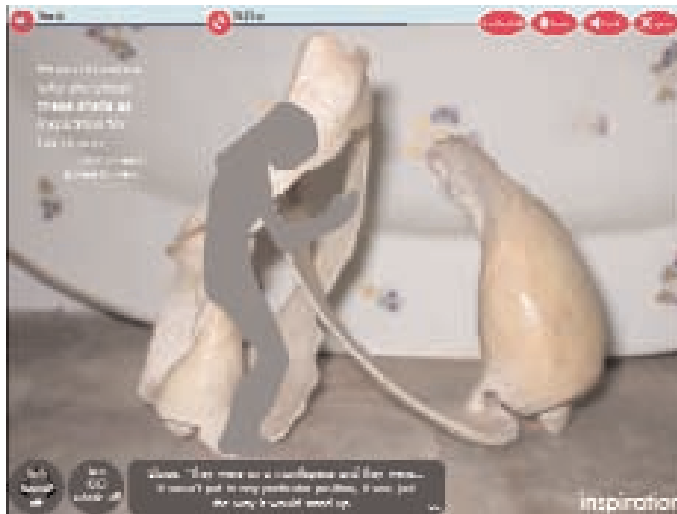
"I think it's all to do with 'gravity', dance, it's like, where you place yourself...everything you do, every balance you try and do, it's all to do with how gravity is trying to pull you downwards,. And in my dance there were bits where you kind of have to, you relax and pull yourself downwards... but you're kind of staying up straight. It sounds weird but I like the feeling of that, like when you kind of let yourself go and completely relax, and gravity pulls you down and then you come up again." Explorer Eloise
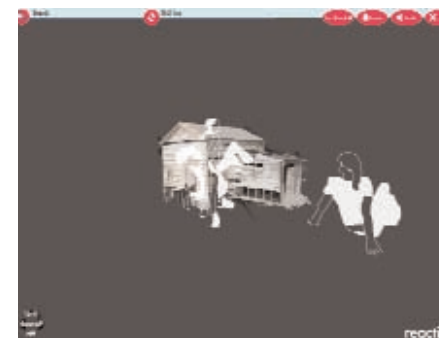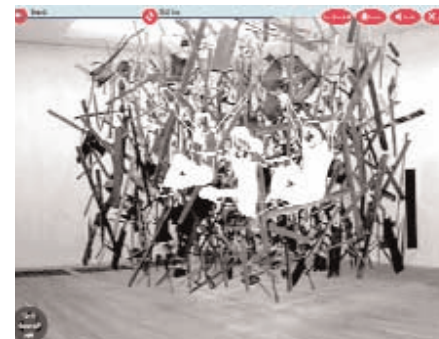
Above: AccessArt Dance workshop at the Tate Modern with inspirer Sal Coxan.
Left: Teenagers Becky, Grace and Anna commission designer Nikki Shannon to make a module on their interpretation of 'Cold, Dark, Matter by Cornelia Parker .

Left: Alex's model 'Teck - Deck Park' (photo taken by Alex).
Below: Alex commissioned designer Ross Featherstone to make a Flash module to illustrate the models key features
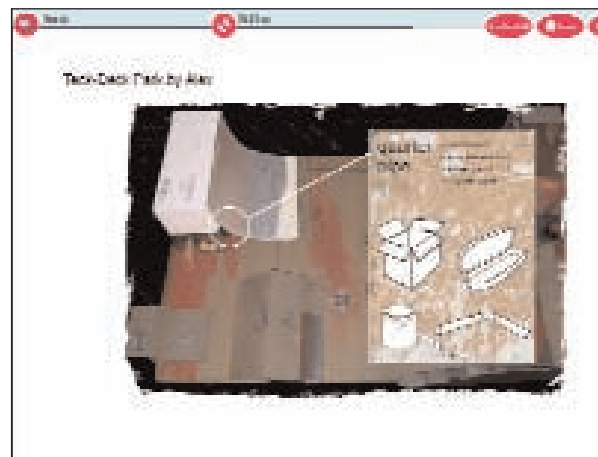
7.5 Working together: 'themed areas' and 360° evaluation

Once the commissioning process was underway, discussions began about the final structure of the site, and how and where all the material should sit.

The project directors were especially interested in the idea of 360° evaluation – a notion that had been evolving through regular meetings with their mentors, Janis and Vicky, and which threaded through the development of the project at this stage. Discussions about 360° evaluation pivoted around the idea that in evaluating the project, comment should come from all the various different groups involved (see also section 9.3 below, on project evaluation).

The reality was that with every meeting between explorers, inspirers and project supervisors, comment around the key

themes of the project was being made and therefore new content being generated. Fresh testimonials by, and evidence from, explorers arose continually, so that their involvement in the project at this stage was shaping its overall design. This was coupled with the fact that adult practitioners, designers and mentors were now also involved in its development: all concerned were interested in the 'democracy' of the project, and in how this should be integrated into the Immersive Learning Space.

At this stage, the ILS was still in its 'sketchbook phase', going to and from schools; however, some design notions were already being employed which reflected the philosophy of the project. The idea of 'themed areas' was trialled, where threads of explorers' and inspirers' independent creative experiences could be shared with an equal status and in a democratic structure.

Many design elements were taken into consideration, in direct relationship to the ethos, philosophy and pedagogy of the project. For example, the original intention had been to dedicate a separate section of the site to profiling the adult inspirers, their professions and places of work – a 'role model' section, in other words; or careers counselling for the creative child. This was so that the website could act as a

tool for the target end-users (teenagers at school), who may not have opportunities to meet professionals personally – the idea being that a teenager could identify an adult practitioner with similar skills to him- or herself, to act as an inspiration for the continued development of their creative skills. However, as the project unfolded and the roles of explorers and inspirers merged and evolved, it became the shared experiences and processes that were of interest.

Key nuances of the creative process became a fulcrum for the whole project and evolved into the 'sunbeams' or main navigation for the Immersive Learning Space. These creative processes were broken down into recognisable and familiar words: inspiration, making, materials, arena, gravity, space, time, etc. Inspirers' and explorers' testimonials were bound together by these key areas, and what emerged was a wealth of experience within a 'democratic' navigation.
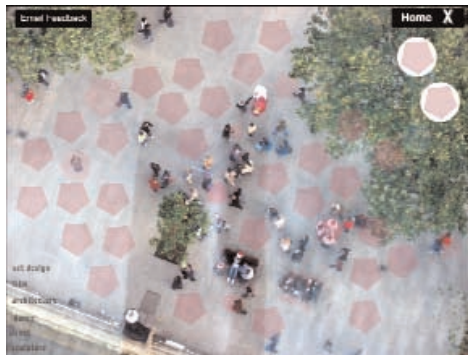
Above: Original 'sketch book space'.
Left: Immersive Learning Space 'Feedback' window.

7.5.1 The sunbeams

- Alone and Together
- Space
- Making
- Arena
- Tools
- Grace
- Time/Space
- Brewing

- Gravity
- Materials
- Studio
- Inspiration
- Getting Started
- Arena
- Journey

7.5.2 The 'themed areas'

It will be seen from the ILS that within the sunbeams listed above are 'buttons' to the key themed areas; and that within these themed areas, individual experiences and modules can be navigated.

In developing this structure, sessions with the explorers considered the emerging 'categories' or themed areas – which at an early stage in the project were simply key words. It was important to ascertain whether:

- The 'themed area' concept was working
- The type of descriptive word being chosen for each area made sense
- A comprehensive breadth of themes was being selected
- Any theme was being overlooked

During her sessions in schools, Sheila considered the themed areas with explorers and cross-referenced these with students' own images, audio-clips and experiences – asking them, literally, where certain images that they had created would fit in the evolving structure of the site. Discussions covered how students' images in certain themed areas might instil certain – new – meanings. Explorers also investigated the meaning and context of their work for an audience: a fundamental process for any evolving artist to grasp, but one which in explorers' cases happened very naturally and intuitively.

As a result of this process it became clear that the notion of 360° evaluation could no longer to be considered as separate to (on a different area of) the site, but rather should be integrated into the design of the main learning space. For example:

- Digital media were used to document the project process and discussions, and to deliver the findings via the website
- Evaluation was integrated into the project by using feedback to influence the development process of the space
- The Internet was used – press releases via the AccessArt database, and the 'feedback' button to make a call for feedback, which was then further integrated into the ILS development

The themed areas and navigation of the themed areas became symbolic of the fact that the fundamental thread of the site was that of sharing experience.
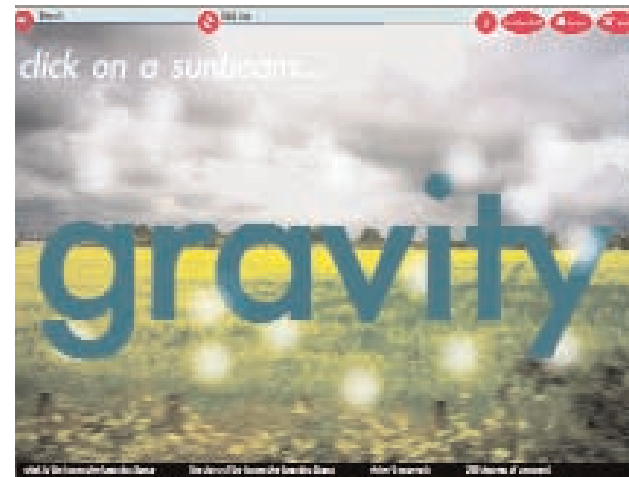
7.6 The use of short-burst digital camera to share experiences

One of the most exciting turning-points in the project came from talking to a group of boys at Bassingbourn about how much they had enjoyed using the camera during the Ipswich workshop, to explore skateboard action. The project directors had been very fortunate to find Adam Brinkworth, London-based designer, when recruiting adult inspirers. Paula had typed into Google something like 'architect skateboarding' and happened to hit Adam's site (www.brinkworth.co.uk). He had recently applied to Bethnal Green Council for planning permission to put a skatepark on top of his newly designed offices in East London; planning permission had been declined, but it was clear that his passion for skateboarding was still fuelling his design.

The boys from Bassingbourn had been amazed to see Adam's offices, so inspired by the various forms of skateboarding that many of his award-winning interiors – including those for Karen Millen and Diesel – incorporated within them skatepark shapes (half-pipe, quarter-pipe, box, etc.). As a youth, Adam had skateboarded at championship level, and his passion for the sport exceeded any other enthusiasm in his life. At the Ipswich workshop, he and digital artist Luther Jones had suggested experimenting with the camera to try and explore the skatepark – its forms, and how the skateboarders reacted to those forms. One explorer had tentatively asked if he could tape the camera to the bottom of his skateboard; Adam thought this was a brilliant idea – so away they went with it. (Subsequently the camera got taped to the helmets, as well.)

This idea really stayed with the Bassingbourn boys, so that when (several months later) Sheila met them in the music room at Bassingbourn VC and looked at the Ipswich clips together, it was clear that they had enjoyed:

• The freedom of using the camera so freely
• Integrating the camera into the activity
• Being able to see and analyse the images and videos produced (later)

James said that since that day, he had had a few ideas that he wanted to try out: for example, he wanted to take the camera with him when he went cross-country biking with his friends, and also when he went on a Mini motor rally with his father. Sheila happened to have the camera and chips in the laptop bag, so was able to lend him one there and then. They made arrangements for Sheila to come back into the school, so that James could download the images.

Jack, James and Ben at Wimpole with bikes and a camera.

This formula – of lending cameras to explorers – became fundamental to the next development phase of the project, both in terms of Sheila's relationship as a facilitator of the explorers' creative processes, and in terms of the development of genuine, high-quality, explorer-generated content.

A few weeks later, Sheila went back to the school where she found a group of boys eagerly awaiting her – not only James, but also some other boys she had not yet met (Jack and Morgan). The three would often meet at the weekends on their cross-country bikes; they would build stunts and ramps and use natural features in the landscape to jump their bikes. The boys could not wait for the laptop to be set up and the images downloaded. Now quite used to being interviewed with the microphone, independently of Sheila they talked about what they were seeing and what they had done that day – they wanted to show Sheila (and the wider world, through AccessArt) all that they had experienced. There was a genuine excitement in seeing the short-burst videos on the screen and in playing them repeatedly.

The conversation with the boys developed and it became clear that they needed to borrow the camera again – there was more that they wanted to explore, more images that they wanted to generate, and more of their skills as photographers, filmmakers, skateboarders, roller-bladers and navigators that they wanted to share[16].

At around the same time, Orla had met Martyn Welch in his studio in Norwich, and Sheila had come back into school to interview her about the visit. Again, a conversation arose about her passion for nature and photography; Sheila lent her a camera. She came back a few weeks later with a selection of highly perceptive and intimate images of the natural world, which she had explored, over the years, between her home and school. She was able to talk about the significance of plants, landscape and water to her personally, about how she loved biology at school as much as making and drawing, and about how all these different elements and interests came together in her interest in photography. The use of the camera had motivated her to get her mother to help her download the images onto her family's computer, and spurred her on to learn how to burn a CD. (At the start of the project she had been quite intimidated by technology and would say that she 'could not do

'Elderflower' by Orla

this very well' – but as the project evolved, she was much more confident and would take control of the laptop during sessions.)

Sheila discussed with Orla how her images could be used in the ILS, and what she felt the next steps should be. Orla had already named the photos: the correspondence between name and image was evidence of her creative articulation (for example, 'angry sky'). Sheila suggested that she print some images, to see them away from the PC, and asked whether she would be interested in blowing them up into posters for an exhibition.

As can be seen from the site, many of Orla's images are used as 'holding pages', and they certainly add clarity and beauty to the ILS. They are conducive to the feeling of 'inspiration' desired by the AccessArt directors, to pull the audience in – and she is to be congratulated on her vision.

The 'case studies' described above are only two examples of how individual explorers were 'mentored', with sessions tailor-made to their individual needs. The process became a core value of both the project and the AccessArt organisation, so well did the students respond to this 'art school' model of tutoring. On a practical level it was obviously time-consuming, but the depth of imagery and digital material generated was truly outstanding, and must be seen as one of the strongest project outcomes.

[16] For further examples of modules which have used short-burst videos taken by students in their own time, visit the following modules on the ILS: 'Inspiration' – 'Moving Through Space (Spaces)', images/videos by Alex; 'Gravity' – 'Isamaya, Skateboards and Dance (Gravity)', images/videos by Jack, James and Morgan; 'Time and Space' – 'Scale (Time and Space)', images/videos by Alex; 'Materials' – 'Filmmakers Re-shaping Space (Materials)', images/videos by Jack, James and Morgan; 'Materials' – 'Materials and Skaters (Inspiration), images/videos by Alex; 'Teenagers – Orla, Sculptor' – 'When the Ideas Come (Brewing)', images by Orla

7.7 Storing and managing digital imagery

At this stage the generation of themes, ideas and modules was evolving very quickly, and content being produced faster than it was possible to put it up on the sketchbook space. A combination of events was taking place:

- Content was being created by explorers
- Explorers were revisiting old images and video clips and commissioning modules
- This content was being categorised into themed areas
- The project directors were assimilating and understanding images, videos and audio files, as well as storing, editing and categorising content (videos, audio clips and images)
- Paula was creating modules based upon the above and, in some instances, packaging them for commissioning designers

The process of categorising and editing content was a major undertaking. Initially, content generated from workshops and by explorers with short-burst video cameras was received onto the laptop. The laptop and Paula's PC were networked together, and material downloaded onto the PC; the Mac was also networked, and files downloaded onto it from the PC as and when Paula was creating modules.

A filing system was required, so initially, content downloaded from explorers was categorised into files by their last name. Both directors tended to name files spontaneously as they were needed; sometimes the system of passing files broke down. For this reason it is strongly advised that future projects, which create large amounts of content shared between different people and computers within one organisation, create an effective and pre-defined system for filing and storing data. In addition, more data should be created than is necessary – in case it is needed for future reference.
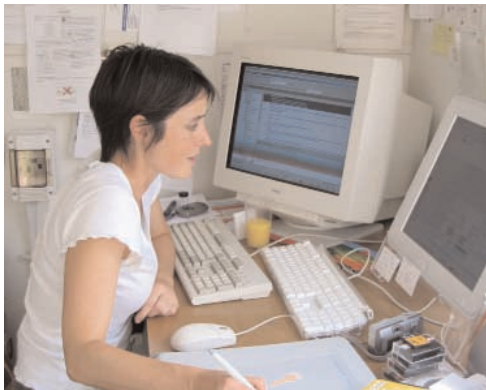
## 7.8 Inspirers and the Immersive Learning Space

During the development of the Immersive Learning Space, the process of consultation with inspirers happened in two ways:

1) Explorers and inspirers were brought together at the inspirers' studios/places of work.

2) The directors met inspirers informally and independently of the explorers, to show them the ILS and see how they responded to its development. These consultations were much like those conducted with the explorers, and were based upon inspirers' own personal creative processes. Questions asked were very similar to those put to the explorers – for example:

- Do you like to work alone or together?
- Do you draw or make or both?
- How do you brainstorm an idea?
- Do you ever have a bad day when it feels difficult to create?
- What do you like about your job?
- Which places do you respond to – what inspires you?

Including inspirers' input throughout the development of the project not only added a wealth of content to the ILS; it also added to the project's status, and validated the content and themes that were emerging[17].
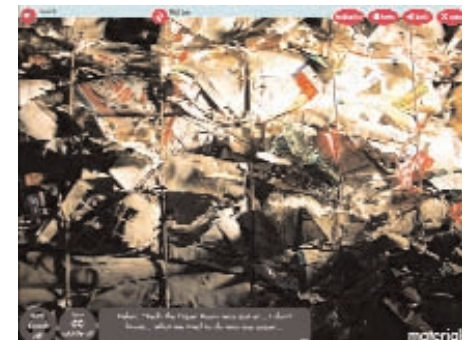
[17] For examples of interviews with Inspirers, visit the following ILS modules: 'Inspirers – Helen and Ingrid, Architects' – 'Paper Room (Materials)' and 'Looking, Talking, Visiting (Getting Started)'; 'Inspirers – Sal, Choreographer' – all sub-modules

7.9 The final phase of development: critical pathway

The project directors felt a sense of responsibility to do the explorers and inspirers justice by taking on board their suggestions and ideas, while at the same time steering the project and overseeing the space as an integrated and articulate whole.

Although the 'sketchbook' idea worked well during the initial phase of development, it became clear that a firmer, structured and designed area was needed so that content could be easily navigated and explored. It was decided that:

1. The site would be full-screen for maximum visual impact – this was compromise between typically delivered browser Internet experience and a CD-ROM.
2. An 'own branded' navigation would be created, rather than using a browser.
3. Navigation would happen within themed areas, with sunbeam buttons allowing entry into those areas (sunbeams being identified by key words).
4. Within the themed areas would be modules, built with content generated by explorers and inspirers, and either commissioned from designers or created by Paula.
5. There would be a searchable database for more direct navigation.
6. There would be a visit log – to aid navigation on subsequent visits by regular visitors to the resource.
7. Modules would be overlaid with audio clips (testimonials from explorers) and music sound files to enrich the content.

7.9.1 Development issues – navigation

It was decided that while the sunbeams represented an ad hoc and intuitive means of navigating the site, and would be intriguing for some, they might be very frustrating for others – teachers in particular, who were likely to need to find examples and information swiftly and easily. In addition, the chosen navigation was very ephemeral: it referred to broad and loose words that were felt to be reflective of some elements of the creative process, whereas some people would really require the more traditional categories such as 'architecture', 'design', 'sculpture', 'street', etc.

Alongside such development issues was the question – who is the site being designed for? Certainly, the explorers and distant explorers, and eventually the teenaged user in the wider community of web surfers. But the space was also to be useful and inspirational to those who work with and teach teenagers – to give them another insight into teenaged creative activity.

Bearing all of this in mind – and the project's ambition for the breadth and diversity of user – it was clear that two levels of navigation were necessary:

- The playful, organic and even ad hoc sunbeam – where the exploratory journey could be spontaneous and even accidental
- A more controlled and linear navigation which could be research-led if necessary

7.9.2 From sketchbook space to navigable site
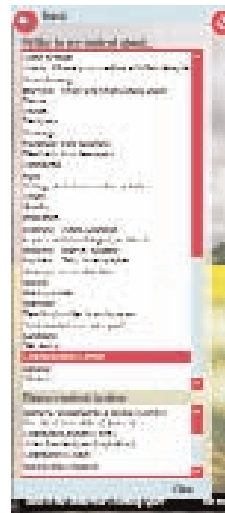
The transition from sketchbook space to fully navigable site was a significant undertaking, and took up much of the final six months of the resource's development. This was a hectic time, with emails between Paula and Cliff Manning – a web developer based in Leeds – bouncing back and forth daily. Cliff's task was to design the searchable database and visit log.

Paula and Cliff worked towards achieving a site structure robust enough to hold all the evolving modules and visuals. At one stage, six designers were working on individual modules (commissioned by explorers); Paula was working on the whole site structure and individual modules; Cliff was consulting Paula on her code and the developing structure of the site; and Sheila was editing all the sound files collected during her schools visits into bite-sized chunks ready to be placed with the visuals.

The site began to emerge, and was finally in a state to hold all the content by the spring of 2004. Now began the most frantic and productive time of all: content had been categorised, edited and themed, and it was clear where it should be placed within the evolving sunbeam themed areas. Designers were presenting articulate and well-formed modules that had been backwards and forwards between the schools and the project directors during development. Paula was able to manipulate video clips and find fast and creative ways of using as much of the explorer-generated footage as possible. When, after experimenting with audio, the voices of the explorers and inspirers began to resonate throughout the site and strong graphics and videos populate it, everyone was ecstatic.

7.9.3 'Master Weaver' Paula Briggs

Summer 2004 was intensely busy, as the resource was finalised. Paula created new modules, images and videos in the space, and added those commissioned by the designers. It was necessary to keep re-examining the space and counterchecking it against the original intention of delivering meaning and message.

Additionally, each module was tagged and added to the database.

Paula compared the process of populating the site and integrating all of the content to knitting – and indeed what she yarned together is an intricately woven tapestry of inspiration full of poignant testimonial to the creative process and its outcomes. In itself, the space is a work of art to be savoured and enjoyed – luminous and unapologetic in its celebration of beauty.

7.9.4 Intellectual Property Rights (IPR)

In creating the ILS, the project took care to adhere to the niceties of intellectual property and moral rights, and sought professional legal advice.

All professionals who worked on the project (and were paid as freelancers) signed contracts giving over their 'intellectual property' of content to AccessArt. All designers are credited for their work and have 'moral rights' of ownership of their work. As with the designers, inspirers signed consent forms to share their moral rights, agreeing that all content produced by and for the project lies within the boundaries of AccessArt's IPR.

[18] See www.accessart.org.uk; 'Launch the Immersive Learning Space' (ILS); search icon; 'Dance'; 'Reacting to Cold, Dark Matter (Reacting)'
[19] See www.accessart.org.uk; (ILS); search icon; 'Dance'; 'Dance and Spirals (Form)'

All students signed consent forms (modelled on a NESTA consent form for a similar project) for the use of their footage in the development of the space. These forms were also signed by parents and witnessed by the schools. Students also signed consent forms for the use of photographs of themselves on the site; for email dialogue; and for the use of their quotes online at AccessArt.

The project directors wrote to Cornelia Parker personally to ask for consent to use images of 'Cold, Dark Matter' in the module created by girls from Bassingbourn VC. She wrote back with her consent, and saw the final module[18]. Similarly, the group 'Lemon Jelly'[19] was asked if their soundtrack could be used for some of the modules.

All images taken at venues such as the Tate Modern, Kettles Yard and the Henry Moore Foundation have been approved, with written permission received from the venues.

Finally, the two project directors assigned their Intellectual Property Rights to AccessArt, and signed over ownership of their IPR from previous modules of the 'Arts Education Exchange' to the new charity, AccessArt (see 10.2, below).

Tate Modern, 2003

8. Technical Challenges:
Web Accessibility and Delivery

8.1 Technical challenges

One of the project's biggest technical challenges was the fact that it demanded such large delivery capabilities of the web, and of the potential end-user's PC. While it was desirable to exploit the potential of broadband (see 7.2, above), the whole project also needed to be manageable by, and deliverable to, the average user.

For this reason, even though files were designed for broadband delivery, they were intelligently created so that they would download in an acceptable manner over a slower connection. Paula spent considerable time tussling with streaming video and sound, coming to the conclusion that for the project to work, both had to be streamed and downloaded in separate files. Alongside the decision to utilise broadband delivery was that to employ the latest version of Flash player, which could embed and stream video and sound from within the .swf files.

A sound on/off button was introduced, so that the user could control the sound manually; additionally, a colour code was employed, so that when sound had finally fully downloaded, the sound on/off button would turn red – the rationale being that even if you had an old PC, once the file had downloaded and was cached into the PC, that sound could be replayed.

8.2 Accessibility

In considering the accessibility of the Immersive Learning Space, it was decided to apply the same methodology that had been applied to the whole project – namely, to work directly with the group to be engaged: the teenaged explorers. The project directors consulted the LEA and spoke to two key local contacts: Kate Stocks, head of hearing-impaired services, and Priscilla Morgan, teacher for the visually impaired. Through them, Sheila was able to organise visits into schools to meet hearing- and visually impaired students, whom it was hoped would become teenaged explorers.

8.2.1 Subtitles (closed captions) for the hearing-impaired

Meeting Alex and Chris at Cottenham Village College – both Year Ten students who are profoundly deaf – had a significant impact on the project. Consultation with them led to the subtitling of the site. Alex became a key contributor to the project and one of its most active explorers, irrespective of his deafness. He provided some of its richest and most articulate content.

Subtitling the project was difficult, in that delivering the audio and video files was already demanding huge bandwidth. It was necessary to experiment with different ways of delivering the subtitles – ways which did not impede the deaf users' experience and which downloaded satisfactorily. One of the main problems was that sound-files themselves would download differently on different computers and with different bandwidths – this challenge had been resolved via the manual sound on/off button. Confronted with this unpredictability as to how sound would download for the individual user, a way had to be found to make subtitles and sound tally.

After much experimentation it was decided that the subtitles (captions) should be downloaded separately. Sheila worked with the two hearing-impaired boys to ascertain if the subtitles were clear and navigable: the sound on/off button was important in the case of one student, who found the sound annoying and just wanted to read the text; the other liked the sound and found it very easy to move the subtitles along manually with the audio (he had enough hearing to do this and the subtitles were boosting his comprehension). The students in the unit all enjoyed having the subtitles and were happy with them being moved along manually.

Finally, a large, purpose-made subtitle banner was created in the bottom right-hand corner of the site. The subtitle box can be controlled manually so that the deaf or hard-of-hearing user can control the speed with which they read. There is a subtitle on/off icon and a sound on/off icon. Feedback has been very positive from BECTA, from individual deaf users, and from the students of Cottenham Village College.

8.2.2 The Immersive Learning Project and the visually impaired

Meeting Harmony, who was in Year Ten and a Braille reader, having been completely blind from birth, had a profound influence on the project and drove the organisation to a new level of awareness of the true meaning of accessibility – the consequence being a complete redesign of the AccessArt website.

When Sheila met Harmony, she found it was the student's ability – not her disability – that impressed. Harmony was able to navigate spaces and find her way around school; she could model a pot with great care, articulation and confidence; she could draw; she could navigate the web using screen readers, and touch-type. She could relate to and integrate herself within her own peer group and was a fully respected member of her community.

Harmony was therefore one of the most spatially aware children that Sheila had ever encountered. The premise of the Interactive Learning Project was to reach those students who learn best 'visually and spatially' – but the directors were aware that creating a screen-readable equivalent for the project was going to be difficult, in the main because of the intuitive navigation system that had been devised. How could it be ensured that the project would benefit students such as Harmony?

The question weighed heavily at this stage; AccessArt's awareness in this area had grown, but capability had not. Sheila had one session with Harmony and her IT teacher – they were doing 'Internet course work' together and it seemed an appropriate session for Sheila to join. She showed Harmony the 'Hercules' module within the AccessArt site, to see whether, when tested on a Braille user, it really did work. For Sheila, this was one of the most gruelling experiences of the whole project.

Harmony knew how to navigate the computer and her keyboard without sight, and could fluently access the Internet by listening to the screen reader. She was able to load the AccessArt site – but once loaded, the screen reader started speaking 'rubbish'. The main page structure failed for Harmony, who could not even reach Hercules. The teacher then helped and they got to the Hercules main page, but once again the site was impassable; buttons did not work and Harmony could not move fluidly from page to page. When they did finally arrive at a page, there was no content, because the tag buttons had not been fully scripted. The reality for Harmony was that this was a vacant site: it offered only huge frustration and barriers to information and visuals which, to the sighted public, were colourful, animated and content-rich.

The project directors knew that this experience needed to be taken on board: it was not one to be swept under the carpet. But they were also reaching the conclusion that to apply a truly accessible version of the site within the Immersive Learning Project would be too difficult a feat. They decided then to place accessibility as the highest priority, and to research and develop equivalents for accessibility which were not just satisfactory, but which would offer users like Harmony the same breadth, depth and richness of experience as was presented to sighted users.

This resulted in a major undertaking: the complete redesign of the AccessArt website to make it fully accessible to both visually and mobility impaired users.

There is a real shortage of expert designers in the field of accessibility, and of consultants in the area of Flash MX development. The following shortfalls in the design community have been identified:

- Little real knowledge of the application of accessibility to Flash MX
- Little real knowledge of testing with screen readers
- A lack of available consultants in both areas
- A shortage of solid, tested information on how designers can reach accessibility standards (the standards are there – but there is a lack of training and information in respect of how to apply protocol to development)

AccessArt have attempted to address such shortfalls by:

- In-house research – Paula been carrying out extensive research on how to apply accessibility protocol to Flash MX, databasing, XHTML and CSS
- Putting in place a baseline protocol, stating the organisation's accessibility policy – which can be built upon
- Meeting real people and finding out what the problems are (from grass roots to end users)
- Seeking advice (from experts, seminars, RNIB and RNID, Blaize, Helen Petrie)
- Preparing the site for relaunch with high accessibility standards in place
- Where possible, redesigning old online workshops so that they are navigable
- to visually and mobility impaired users (most did not use sound – which was introduced to the site in 2004)
- Seeking funds to allow the organisation to experiment – for example, with pushing media to develop content that is as rich and textured to the non-sighted user as to the sighted

Given Harmony's experience, it is clear that until the site is fully tested with real individuals, a full evaluation of its success will not be possible.

9. Testing and Evaluation

9.1 Broad testing

The ILS was tested regularly on different browsers, including Netscape, Mozilla, Safan and Opera – and on both Mac and PC.

9.2 Email feedback

Emails were sent regularly to groups of users, asking for feedback on:
• Delivery
• Platforms
• Appearance
• Content
Users would reply via the 'feedback' button.

9.3 360° evaluation

(See 7.5 above, for the notion of 360° evaluation and its key role in the ILP.)

In April 2004 the directors sent a press release, via the contacts database, calling for feedback on the sketchbook space – and this was permanently launched during development.

Though this call did help to disseminate the project, and the directors noticed increases in individual and group log-ins, very little feedback was received from the wider community – most coming from the core group of explorers. Sheila made a push to talk to the majority of students who had attended the original workshops, to pick up their responses to the site as it developed. The evaluation phase is still continuing.

During the development phase of the project, Grace Sim and Luther Jones worked in schools to test the ILS resource – experimenting with developing evaluation styles, and delivering results to the project directors as appropriate. As an example of this process, Grace worked with students at Bushey Meads School to encourage them to evaluate the Immersive Learning Space; to think about the content; and to make links between the central ideas and themes. One of her methods was as follows:

I explained to the students that the website had undergone changes since they last visited, and that it was time to 'spot the differences'. Each pupil got a set of post-its in a different colour. When they loaded a theme, they were asked to write down a few thoughts about it. There was a page of prompts to help structure their thoughts – sound / visual / text / technical / what does it mean to you / your experience / how does it inspire you? They were then asked to bring the post-its over to the centre tables, where the themes were written out alphabetically on A2 paper.

I chose this method for a number of reasons: it allowed a systematic evaluation, without impeding playful, spontaneous navigation of the sunbeams; it is highly visual, and therefore appealed to such visual learners. Walking across to the A2 sheets allowed the fidgety kinaesthetic learners to get up and move around, and the coloured post-its allowed us to analyse navigation of the site by individual and gender ... Finally, I could see by the colours, who was on task.

Through her work with the students, Grace was able to conclude that:

The website has great potential for exploring quite complicated concepts – though there is perhaps a need for someone to act as a facilitator to trigger reflective thought
The capacity of the website to inform future thinking is difficult to measure
The range of themes covered means that the site has 'something for everyone'
The range of approaches covered by the website (communicating ideas about space, linking experience to concept, inspiring creativity, prompting reflection about physical surroundings, bridging creative adults and children) means that individuals consider it in different ways (with different mindsets), and may get very different outcomes; exploration of the site is therefore a highly individual experience
The themes inspire creativity subliminally as well as consciously, and inspire reflective thought
Pupils enjoy exploring the site

The details of her work, and her conclusions, were passed on to the project directors and others in the team involved in development of the site. In that way, Grace's comments – and those of her students – could be taken on board and incorporated into the project as an ongoing process of evaluation and feedback.

Digital photo taken by teenager James with short-burst-digital camera on loan from AccessArt

10. AccessArt and the Immersive Learning Project

10.1 AccessArt

Alongside the development of the ILS, the Immersive Learning Project offered AccessArt[20] a chance to mature and consolidate, and to make a push for organisational development – planting itself strategically as a key educational organisation for the Arts.

The project fund gave AccessArt the opportunity to:

- Investigate and actualise becoming a company limited by guarantee and a registered charity
- Buy-in legal expertise to look at company status and advise the organisation on the novation process
- Contract a self-employed development officer
- Buy-in professional and legal expertise around issues such as child protection and IPR
- Push marketing and dissemination of the project and the organisation's core values

Hence the organisation was able to buy-in Jo Buffery's time as a development officer. Jo has been a tremendous asset and has taken AccessArt through the process of becoming a registered charity, as well as working on broad development. Her role has also furthered the marketing and dissemination of the project and the organisation – largely by investing time in producing a comprehensive database and developing a marketing strategy. Finally, Jo has worked to write new grant applications and look at ways in which the organisation can become financially more stable.

10.2 Creation of the charity

The practical intricacies of becoming a charity – such as filing the application, recruiting and looking for trustees, and working with solicitors and accountants to inform the process – required a large investment of time from Jo and from the AccessArt directors.

In parallel with such practical issues ran more philosophical ones, out of which were born discussions which extended through the organisation and reached the AccessArt project supervisors (Janis and Vicky).

The reality was that by making the organisation more robust legally, the directors would be leaving behind the loose framework of 'The Arts Education Exchange'. This was a leap of faith that they were willing to make, because both understood the value of becoming a charity.

Furthermore, both felt a moral obligation to the organisation to do it justice in terms of the accumulated government monies that had been invested into projects over the years. Paula and Sheila felt very proud and privileged to have had so many past opportunities to develop their ideas and visions – but were also aware that for the transfer to be successful, the umbilical cord from the Arts Education Exchange had to be cut. Launching the new charity, AccessArt, they believed that fundamentally they were leaving a legacy of core values, which had evolved over the course of their years working together.

Searching for trustees who would protect the core values of the organisation but also push it to its full potential was vital to the process. Paula and Sheila are privileged to have been able to recruit Siobhan Edwards and Alastair Haines as the founding trustees of the new company limited by guarantee and registered charity, AccessArt.

Both Siobhan and Alastair hav historical connections to the organisation, both also bring strategic strength and broad management experience to AccessArt. The directors would like to thank Siobhan and Alastair for their commitment to, and support of, the organisation and for offering strategic and considered strength to AccessArt.

[20] As founded by Paula and Sheila in 1999 – i.e. the Arts Education Exchange incorporated organisation

10.3 Mentors

The idea of mentoring and project supervision has been very constructive, both for Paula and Sheila in their personal career development, and more broadly for AccessArt.

Janis Jefferies helped to take the organisation to another level, coaching it in management skills as the directors gave her examples of issues confronting them – for example, how to get the best out of designers, and how not to surrender their vision. Janis understood the main philosophical strand of the project – of working in partnership with the teenagers – and she enjoyed deepening the pedagogical discussions. She was also generous in sharing her key contacts and networking on AccessArt's behalf; indeed, it was her idea to hold a launch party and to 'showcase' ideas. She was very involved in discussions about becoming a charity, describing what the organisation was going through – in terms of 'handing over' to the new trustees – as 'founders syndrome' and helping Paula and Sheila to articulate the legacy of the Arts Education Exchange in their new core values.

Vicky Mitchell helped to develop new ways of evaluating the project, and it was with her initially that Paula and Sheila brainstormed the idea of 360° evaluation (see 7.5 and 9.3, above).

For both directors, the notions of supervision and mentoring have remained strong, and their benefits were immeasurable. Certainly, Sheila used mentoring techniques in her interviews and sessions with the explorers, and she is convinced that no matter where one is in their professional or educational development, mentoring is the most constructive and directed method of furthering one's scope and potential.

The value of mentoring – which is not dissimilar to the Art School model of one-to-one tutoring – is such that the directors would like to investigate a 'Mentoring Project' in the future. The project would employ the 'immersive learning' model of bridging creative dialogue between individuals across ages and experiences, and continue the advancement of new models for sharing and delivering knowledge.

'Seed-Head' By Orla

11. The Launch

11.1 Building strategic friends

Working to a deadline can be very constructive. The project directors set a completion date for the Immersive Learning Space of 22 September 2004 – at which time they scheduled a launch party or 'showcase'.

The idea of having a showcase was to bring together all the individuals who had worked on the project, to meet strategic bodies and individuals as well as potential funders for future projects. Thanks are due to NESTA for hosting the event so generously.

The event presented itself as a real opportunity to:

- Celebrate the project and the individuals – especially the explorers – who had
- participated in it
- Show off the ILS
- Share experiences with an audience
- Meet strategic people
- Give the newly recruited trustees the opportunity to take ownership of AccessArt
- Give designers, who had worked on the project, the opportunity to see the space in its entirety and to network on their own behalf

As project supervisor, Janis Jefferies considered that the project's pedagogy and application of technology to learning should be showcased as cutting-edge practice in creative arts education. She also felt that the wider education community should be made aware of the ILP, and that the ideas it represented should be disseminated at a strategic level – from where they might start to feed down to grass-root level. This idea was not new to the project, since from the beginning one of its key aims was to nurture key relationships by:

- Communicating via email with all key bodies, and directly with teachers and schools
- Nurturing relations on a local strategic level – via South Cambridgeshire, and Art
- Adviser for Cambridge, Rob Howard
- Introducing the project to the QCA – Margaret Talboy
- Meeting with NCEAD – John Steers and David Jones
- Talking to BECTa
- Exploiting contacts through NESTA
- Maintaining contacts with other similar organisations, such as the National Campaign for Drawing, CABE
- Nurturing, through Janis, relations with Goldsmiths – Paula Dash
- Keeping teacher training colleges up to date with personal letters describing the project and its intentions
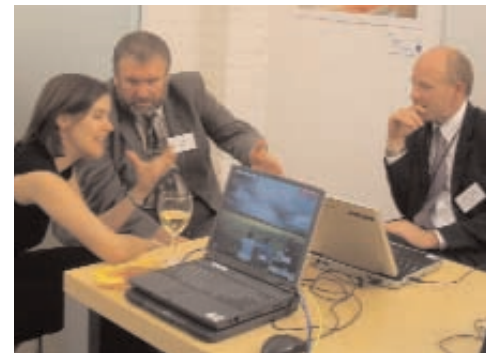
The launch party was successful in consolidating all the above, and in fully celebrating the entire project. At the event the ILP's processes were validated, and all the individuals involved credited for their efforts. Feedback from schools subsequent to the launch confirmed that the showcase itself, as well as participation in the project, had had an impact on the explorers: for example, Alex and Orla both felt their confidence grow, having had the chance to see their work on display in a public space.

## 11.2 AccessArt – an ambassador for the creative learner

In July 2003, the project directors were invited to attend a consultation for the DFES on subject specialism. This seminar – which was chaired by Mela Watts on behalf of the Education Secretary at the time, Charles Clarke – presented Paula and Sheila with the opportunity to state their views on education in the creative disciplines: its shortfalls, and their recommendations for the future.

The directors were also interviewed for a study on behalf of the European Commission, as an example of good practice in using technology to deliver educational content in an innovative way; and the British Council invited them to take part in an interview with a 'distance education adviser' from Australia.

Through the project, they have learnt that key to AccessArt's success is the nurturing and kindling of relations with strategic individuals and bodies. The ILP gave them enormous confidence and focus, and a drive to project their core values, methodology and pedagogy into the future.

The Immersive Learning Project has given AccessArt as an organisation a maturity and robustness, and thus an ability to project positively into the future.

In AccessArt's recent application for organisational development (ACE), it has specified the need to continue strategic relations beyond the Immersive Learning Project and into the next phase of development.
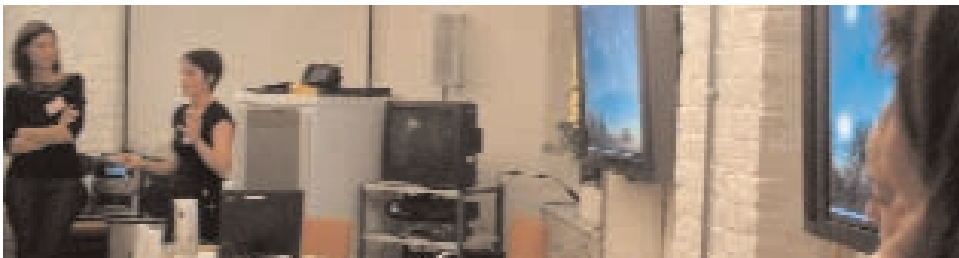
12. Conclusions and Outcomes

12.1 Is the Immersive Learning Space finished?

After the launch, Paula and Sheila confessed a reluctance to add any more modules to the ILS. It was clear to them that the complex processes and relationships which had evolved during the project had resulted in a rich spread of content, from a wide variety of individuals and experiences. The space was indeed finished … but this by no means meant that their work was done.

The Immersive Learning Space and the wider project had been a vehicle for researching and applying an evolving methodology – one of being guided by the teenaged explorers, and inspired by venue; of integrating technology in the creative process; and of bridging relations between creative adults and teenagers.

This model was successful in its responsive and sensitive approach to audience- and learner-driven content; and was married with an avant-garde exploitation of the web as a medium for disseminating and presenting highly evolved visual and aural content. As such, the model presents a foundation for the future methodology of emerging projects.

The project directors believe that they have hit upon a winning formula for the delivery of content and in-depth pedagogical experience. The future of 'immersive learning' is bright, holistic and energetic. The resource is a gentle ambassador for the creative teenager; the project celebrates and validates creativity, and pushes away from teacher-led to audience-driven. This has been one of its primary strengths, and a binding thread.

However, soon after the launch, the directors felt the need to retrieve some of the practical 'how-tos' from previous AccessArt online workshops. The drive of the project to inform positive thinking in teachers, and to come up with practical hints as to how teaching could be made easier, has not yet been fully answered in the ILS. It can be intuited that practical 'how to' knowledge is still missing – even if basic pedagogy is in place. The directors identified a need for print-outs with constructive tips, and for some elements of the Immersive Learning Space to be brought to the 'front' of the main AccessArt site, to draw in users and give them greater control.

In other words, counter to the learner-led approach is still the need to master actual techniques and processes. This, after all, is what the skateboarder, dancer, and navigator explorers were doing. The skateboarders practised for hours on end and learnt techniques from their peers, older skateboard mentors, videos and the web. The dancers had attended formal ballet classes from a very young age and already possessed a highly articulate repertoire of movement before coming to the ILP workshops. Young artists in the making were following their creative interests by drawing, making, and so on.

In applying to NESTA for funding, the directors' original motivation was an anxiety that the educational experience of many teenagers was insufficient for them to begin to understand their own potential as creative adults. The ILP has tried to gently highlight possible opportunities for furthering students' creative experience; explorers' testimonials and visuals on the site are the first steps to enlightening the adult community of the strength, ambition and potential of teenaged creative drive.

Both the project and AccessArt recognise the potential of the web to address shortfalls in accessing experience, opportunity and information. AccessArt's approach to presenting information which is accessible and inspiring to the learner

through multimedia applications has been tried and tested, and is a recognised successful model. Now, in order for the project to be fully complete, there is a need to re-introduce the more prescriptive, technique-based module. The building blocks necessary for developing articulate, creative individuals should be accessed alongside the Immersive Learning Space, and likewise delivered by exploiting multimedia.

This vision is being realised at present through a redesign of the main AccessArt website – with the creation of bite-sized, taster 'how-tos' and pdf printouts for sale via the AccessArt site.

12.2 Marketing and dissemination

The primary aim of the Immersive Learning Project was to produce an educational resource that promoted learning in response to space and experience. The way in which the resource would be delivered was not initially defined; following a decision to pioneer the ILP as a broadband project, it became clear that although broadband may restrict access for certain users – especially those at home with old dial-up connection and outdated computers – the scope for broadband delivery of content in schools was to be exploited, and its potential trialled.

One of the main satisfactions of working with the Internet is that published material is 'up there' 24/7 and can be seen, used and enjoyed globally. In this respect, then, the scope of the ILP can be seen as broad.

Though the methodology by which the resource was produced was intricate, labour-intensive and demanding of deep relationships with a core group of recipients, the scope for delivery and access of the published material remains huge, and the project is being reached by an average of 2500 unique users a week.

Through careful organisational development and tailored strategy, AccessArt has positioned itself as one of the key providers of educational content via the web. It has:

Produced meaningful and useful content
Exploited the visual and multimedia power of the web
Nurtured key strategic relationships
Exploited broad dissemination via the web and a dedicated database
Produced press releases and mailouts which – via the steadily expanding database – have not only maintained, but increased the number of users

AccessArt is still averaging 2500 unique users each week – so it is certainly reaching its audience. The organisation still depends on email feedback as well as site statistics to obtain solid data on how the site is being received. Direct feedback comes in three categories:

1. Emails to say how much the site is being enjoyed
2. Areas that the user would like to see developed
3. Occasional heartfelt criticism

It remains critical to the success of the project that the site is picked up by key strategists and teachers, and those who effect the overall creative development of teenagers.

12.3 Some additional outcomes

• At a recent 'professional development symposium' in Norwich, the AccessArt directors encountered a student, now in her third year, who had worked with the project on the Norwich day. She was considering evolving workshop activities with teenagers as a way of supplementing her income as an artist, and was very interested in the finer details of how the directors' previous organisation, Cambridge Sculpture Workshops, was constituted, and how they made and researched grant applications.

• Digital images created by explorers and blown up by South Cambridgeshire District Council for the NESTA launch were subsequently displayed in South Cambridgeshire's newly built offices. They are now there permanently, and the Council has paid for reprints for the students.

• Sheila has recently received several emails from schools asking for discs and copies of work produced by students, as they would like to put them towards their GCSEs and in portfolios for applications to Sixth Form colleges.

• Sheila has written individual reports for all the explorers, thanking them for their involvement in the project and highlighting how their personal skills added immeasurable value to the undertaking.

AccessArt is a charity committed to furthering the advancement of education in the visual arts. We do this by delivering free online learning modules which are carefully designed to promote and inspire creative activity. The AccessArt website (www.accessart.org.uk) has won awards, including Becta 'Best Educational Website of the Year', in 2002 and boasts an average of 3000 unique users a week. AccessArt also designs and delivers creative projects in the community and in schools. AccessArt supports and advocates for those who learn best visually, spatially and kinaesthetically. AccessArt leads the way in employing new, creative approaches to teaching and learning in the visual arts.

We raise money through our online bookshop; affiliate links; sales of downloadable pdf worksheets, and by running workshop sessions in the Cambridge area.

Our work has been generously supported by the DfES, NESTA, Arts Council National Lottery Fund and other public and private bodies.

If you would like further information about our work, or about our membership services, please email AccessArt at info@accessart.org.uk.

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