

CONTENTS

Editorial	
2009, a promising transitional year.....	2
Between, a crucial preposition.....	3
Fondation93	
Organizational chart.....	4
Presentation and budget.....	5
Partners.....	6
Passport to Discovery	
Nature Square, Culture Square.....	7
Research in Art and Science.....	8
Eureka / Chemistry in Cooking.....	9
Eureka / Reactions.....	10
Evolution.....	11
Families.....	12
Innovation / Video Games.....	13
Planet Earth.....	14
Under Constraint.....	15
Global Village.....	16
Breakdown of Enrolments by City and by Project.....	17
Enrolments by Type of School.....	18
Call for projects by the Conseil Général de la Seine-Saint-Denis.....	21
Exhibitions	
MIRAGES.....	22
Vostok and Fatale beauté.....	23
State-Region Plan.....	24

2009, A PROMISING TRANSITIONAL YEAR

Daniel Véron, chairman

2009 was a year of change for our permanent team and members of the association, not only a change in management (board of directors, committee, chairman), but new operating procedures put in place by our main partner, the Conseil Général de la Seine-Saint-Denis, in its relations with associations. Yet these developments may seem secondary in a time of economic crisis which, with its load of worries, can make people turn in on themselves and splinter social groups, so the need to build a common culture becomes more pressing than ever. Fondation 93 therefore went on with the cultural and educational program it has run for many years for sections of the population, especially young people, who reputedly have little access to culture.

Overcoming the anxiety and financial difficulties that the Conseil Général's new procedures initially caused, we decided to go ahead with all the *Passport for Discovery* projects we had set in motion at the beginning of the school year. Concurrently, we made a sincere effort to respond to the department's call for projects under the new "Culture and Art in Intermediate Schools" program. The association reasserted its determination to give scientific and technical culture its rightful place alongside other forms of expression – art, philosophy or other branches of knowledge – in this vast program for cultural development.

Fondation 93 has also designed new projects, many in partnership with other institutions, which will not be operational until 2010. The exhibition of ceramics at the Cité des Sciences et de l'Industrie next March is a case in point.

As this report shows, 2009 has been a busy year for the association and its permanent staff, who rallied round to propose new projects and go on with the old ones, once again justifying the committee's confidence and support. The difficulties encountered proved stimulating all round, and our main backers, headed by the Conseil général de la Seine-Saint-Denis, have renewed their support. May they be warmly thanked.

BETWEEN, A CRUCIAL PREPOSITION

Marc Boissonnade, director

Even today many cultural approaches to science or technology work on the principle of making things permanent and constructing a solid frame of reference. Such projects often “speak” on a theme, usually to explain it, and make praiseworthy efforts to provide accurate and true information. But there are other working principles, which can be seen as complementary.

For 2009, we took a different approach: we pooled our ideas on various questions, putting the emphasis on imagination. We took pleasure in considering our audience as having a “cultural baggage” in constant flux, which we saw as a promise of real dialogue. In this case, the relationship between the audience and the project was like an object in orbit, and the encounter between them was neither a starting nor a finishing point but the possibility of developing their natural curiosity in a more intensive way.

All the approaches taken by Fondation 93 and its partners sought to break away from tradition, which sometimes leads to a didactic discourse, understood as providing people with a sort of security or anchorage.

This radically new approach was designed not to be disconcerting but to develop a trusting relationship around the projects we proposed, which we hoped would upset habits, shift expectations and create unexpected reactions. For the past season and the years ahead we have tried to surprise our audiences and invite them to share in a new way of thinking.

ORGANISATIONAL CHART

Daniel Véron

chairman

COMMITTEE**Yves Chemla**

vice-chairman

Jean-Charles Pettier

vice-chairman

Henri Borentin

treasurer

Chantal Lévy

secretary general

BOARD OF DIRECTORS**Elisabeth Caillet****Emmanuel Constant****Claude Coulbault****Marie-Claire Fillot****Gilles Garnier****Marie Granger****Thierry Kübler****Sylvette Pierron****Serge Robineau****Michèle Simonneau****Michel Van Praët****MANAGEMENT****Marc Boissonnade**

director

Nathalie Vaguer

administrative and financial director

PROJECT LEADERS**Sandrine Diard****Mathieu Marion****Pauline Lachappelle****Virginie Palisse****ADMINISTRATION****Faten Khalifi,**

administrative assistant

Nacira El Goumati,

personal assistant

PRESENTATION

The association for public education in science and technology, known as Fondation 93, was founded in Seine-Saint-Denis in 1982. In the early 1980s it was the second centre of scientific, technical and industrial culture (CCSTI) in France. Fondation 93 is a member of the board of AMCSTI (Association des Musées et des Centres pour le développement de la Culture Scientifique, Technique et Industrielle), the most important national network of scientific culture. Since 2008, it has benefited from the new "Science, Culture and Innovation" label awarded by the Ministry of Higher Education and Research.

Fondation 93 is currently chaired by Daniel Véron (head of art and cultural education, Ministry of Culture and Communication). The members of the association share the determination to develop strong cultural and educational activities related to current events in the sciences (all sciences), technology and industrial innovation, which they believe are an exciting and major social challenge.

To achieve this goal, they can count on the resources of an association based in Seine-Saint-Denis, which is able to dialogue with the main players involved in these issues.

The association's annual program takes place in the community because it does not have premises equipped to receive the public. Its initiatives are implemented by nine permanent staff assisted by a temporary team of about ninety people, mostly from the fields of research, art and culture. These teams have an overall budget of about one million euros.

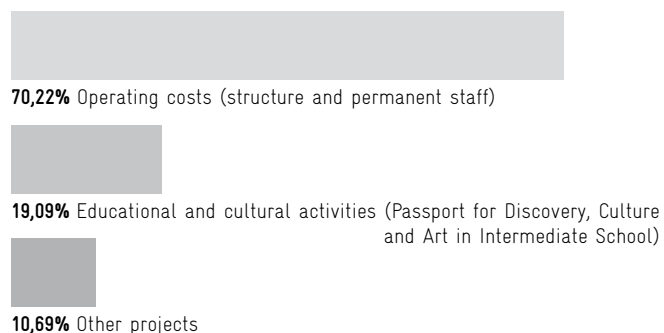
The association has an annual program of projects in schools, special projects and, more recently, travelling exhibitions, all designed, prepared and implemented by Fondation 93. Because of the complexity of the solutions that need to be found to combine science and culture in the same project, the association has developed unique skills and considerable experience in project engineering.

BUDGET 2009

FINANCIAL PARTNERS



BREAKDOWN OF FUNDING



PARTNERS

PERMANENT PARTNERS

- Conseil général de la Seine-Saint-Denis
- Préfecture de la région Île-de-France, Délégation Régionale à la Recherche et à la Technologie
- Ministère de l'enseignement supérieur et de la recherche
- Inspection académique de Seine-Saint-Denis

PARTNERS FOR 2009

- Association Enfance et Nutrition
- Centre d'économie de la Sorbonne, University of Paris 1
- Centre d'étude et de recherche en informatique, CNAM (Conservatoire National des Arts et Métiers)
- Centre d'étude sur les médias, les technologies et l'internationalisation (CEMTI), University of Paris 8
- Centre de recherche sur les liens sociaux, CNRS (Centre National de la Recherche Scientifique), University of Paris 5
- Centre de recherche et de restauration des musées de France (C2RMF)
- Cité des sciences et de l'industrie
- Comité international des jeux mathématiques
- Concours Sciences, art et cuisine
- Conseil Régional d'Île-de-France
- Centre de Recherche sur les Arts du Feu et de la Terre (CRAFT), Limoges
- Diana Naturals
- École doctorale Sciences de la Nature et de l'Homme, MNHN (Museum national d'histoire naturelle)
- École nationale du jeu vidéo et des médias interactifs numériques (ENJMIN)
- Équipe de recherche en muséologie et médiation des sciences, MNHN Équipe Astrophysique Interactions Multiéchelles, CEA (Commissariat à l'Énergie Atomique), Saclay, CNRS, University of Paris 7
- Fagor-Brandt
- Fondation Science et culture alimentaire
- Institut d'Aménagement et d'Urbanisme de la Région Île-de-France, Département de l'aménagement et du développement territorial
- Institut d'Astrophysique de Paris
- Laboratoire Architecture/Anthropologie, École Nationale Supérieure d'Architecture de Paris la Villette
- Laboratoire de didactique des sciences physiques (LDSP), University of Paris 7
- Laboratoire d'étude et de recherche sur les logiques contemporaines de la Philosophie, University of Paris 8
- Laboratoire de gastronomie moléculaire, AgroParisTech, INRA (Institut National de la Recherche Agronomique)
- Laboratoire de physique des lasers, Institut Galilée, CNRS, University of Paris 13
- Laboratoire de systématique et classification du vivant, MNHN, University of Paris 6
- Les explorateurs du Web
- Maison européenne de la photographie
- Musée des arts et métiers, CNAM
- Museum national d'histoire naturelle
- OUBAPO, Ouvroir de Bande-dessinée Potentielle
- OULIPO, Ouvroir de Littérature Potentielle
- Pôle de recherche pour l'organisation et la diffusion de l'information géographique, CNRS, University of Paris 1
- Société Cuisine et Innovation
- UBISOFT

NATURE SQUARE, CULTURE SQUARE

Project leader: Virginie Palisse

Key figures:

14 classes / about 350 pupils
5 2-hour sessions

Objectives

In class discussions led by a philosopher, sociologist or economist, the pupils explored the concept of risk and produced a set of sentences that could be posted in a public place.

Main Stages in the philosophical approach

• Stage 1 (one session):

Starting from their own ideas, the pupils tried to formulate questions about risk-taking. Why do we take risks? Can we live without risks? Do risks make us grow up?

• Stage 2 (three sessions):

The philosopher used various aids – films, articles and role play – to provoke thought and help the pupils explore different aspects of the concept of risks. A school trip stimulated further thought.

• Stage 3 (one session):

The pupils produced sentences derived from class discussions.

Main Stages in the sociological approach

• Stage 1 (one session):

The pupils talked freely about their own experience of risk taking and then the sociologist helped them explore the concept and begin to list relevant problems.

• Stage 2 (two sessions):

The pupils ordered the problems they had begun to formulate and drew up a set of questions. These questions were later used in interviews with people selected for their relationship to risk. The interviews were recorded and transcribed.

• Stage 3 (two sessions):

The pupils analysed and commented on the interviews.

Main Stages in the economic approach

• Stage 1 (two sessions):

Drawing on documentary sources, the pupils tried to understand various challenges, for example how is the management of risks related to climate change linked to economic problems?

The pupils participated in an experiment inspired by the experimental economy

on the idea of the public good. They analysed the experiment and discussed ways of encouraging companies to cut back pollution.

• Stage 2 (two sessions):

Drawing on various documentary sources, the pupils tried to define a financial risk.

They participated in an experiment inspired by the experimental economy on the idea of the speculative bubble. They analysed the experiment and discussed the topic.

• Stage 3 (one session):

The class visited the experimental economy laboratory at the Economics Centre at the Sorbonne, toured the university and took part in an experiment under research conditions.

Exhibition

1,200 posters presenting the sentences written by the pupils were posted in the twelve towns of the participating schools and within the schools themselves.

Excerpts:

“Taking a risk is leaping into space when I am trying to go along new paths.”

“When artists create something they take the risk of not being successful and not pleasing everyone.”

“A teenager takes a risk of disobeying so as to be free and develop his own personality.”

“Think about it, listen to the devil in you to judge the risk, and then slip out.”

“Jumping from the first floor window. What’s the point? To show how brave you are.”

“Risks are for kids: adolescence is a crazy time. We want to drink, we feel grown-up and tough. Pushing the limits.”

Comments

“The pupils were really involved, determined not to give up when the ideas got complicated.” (A teacher)

“I thought this year’s theme was highly relevant, because the teenagers we teach often put themselves in danger. The project made them aware of the responsibility they must take when they take risks.” (A teacher)

“I had never thought about what a risk was. I didn’t know that we took so many risks in our lives.” (A pupil)

Partners

• Philosophy tutors (PhD in philosophy, PhD students, secondary school teachers):

Farida GUECHOU

Jérôme LETOURNEUR

Jonathan LEVY

Anna MUTINI

Michèle PICOT

• Sociologists (CERLIS, CNRS, University of Paris 5):

Séverine DESSAJAN

Guillaume MACHER

Elsa RAMOS

Delphine SAURIER

• Economists (Centre d’Economie de la Sorbonne, University of Paris 1, Ecole des Mines, Polytechnique):

Nicolas JACQUEMET

Yann MENIERE

Julie TISSEROND

Participating schools

• Lycée Nicolas Ledoux, Pavillons-sous-Bois

• Lycée Léo Lagrange, Bondy

• Collège Lavoisier, Pantin

• Collège Pierre de Geyter, Saint-Denis

• Collège Louis Pasteur, Villemomble

• Collège Jean Moulin, Montreuil

• Collège Pierre Sémard, Drancy

• Collège Michelet, Saint-Ouen

• Collège Descartes, Blanc-Mesnil

• Collège Ronsard, Tremblay-en-France

• Collège Louise Michel, Clichy-sous-Bois

• Lycée Jean Baptiste de la Salle, Saint-Denis

• Lycée Le Corbusier, Aubervilliers

• Atelier scolaire de Saint-Denis, PJJ

RESEARCH IN ART AND SCIENCE

Project leader: Pauline Lachappelle

Key figures:

8 classes CM1-CM2 / about 200 pupils
9 2-hour sessions and 2 visits

Objectives

Establish links between the sensory and rational dimensions of a theme. Approach the issue from two angles: artistic and scientific. This year, "Research in art and science" looked at the theme of the universe as part of World Astronomy Year.

Stages

- Preliminary work without tutors

The pupils defined the theme and asked questions: What is the universe? What is an artist? What is a scientist? What is my universe?

- Work with a science tutor (two sessions):

The astrophysicist brought evidence of his research work to show the class: pictures of our galaxy and beyond, pictures of the solar system, pictures of instruments used to observe the universe, small experiments to show how the Earth revolves around the sun... This material was used to start a discussion in which the pupils tested their ideas against scientific discoveries.

- Work with an art tutor (five sessions):

An imaginative exploration of the universe. The pupils worked with various media and artists to produce a graphic album, an improvisation, an animated film, a short feature, a soundtrack or a science fiction story.

- A visit for each approach (depending on the theme chosen):

For the science section, the pupils learned more about the universe through a visit to "Journey into the Centre of the Galaxy", an exhibition by the atomic energy commission (CEA) and a film shown in the planetarium. One class, which studied the theme of light in the universe, visited the laser physics laboratory (University of Paris 13, Villetaneuse).

For the arts: two classes visited Nathalie Talec's exhibition at MacVal. The other classes went to the show "Kant" on the theme of the universe at L'Échangeur Theatre in Bagnolet.

- Dialogue

A final session was held with both tutors to review the way the paths of art and science had crossed in the project and talk about the pupils' experiences. Questions discussed included: Do artists and scientists use their imagination in the same way? Do we look for truth in art as we do in science?

Exhibition

The pupils presented and commented on their project to other classes and parents within their respective schools. A sound show was produced to establish a link between all the classes participating in this project and to emphasise the dialogue between art and science discussed through various themes. It broadcast comments from pupils and project leaders recorded during the final sessions. Excerpts:

"Why does reality need artists?"

"If scientists are useful, why aren't they well-known?"

"Artists and scientists both do good. Science explains the problems, but without art, I think there would be no laughs."

"I used to think that astronomy was fake, made up, now I think it is impressive!"

Partners in art and science

- Sandy Amério and Katherine Blanc: plastic arts
- Geneviève Anhoury: animated film
- Fabrice Colin: science-fiction writing
- Eddie Ladoire: composer
- Isabelle Mestre: theatre
- Julien Solé: graphic albums
- Sébastien Charnoz and Sylvain Chaty: astrophysicist, CEA and University of Paris 7 Denis Diderot
- Christophe Daussy: physicist, Laser Physics Laboratory, CNRS
- Henry Joy MacCracken, Roger Ferlet, Guillaume Hébrard, Nicolas Prantzoz, Jean-Philippe Uzan: astrophysicists, Institut d'Astrophysique de Paris (IAP)

Participating schools

- École Louis Aragon, Pantin
- École Assomption, Bondy
- École Henry Wallon, Pantin
- École Paul Eluard, Montfermeil
- École Pablo Picasso, Drancy
- École Pierre Brossolette, Noisy-le-Sec
- École Henri Quatremaire, Noisy-le-Sec
- École Paul Bert, Montreuil

EUREKA, CHEMISTRY IN COOKING

Project leader: Pauline Lachappelle

Key figures:

7 classes / about 175 pupils
5 2-hour sessions with a tutor and several sessions on their own

Objectives

"Eureka, Chemistry in Cooking" invites pupils to take an experimental approach to molecular gastronomy and creative cooking, making up a recipe meeting certain specifications: this year a (non alcoholic) cocktail using fruit and vegetables. Starting from basic principles of molecular gastronomy, they had to invent an original, tasty recipe to take part in the final at the Cité des Sciences.

Stages

- Stage 1: The pupils studied the specifications, working intuitively to come up with initial hypotheses and creative ideas.
- Stage 2: Introduction to molecular gastronomy. A chemistry tutor, a specialist in molecular gastronomy, helped the group clarify its initial ideas for a recipe and formulate hypotheses for making it. Then they experimented with a recipe: using calcium alginate to make chocolate foam and/or fruit juice beads. In this way, the class discovered the principles of molecular gastronomy.
- Stage 3: A session on density. After initial tests by the pupils on their own, experiments were carried out with the chemistry tutor to explain the chemical and physical principles of the density of liquids, enabling them to obtain separate layers in a cocktail.
- Stage 4: A session on making foam and using additives. After initial tests carried out by the pupils on their own, experiments were carried out with the chemistry tutor to explain the chemical and physical principles behind the use of additives, especially soy lecithin or methylcellulose to make fruit juice foam. The pupils discussed presentation and chose flavours for the final of the contest.
- Stage 5: Session on culinary design. The aim was to find new ideas for presenting the cocktail and creating the mood for the recipe. Chloé Doutreleau, trained by the famous culinary designer Marc Brétillot, helped the pupils make the best choices.
- Stage 6: Rehearsal for the final of the contest. The pupils practised making

their recipes under competition conditions, supervised by their molecular gastronomy tutor.

Exhibition

The final of the contest was held at the Cité des Sciences et de l'Industrie, on Wednesday 17 June 2009.

Cocktail prize: Collège Pierre Sémard, Drancy (a record nine layers!)

Colour prize: Collège Marais de Villiers, Montreuil ("Le Cerpamgre" cocktail)

Innovation prize: Collège Victor Hugo, Aulnay-sous-Bois (for a cocktail with a layer of quinine which shows up under black light)

Gourmet prize: Collège Jean Moulin, Aubervilliers ("Delicious Paradise" cocktail with exotic fruit)

Flavour prize: Collège Eugène Carrière, Le Gournay-sur-Marne ("Childhood Memories" cocktail)

Jury's special prize: Collège Saint Joseph, Pantin (for the vertical layer of strawberry jelly in their cocktail)

Jury's special prize: Collège Pablo Picasso (absent) for their work throughout the project

As well as the practical tests, the program included a talk by Hervé This and a cocktail demonstration by Raphaël Haumont, both specialists in molecular gastronomy.

Results

The pupils took part in the project as part of their physics and chemistry syllabus or their food service training (SEGPA). In all cases, the experience was rewarding, extending their understanding of the physical phenomena at work (why two liquids of different densities do not mix; how to pour one liquid on top of or underneath another; how to extract flavour or colour from food...) and exploring the creative potential and nutritional value of food. The session on culinary design, a novelty this year, enriched their view of gastronomy and its potential for creativity.

Partners

- Cité des Sciences et de l'Industrie
- Anne Cazor, culinary technologist, Cuisine Innovation
- Chloé Doutreleau, culinary designer
- Marie-Claude Feore, member of INRA

molecular gastronomy team, Chemistry laboratory at AgroParistech

- Raphaël Haumont, lecturer, Physics and Chemistry of Solids laboratory, University of Paris-Sud 11
- Christophe Lavelle, researcher at the CNRS, Institut de recherche interdisciplinaire
- Odile Renaudin, biochemist, Association Enfance et Nutrition
- Meige Corpet, agronomist, graduate of the Institut National Agronomique de Paris-Grignon, specialised in science and technology of biology, nutrition and human diet
- Hervé This: AgroParistech chemistry laboratory, INRA molecular gastronomy group and Fondation Science et Culture alimentaires
- With the support of:
- FAGOR-BRANDT, Leader in home appliances in France, for the kitchen equipment used during the contest and the demonstrations
- Cuisine Innovation, for the additives
- Diana Naturals, for the fruit and vegetable extracts and natural colouring matter

Participating schools

- Collège Eugène Carrière, Gournay-sur-Marne
- Collège Pablo Picasso SEGPA, Montfermeil
- Collège Marais de Villiers, Montreuil
- Collège Pierre Sémard SEGPA, Drancy
- Collège Saint Joseph, Pantin
- Collège Victor Hugo SEGPA, Aulnay-sous-Bois
- Collège Jean Moulin SEGPA, Aubervilliers

EUREKA, REACTIONS!

Project leader: Mathieu Marion

Key figures:

7 classes / about 160 pupils
6 2-hour sessions with a tutor and
4 sessions without a tutor

Objectives

In Eureka, Reactions! the pupils were invited to design a chain reaction machine and take part in the final contest. They carried out their own research and worked with a physicist and an artist, applying the laws of physics to design and build their machines.

Stages

• Session 1

The discovery phase in which the pupils tried to understand the specifications for the contest, imagine the machine and the way it would work on the principle of chain reactions.

• Session 2

Working with an art tutor, the group developed its first ideas, became familiar with art terms and assessed the technical needs.

• Session 3

The physics tutor helped them understand the principles at work in the machine, in particular the use of energy; he also showed them how to optimise the machine to improve its construction and find new ideas.

The art tutor helped them make their machine as creative as possible.

• Sessions 4 and 5

Construction continued with both tutors.

• Session 6

The pupils tested the finished machine and made the last technical and aesthetic adjustments. They prepared a poster and documents presenting the machine for the contest.

Exhibition

"The final of the Eureka contest was held in the Cité des Sciences on Wednesday 17 June. 200 secondary school pupils presented their machines to a jury of professionals. And the winner is... Seven teams from various colleges in Seine-Saint-Denis participated in a contest for rather strange machines... A cow spotted with flags, "Moo-reka", a super infernal machine and a vehicle named Pablo Picasso were judged by the jury according to

three criteria: performance, innovation and creativity. The contest organised by Fondation 93 and the Cité des Sciences met its objective: to light the flame of science in the youngsters' imaginations." (Excerpt from an article in *express.fr* 18/06/09).

Comments from teachers:

"This project let the pupils concentrate on a block, a specific part of the machine. They worked in groups or pairs and learned to respect other people's opinions. They talked to each other to solve problems. Another interesting thing is that they had to respect the lead times and safety rules as in a professional environment. If one group slowed the project down everybody was penalised." (Boris Denieul)

"The Eureka project enabled us to make a link between science classes, technical workshops and industrial design. The pupils often have the impression that all their school subjects are separate and here they had proof of the contrary." (Hélène Cornet)

"The pupils (even if they were a bit wound up) were delighted to go to the final, particularly in a place like the Cité des Sciences. It also gave them an opportunity to see the other machines and they were surprised (and impressed) by other pupils' ideas. That was a perfect finish to the project." (Anne Fiore)

Partners / during the project

- Guillaume Ageron, plastic artist
- Sophie Huttin, plastic artist
- André Lamourère, plastic artist
- Meichaël Lévy, PhD student in physics, Complex Systems and Matter Laboratory at the University of Paris Diderot
- Julien Randon-Furling, PhD student in physics of random processes, University of Paris-Sud
- Damien Robert, PhD student in physics, Complex Systems and Matter Laboratory, University of Paris Diderot

Partners / final

- Marie-Laure Las Vergnas, visitor department at the Cité des Sciences et de l'Industrie, and her team
- Cyril Birnbaum, visitor department at the Cité des Sciences et de l'Industrie.
- Adrien Coché, director

- Studio Ad Hoc, exhibition design
- Michael Verdier, actor

Participating schools

- Collège Politzer, Bagnolet
- Collège Pablo Picasso, Montfermeil
- Collège République, Bobigny
- Lycée d'application de l'ENNA, Saint-Denis
- Centre Guy Toffoleti, Bagnolet
- Collège Pierre Sémard, Drancy
- Collège du Roger Martin du Gard, Epinay-sur-Seine

EVOLUTION, SPECIAL PROJECT FOR DARWIN YEAR

Project leader: Sandrine Diard

Key figures:

6 classes / about 120 pupils
5 class sessions and 2 visits

Objectives

Where do we come from? What is evolution? How are different species related? What place does man have in the animal kingdom? And how do life styles influence our biological evolution?

To answer these basic questions without getting off the track, six classes from Seine-Saint-Denis talked to experts in evolution.

Stages

• Stage 1: Observing biodiversity in the school's environment (one session)

Each class was asked to observe the animals in its environment. The idea was not only to discover biodiversity, but to bring out the pupils' notions of it ready for later discussion with the scientists.

• Stage 2: Observing biodiversity at the zoo (Jardin des Plantes) (one session)
In the class's first meeting with its science tutor, they discovered a wide diversity of species from all over the world and observed the collection of animals chosen by the class and the tutor.

• Stage 3 and 4: Classifying to understand evolution (two sessions)
Each class built nested sets corresponding to the collection of animals observed during the first two sessions.

Helped by a systematist, the pupils analysed the phylogenetic tree of their collection. The two sessions enabled the class to see and use methods for classifying living beings and to prepare the ground for thinking about evolution.

• Stage 5: Visit to the Natural History Museum (one session)
Aspects of the theory of evolution not discussed in class were explored at the museum. As part of Darwin Year, ten displays had been set up to encourage the pupils to ask questions about Darwin's observations or discoveries.

• Stage 6: Discussion of the processes related to evolution (two sessions)
The classes took part in debates on specific aspects of the life sciences and the evolutionary process. The discussion was opened to issues in other scientific disciplines: extinction of species through the history of the dinosaurs, sexual

dimorphism, genetics and heredity, our ideas of the relationship between man and nature, the search for our origins...).

Exhibition

An installation designed by Studio Ad Hoc was set up in the Evolution Gallery of the Muséum national d'Histoire Naturelle in Paris from 3 June 2009 to 25 January 2010. It was called "Chrono Zone" and took the form of a mechanical sculpture, giving the public a sensory experience that went beyond the scientific issues being discussed. The project explored the various time scales and used the pupils' ideas about everyday time and the more abstract time scale of evolution.

Excerpts:

"Do species help one another in nature?"

"Is there one species at the origin of all the rest?"

"Are we all monkeys?"

"Monkeys can't smile, because for monkeys showing your teeth means you are angry"

"Why does man order animals around? Why don't animals give people orders?"
"How did the archaeologists know where to dig?"

"Why is each individual unique?"
"When monkeys do up their laces, are they playing or learning?"

"Can two different species have children? Well, no, that's a relief."

"Do apes know their own name?"

"What is the point in making a hypoa

Partners

- Agathe Sanino, geneticist, lecturer at the Cité des Sciences
- Juliette Arabi, PhD student in systematics and evolution, University of Paris 6, instructor at MNHN
- Cyprien Bole, PhD student in systematics and evolution, University of Paris 6
- Jocelyn Falconnet, PhD student in systematics and evolution, University of Paris 6
- Chris Herzfeld, historian of primatology and anthropologist of science, EHESS, MNHN
- Guillaume Lecointre, systematist, lecturer and researcher at MNHN
- Hervé Lelièvre, palaeontologist, lecturer and researcher at MNHN

- Nicolas Messieux, PhD student in the ecoanthropology and ethnobiology laboratory, MNHN
- Romain Nattier, PhD student in systematics and evolution, University of Paris 6
- Bruno Péquignot, professor, head of the Cultural Mediation Department, University of Paris 3 Sorbonne Nouvelle
- Amélie Pichonet, PhD student in systematics and evolution, University of Paris 6, Instructor at MNHN
- Pascal Tassy, palaeontologist, professor at MNHN, History of the Earth-Palaeobiodiversity Department
- Romain Thomas, PhD student in systematics and evolution, University of Paris 6, instructor at MNHN
- Priscille Touraille, researcher, anthropology of gender, MNHN
- Laure Segural, PhD student in the genetic structure of human populations, University of Paris 6
- Nathalie Dusuzeau, MNHN

Participating schools

- Collège Théodore Monod, Gagny
- Collège Gustave Courbet, Romainville
- Collège Garcia Lorca, Saint-Denis
- Collège Lenain de Tillemont, Montreuil (2 classes)
- Collège Georges Politzer, La Courneuve

FAMILIES

Project leader: Pauline Lachappelle

Key figures:

10 classes / about 250 pupils
7 2-hour sessions

Objectives

To question the figure of the adult and the role of the adult in the family. Are adults solely responsible for the family? Do young people also have responsibilities in the family? Are couples only for adults? Do adults have a life outside the family?

Stages

- Stage 1: Commission of six photographs (two sessions)
Preparation for taking the photographs using a photo guide and photo essays at school.
Then the pupils, in pairs, took photographs with a disposable camera, at home and at school.
- Stage 2: Investigation into the place of adults in the family (three sessions)
Introduction to sociological analysis.
Analysis of selected photos starting from a set of questions for each photo.
Written summary of ideas.

Exhibition

Over three days, all the pupils visited the Maison Européenne de la Photographie. They took part in a meeting and debate between classes on various issues raised in the project: Is the adult of the family different from other adults? Is the adult world bigger and freer than the children's world?

Two family experts were present: Eric Da Silva, child psychologist and Emilie Bernard, sociologist specialised in parent-child relationships in adoption, and a video of the pupils work was shown to stimulate the discussion.

Visits to exhibitions of photos by Henri Cartier-Bresson "Paris à vue d'œil" and "Des européens" were also on the program.

Excerpts:

"Our parents are different from other adults because they are responsible for us all the time and have authority over us. There are stronger bonds with our parents, we love our parents but do not necessarily love other adults."
"Hassen does not know what he wants

to be when he grows up. Hassen and I want to be parents. An adult cannot play without children, if he has no family. I want a wife and children to play with, to go out as a family, to teach them what life is about."

"A mother is a unique person. She brought us into the world, she is a person that cannot be compared to the others. A mother knows everything because she brought us into the world."

"A kid needs to protect his space more than an adult because we have more to hide."

"A teenager's room is more private because adults are in pairs."

"People go places to have fun, or go to work or to school. Parents travel more than kids do during the week because they go to work. Kids mainly go out to see their friends."

Partners

- Maison européenne de la Photographie (Ghyslaine Badezet, education officer)
- Centre de Recherche sur les Liens Sociaux (CERLIS, University of Paris 5)
- Yaelle Amsellem-Mainguy, sociologist
- Séverine Dessajean, sociologist (CERLIS)
- Elsa Ramos, sociologist (CERLIS)
- Fanny Salane, sociologist
- Guillaume Pallat, photographer
- Guillaume Lebrun, photographer

Participating schools

- Collège les Mousseaux, Villepinte
- Collège Travail Langevin, Bagnolet
- Collège SEGPA République, Bobigny
- Collège SEGPA Clos St Vincent, Noisy-le-Grand
- Lycée Jean-Baptiste de La Salle, Saint-Denis
- Collège SEGPA Picasso, Montfermeil
- Classe Relais Collège Courbet, Romainville
- Collège René Descartes, Blanc-Mesnil
- 2nd Cap Dispositif Nouvelles Chances, Gagny
- Lycée Professionnel Voillaume, Aulnay-sous-Bois

INNOVATION / VIDEO GAMES

Project leader: Virginie Palisse

Key figures:

5 classes / about 125 pupils
7 2-hour sessions

Objectives

To design the model of a simple video game and then, guided by experts, to discuss the video game phenomenon and the stakes involved in terms of creativity, technological progress and the leisure industry.

Stages

• Stage 1: Launch of the project at the Musée des Arts et Métiers (one session)

The pupils went to the museum for an introduction to the history of video games and the various jobs involved. Consoles and video games from the 1980s were brought out of the museum's collection for the pupils to try out.

• Stage 2: Design of a model for a videogame (three sessions)

Researchers from CNAM spent three sessions helping the pupils design a video game. They went through the stages in game design together: rules, levels, narrative, graphic environment, programming, etc.

• Stage 3: Meetings and debates (two sessions)

Video game professionals and human scientists took part in discussions on the video game economy and its industrial stakes, or behavioural issues: the pleasure of playing, addiction, violence.

Exhibition

The exhibition Pacnam: Des chroniques sur le jeu video (June-August 2009). For three months, the Musée des Arts et Métiers hosted an exhibition based on the work of the five classes. The exhibition was composed of nine audio-visual works by Ingrid Talleux, presenting the pupils' ideas and their dialogue with the experts about video games and what they represent in our society today.

Partners

- Cnam/ Musée des arts et métiers
- Loïc Petitgirard, lecturer
- Bertrand Cousin, project leader
- Cnam/ Centre d'étude et de recherche en informatique du Cnam (CEDRIC°)
- Stéphane Natkin, Professor and director of the Ecole Nationale du Jeu

et des Médias Interactifs Numériques, Institut du Cnam

- Pedro Alessio, PhD student at CEDRIC/Cnam
- Jérôme Dupire, research worker at CEDRIC/Cnam
- Stéphane Gros, PhD student at CEDRIC/Cnam
- Guillaume Levieux, PhD student at CEDRIC/Cnam
- Alexandre Topol, lecturer at CEDRIC/ Cnam
- Ubisoft Entertainment
- Antoine Henry, game designer
- Gary Paulini, associate producer
- Observatoire des Mondes Numériques en Sciences Humaines
- Etienne Armand Amato, researcher in information and communication science at the University of Paris 8
- Alexis Blanchet, researcher in cinematographic studies at the University of de Paris Ouest-Nanterre La Défense
- Fanny Georges, research in the arts, cultural studies, Centre de Recherche Images Cultures et Cognition (CRICC/ LETA, University of Paris Panthéon-Sorbonne)
- Michael Stora, psychologist-psychoanalyst

Participating schools

- Collège Fabien, Saint Denis
- Collège Sainte Marie, Stains
- Collège Théodore Monod, Gagny
- Collège Claude Debussy, Aulnay-sous-Bois
- Lycée René Cassin, Raincy

PLANET EARTH

Project leader: Sandrine Diard

Key figures:

13 classes / about 215 pupils
6 2-hour sessions

Objective

Planet Earth aims to describe and understand the city in a different way, using collective views and practices in the urban space. Surveys and mapping are used to explore the links that the residents make and maintain with their territory.

Stages

• Session 1: Understanding the question. The anthropology tutor asked the class to comment freely on the question "What makes a place a town?"

• Session 2: Preparing the survey. The pupils explored and experimented with survey conditions, guided by their tutor. How to enter into contact with people and collect their views on the question: what makes a place a town?

This stage was an introduction to anthropological fieldwork, giving the pupils practice in listening and note taking. It was their first opportunity to compare their views with those of others and discover divergences and convergences between them. The pupils carried out the survey in pairs, each pair interviewing two people.

• Session 3: Analysing the interviews to single out four topics

The pupils translated the comments, stories and images they had collected from the residents into keywords. They first pooled the information they had gathered to try to see common themes in what the residents had said.

• Session 4: Map reading and orientation in the city

This session was an introduction to cartography, giving the pupils the references and tools they needed to understand a town from a map. They learned what questions to ask to describe it physically on a map.

The pupils helped the people they interviewed to locate the themes in a particular place, their everyday surroundings, in their home towns.

• Session 5: Transcribing the data

The pupils turned the interviewees' words and landmarks into thematic maps. By turning their drawings into maps they made their fieldwork visible. Each story

revealed something of a street, a square, a neighbourhood, but also a piece of history, a feeling, a smell...

• Session 6: Synthesis

The pupils looked at their finished maps and made initial observations; they noticed that some places were more significant than others and made links between the maps and the terrain. This comparison led to a number of statements about what the map teaches us about the town and what makes a place a town.

Exhibition

The class projects were posted in public places in the town in the form of road-maps. About 250 maps were printed for each class. Depending on the partnerships formed with the town hall and the opportunities in each town, the maps were posted in symbolic places such as the council rooms or community centres and then were distributed in libraries, media centres, leisure centres, youth clubs, cultural centres, etc.

Excerpts / pupils

"Words like 'entertainment' and 'meeting places' seemed right to explain what makes Stains a town."

"In Bondy we worked on the word 'money' because we think that towns don't work without dough."

"What makes a place a town for the people who live in La Courneuve is the density of the population, things happening, the way people stick together and share things and its organisation. It is a system which means we can live well together."

"What is a suburb if it isn't a town?"

Excerpts / tutors

"Some students grasped the idea of speaking of the town in an abstract way, putting it into perspective as an object. What do you think of when I say 'town'? What do you feel? See? Hear? These questions interrupt the rhythm of the session because I make them work with their eyes closed and without talking."

Partners

• Architecture and Anthropology laboratory, Laboratoire de recherche de l'École Nationale Supérieure d'Architecture de Paris La Villette (LAA)

• Département de l'Aménagement et du Développement Territorial, Institut d'Aménagement et d'Urbanisme de la Région Ile de France (IAURIF)
• Pôle de Recherche pour l'Organisation et la Diffusion de l'Information Géographique (PRODIG), CNRS, University of Paris 1

Participating schools

• Collège Georges Politzer, La Courneuve
• Collège Sainte-Marie, Stains
• Collège Jean Jaurès, Pantin
• Collège Pablo Picasso, Montfermeil
• Lycée général et horticole Fenelon, Vaujours
• Collège Henri Sellier, Bondy
• Collège Federico Garcia Lorca, Saint-Denis
• Collège Fabien, Saint-Denis
• Collège Roger Martin du Gard, Epinay-sur-Seine
• Collège Robespierre, Epinay-sur-Seine
• Collège Jean Jaurès, Villepinte
• Collège Pablo Neruda, Aulnay sous Bois

UNDER CONSTRAINT

Project leader: Mathieu Marion

Key figures:

6 classes / about 150 pupils
6 2-hour sessions

Objectives

This is an original project inviting pupils to express their attitude to mathematics. A project in which they play with letters and sounds (using rules for writing devised by the OULIPO movement) to explore the common ground between mathematics and literature. The idea is to produce poetic texts obeying two main constraints: symmetry in their writing (applied to words, sentences, sentence structure, whole texts) and mathematics as their subject.

Stages

• Session 1: Rules and constraints

A playful, empirical discovery of the principles of the project: what is a constraint and how can mathematics and literature be 'crossed'? The tutors described the many dimensions and applications covered by symmetry and presented the Oulipo movement.

• Session 2: Creating a corpus

The tutor led a discussion in which the pupils talked about their relationships with mathematics. The idea was to prepare a corpus – words, themes, thoughts – before the writing phase.

• Session 3 and 4: Creative writing workshop

On the basis of the corpus prepared by the pupils in the previous session, a tutor from Oulipo, Oubapo or Alamo helped the class to experiment with the principles of literary symmetry to produce texts or drawings. A large number of poems, graphic texts and computer aided texts were produced.

• Session 5: A mathematics tutor

A mathematics tutor explained his vision of research in mathematics. The discussion also focused on the mathematical constraint of the year (what is symmetry with regard to his research work?) but above all on the pupils' work, reflecting their relationships with mathematics.

• Session 6: Synthesis and selection of texts

In preparation for the "Mathematical Games" fair, the pupils selected and developed texts produced in previous sessions.

Exhibition

The classes' texts and drawings were shown in a special stand at the tenth "Mathematical Games and Culture" fair held in Place Sulpice, Paris. Supported by the CNRS and many scientific institutions, this fair is one of the highlights of the mathematical year. It addresses pupils in primary, intermediate and secondary school and offers an amusing approach to mathematics. Fondation 93's mediator was on the stand to explain the project to visitors.

Comments

"The pupils quickly see that the constraint is a help and not really a hindrance as it might seem at first glance. Little by little they took it as a game, like a mathematical game." (F. Riguet, teacher).

"It is very interesting because the pupils can see maths differently. (...) Moreover, because of the constraint, it does not feel the same as writing in the French class. I thought it was a good idea to use cartoons for the constraint of symmetry." (A. Audrain, teacher).

"We talked freely about many things.

There were mathematical demonstrations, many original, interesting reactions, a fair amount of knowledge, in short, an appetite, which is the most satisfying thing." (Olivier Salon – Tutor).

"Many pupils took part in the fair. They obviously felt involved. They were proud to present their work to other people. It was hard for some of them but they all played the game." (R. Fischer –Teacher).

Partners

CIJM (Comité International des Jeux Mathématiques)

Guy Chaty, member of ALAMO (Atelier de Littérature Assistée par la Mathématique et les Ordinateurs)

Frédéric Forte, member of OULIPO (Ouvroir de Littérature Potentielle)

Etienne Lecroart, member of OUBAPO (Ouvroir de Bande Dessinée Potentielle)

Olivier Salon, member of OULIPO

Alain Zalmanski, member of OUGRAPO (Ouvroir de Grammaire Potentielle)

Marc Wouts, lecturer at Institut Galilée, University of Paris 13

Francois Dubois, university professor, CNAM (Conservatoire national des arts et métiers)

Gwendola Madec, Institut Galilée, University of Paris 13
Pierre Duchet, university professor, University of Paris 7

Participating schools

Collège Lavoisier, Pantin
Collège Louise Michel, Clichy-sous-Bois
Collège Lucie Aubrac, Livry-Gargan
Collège Marais de Villiers, Montreuil
Collège Sainte-Marie, Stains

GLOBAL VILLAGE

Project leader: Mathieu Marion

Key figures:

7 classes / about 175 pupils
6 2-hour sessions

Objectives

What relationship do the pupils have with Internet and how do they use it? Is there one web for adults and another for teenagers? What sort of users are they and are there particular identities on the net? To answer these questions, Fondation 93 set up a project around the creation and use of a wiki, an emblematic tool on the 'second generation' Internet.

Stages

• Stage 1: Finding their way around the web (one session)

Each class talked freely about the way they use the Internet. The pupils were asked to present and summarise their practices, ideas, knowledge or prejudices about the Web as a starting point for the investigation.

• Stage 2: Knowledge, experiences and identities (three sessions)

Creation of a class 'wiki', a platform serving as a base for the project.

This group Internet session involved an introduction to tools and practices (creating an avatar, tag clouds). The emphasis was put on an exchange of knowledge and experience between the pupils and various tutors to build a web representation which accurately reflected the class's practices.

The aim was to see if the class had its own identity on the Internet and to compare it with other users with surprising practices.

• Stage 3: Internet and adolescence (two sessions)

With the help of a sociologist, the classes thought about the specific way teenagers use the Web: an approach based on practices listed in the previous sessions and those of other users.

The pupils used the Internet as a medium for building an identity (a feeling of belonging to a class, a type, a generation). They observed that teenagers and adults use the Internet in ways that differ superficially but are similar underneath.

Results

Excerpts:

"When I go on the Internet, I first log

in to msn. I check my messages and chat with my friends. I used to look at the blogs of people I didn't know but I stopped doing that because I find them all conventional." (Pupil from Collège Jean de Beaumont, Villemomble)

"My parents stopped me going on the Internet at the weekend so I won't become a geek, a no-life!" (Pupil from Collège Jean de Beaumont, Villemomble)

"Adults don't go on the net just to see what other people are doing and talk about themselves, like we do!" (Pupil from Collège Garcia Lorca, Saint-Denis)

"I can't imagine adults chatting on msn... I think they don't do it because they don't have nearly as many friends as we do!" (Pupil from Collège Victor Hugo, Aulnay-Sous-Bois)

"Of the twelve adults we asked, six download stuff and spend an average of ten hours a week on Internet. That is a lot!" (Pupil from Collège Garcia Lorca, Saint-Denis)

"I was caught short in the first session, because some of them go very fast, but that makes it very interesting, because they can stand back and look at what they do." (Sébastien Sauter, tutor)

"Measuring adults' real practices by means of the questionnaire proved or disproved the pupils' ideas. Some adults go on the net often, in the evenings, for leisure activities (music, films, series), which surprised most of the teenagers. Adults sometimes do the same things as teenagers on the net: download films or music, chat with their friends, write up their blogs, etc. (Yaëlle Amsellem-Mainguy, sociology tutor).

Partners

- Émile Ogez, NICT consultant
- Sébastien Sauter, NICT consultant
- Thomas Martine, PhD student, Institut Charles Delaunay, University of Technology, Troyes (UTT)
- Yaëlle Amsellem-Mainguy, sociologist, CERLIS (research centre on social bonds), University of Paris Descartes
- Fanny Salane, sociologist, CERLIS (research centre on social bonds), University of Paris Descartes

Participating schools

- Collège Garcia Lorca, Saint-Denis
- Collège Jean de Beaumont, Villemomble

- Collège Honoré de Balzac, Neuilly-sur-Marne
- Collège Georges Politzer, La Courneuve
- Collège Victor Hugo, Aulnay-Sous-Bois

BREAKDOWN OF ENROLMENTS BY CITY AND PROJECT

NUMBER OF CLASSES ENROLLED IN EACH CITY

Aubervilliers.....	3	Épinay-sur-Seine.....	3	Neuilly-sur-Marne.....	1	Sevran.....	1
Aulnay-sous-Bois.....	5	Gagny.....	3	Noisy-le-Grand.....	1	Stains.....	3
Bagnolet.....	3	Gournay-sur-Marne.....	1	Noisy-le-Sec.....	2	Tremblay-en-France.....	1
Blanc-Mesnil.....	2	La Courneuve.....	4	Pantin.....	6	Vaujours.....	1
Bobigny.....	2	Le Raincy.....	1	Pavillons-sous-Bois.....	1	Villemonble.....	2
Bondy.....	3	Livry-Gargan.....	1	Romainville.....	2	Villepinte.....	2
Clichy-sous-Bois.....	2	Montfermeil.....	5	Saint-Denis.....	11		
Drancy.....	4	Montreuil.....	6	Saint-Ouen.....	1	Total.....	83

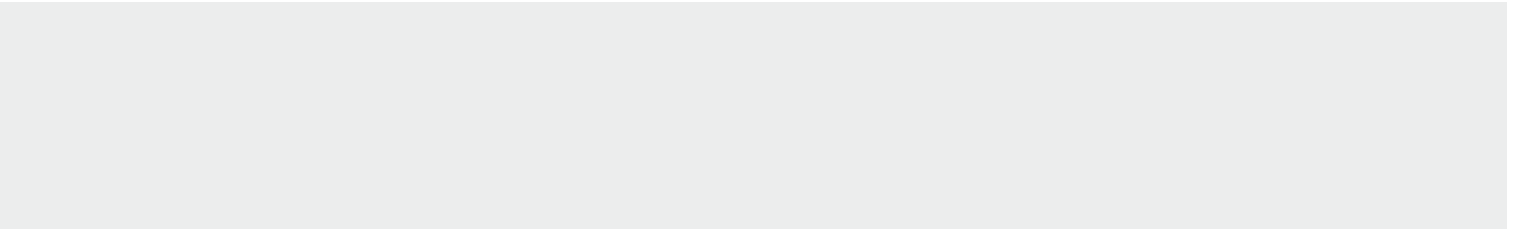
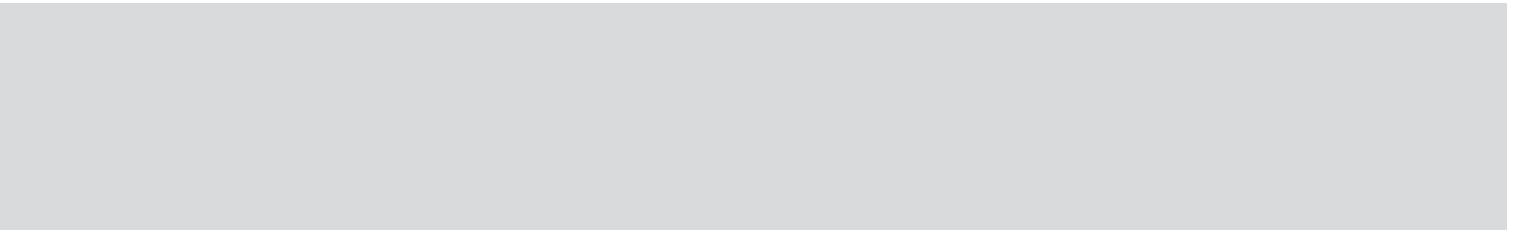
NUMBER OF CLASSES ENROLLED BY PROJECT AND SUBJECT TAUGHT

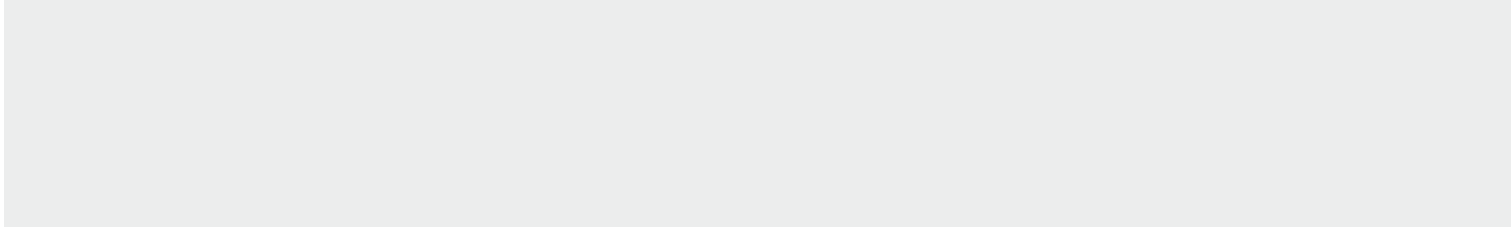
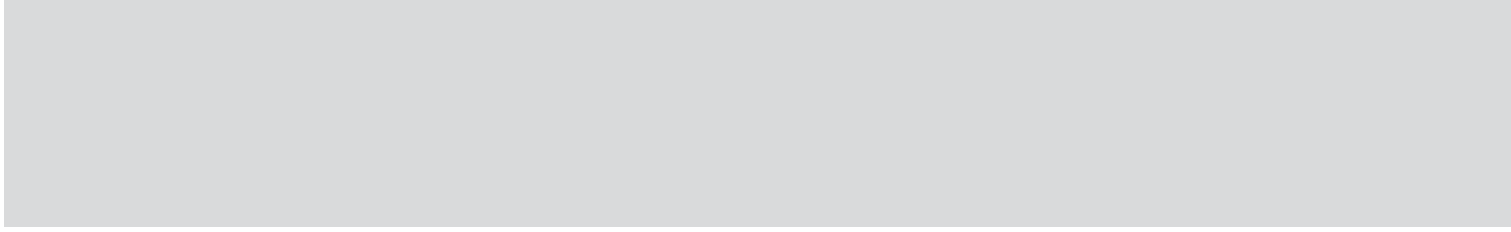
PROJECTS	ENROLMENTS BY PROJECT		SUBJECT TAUGHT BY THE CARRIERS OF THE PROJECT				FORECAST
	FORECAST	ENROLMENTS	SCIENCE	HUMANITIES	TECHNOLOGY	SPORTS-LEISURE-ART	
PURE SCIENCES							
Research in Art and Science	8	8					8
Eureka	15	14	8		5		1
Evolution	7	6	5	1			
Under constraint	5	6	3	2	1		
HUMAN AND SOCIAL SCIENCES							
Nature Square, Culture Square	15	14	4	7	1	1	1
Families	10	10	7	2		1	
ENVIRONMENT AND SUSTAINABLE DEVELOPMENT							
Planet Earth	15	13	3	8			2
INFORMATION AND COMMUNICATION SCIENCES							
Global Village	10	7	2	2	2	1	
Innovation	5	5	2		3		
TOTAL	90	83	34	22	12	3	12

Sciences: mathematics, physics-chemistry, life and earth sciences

Humanities: French, history-geography, languages

Other: other professionals





CULTURE AND ART IN INTERMEDIATE SCHOOL

A call for projects

Keenly interested in artistic and cultural education, the Conseil Général de la Seine-Saint-Denis wishes to implement an unprecedented department-wide program entitled "Culture and Art in Intermediate School".

The idea is to offer intermediate school classes artistic or scientific activities with a tutor, during school time, as part of a broader project involving trips outside the school, critical analysis and the exhibition of their work. Each project is to take about forty hours.

In May 2009, the Conseil Général launched a call for projects from artists and cultural, scientific and technical institutions and organisations, all known for the quality of their work and their relations with the intermediate schools in the department. They were asked to propose one or several cultural projects.

In July, the proposals were studied and validated by the steering committee of representatives of the department, the inspectorate, the rectorate and the DRAC.

Sciences, technology and culture

Nearly 650 proposals were submitted to the selection committee (which had to choose no more than 360). In the end, 284 were validated and carried out in 2009-2010.

Fondation 93 presented 95 scientific, technical and industrial projects. 48 were selected, admittedly fewer than our total submissions, but still significant with regard to the overall program: scientific projects account for 17% of the whole (alongside the performing arts, the visual arts, heritage, music, etc.).

All our projects were designed on a double axis. Firstly, we tried to meet the expectations of the Conseil Général, which wanted researchers and artists to be involved, or better still to work together in a partnership. Then we tried to cover as wide a range of subjects as possible (12 in all) so that pupils and teachers could explore a variety of issues in physics, mathematics, sociology, design, international politics and urban planning.

Fondation 93 in numbers

29 projects were carried out with intermediate school teachers from the mainstream section, evenly spread over all levels.

The 19 others were carried out in special schools (including 13 with teachers from a SEGPA (Section d'Enseignement Général à Pédagogie Adaptée)).

43 schools took part.

MIRAGES

MIRAGES

The starting point for the MIRAGES exhibition was an essay by the philosopher Bernadette Bensaude-Vincent entitled "Se libérer de la matière?" It sparked a project for an exhibition on matter and materials as the components of our world and factors in our future. But which future?

The exhibition and the book are similar in some ways but employ different means.

MIRAGES is not a means of reproducing or reformulating what the author has already said. It aims to approach the book with different sensibilities and exhibit them.

Fondation 93 imagined the principle of a fairly free encounter between the book and artists from different backgrounds. Some of the strong ideas that emerged during the initial brainstorming became the basis of a scenario called MIRAGES, which was then peopled by the artists' creations rather like characters in a play. This initiative is based on the desire to make mirages with matter, a way of obtaining reflections in which we can make out distant, forgotten, or lost thoughts.

And more exactly, three materials taken to the extreme: ceramics, then metals and finally polymers.

MIRAGES / Ceramics (2 March-25 April 2010)

Fondation 93 invited five artists: three plastic artists, an architect and a designer to work on the first part of the MIRAGES triptych. All five were given the same material – ceramics – and teamed up with a company to produce new works. On the advice of the European Ceramics Centre, the five artists worked on their creations with an experienced partner, CRAFT. (Centre de Recherche sur les Arts du Feu et de la Terre).

Florence Doléac (Designer) designed a stimulating floor covering: a raised pattern inspired by Braille on ceramic floor tiles. The density and number of spikes in contact with the feet walking over the tiles were calculated to produce lasting stimulation.

Frédéric Pradeau (Sculptor) used the rare, limitless capacity of ceramics to search for a portable utopia that anyone could afford. He finally found it in an object that was both a container and filter, which could be used to turn seawater into drinkable freshwater.

Didier Fiùza Faustino (architect) saw himself as a nomad followed by a crowd of technical assistants enabling him to recreate his private world whatever the circumstances. His piece is composed of small, fragile-looking identical units. An eating place, a resting place, a prayer stool?

Vincent Kohler (plastic artist) wanted to give his own potted history of ceramics. His work for MIRAGES has no use for a series of steps or separate processes: the kiln for firing is on one side and the material to be fired to make an object is on the other. Kohler's piece is self-generating and has its own method of firing.

Bruno Peinado (plastic artist), has brought about an unprecedented rapprochement between the inert (ceramics) and the living (plants). Admittedly, clay pots have always contained plants and are sometimes colonised by them. But Peinado introduces a much more marvellous element by mixing the making of a clay brick with the germination of a New Zealand plant called *restionacea*.

MIRAGES/Ceramics will be on display at the Cité des Sciences et de l'Industrie, a partner in the operation, from March to April 2010. It is then expected to travel around France and abroad for two years.

Technical partners

- Le Centre de recherche sur les arts du feu et de la terre (CRAFT/Limoges)

CRAFT, set up in Limoges in 1993 on the initiative of the Ministry of Culture, works to forge an artistic, experimental link between manufacturers and designers, architects and artists.

Technical director: Gérard BORDE

VOSTOK / FATAL BEAUTY

VOSTOK

Design and production: Fondation93

Project on the drawing board. Execution in the first half of 2010, launch in October–November 2010 (Fête de la Science).

In its 2008–2009 season, Fondation 93 asked astrophysicist Jean-Philippe Uzan and musician Eddie Ladoire to work with a primary school class for several months. They involved the pupils in a musical and scientific exploration of the universe. The pair enjoyed the experience so much that they wanted to try another project with Fondation 93. *Vostok* is the result.

Vostok is a sound project about the universe, a creation based on sound sometimes using techniques used in radio broadcasting. It could also be called a piece composed of audio material: mainly sound experiments in a recording studio and voices from interviews with Jean-Philippe Uzan and others. It will also use the sounds of everyday life, transformed or otherwise, and recordings of traditional instruments (string and wind instruments).

Vostok will unfold in several movements, based on themes that recur in the interviews: space, movement, speed, light, the cosmos. The voices will not only be a framework, décor or background, they will also play an important role in telling a story, the story of the universe.

The listener will be immersed in a soundtrack made of texts, a series of scenes, breaks, abstract sounds, then more scenes, texts, etc. In short, a clever mix with the underlying idea of making the universe heard.

Vostok will be played in a booth with places for 3–5 people. The booth will be designed by Van Lieshout workshop, a Dutch team internationally known for its modules. *Vostok* is a collective work, envisaged as a travelling installation, preferably touring art galleries and science museums.

FATAL BEAUTY

Design and production: Fondation93

Fatal Beauty is a project for an exhibition on capitalism. It follows on from MIRAGES and Vostok in Fondation 93's exhibition programme for 2010–2014. The content is still to be confirmed. However the arguments that led to its selection give an idea of its objectives.

After fighting to make "science in society" a reality in our cultural sector, we feel it is urgent to find original projects to bring the concept to life. By choosing a theme like capitalism, we mean to show that we are determined to make the issues that federate or divide our fellow citizens clearly visible in the public arena.

"Fatal Beauty" is a way of freely exploring a subject that is seldom or never treated in the field of scientific education. Do we find it hard to look some realities straight in the eye? Probably. But we must bear in mind that whatever is able to produce an effect of truth, especially through fiction, is worth considering.

If "capitalism" is to be understood, it must of course be studied, but why not exhibit it? Exhibiting capitalism in our case means testing it through experiments dreamed up by about fifteen artists (plastic artists, designers, architects, writers and photographers). This project will take shape around a book by Philippe Pignarre and Isabelle Stengers, "La sorcellerie capitaliste, pratiques de désenvoûtement". It is the state of mind in which the book was written that intrigued us, because it is in line with what we are trying to do. Indeed, by suggesting that experimenting on this subject means talking about something we do not know, the spirit of the book invites us not to preach. Above all, it suggests we keep at arm's length the combined pretensions of the invisible hand of the markets and the visible hand of the states to define common thought without proof or discussion. "Fatal Beauty" wishes to avoid the passion of powerlessness or the contempt of indifference. It chooses to call capitalism a system that is constantly inventing itself and has a hold over us; but we must still think about the ways in which we can get a hold over it.

“QUESTIONS DE SCIENCES, ENJEUX CITOYENS” / QSEC

Science and Citizenship

A new regional approach

“Questions de Sciences, Enjeux Citoyens” (QSEC) is an approach financed under the State-Region Plan (CPER 2007-2013). Fondation 93 is one of the founders of the initiative, with “Parc aux étoiles”; an astronomy centre in Les Yvelines, and “Banque des savoirs” the website of the Conseil général de l’Essonne.

The Conseil régional d’Île-de-France is the main funds provider for QSEC; the operation also receives financial support from the Délégation Régionale à la Recherche et à la Technologie (DRRT) / Ministry of Higher Education and Research. The operation was launched in 2009. The objective is to strengthen the identity of the Ile de France region in the public debate on the sciences, by inviting residents to discuss issues and take a common approach. So far, about forty groups (school children, retired people, works councils, etc) in three departments (Essonne, Seine-Saint-Denis and Les Yvelines) have signed up for the project. After a period of research and discussion which began in January, guided by researchers and experts in various fields, and a series of visits, each group presented its findings locally in May on the medium of its choice.

Delegates from each group were then invited to a regional meeting to air the ideas and concerns of ordinary citizens rather than the discourse of the experts.

Bioethics

In 2009-2010, groups of citizens participating in “Questions de sciences, enjeux citoyens” addressed the issue of bioethics. After the États-Généraux de la bioéthique, the QSEC steering committee decided to develop bioethics as a subject for thought in society at large, using other approaches and other media.

Human rights, the dignity of human life, personal freedom, social bonds, socio-political aspects of biomedical progress, genetic therapy, cloning, and eugenics were all subjects which interested the initiators of the project. Thinking about bioethics means thinking about the consequences of the development of science and technology on the relationship of man to his own body but also on the very definition of the human being and on the social values and moral standards which govern our societies.

Far from being reserved for specialists, bioethics raises issues which call for a wide debate.

Coordination and local applications

Fondation 93 plays a dual role within QSEC.

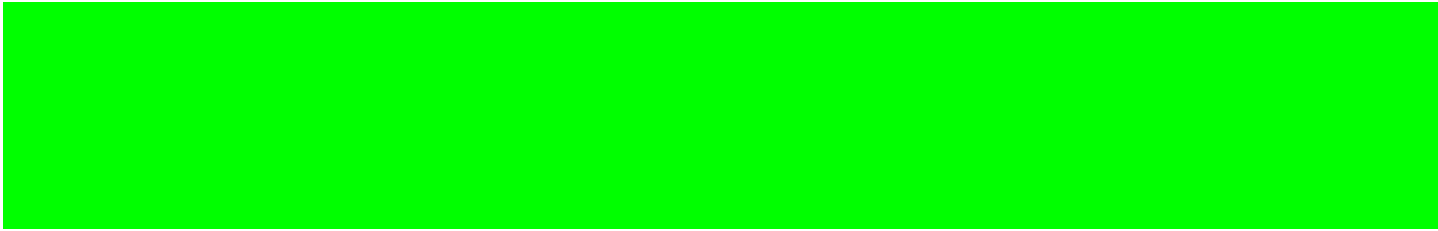
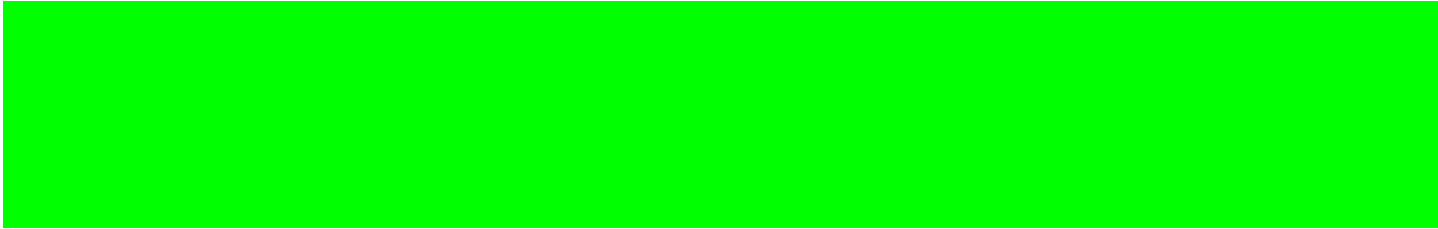
Firstly, it assists with administrative work as a member of two committees. For 2009, apart from defining the theme, the committees drew up partnership agreements, designed the operation’s graphic identity and a website and found local operators to run QSEC in Hauts-de-Seine, Paris, Val-de-Marne, Seine-et-Marne and Val d’Oise for the coming seasons.

Fondation 93 appointed a regional coordinator, Nicolas Blémus, to handle these dossiers.

Its second role relates more specifically to its reference department, Seine-Saint-Denis. Along with the two other operators, it has been given the task of running activities on

a local level. In 2009, Fondation 93 therefore worked to set up these groups.

Fondation 93 has cooperated with the municipalities to find particularly active associations. Among others, child minders, a café discussion group and a women’s group have shown interest in the project. It initially approached adult groups, but several secondary school classes have also joined the list.



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