Can Schoolchildren Digitise Their History?

Helene Simoni and Kostas Papagiannopoulos

Landscape Archaeology Group

Kamenitsa Alissos, 25002 Vrahneika, Greece

e-mail: kamenits@otenet.gr

Abstract

Increasing numbers of Greek schools are introducing local history projects in class nowadays. Our experience shows that children can carry out their own research. Children, given the opportunity, can be instructed on how to carry it out with reliable scientific results. By developing concepts of time and space, children can record their finds more accurately. Particularly space is a very critical factor because children must learn to transfer onto paper the spatial elements of the information that exists in the landscape and in the minds of the inhabitants, such as place-names, field systems, landuse, population shifts etc. The conversion of mental maps to digital ones is facilitated by the use of modern tools like G.I.S. Close collaboration between schools and the Archaeological Service can result in the establishment of a network, through which the children's finds will reach professional archaeologists and historians for further evaluation and treatment.

Key words: education, local history, space, mental map, digital map, archaeology, GIS

1. Current situation in education

Archaeology has never been taught as an independent subject in the traditional Greek education system, whereas elements of archaeology were to be found primarily in history textbooks and secondarily in geography and language textbooks. References to archaeological finds and research are given in the syllabus with emphasis placed on their significance as examples of art and craftsmanship.

On the other hand, history and geography are the subjects, which along with language contribute more than any other subject to the promotion and consolidation of national identity (Abdela 1997:34). They are therefore, very important for the influence that they exercise upon students of all levels, despite their inferior position as ranked among subjects at Greek Schools, where mathematics or literature are held at higher esteem.

The realisation of the syllabus content, according to the curriculum, relies on the textbooks. History textbooks, for instance, are focused on Greek national history, particularly on extensive accounts of events (battles, treaties etc.), names and dates, and they do not fulfil their original educational targets. Students are given a great deal of information passively, since it is the teacher who speaks and they who listen. That makes history a rather boring subject and one that schoolchildren tend to consider light and trivial (Papastamatiou 1984:98-99, cf. Palla 1994:224-236).

The subjects of history and geography can give a very confused idea of time and space. Both concepts are defined with various definitions that all point in the same direction, to prove the continuity of the Greek culture from as far as we can reach into the past up to now and in the future, and from what nowadays constitute the Greek state to the rest of the world, where the Greek civilization has influenced the others and remains vivid thanks to the modern Greeks. The fact that Greeks appear to have had certain virtues, since time immemorial, is deprived of the particular conditions under which the inhabitants of a region in or outside the official boundaries of the modern state were forced or encouraged to act (e.g. to revolt, emigrate, fight, die etc.) (Ventoura 1997:404-5).

2. New trends in education

Even so, modern books of history and geography are undergoing changes and improvements that allow children to participate more actively in the learning process. In addition to text, there are diagrams and tables and graphs that familiarize children with a more quantitative approach to time and space. Children are not considered simple receivers of the messages that textbooks or their teachers transmit. Otherwise, detailed studies have shown that children between the ages of 12-15 have fully developed the concepts of time, space and cause, and can pose complex queries and offer solutions (Jahoda 1963).

However, most children up to this age are not familiar with scientific research. This certainly has to do not only with their stage of maturity, but with the education system as a whole, which tends to separate the real world from school activities. Therefore, the traditional method of teaching and the use of textbooks have been strongly criticised for their weakness to play the roles, which scientific work demands. Teachers and students are now encouraged to use extra-mural activities and study from the sources, while the introduction of environmental education in the 1990s has alerted them to key issues, such us the place of humans in nature, the interaction of man and the environment in the past, present and future. Another change is the shift from the "general" to the "particular", from "anywhere" to the "local".

The idea of school children writing their history is not new and has been developed elsewhere more extensively. Besides, must we be pessimistic as to the extent a pupil or a group of pupils can process their finds and proceed to interpret them, as well as their implications for the past in general? *New History*", which emerged as a modern theory on history teaching in the 1970s and the 1980s, introduced a rather optimistic and practical perspective. According to this theory, the only alternative solution is to try to get the children, as far as possible, to carry out their own research. Rogers (1978) stresses that students may be introduced to research from the sources and obtain a permanent experience in this work. The teacher may use the appropriate way every time, depending on the level of the development of each student. Rogers quotes Bruner's theory to support his ideas. Bruner, in contrast to Piaget,

claims that the three modes of representation (enactive, iconic, symbolic) coexist in children's thought process, though in the younger ones the two first dominate. Thus, schoolchildren can deal with all kinds of meanings, corresponding to the level of their abilities, of course (Worell and Stilwel 1981:168). Applying it to history teaching, it is possible to study any subject of history, without the teaching approach being limited by age limitations, as corresponds to the traditional method.

"New History" was understood as a threat to the national histories and the traditional perception of what deserves to be taught. Even scholars, like Thompson (1984:173), remark that there is a risk of developing in the students an extremely subjective image for the past and doubts for the effectiveness of their actions. Students' projects within the framework of the environmental education and local history are the best response to any and all hesitations and fears. Environmental education, as a response to the traditional school crisis, is offered on a voluntary basis at schools - and pedagogic teams work using project methods. A great deal of such mini projects set up by the children every year all over Greece and a large amount of information, occasionally fairly original, is collected and processed (Flogaiti 1993). Environmental education consists of several sections, one of which is local history. Pure local history projects may reach 20% or more out of the total every year. Students themselves can carry out a pioneering research in their region, produce new material on local history and consequently become recorders and guardians of a cultural heritage not yet recorded.

The Ministry of Education is now willing to introduce local history into the curriculum as an optional activity in the framework of general history, at the same time keeping this activity far from the traditional school practice. The fact that instead of one textbook for the children, there will be three different manuals for the teachers, written by three different teams of authors that will refer to local history theory and methodology, demonstrates the re-orientation of regional studies in the Greek education system; especially in Gymnasium, which corresponds to the very productive ages between 12-15 years. We are delighted that one book of the three, was written by the present authors plus a third colleague, S. Fragoulis. Therefore, the ideas that are put forward here will circulate throughout Greece from year 2001 onwards; and we hope that they will meet a creative response all over the country and contribute to a wider reform concerning the image of history and archaeology at Greek schools. The concept of the manual is that local history cannot be taught, but is to be discovered by the children themselves, who will carry out research in their regions. Children will explore the spatial and temporal dimension of local history and will disseminate it to the public through various activities (Papagiannopoulos et al. in press).

This is feasible if a close collaboration between educators and local researchers is established. The educators will share their pedagogic qualification, and the researchers the sort of questions they expect the children to explore. It further means that all parts involved in school education, especially teachers, have a great responsibility in setting up projects, in developing a self-critical eye and in keeping their work separate from any influences, which tend to falsify and lead to altering its meaning.

3. Understanding space

Before setting out the research project, the pupils need to know about the means that will be used. Certainly the goals have already been formulated, but they are usually general and widely accepted, such as: "preservation of local identity" and so on, which give a very positive impression, but can be accomplished in hundreds of different ways. On the contrary, the means are more specific, more concrete and give a clearer picture to what is going to take place within the following days or months of the project.

Mentioning maps as a means is not enough. Children know maps very well because they use them extensively in their school practice. They use them as static drawings on a sheet of paper. They are not taught to link them with the basic concepts of space and time, and they have not had the opportunity to think about these concepts and their representation on maps in a creative way. And yet, space and time through their tight interaction play significant roles in the course of man's life and the evolution of historical facts. To make this more self-evident, we have applied the most recent local history as our starting point and terminal. The reason is obvious. We would rather reduce time to the one, which survives in the living memories of the older inhabitants of a region and the abundant documents of the Community Archives. It leaves us with free hands to make full use of space, i.e. the environment, rural or urban, that is unfolded before the eyes of the children, and let them discover its several dimensions. Maps will provide the means to record all the new discoveries.

A map is the output of an elaborate procedure that aims at representing the earth's surface or part of it on paper. Maps allow us to calculate distances, find our way to any destination, choose a suitable location to build our house, decide where to spend our holidays etc., based on a series of geographical data (environmental, cultural etc.) that is represented on it. However, we rarely use maps in our everyday life, and yet we manage to find our way home, to plant flowers at the right side of our garden, to play "hide and seek" and not get lost. All these common habits are performed by means of a series of geographical data that is stored in our minds instead.

Children must get familiar with this kind of data that exists in their own minds and in everybody else's, and they must be able to recognize it. First they can be given examples of their daily routine that can strengthen their comprehension of the geographical dimension. Since everything they do and watch others doing is linked to a specific location on the ground and is associated with the use of space, they can think of the kinds of conventional maps that correspond to the mental maps, the ones they keep in their minds (figure 1). The significance of a conventional map is equal to the significance of a mental map because it comprises a physical and tangible document that anyone can access at any time. Moreover, its preservation depends less on its owner, since it can survive after the owner is dead; unlike the mental one.

So far, the creation of maps has been the privilege of a few, the most powerful ones, who possessed knowledge, equipment, and authorization. Officials who played a role in public administration could intervene in order to express their opinions and ideas through the creation, production and circulation of maps (Pavlou 1995:31). We do not mean that all interventions were deliberate. Many times they were guided by the subconscious and habit. We still draw Europe in the centre of the international map. Though

MENTAL and CONVENTIONAL MAPS

- Patras is within 20 mins of driving distance from Kato Achaia.
- My parents and most of our neighbours have their own olive groves.
- Sea is contaminated near Patras, but I can swim in Tarandella.
- My friends and I have explored the springs of the Peiros river.
- The old National Road is picturesque but the new one is safer.

➡ Topographical map

➡ Land use map

➡ Pollution map

➡ Hydrology map

➡ Road network map

Figure 1: The conversion of mental maps into conventional ones with examples from the children's everyday life.

we now know the shape of Earth, we have not abandoned a tradition that dates to the period of the great discoveries when the rest of the world served the interests of the European hegemonies. The "omphalos" syndrome is found in other cultural traditions as well. Chinese cartography of the imperial period show the rest of the world existed on the fringes of the Chinese empire (Smith 1998:53). The maps depicting the Holy Lands dating from the 15th to the 19th century was a means to reinforce the religious sentiment, rather than show the true location of places. This is the only way to account for the lack of accuracy and the absence of a consistent scale, projection and orientation throughout the same piece of map. Even time distortions were allowed to show together anachronistic scenes from the Old and the New Testament (Rubin 1992).

Whereas the above-mentioned examples might be considered exaggerating, there is no point in trying to identify a "true" or "false" map. Small or big, black or white, deliberate or unconscious, "lies" can be found in all maps. Truth is suppressed to help the user see what needs to be seen (Monmonier 1996:25).

It is worth examining the kind of maps that are used at school and the messages they convey. The different types show the country or separate continents or the whole of the globe. Children get a good picture of the plan of countries or provinces, but the rest is full of dots and very thick lines. Children are required to recognize the plan of the Peloponnese, Greece, Europe, Australia, the Nile etc., but no sign of their region is represented in anything more than a dot or a label. As a result, the same people, kids or adults, who can easily recognize the plans of countries and continents do not recognize the plan of their own place and cannot describe it. And yet, this sort of map is necessary because they offer the details needed to promote a good and reliable understanding of the space and the features that are included in it. However, they do not exist in commercial form because they will not sell, while the versions that the Army has produced are considered confidential and can be obtained after some bureaucracy has been involved.

The lack of more reliable alternatives has led to the heavy use of certain unsatisfactory and inadequate maps. Local history projects

cannot rely on them. Fortunately the development of technology in the field of Information has been very rapid and cartography is becoming affordable by more and more individuals nowadays. The increasing number of individuals who can now own reliable and inexpensive hardware and software has given the opportunity to more people to access fields that were forbidden before. Cartography can be considered one of them. The existence of cheap and easy Geographical Information Systems provides a valuable toolkit to the children for their projects.

4. Digitizing space

The operation with the tools is another delicate stage. No matter how well certain theoretical issues have been forwarded to the children, it is practice that proves how well they have been understood. At first they can practice manually with black and white copies of existing maps. The 1:50,000 topographical maps of the Army are a good idea. Children may try to paint the outlines of rivers, roads, settlements, forests, contours, sea etc. with different colours. If this is done correctly, they should end up classifying them into three categories, thus discovering the three topological concepts - point, line and area, by which every geographical phenomenon can be represented. A fourth one might be the text on the map, that is, labels identifying what each geographical phenomenon is, and these comprise their non-spatial attributes. By drawing only one type of information (e.g. only churches or only the main rivers etc.) on tracing paper overlaid on the base-map, they create a thematic map and they realize how many themes one usual map contains.

If a map is a set of points, lines, and areas that have non-spatial attributes, their location in space with reference to a coordinate system is what makes a map complete and usable (Burrough 1992:13). The topographical maps of the Army use a standard system of coordinates, while children at this age have already learned how to measure coordinates in their mathematics class. Therefore, they can practice by finding out the coordinate pair of a few points and locating at least 2 pairs for each of the other features.

The final characteristic that needs to be explained is the scale. Students most probably won't have the luck to be able select a scale for their maps but will use the available maps as their basis. The scale shows the degree of precision and accounts for the missing details. Again, students are equipped with the knowledge required to understand how it works and are familiar with the mathematical calculations that need to be done.

Manual training with maps can conclude in the creation of their own maps of their neighbourhood or a plan of their school. As soon as the map is ready they will realize that no matter how good this is it is a finished job. If anyone wishes to correct something or move it, or erase it, or enlarge it, or re-orient etc., it will be difficult and not very neat to do it on the same map and will have to start all over again in order to draw a new updated version. Unfortunately, the creation of analogue maps is a difficult and not easily repeated task. That is why we turn to Information Technology, which offers better alternatives.

Nowadays, most students are familiar with the use of a computer and almost all schools throughout Greece have a classroom with PCs. Internet is also open to many schools, and every year more schools access it. Therefore, there are many open gates that chil-

dren are allowed to enter through with the use of existing hardware and software. Fortunately, economical GIS software can be either purchased or downloaded

The difference between a digital and an analogue map should be well demonstrated. What will interest the children more, and will be of benefit for the successful realization of the project, is the emphasis on the quantitative aspect of the digital map. The analogue map is a static, qualitative document. It contains only the information that is displayed on a flat printed piece. The dynamic character of the digital map allows a quantitative approach to spatial analysis, which is what we need for our Local History projects. It is not difficult for an expert to show children the basic steps from digitising to handling their data in a Geographical Information System. If they are adequately trained in advance, certain tasks can be performed by children using GIS.

The difficulty lies on the quantitative character of every piece of information; consequently, this is where the emphasis should be placed. Behind every single pixel of the screen there is a number, which corresponds to a piece of information (we remind the children that its coordinates and its non-spatial attributes characterize every piece of information). Therefore, in order to produce a good digital map it is not only important to draw accurate lines, but also to link the drawings with the right numbers which comprise the map's database. Children will have the chance to view the matrix with the numerical data that are behind any map and not only the pictorial display of it. They will also have the chance to process these numerical data like any other numbers and see what happens when one adds, subtracts, multiplies, etc. maps.

The fact that students will create maps on the screen with great ease and speed, and will manipulate them as they wish, can be enhanced by asking them to compare their experience with hand-drawn maps and with digital ones. The answers of the students will show the degree of progress and will test how ready they are to proceed to the implementation of the Local History project.

5. Digitising history

Children with previous experience in environmental education projects know well that a good and modern historical investigation requires constant effort in groups. However, the degree of participation and interaction between the members of each group heavily depends on good information and comprehension. When a satisfactory degree of familiarity with the basic concepts has been accomplished, the central tasks of the project can be put in action. Subjects are unlimited and inexhaustible, given that the approach of any studied object can be either vertical (with regards to exhausting details and observations in depth), or horizontal (with references to relevant objects from the same or other cultural backgrounds and comparative analyses). So, the criteria of choice depend on factors such as: age, maturity and interests of pupils, qualifications of their teachers, the place where the school is situated, familiarity of the team with local history, time availability etc. The team, according to their desires and the topic they are going to study, will choose the type of techniques to access the topic. There are techniques that have been used successfully abroad and some of them have been applied in programs of museums and environmental education in Greece.

The pedagogic target is for the students to:

- cultivate imagination

- develop initiatives
- experience different roles in interpreting themes from the past (Abdela 1998:121-9).

The scientific target will be achieved depending on the amount of original evidence that will be produced. Therefore, it is necessary for the teacher to have a regular contact with the local Archaeological Service or any other research group. Children can carry out their fieldwork either by interviewing the locals or examining the Community Archives or walking in the fields and recording surface finds. Although the latter requires an additional skill in "reading" the earth's surface and distinguishing cultural material among other objects that lie on the ground, the children carry out the former very successfully.

Through interviews, the team explores unknown aspects of the local life and history and comes across with written and oral information that exists only in the narratives of the inhabitants and the documents of their private or public archives. Interviewing is a way of letting people share with you what they know, heard, experienced. When the interviewer is a child from the local school, preferably a grandchild or nephew or niece etc., the interviewee opens up more easily and more freely.

Fieldwalking is the most direct technique for accessing the landscape. Children have the chance to approach the landscape and its monuments not only as historical features but also as tangible objects, which can be described, drawn, calculated, and modelled (Dyer 1983:17). The use of a printed topographic map - as detailed as possible (e.g. scale: 1:5,000) - during the survey is a necessity since the team must record spatially all the information that they hear or they see in person.

The team is reminded that interviewees most often are not used to printed maps because they use their own mental maps to find their way. Therefore, the team must insist on getting the information that will help transfer a piece of knowledge from mental to conventional maps. Two elements are needed: location and non-spatial attributes expressed in numbers. For example, when talking about an old mill, the interviewee will not give the exact X, Y pair of coordinates, but will give a distance from distinct features, such as a river, road, or nearest farm and maybe a description of the spot etc. that will lead the interviewer to find the most possible location and record the coordinates. The non-spatial attribute can be any number that the team has agreed to use for mills. When all buildings have been recorded and given numbers, then the rest of the landscape will be Nr 0.

Some cases in which archaeological and historical research has benefited from children's groups are the following:

- Field Boundaries: The use of old aerial photos is very helpful in this case. The team draws the outlines of the land plots, records the names of the owners and identify relics of old field systems. This activity is very useful because traces of early (Roman, Venetian etc.) cadastral organization come to light. Moreover, a modern cadastral map is created, which is something the Greek state lacks at the moment, and the first official maps are not expected sooner than 2015!

- Place-names: The team collects all the place-names that the inhabitants use to identify all the localities in the community. The area that each place-name defines is drawn on the map. They are classified in macro- and micro-toponyms.

Their analysis may focus on language and meaning. In this way, hypotheses can be tested as to what was the origin of the older inhabitants (in a typical Peloponnesian village we may come across Greek, Roman, Byzantine, Venetian, Frankish, Slavic, Turkish and Albanian place-names), and how different generations perceived, and described the landscape.

- Land-use: There are plenty of old and new maps and aerial photos that display the use of land in different periods of time, such as maps dating back to 17th – 19th centuries AD, photos from 1940 and more recent ones. Problems of cartography are very well known, but sometimes we are lucky enough to identify special features (castles, forests, ruins etc.), which are not reported elsewhere. Besides, by comparing the different pictures of the same area we can find out features that existed in the older pictures but have been eroded away. The opposite may happen too. There are sites that were not visible in the past because of dense vegetation, but have been revealed due to deforestation and erosion.

- Surface survey: Surface survey is an activity that appeals to children but requires very delicate treatment. The children should proceed to the recording of surface material with care not to distort any existent archaeological patterns. The results of their effort, namely the amount of artefacts (mainly pottery) they have recorded, can be digitised and processed so that an archaeological map of the study area may be created. The Archaeological Service cannot carry out intensive surveys in all villages of its jurisdiction and such maps will be very much appreciated even if their precision is questioned.

- Settlement Mobility: Not all habitation sites of a settlement were founded contemporaneously. Children can locate different periods in which whole districts or isolated buildings were built. They will next create a set of maps, each one representing a different settlement phase of the village or town. They can remark on the expansion or relocation or shrinkage etc. of the inhabited area. The location of houses in relation to distinct features like church, graveyard, roads, town hall, towers, gardens and so on is crucial and can be investigated.

6. Conclusions

The question that emerges is whether children can really contribute to the research of their region's past. Right off we can answer "yes". Children can carry out research and they have the ability and the knowledge to compute it and convert it to computerized formats, create databases and manipulate it further provided they are properly instructed.

In fact, there are cases where children can do more than researchers do. They can discover new data with greater ease and speed than researchers. Children live in the study area, spend 365 days a year there, listen to the stories their parents and grandparents tell, travel across the landscape all the time. External researchers can spend only a few weeks every year in the region and will always remain strangers. Due to time and money constraints, professionals tend to cover research at a macro level, leaving the aspects that belong to the micro fairly untouched.

This difference should not be considered as a cause for antagonism between professionals and teenagers. On the contrary, a close collaboration can be established between schools that are interested in participating in such projects, the Archaeological Service, the local authorities and any other public or private agent with relevant activities and interests. The result can be a central database that will cover the whole province or all the provinces that are found within the jurisdiction of the Archaeological Service. Through the establishment of a network between all the contributing parts, every new piece of information accompanied with its spatial and non-spatial attributes will reach the central headquarters of the network, preferably inside the Archaeological Service and will be distributed to the relevant experts. These experts will be responsible for evaluating it and acting accordingly.

Certainly children will enjoy and take pride in the idea that they can participate in the enrichment of a Regional or even National Cultural Inventory. However, they should remember that discoveries are not achieved by accident. On the contrary, every discovery hides behind it several years of work and labour by a group of specialized scholars, testing again and again their ideas before concluding and always doubting it. Therefore, the children ought also to respect their work, feel responsible for it and have a critical eye.

Acknowledgements

References

ABDELA, E., 1997. Η συγκροτση της εθνικης ταυτοτητας στο ελληνικο σχολειο: «εμεις» και οι «αλλοι». In Frangoudaki, A. and Dragona, T. (eds), *« Τι ειν' πατριδα μας;»: Εθνοκεντρισμοσ στην Εκπαιδευση*: 27-45. Αθηνα: Αλεξανδρεια.

ABDELA, E., 1998. Ιστορια και σχολειο. Αθηνα: Νησοϛ/ Τετραδια 6.

BURROUGH, P.A., 1992. *Principles of Geographical Information Systems for Land Resources Assessment*. Oxford: Clarendon Press.

DYER, J., 1983. *Teaching Archaeology in Schools*. Princes Risborough: Shire Publications no. 29.

FLOGAITI, E., 1993. *Περιβαλλιντικη Εκπαιδευση*. Αθηνα: Ελληνικες Πανεπιστηιακες Εκδοσεις.

HARLEY, J.B., 1988. Maps, Knowledge and Power. In Cosgrove, D. and Daniels, S. (eds.), *The iconography of the Landscape: Essays on the symbolic representations, design and use of past environments*: 277-312. Cambridge: Cambridge University Press.

JAHODA, G., 1963. Children's concepts of time and history. *Educational Review* 15: 87-104.

MONMONNIER, M., 1996. *How to lie with maps*. Chicago/London: The University of Chicago Press.

PALLA, M., 1994. Ο μαθητικοσ λογοσ για την Ιστορια: Οψεις ετνικης συνειδηοης. *Σεμιναριο* 17: 224-236.

PAPAGIANNOPOULOS, K., SIMONI, H. and FRAGOULIS, I., in press. *Η Τοτικη Ιστορια ως πεδιο οπουδης στα πλαισυα οχολικης παιδειας.* Αθηνα: Υπουργειο Ετνικησ Παιδειας και Θρησκευματον, Παιδαγογικο Ινστιτουτο.

PAPASTAMATIOU, N., 1984. Αξιολοφηοη του ενδιαφεροντοσ τον ματητον της τριτης ταξης για τα μαθηματα των Φυσικων σ' εϖα Γυμνασιο. *Νεα Παιδεια* 31: 97-104.

PAVLOU, Á., 1995. Μερικα προβληματα της Ελληνιης Χαρτογραφιας και προτασεις για πολιτιστικο χαρτογραφικο εξοπλοσμο. *Πρακτικα του 1ᵒᵘ Εθνικου Συνεδιου Χαρτογραφιας: Προβληματα και προοπτικες της Ελληνικες Χαρτογραφιας*: 29-32. Θεσσαλονικη: ΧΕΕΕ.

ROGERS, P.J., 1978. *The New History-Theory into practice*. London: Historical Association.

RUBIN, R., 1992. Ideology and Landscape in early printed maps of Jerusalem. In Baker, A.R.H. and Biger, G. (eds.), *Ideology and Landscape in historical perspective: Essays on the meaning of some places in the past*, 15-30. Cambridge: Cambridge University Press.

SMITH, R.J., 1998. Mapping China's World Cultural Cartography in Late Imperial Times. In Wenhsin, Y. (ed.), *Landscape, culture and power in Chinese Society*: 52-109. Berkeley: Institute of East Asian Studies, University of California.

THOMPSON, D., 1984. Understanding the Past: Procedures and Content. In Dickinson, A.K. and. Rogers, P.J. (eds.), *Learning History*: 168-186. London: Heinemann Educational Books.

VENTOURA, L., 1997. Τα βιβλια γεωγραφιας: αντιφασεις στο ανθρωπιστικο και εκσυγχρονιστικο μηνυμα. In Frangoudaki, A. and Dragona, T. (eds.), *« Τι σιν η πατριαδα μας;»: Εθνοκεντρισμος στην Εκπαιδευση*: 401-441. Αθηνα: Αλεξανδρεια.

WORELL, J. and STILWEL, W., 1981. *Psychology for teachers and students*. New York: McGraw Hill.