



participating in UNESCO
Special Session 2006-2007

internal documentation paper, work in progress)

Contents

1 Project description

- 1.1 People
- 1.2 Setup
- 1.3 Challenges

2 Documentation

- 2.1 Getting Started
- 2.2 Week 1 - Exploring the WikiMap Linz and Creating a Mind Map
- 2.3 Week 2 - Gathering Raw Material
- 2.4 Week 3 - Creating a sample collection
- 2.5 Week 4 – Sharing samples online
- 2.6 Week 5 & 6 – Artists at work
- 2.7 Week 7 - Online Presence and Interaction
- 2.8 Coming up - Final Presentation
- 2.9 In-betweens

3 Summary

- 3.1 Student's Feedback
- 3.2 Educator's Feedback

Text: Gerid Hager

Layout: Wolfgang Hoffelner

1. Project description

“Sounds of Water” is a collaborative effort of the Ars Electronica Center – Museum of the Future (AEC), the Georg von Peuerbach Grammar School (GvP) and the Linz University of Art’s Art Education Programme. From December 2006 to February 2007 15 pupils of the GvP’s Class 1c - simultaneously with other groups of project participants of the UNESCO’s YDC Special Session 2006-2007 all around the world - were using and evaluating the UNESCO Young Digital Creators educator’s kit. It is a guide designed to facilitate project-based learning with the aim of using digital tools like online platforms, software and hardware to make for a creative, collaborative encounter with important global issues.

The theme we chose for this project is “Sound of our water”, more specifically, the sounds made by water in Linz, which students recorded themselves and then digitally processed. In doing so, the emphasis was on developing creativity and working as self-starters able to assume individual responsibility.

The project has been carried out at GvP and the AEC as well as at a variety of locations where water flows, collects, evaporates, freezes, etc. The project advisors are Wolfgang Schreibelmayer (*teacher on the GvP faculty*), Wolfgang Hoffelner (*student taking media design and art education at the Linz University of Art*) and Gerid Hager (*AEC staff specialist in mediating cultural content*).

WikiMap Linz (http://wikimap.hotspotlinz.at/de/index_wikimap.php) serves as our project’s online documentation, presentation and communications platform. In the spirit of the motto “think globally - act locally,” the first thing the students did with the results of their work and their observations on the globally important subject of water was to assign them to specific locations in Linz and thus to provide them with a concrete physical setting within the scope of their own everyday lives. Since the other groups of participants throughout the world are also making their own encounters with their respective themes available online, the students are able to compare their work with other efforts, recognize differences and similarities, and thus learn to gain insights in a larger context.



1.1. People

The students

Andi, Borjana, Christoph, Christopher, Daniel, Erik, Hannah, Julia, Kathi, Lukas, Nadine, Nina, Richard, Stefan and Thomas are between 10 and 11 years old, very interested in computers and internet, but also very interested in nature, animals and sports. Some of them live in the city of Linz, some of them live in the countryside. As Linz is a small town (*about 180,000 inhabitants*) and it is fairly easy to reach green areas, they often go out into „nature“. The full class consists of 31 pupils which is split up into two groups in the subject Art Education. We only worked with one of the groups. It is their first year in grammar school (*5th level of school-education*), their major subjects are Math, German and English (*first year*). The most important change for them is the step from primary school to grammar school, where they have to deal with more teachers, subjects and differently organized schedules.

The educators/ teachers

Wolfgang Schreibelmayer has been working at the Linz University of Art's Art Education Department since 1986 and since 1987 he's also been teaching art at the Georg von Peuerbach Gymnasium. His main subjects are "Methods for Analysing Art", "Art Teacher Training" and "Socially Active Art Education". He is member of INSEA and regularly participates in international conferences.



Wolfgang Hoffelner is studying art education and media design at the Linz University of Art. His main interests are focused on film postproduction and videogame development. He has always been fascinated by comics, especially mangas and the Japanese culture. The colour of his eyes is grey-blue.



Gerid Hager studied Art Education and Textile Design at Linz University of Art. After graduating in October 2006 she started working at the Ars Electronica Center in the field of education and culture mediation, creating and leading workshops as well as overseeing collaborative projects with schools and other institutions.



1.2. Setup

Learning Activity: We carried out the project as a collaborative project in the course of regular curriculum school-activities. As we started the project spontaneously we didn't have the chance to ask for extra curriculum activities' time and therefore had to fit in the activities into ordinary school-schedule.

Time: Contrary to the suggestion of the YDC educator's kit of spending at least 4 hours on the project per week, we had 2 consecutive units per week, which is exactly 1 hour and 40 minutes.

Locations: Even though we did not have much time, we wanted to provide the experience of different learning environments; therefore, we combined working in school, at the museum, and of course outside, where we recorded some of our sounds. At school we used the classroom and two different computer rooms, at the museum we recorded sounds at the cafeteria and at the restrooms. We also worked in the so-called "Simulation Lab", a workspace equipped with mobile tables, laptops and a "Smart Board". Its setup is designed to be customized for use by groups.

Technical Equipment: We had 5 digital audio recorders, 13 computers at school and 10 laptops at the Ars Electronica Center available. Once we worked with the "Flying Classroom" – a mobile unit of 10 laptops usually being utilised by students of Art Education during their school practices.

Software/ Online Environment: The computers were set up with Windows operating systems; for creating the soundpieces we worked with the free software programme "Audacity". Besides the official UNESCO "Sound of our water"- website (<http://unesco.uiah.fi/water>) we used the on-line platform WikiMap Linz (http://wikimap.hotspotlinz.at/de/index_wikimap.php) as a main tool. The WikiMap Linz is an interactive city map created by the Ars Electronica Futurelab providing a range of possibilities. Due to a clear and intuitive interface users of the WikiMap can easily post pictures, text and sounds onto the interactive map of Linz. The intention is to convey specific qualities of a virtual cityscape in addition to real life Linz.

1.3. Challenges

It was clear from the beginning that mainly due to our very tight schedule and difficulties with school organisation it would be very hard to follow every part of the YDC educator's kit as suggested.

We didn't always have access to computers at school or at the Ars Electronica Center and therefore had to plan week to week, often spontaneously change plans about location and coming-up activities. Our students were also quite young and had never really worked with computer programmes or online-platforms before.

On this note the biggest challenge was certainly to keep the contents of the project as simple as possible while getting the most out of it for the children, providing both, creative work on individual soundpieces and a meaningful reflexion of the theme of water as a global issue.





2. Documentation

2.1. Getting Started

Before starting the project, we went to see the class, introducing the idea of “Sounds of water”. We asked them if they wanted to participate and as we got a 100% positive response we defined the project a bit more, explaining the idea of working with water sounds, asking them if they had specifically worked on water in school yet. Surprisingly most of them hadn’t but as we were talking and just trying to give them an idea of the project they immediately started some brainstorming about water.

We also introduced them to the global aspect of the project, which seemed to be especially delightful.



2.2. Exploring the WikiMap and Creating a Mind Map

Week 1

We started off working at school summarizing information about the project and giving a short overview of what was coming up. We split the group in two – one stayed in the classroom, the other one moved to the computer room. They switched after one unit (50 minutes).

The group in the classroom had a brainstorming and discussion session on the global issue of water. It was their first time really working on that topic, that's why we dealt with basic questions such as:

What does water mean for your life? Where does it exist? What do we need and use water for? What's the difference between needing and using? What meaning does water have in Linz? What would Linz look or be like without the Danube? Would it exist at all at this particular spot? What does water mean to people in other countries? Is their situation just the same as ours?



We also created a 'mind map', collecting and arranging ideas around the big topic of water. Our main goal was to raise awareness to the issues concerning water and make them reflect on it as a local topic linked to personal experiences and environments as well as a global issue. The outcome was divers and mainly centered around life, nature and natural disasters, hygiene and leisure activities.

Week 1

The other group in the computer room was introduced to the WikiMap Linz, the main online platform we would work with during the project not only to upload samples and pieces but also to document the project right from the beginning. The main goal of this lesson was to explain the idea of WikiMap and make them able to use basic tools on the map (*e.g. add comments to a project entry*). The kids had fundamental difficulties with orientation on the webpage or typing on a keyboard. That's why at this point it was very important to keep the contents as simple as possible and not to explain too much of WikiMap's functions. They just got to know the basics to work with it as a documentation platform, which were logging in and writing a comment. Our first project entry was the project diary the children would feed with comments over the weeks. It served as our virtual homebase, posted on the map where the school is situated in real life Linz. We formed diary-groups and one of them got the job to write a first comment for this week's actions.

At the end of the lesson we brought the groups back together in the classroom and collectively summed up what was showing on the 'mind map'.



2.3. Gathering Raw Material

The mission of this week's actions was to produce raw material, to record water sounds indoor and outdoor. We met up at the Ars Electronica Center which is located right beside the Danube. We had 5 digital audio recorders, therefore split the group in five small groups and introduced the equipment and its basic functions. The groups had one hour to record water sounds on their own, trying to find as many different ways water could possibly sound like. Before they were set free to explore, we gathered ideas on how to create and influence different sounds. They then proceeded to record water sounds indoor, at the cafeteria and at the restrooms, and outdoor by the Danube.



The kids were very excited and dedicated to recording all different kinds of sounds, working well in groups of three, discussing on which stone to use for throwing into the Danube, how to hold the recorder etc. It was delightful seeing how sensitive and creative they were to the exercise. One of the groups recorded up to 36 different water sounds. We didn't put much emphasis on explaining or trying out the recording equipment, we basically just gave it to them and sent them out to record. The aim was to sharpen their perception and make them dive into creative work and to directly experience the material and it's possibilities.

Again, just like the previous week, another group was assigned the task to add a comment to our project diary on the WikiMap describing what had been done this week. We sustained this activity until the final week of the project.



2.4. Creating a sample Collection

Back at school and at the computer room we started working with the free software programme 'Audacity'. Some of the kids had to work together on a computer but most of them worked on their own. The main goal was to create a sample collection while getting a first insight into the programme 'Audacity'.

We showed them how to import sounds into the programme, how to play them, how to cut them and how to export and rename them as audio files. The kids listened through all the samples they had recorded in their group. They had to decide which ones to keep and what parts to cut out (*e.g. someone talking in the background*) or leave as an interesting piece of sound. They started editing the raw material by creating samples they would later on use for creating their individual soundpiece.

Week
3



2.5. Sharing samples online

This week's activity took place at the Ars Electronica Center 'Simulation Lab'. They worked in the same 5 groups as in week 2. The aim was to produce sample collections, upload them onto the WikiMap and share them with the other students. First we encouraged them to listen to their samples again and then collectively decide which ones to share online. Then, introducing another basic possibility of 'Audacity', we showed them how to put the elected samples together, amplify them if required, creating a collection of samples in one soundpiece.

The next step was to upload the samples collections. Therefore it was necessary to give a deeper insight in how to post project entries on the WikiMap, a more complicated action as they had only learned how to write comments so far. At this stage it was especially important to keep them concentrated and focused. Besides all the procedure of searching for files, typing descriptions and uploading, they also had to decide where to put the entries on the map. It seemed logical to them to post them where they had actually recorded the sounds - near the Danube and somewhere around the Ars Electronica Center. Their efforts immediately got rewarded after posting when all of a sudden all the entries appeared on the map. It was some kind of light bulb moment, seeing what effects their actions had on the online map.

Week
4



2.6. Artists at work

We spent Week 5 and 6 at school, using the 'Flying Classroom' (see 1.2) the first time, and a normal computer room the second time. The emphasis of these two weeks' work was on creating an individual sound piece with interesting rhythms, a creation composed of different sounds they had recorded before, reflecting personal thoughts about water or some special idea they had regarding water. Some of them worked in groups of two, others worked on their own.

We started discussing terms like 'rhythm' and 'melody' describing possibilities of using the sample collection to create different effects. During prior lessons they had already learned how to cut and amplify sounds; this week we showed them how to overlap tracks and multiply cut out pieces.

In the end these were the few basic functions of 'Audacity' they worked with. We had to point out the possibilities of cutting, pasting and overlapping the sounds a few times to force the creative work as some of the students seemed to be finished in no time, just stringing together some samples. Others could hardly stop trying new ways of arranging the sounds to create their own unique piece.



Week
5



Finally they had to describe their work on a piece of paper answering questions such as:

What does water mean to your life? What do you like best about your piece? Is there something special you want to express with it?

Some tried to express and intensify the lively aspect of water by combining a lot of different types of water-sounds, others were experimenting with different possibilities of how to use the recorded samples for creating a jolly piece. Andi and Daniel, for example, wanted to express that water is the essential source of life by using a mix of outdoor and indoor water sounds, human sounds when drinking water and some words describing water the way they experience it in their lives – “blue, white, clear, glimmering, shimmering, cooling, refreshing”.

Some of the students had finished their work earlier than others. With letting them describe their piece it was possible to compensate different working tempos. Those who needed more time to work on their final sound creation had to finish the description at home.



2.7. Online Presence and Interaction

We finalised the project with another lesson at the Ars Electronica Center, posting the final pieces online, presenting them to the other classmates and taking a look at the official UNESCO 'Sound of our water' website to get to know other people's work and to put them in context with our own work.

The students started by posting their final sound creations onto the WikiMap, reviewing the uploading steps they had used 3 weeks prior. Again it was important to find a place for their piece. This time they were asked to name it and assign it to an individually special place in Linz they somehow connected to water. They also had to add a short text, describing what they liked best about their creation and the reason why they posted it to exactly that place. After they had finished uploading, everyone presented his/her piece to the class also telling about the individually experienced highlights of the projects. First they reacted shyly but the more people presented their work the more eager the others became.

Finally we visited the 'Sound of our water' website and listened to other people's work, e.g. 'I am thirsty' by Zehra, Fatima, Atteqa and Arsalan from Pakistan using the sound of two empty matkas clashing together, seed sticks tapping on empty matkas and Arsalans voice saying „I am thirsty“ in Urdu. We started discussing about the piece and about its difference to our pieces. Nadine mentioned that you couldn't hear any water sounds which seemed to confuse her at first. After telling them a bit more about Pakistan, Thomas, with belief in his eyes, told us it was because Pakistan is a very dry country with less water for everyone and that this piece would be their way to express what water means to them and their lives. It was the nicest and most important light bulb moment for the whole group. Considering the ensuing discussion they now were able to connect their own work and thoughts to the ones of the other participants around the world; more importantly, they could better understand and appreciate differences between their own experience and that of other participants.




Week
7

2.8. Coming up - Final Presentation




To bring the project to a befitting end we decided to give a final presentation at the Ars Electronica Center at the end of February 2007.

We invite the children's families, teachers from school and university, students and more to listen to our sound creations and those from other participants around the globe, to wander around WikiMap Linz and enjoy a glass of precious water.



Einladung zur Projektpräsentation
am Mittwoch, 28. Februar 2007 um 16:30 Uhr im Ars Electronica Center.

Mit Beiträgen von Linzer SchülerInnen, Klangexperimenten und Impressionen, entstanden im Zuge der UNESCO-Projektreihe "Sound of our water". Im Anschluss: Führung im Museum der Zukunft. Freier Eintritt!
„Sounds of Water“ auch auf der Wiki Map Linz unter www.hotspotlinz.at!

kunstuniversität linz  Georg von Peuerbach
GYMNASIUM  ARS ELECTRONICA
CENTER  UNESCO

2.9. In-betweens

To make a project like this – with very little actual working time – run smoothly without bigger problems it is crucially important to be organised and consistent between sessions with the students. Besides planning the activities for every week's meeting with the students, and thinking about our goals and actions, we had to do a lot of tiny things that on the whole turned out to be very time consuming and must not be underestimated.

For example, we had to organise and check equipment, install programmes, check settings, obtain running head phones, keep sound files saved and in order, bring them from one place to the other and back, check computer room schedules, come to agreements with other teachers, change locations, keep an eye on the online performance of the project and often change activity plans according to whatever possibilities or problems we had or did not have. All of this was an even bigger challenge as we educators are all situated in different institutions.



3. Summary

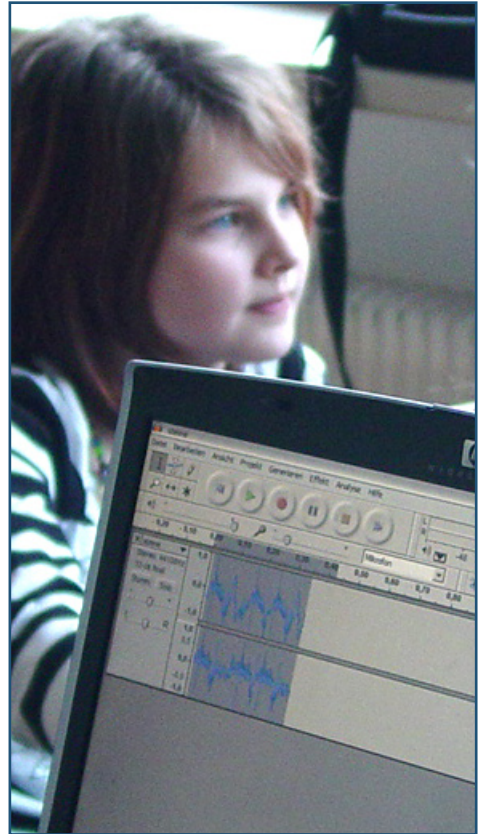
3.1. Student's Feedback

According to the final statements from the students, given while presenting their pieces to their classmates in week 7, there were three major things they liked about the project.

Almost everyone pointed out that they had especially enjoyed recording water sounds, both outdoors and indoors. They liked searching for sounds on their own, being able to take responsibility for their work but also to be able to work away from school, like adventurers discovering new found land.

Another delightful aspect of the project was working with technical equipment, computers and the internet. They were all very thankful for having the opportunity to work on computers, laptops and with digital recorders. Andi was so glad to work on “huge computers that don’t crash every 15 minutes like my computer at home”. Some pointed out it was their first experience in using computers for creating something unique and personal.

Finally lots of them mentioned that they especially liked working in groups with their friends. They enjoyed sharing ideas, discussing and finding solutions collaboratively which still seems to be something they are not used to in the context of school education and activities.



3.2. Educator's Feedback

What did we gain from the project being a collaborative one?

The connection of different locations, equipment, educators, activities as well as learning environments and settings turned out to be very exciting and motivating for the kids. Offering this variety was only possible through working with different partners. For us educators it was very interesting to get to know different 'teaching styles' and approaches to the topic itself. It was also very helpful to be able to split teaching activities, collaboratively gain new ideas, discuss next steps in the process and reflect on past activities. What is more, we could not have possibly realised the project with 15 students in such short time with such great outcome without each other.

What was the most creative aspect of the learning experience for our students?

In a very practical sense the most creative aspects for the kids were recording water sounds on their own, trying to find as many different ways water could possibly sound like and modifying these sounds with digital tools, creating new sounds, learning to be able to independently give shape to ideas, experiment, create and influence things. They got the chance to actively and creatively use computers: not only acquiring dry skills to use the internet and computer programmes such as "Audacity", but use these skills to reach their aim of creating their individual soundpieces. Moreover, they were able to link learning experience to different locations than just their school, which made learning more lively, more 'real', and which naturally supported the creative process.

In a wider sense, especially regarding the online platform and the 'link' to other groups around the globe, the most creative aspect, not only for the kids but also for the educators, was to get to know other peoples' work, think about their circumstances, and compare it with our own work. This was creative in the sense of learning to reflect things in a different way, realising there are other ways to look at them, switching our point of view for a moment, trying to understand topics from another perspective, and maybe find similarities where we thought there were none and therefore better understand the foreign ideas and integrate them into our own ideas and thoughts.

How did using WikiMap Linz and the ‘Sound of our water’ website influence the project?

We used the online platform WikiMap Linz as a main part of our project. We learned about it in the first week and used it to upload samples and pieces, but we also used it for documenting our project. It helped very much to provide a project platform the kids could refer to in a very comprehensible and tangible way. We think it was the perfect tool to introduce them to wiki online tools in general.

Every single project entry is visible on the map through an icon, which is connected with every other project icon through drawn lines. We have a project diary that evolved over the weeks with new comments from the kids. We have posted samples and pictures near the Danube by the AEC where we actually recorded some of the sounds. And finally there are our pieces – every creator posted his/hers at an individual, special place connected somehow to water and her-self/himself. As a visual virtual representation of their hometown Linz the WikiMap does not only offer a bridging of the virtual world and the kids’ real life environment, it also gives them possibilities to modify, influence and observe the development of the project. It was possible to connect sounds with places, with activities, with memories and wishes building a soundscape telling the story of our project.

At the same time the kids were very aware that everyone around the globe could come and take a look at our project just as they were able to share it with their family and friends at home. Linking our Project on WikiMap Linz to the ‘Sound of our water’ website was nevertheless crucial for understanding the global aspect of the project. Just listening to sounds from other countries made them aware of cultural diversity and fostered an appreciation for it.

How did the YDC educator’s kit help with the lessons?

The difficulties we faced were mostly due to the school schedule, missing time or infrastructure, but we always managed to keep things going. The structure of the YDC educator’s kit basically helped keep it all together by guiding us through the process, offering a lot of can-do’s and alternatives without imposing too many must-do’s. Nevertheless we highly recommend taking a bit more time for the project if possible. The suggestion of using about 4 hours per week made by the DigiArts team seems an appropriate estimate to use the kit to its full potential without skipping too many parts.



Wolfgang Schreibelmayr's comment on the project:

"I think this project was a great chance for the participating young pupils from the 1c class of the Georg von Peuerbach Gymnasium in Linz.

They very much enjoyed leaving the classroom to work in the "Simulation Lab" at the Ars Electronica Center. They liked working together with their classmates in partner teams. They also enjoyed working together with the friendly Gerid Hager from the AEC and the inspiring Art Education student Wolfgang Hoffelner from Linz University for Art. The realisation of this project was a special service for the pupils. They got in contact with the museum Ars Electronica Center and also heard about UNESCO.

The trip to the riverside of the "Blue Danube" to collect some sounds of water was an unusual adventure for the kids. It was amazing to watch them, throwing stones or pieces of wood into the river and record the splashing sounds. The combination of digital recorders and basic elements such as water, wood and stone making sounds in the hands of children was a special experience and very inspiring for further projects. Using digital tools to make them look and listen more intensively, to sensitise the kids to questions about nature, is a resourceful didactic idea. The computers and special technical equipment did not bring them away from nature; far from it! It brought them closer, especially to the value and importance of water.

It was also great to watch the excited faces of the young girls and boys when they put their own compositions on the WikiMap Linz. Their excitement increased when Gerid introduced them to other projects from different people in countries all over the world. The pupils recognised that the reactions on the theme of water are different depending on the individual situation of each participant.

The realisation of this project was a special service for the pupils of the Georg von Peuerbach Gymnasium. They got in contact with the museum Ars Electronica Center and also heard about UNESCO.

It was great to watch the excited faces of the young girls and boys when they put their own compositions on the WikiMap Linz. Their excitement increased when Gerid introduced them to other projects from different people in countries all over the world. The pupils recognised that the reactions on the theme of water are different depending on the individual situation of each participant.

In my opinion the children really got a feeling for the possibilities of the World Wide Web and web communities and were trained to respect other cultures. They improved their knowledge about computer technologies as tools for taking a closer look at nature, especially water, and as tools for communicating with people living in different parts and cultures of the world.

I think that our young students will be more respectful and thankful towards water. I think this project helped them, supported by computer technology, to get a deeper insight into the issue of water and other important questions regarding human life in general.

Thank you all for this project."

