



Dismantling the southwest cornice block of the Parthenon. Photo V. Eleftheriou 2012

- V. Eleftheriou, 2011-2012, The progress of the restoration works on the Acropolis
 A. Vrouva, The problem of the structural restoration of the capital ΔΚΚ2 of the Parthenon west colonnade
 K. Skaris, The architectural study for the restoration of the Parthenon west tympanum backing wall
 Y. Alexopoulos, M. Katsianis, Digital applications for projecting the Acropolis restoration works on the internet
 I. Kaimara, A. Leonti, S. Paraschou, C. Hadziaslani, Educational programme "A day at the Acropolis restoring its monuments"
 E. Petropoulou, News from the Acropolis
 E. Karakitsou, Nikos Skaris (1923 - 2012)

Educational programme

“A day at the Acropolis restoring its monuments”

The Information and Education Department of the Acropolis Restoration Service (YSMA) in collaboration with the 1st Ephorate of Prehistoric and Classical Antiquities held a special two-day educational programme at the Acropolis on the theme “A Day at the Acropolis restoring its monuments”. Participating were 600 pupils and 38 educators from 21 schools in Attica.

The programme was designed for schools of the Secondary Education, in particular the 3rd grade of the Gymnasium. The purpose was to familiarize and inform the pupils about the monuments and the major technical work being carried out on the Acropolis by following and participating in a series of workshops in the Acropolis area.

A total of 200 e-mails were sent to all the Gymnasias of Attica. Eighty-two schools replied and the first 21 to declare their interest took part. Each school could bring up to 30 pupils, divided into two groups of fifteen, each accompanied by one educator.

In order to participate in the educational programme, both educators from each school were required to attend a seminar, which was held in the Acropolis Museum one month prior to the programme. The educators were informed about the problems of the monuments, the reasons for the interventions and about the restoration projects taking place or already completed in each monument. They saw special films and the YSMA website was analytically presented. Each school was given the teacher’s pack under the title “Restoring the Athenian Acropolis” as well as books and posters for its library. The educators were divided into four groups and, with our guidance, they worked with the teacher’s pack, giving special emphasis to the leaflet, “Proposals for the teacher”, which provides suggestions as to the various possibilities for applying the material to the school curriculum. The seminar ended with a guided tour of the Museum, where the educators saw the architectural members and the

sculptural decoration of each monument as presented inside the Museum.

On the day of the programme, all the pupils and educators were given a small poster of the Acropolis as a remembrance. It contained a specially prepared map of the site showing the locations of the workshops, the itinerary and what they would see in each workshop.

At the Temple of Athena Nike, the pupils were able to learn about a completed pro-

the principles applied for the recording of the numerous scattered architectural members, the purpose of which is to recognise the fragments and attribute them to the monuments from which they came.

Likewise at the Erechtheion they learned about another monument the restoration of which has been completed. The interventions comprised the greater part of the walls and ceilings, the recovery of the



*Marble cutting workshop at the Propylaia.
Photo T. Souvlakis, 2012*

gramme of anastelosis, since the temple had been totally dismantled, its members conserved and restored and the temple then reassembled.

Inside the Propylaia, the pupils could admire the impressive ceiling with the two new Ionic column capitals, the enormous beams and the coffered slabs that have been retrieved through research and newly joined fragments. They were also able to see the tools used and to learn about the techniques of cutting marble from the experienced marble-technicians. Moreover they were able to observe the traces left by the various tools on ancient marble.

At the next location, they learned about

“closed form” of the hexastyle east facade of the monument with the addition of the copy of the corner column and the overlying entablature, as well as the transferal of the Caryatids to the Museum and their cleaning with laser technology.

In the Parthenon, the largest monument on the Sacred Rock, they learned about many and various works of anastelosis. Within the temple, they saw the restored east side of the temple, the pronaos and also the north colonnade. They learned about the methods used for carving the flutes of the columns. At the next stop, within the temple, they had the opportunity to observe the work involved in the joining of fragments of an ancient

architectural member, weighing 8 tons, on a special joining platform. In the Parthenon worksite they were told about the methods used for surface conservation of an architectural member (injections, cleaning and closing cracks, etc.). In addition they saw how a cast is copied in marble with the aid of various sculptor's copying tools (pointing instruments or pantographs).

At the west side of the temple they had the opportunity to learn about the works of anastelosis now under way on the NW and SW corners. They also were informed about the programme for the Opisthonaos and they saw the copies of the west frieze set on the monument after the removal of the original blocks to the Acropolis Museum.

The various projects of each worksite were presented to the pupils by the experienced personnel of our Service, architects, archaeologists, civil engineers, conservators and marble technicians. Their collaboration was very important for the success of this difficult programme, in which 600 pupils and 38 educators explored the Acropolis and its worksites and learned about the enormous project of restoration being carried out.

The staff involved are the following: the Director of the YSMA, V. Eleftheriou, the YSMA Director Emerita, M. Ioannidou, and also: E. Lembidaki, D. Michalopoulou, K. Karanasos, E. Petropoulou, K. Koutsadelis, P. Georgopoulos, M. Toupheklis, G. Kayiorgis, E. Angelakopoulou, K. Frantzikinaki, E. Frankiadaki, A. Bizimi, A. Sotiropoulos, A. Tsimereki, A. Hatzipapa, E. Takou, E. Koutsouraki, G. Kotsiphakos, M. Petraki, N. Georgiou, V. Tzebelikos, L. Stephanotis, K. Demopoulos, G. Skalkotos, L. Michalakos, Ch. Christopoulou, E. Sioumpara, E. Salavoura, E. Tagaridi, K. Tsiphlas, G. Frantzi, D. Garbis, D. Chamopoulou, S. Gavrielidou, A. Panou, R. Christodouloupoulou, E. Karakitsou, K. Mengoulas, G. Angelopoulos, L. Mimidou, A. Chousakos, I. Chiou, A. Vrouva, G. Anastasiadis, D. Zervas, V. Alexiadis, Ch. Tsibourlas, V. Palieraki, V. Delizisi, E. Tavouktsi, S. Angelopoulos, A. Papandropoulos, S. Kardamis, P. Kokkinakis, P. Pravitas, D. Kostas, Ch. Bazakos, V. Manidaki, I. Konteas, T. Souvlakis.

After the programme, two evaluation questionnaires were prepared, one for the pupils, another for the educators. These were sent to the 21 schools that had participated.



A class watches the structural restoration of marble blocks on a rolling joining platform. Photo T. Souvlakis, 2012

The evaluations concerned the following:

- The accomplishment of the programme's goals
- Survey of the whole experience of the pupils
- Record of proposals for future similar programmes.

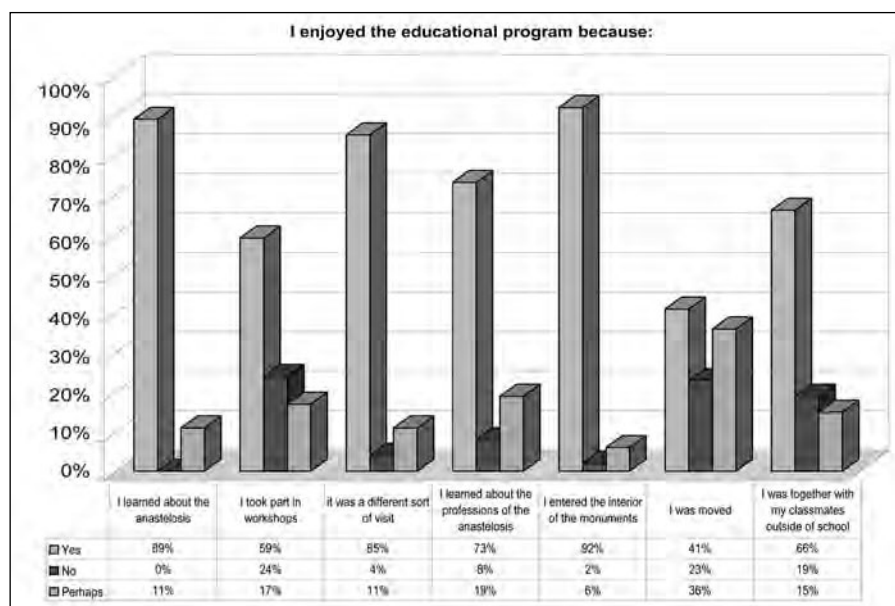
Seventeen schools responded, 446 questionnaires were received from the pupils and 34 from the educators who accompanied them.

A brief presentation of the results follows, first from the pupils, then from the educators. The full text of the presentation of the results as well as the questionnaires can be found at the website: www.ysma.gr

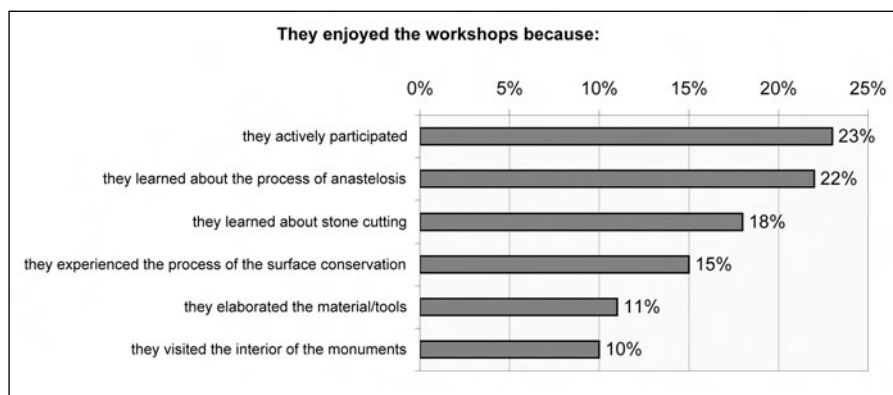
Questionnaire for the pupils

The response of the pupils to the evaluation was a pleasant surprise for the Department, since 75% of the pupils replied (446 of the 600).

The questions were mainly multiple choice in type but there were also open questions to which the pupils could



Graph 1: The pupils' impressions



Graph 2: Reasons for students' preference in workshops

respond freely. They were divided into 4 thematic parts, which form the basis for the following analysis.

1st Part

General characteristics and profile of the pupils (introduction and question 8)

Most of the pupils that participated in the evaluation were girls (59%). Moreover, the answers provided interesting information about favourite activities of the teenagers.

2nd Part

Experience of previous visits and earlier knowledge of the Acropolis and the restoration works (questions 1 and 2).

Eighty-five percent of the pupils had visited the Acropolis previously. For only 15% this was their first visit to the Rock. Most of those who had made a previous visit had done so with their school, mainly in the last grades of Primary School (65%); roughly half had visited the Rock with their family (52%). Visits had been made with both school and family by 21%; 3% of the pupils did not specify.

Sixty one percent of the pupils had some knowledge about the Acropolis, or knew quite a lot about it (20%). The opposite holds for the knowledge they had about the restoration works, since two out of three pupils knew little (59%) or nothing (15%).

3rd Part

The pupils' experiences in the course of the programme (questions 3,4,5)

The pupils answered predetermined questions on what they liked in the pro-

gramme, with "yes", "no" and "perhaps" (graph 1). The cognitive dimension was checked (I learned about the Acropolis and about the professions in anastelosis), the experiential dimension (I participated in worksite activities), and the socio-emotional dimension (I was moved, it was a different sort of visit, I entered the interior of the monuments, I was together with my classmates in a place outside of school). As is clear from the graph, over 60% of the pupils answered in the positive to 5 out of 6 ques-

tions. At the end of the question the pupils had the possibility of adding comments. To a great extent, these were satisfactory and encouraging both for the restoration works themselves and, in general, for the experience of the visit. Although an answer to the question was not obligatory, 200 (45%) of the 446

pupils commented further on what had interested them, that is:

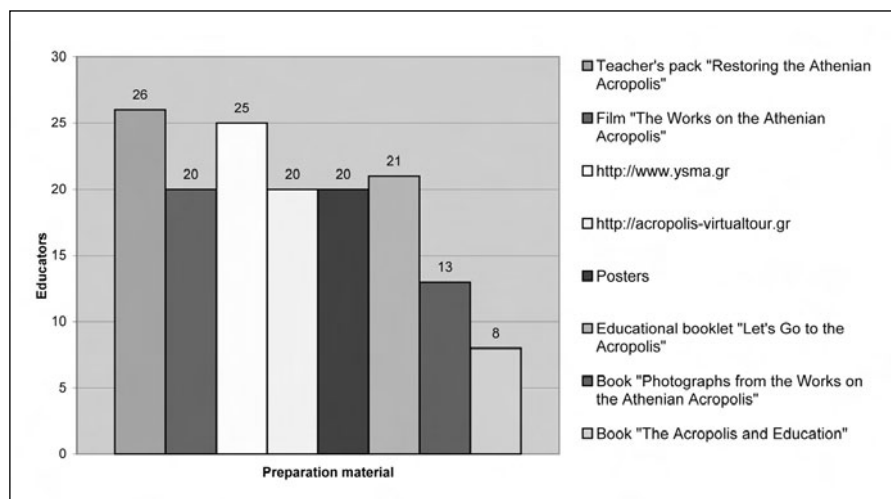
- the personnel of the anastelosis (37%)
- the process of the anastelosis (23%)
- the architecture/size of the monuments (15%)
- the interior of the Parthenon (11%)
- the material/tools of the anastelosis (9%)
- the entire experience (4%)
- the view from the Acropolis (4%)

In the 4th question the pupils responded as to whether they liked the workshops, and specifically which ones they liked the most. To this question 92% of the pupils replied. The grouping of the comments showed that the workshops inside the Parthenon and the workshop for marble cutting made a great impression on the children because, as they themselves said, this was a completely new and different experience for them.

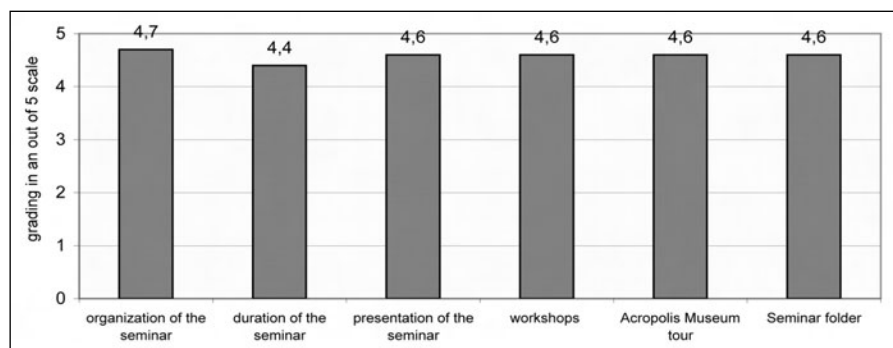
Forty-six percent of the pupils went on to the reason for their preference for a specific workshop. Analysis of their comments can be seen in graph 2.

Some of the comments follow:

- "I was impressed by the careful approach, the clear formulation of the procedures, the contact we had with the professionals who have the great good luck to be restoring the Acropolis monuments", pupil, 16th Gymnasium of Athens..
- "The conservation laboratory (8th) because



Graph 3: Resources for preparing the pupils



Graph 4: Evaluation of the seminar by the educators

I was amazed when I saw that they treat the ancient members as if they were human bodies", pupil, 2nd Gymnasium of Kallipoli.

- "I was impressed by the collaboration and cooperation of the specialists. I didn't expect this!", pupil, 16th Gymnasium of Athens.

4th Part

The tendencies of the pupils following the activities of the programme and their suggestions (questions 6 and 7).

Half of the pupils (46%) replied that the programme encouraged them to look for information about the Acropolis monuments. Twenty-four percent replied that they didn't, and 30% that they might search. For information about the restoration works, the pupils are divided: 39% gave a positive reply, whereas 34% replied in the negative and 30% were indecisive, replying "perhaps". It is worth noting that 86 pupils (20%) replied that they also wanted to get information about other monuments.

Concerning the improvement of the programme, 80% of the pupils replied that the programme did not need any change. Only 20% had further suggestions for its improvement. Of the comments made, the most useful are the requests for a break interval (28%) and for more time in each workshop (20%). In addition, 23% of the pupils note that they would prefer some of the workshops to be more interactive.

Questionnaire for the educators

Thirty-four questionnaires were collected from the educators of the 17 schools that took part in the evaluation. Half of them were Greek language and history educators, the

others came from various fields. The questions were mainly close ended in combination with open ended questions. They have been divided into three thematic parts.

1st Part

Preparation of the educators prior to the programme-Training Seminar (questions 1-5)

The first two close ended questions investigated the way the educators prepared their pupils for the educational programme. Only 2 replied that due to lack of time they had not prepared their pupils at all. The graphs 3 and 4 show how they utilised the educational resources given to them and then how the educators graded the seminar on a scale of 1 to 5 (5 being the highest).

2nd Part

During the programme (questions 6-11)

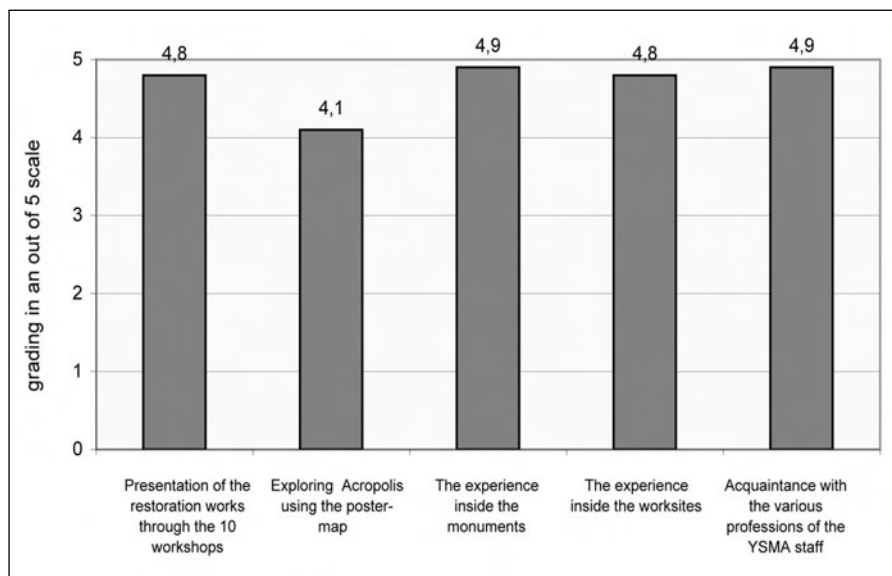
Practically all the educators agreed that the length of the programme was satisfactory (question 6) and that the programme met the pupils' expectations (question 7). In answer to question 8, 31 educators replied that they confronted no difficulties during the course of the programme. Only 4 educators reported some difficulties and these lay in having to choose 30 children to participate in the programme.

Concerning the quality of the programme, the educators evaluated special features of the programme (question 9) on a scale from 1 to 5 as shown in the graph 5.

One of the basic aims of this evaluation was to survey the experience of the pupils. For the educators (question 11) a list of nine proposals was given and they were asked to grade them, on the scale from 1 to 5. The results (graph 6) were indeed most satisfactory and taken together with the replies of the pupils (question 3) show their experience to have been multidimensional.



A class watches the pantograph (copying machine) used for the construction of fillings from new marble. Photo T. Souvlakis, 2012



Graph 5: Evaluation of the features of the programme

3rd Part

After the programme (questions 12-13).

Twenty-four of the 34 educators replied that they had planned to do related work after the programme.

The final question of the questionnaire urged the educators to write any other comments they or their pupils wanted to make. Eighteen of the 34 educators made comments that were on the whole positive. We note here some examples:

- “Your initiative is, in my opinion, extraordinarily positive. Even though the pupils showed signs of fatigue (3.5 hours of touring was admittedly tiring), they recorded an experience which they could perhaps not evaluate to its full measure because of their age. Yet the time will come when they will be able to decipher it correctly”. 8th Gymnasium of Athens.
- “It was the sort of experience that alters one’s perspective, the pupils’ and the educators’, on life and on our country”. 2nd Gymnasium, Hymmetos.
- “An extraordinarily profitable, original and unusual experience. It helped us to see the Acropolis monuments from another perspective and to live the historical continuity of culture, observing

how modern technology “supports”, protects and projects ancient art. Congratulations”. 65th Gymnasium of Athens.

Conclusions

The groups of pupils were very pleased with their participation in the programme. They understood the importance of the interventions and showed great

interest both in technology and in the method of anastelosis. The factors contributing to success were:

1. The choice of the 3rd grade of Gymnasium which proved to be right since these pupils have the foundation needed to grasp the process and significance of the interventions and to discover aspects of the Acropolis they possibly had never before imagined.
2. The type of educational programme, which focused not only on the past history of the monuments, but was linked also to contemporary time. The innovative technology, the scholars, the various professions that they may not even have heard of, drew the attention of the pupils.
3. The entrance of the pupils into the interior of the Parthenon. The pupils enjoyed this experience and considered this visit as totally different from any other.
4. The contact with the personnel impressed the pupils especially since they learnt about the different professional fields involved in the collaborative work of



Teachers’ seminar. Photo T. Souvlakis. 2012

anastelosis. Many were influenced in their orientation towards future jobs.

5. The seminar and the directions given to the educators, since they contributed both in preparing the pupils prior to the Acropolis visit, and in their activities after the programme.

6. The enrichment of the educational programme with the material offered to the schools, since this helped both educators and pupils to understand the theme and gave them alternative approaches as well.

Pupils and educators are likewise asking that the programme be held more often and that a greater number of pupils be allowed to participate. Here, however, there are limits that cannot be ignored since the area of the worksites has to be reformed each time so as to be suitable for



Marble cutting workshop, at the Propylaia.
Photo T. Souvlakis, 2012

this sort of activity, and at the same time the accelerated rhythm of the works cannot be interrupted on a frequent basis.

Irene Kaimara

Archaeologist

Head of the Department

Asimina Leonti

Archaeologist

Sylia Paraschou

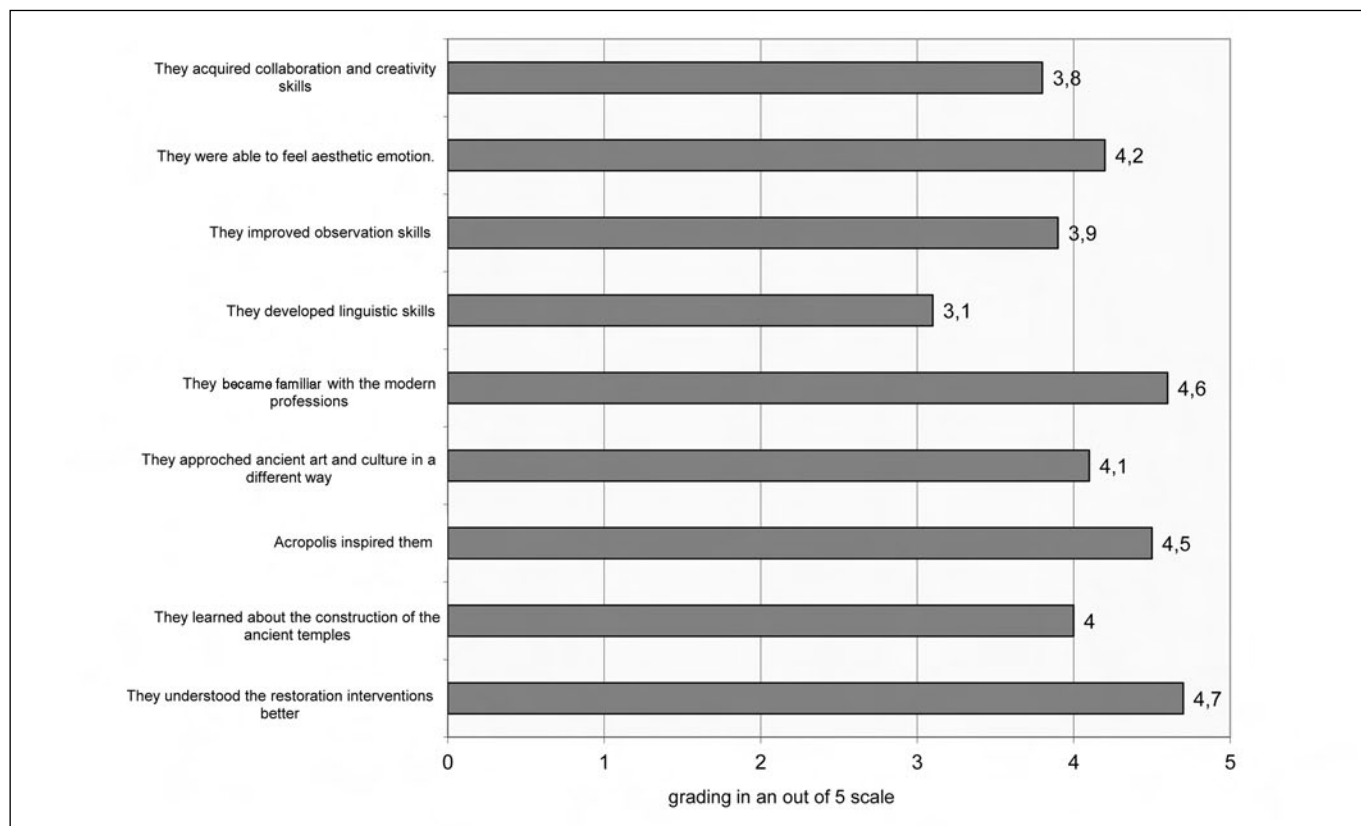
Archaeologist

Cornelia Hadziaslani

Archaeologist - Architect

Head of the Department (until 2011)

Information and Education Department



Graph 6: Evaluation of the experience of the pupils