

The risk perception regarding a gold mining project in Romania¹

PhD Cosmina-Maria Berindei
Postdoctoral Researcher
Babeş-Bolyai University, Cluj-Napoca, Romania

Paper prepared for the *3rd International Conference on Degrowth for ecological sustainability and social equity*

Venice

September 19-23, 2012

Theme: COMMONS

Sub-theme: Environment, ecology and sustainability

WORKSHOP NUMBER: 14. Approaches to the ecology: which value for natural goods?

Abstract:

This paper aims to present the results of an anthropological research regarding the risk perception in the case of the Roşia Montana gold mining project. The methods that were used are specific in the qualitative research and were aimed at the most controversial project of post-communist Romania. The scope of the project is to exploit the gold in open mining using the cyanide in the technological process and threatening to destroy a community and an important cultural heritage.

At last, we will propose a way of risk communication for ecological sustainability and for awareness of complex environmental issues that quitting the principles of sustainable development may have a long time impact, affecting the environment and, thus, human health.

Risk perception is a psychological process involved in different everyday activities through which the individual takes decisions and behaves accordingly in situations with potential risks. The perception of risk appears by processing information from other psychological processes. The most important information sources to be processed in the risk perception are the following: thinking, memory and language, as well as perception, representation or affective processes. In our contemporary society, each

¹ This work was possible with the financial support of the Sectoral Operational Program for Human Resources Development 2007-2013, co-financed by the European Social Fund, within the project POSDRU 89/1.5/S/60189 with the title „Postdoctoral Programs for Sustainable Development in a Knowledge Based Society”.

individual is permanently assailed by an influx of information regarding the risk, information arrived on different channels - media, group of friends or acquaintances – and obtained through direct contact with certain external realities or situations. Once internalized, the information contributes to formulate certain hypotheses about risks, resulted from the way each individual/subject interprets the environment based on a stimuli evaluation. These hypotheses generate certain reasoning regarding the risk.

Our research focused on the analysis of such hypotheses and reasoning of risk interpretation within the implementation of a mining project in Roșia Montană, Romania, during august 2007 – august 2012. Our research perspective was an anthropological one, achieved with qualitative research methods enumerated according to their importance and predominance: direct observation, non-structured interview and semi-structured interview. The field research was done in Roșia Montană and neighboring towns (Abrud, Câmpeni, Ciuruleasa, Bucium), and also in Cluj-Napoca, București and Alba Iulia.

The present paper is divided into three parts. I will start with a definition of risk concept and a theoretical substantiation of previous researches regarding risk perception within social sciences, emphasizing the essential aspects in our attempt to show how the risk perception is articulated in the present case. I will go on by presenting the context in which we can discuss about risk/risks in the case of the gold mining project, showing later on the way these are perceived in Romania. Finally, the conclusions presented in a conference on the degrowth for ecological sustainability and social equity invites us to think about several aspects regarding the communication of risk and alternatives for ecological sustainability and for awareness of complex environmental issues on which the elusion of sustainable development principles may have a long time impact, affecting the environment and, thus, human health.

Risk is a concept difficult to reduce to some fixed limits of a definition. It is easy to identify certain risks (technological, nuclear, terrorist, financial risk, life style risk etc.), but it becomes difficult to answer the question *what is the risk?* We have to emphasize from the beginning that risk is a negative concept which expresses a probability and is projected towards future. A narrow definition says that risk represents the *probability (possibility) of a factor or of a potentially dangerous element to exert its negative effects on the human being and/or on the environment, causing*

material and/or social damages on those exposed, and determining an imbalance of any kind in society and/or environment.

Risk is always correlated with uncertainty, and, through its catastrophic probability, with worry. But risk exists only if it's acknowledged as such, having a subjective valence as danger perception. Specialists in sciences make estimations regarding different risks. However, their opinion almost never coincides with the risk perception within the ordinary public; hence, the difficulties to define and approach the risk as research object. The subjective risk is not a physical characteristic of reality, an absolutely measurable object or deed, but a selective and cognitive category, a construction of our mind through which we represent correlations between concrete events. It is a thinking category that makes representable and manipulatable a whole series of concrete phenomena and events².

The risk' subjective dimension justifies its approach from the social sciences' perspective. The approach of the risk situations exclusively from a technical-scientific perspective cannot offer a complete and full image of it.

The study of risk perception is substantiated in psychology. Here, by using the psychometric paradigm, it was examined the reasoning through which human beings attach risks to certain activities. Using the psychometric paradigm, the researchers' group around Slovic created "cognitive maps" of risk attitudes and perceptions (Fischhoff, Slovic, Lichtenstein, Read et al, 1978; Slovic, Fischhoff et al, 1984)³. Two important conclusions⁴ were drawn by generalizing the studies' results with the psychometric paradigm. A first conclusion is the following: the perceived risk is measurable and predictable, and the psychometric techniques are very efficient in identifying the similitudes and differences between perceptions and attitudes towards risk situations within certain groups. The second one is the following: risk means different things for different people. The experts evaluate risks according to the technical analyses, taking into account the estimation of the annual number of dead people correlated with a certain situation. In their turn, the other people's estimation focuses on other aspects, being sensitive to the hazard with dreadful, uncontrollable effects which extends over future generations.

² Gianluca Ligi, *Antropologia dei disastri*, Roma, Laterza, 2009, p. 6.

³ Paul Slovic, *Perception of Risk*, in: Paul Slovic (ed.), *The Perception of Risk*, Earthscan, London and Sterling, 2000, p. 222.

⁴ Paul Slovic, *Informing and Educating the Public about Risk*, in: Paul Slovic (ed.), *The Perception of Risk*, Earthscan, London and Sterling, 2000, pp. 189-190.

Another merit of the researches from the perspective of risk perception psychology was that they proved the reasoning to be influenced both by intellect and affective processes. In fact, the psychological study on risk perception started when it was observed that the multiple approaches of the risk based on objective calculations were not enough to understand and control the human behavior in order to reduce the unwanted effects and damages caused by the improper reaction of the individual to the risk situations. A more complex approach of the psychic mechanisms contributing to the risk perception, i.e. to the formation of a unitary mental image about a risk situation - in which the characteristics of the objects or phenomena belonging to the objective world acting over the stimuli are totally reflected – became necessary.

Emotions, too, play an important role in forming the risk perception. The studies on the identification of the psychic mechanisms that form the risk perception have been numerous during this last decade. They have concluded there are two different ways through which people try to understand the risk. One uses the analytical method, i.e. algorithms and normative rules, a method that requires intensive effort and permanent conscious control. This approach perspective implies understanding the risk as a result of an analysis, in the specialized literature being known as *risk as analysis*⁵. A second way implies the experiential mode⁶, which is intuitive, requires a low degree of awareness and is mostly automatically. Slovic & collab.⁷ have stated that the experiential system is the most natural and frequent way to respond to risk, allowing mankind to survive during its long periods of evolution. This system is based on facts and images associations which correlate experience with emotions and affects, generating what specialized literature calls *risk as feelings*⁸. This way of understanding the risk requires a rapid, instinctive and intuitive reaction to a dangerous situation.

Several recent specialized studies have tried to demonstrate how the two different ways of risk understanding – the risk as analysis and the risk as feelings – influence the risk perception forming nowadays. Thus, it has been proved that the risk

⁵ Paul Slovic, Ellen Peters, Melissa L. Finucane, Donald G. MacGregor, *Affect, Risk, and Decision Making*, „Health Psychology“, Vol. 24, no. 4 (Suppl.), 2005, pp. S35 – S40, doi: 10.1037/0278-6133.24.4.S35, p. S35.

⁶ Slovic, P., Finucane, M. L., Peters, E., MacGregor, D.G., *Rational actors or rational fools: Implications of the affect heuristic for behavioral economics*. „Journal of Socio-Economics“, vol. 31, 2002, pp. 329.

⁷ *Ibid.*, p. 337.

⁸ Paul Slovic, Ellen Peters, Melissa L. Finucane, Donald G. MacGregor, *Affect, Risk, and Decision Making*, p. S35.

perception is formed as a hybrid model between the affective and cognitive variables regarding certain situation. People base their judgement of benefit and risk evaluation in the case of a certain activity or technology, not only on what they think but also on how they feel about it. At the same time, the information received by a subject about a certain situation's risks and/or benefits - if presented in such a way to determine an affective feeling – can change the perception of risk of the respective situation.

The sociological researches which have demonstrated that reality is a social construction⁹ have an important role in the study of risk perception. A first stage of the dialectic process through which the human being expresses him/herself in the exterior world is the one in which the externalization and objectivation are achieved, i.e. the transformation of the human activity in an objective social reality through a process of social institutionalization. The stage of internalization follows next, i.e. a reintroduction of the objective social world in the subject's conscience through a socialization process. The human being possesses a certain cultural openness to the world, which allows him/her to understand a certain social reality. These mechanisms of social construction are essential for the risk perception formation.

The anthropological approach of risk perception has, in its turn, a long tradition in the specialized literature (Douglas & Wildavsky, 1982; Douglas, 1986, 1992; Lupton, 1999; Schwarz et Thompson 1990). Compared to the psychological (Slovic et al, 1978, 1984, 2002, 2005) or sociological approaches (Luhmann, 1991; Beck, 1986, 2002, 2009), the anthropological one requires the understanding and emphasizing the way in which different circumstances contribute to the construction of risk perception of a concrete situation in a community. Here, the risk is regarded as a cultural construction. Human subjects, mass-media, economic, political and decisional factors are involved in the process of risk cultural construction. The decisional process of acceptance or rejection of a situation with a potential risk does not belong to the individual but to the social systems and government policies¹⁰.

The anthropological approach of risk perception implies the identification of those elements which, in a concrete situation, contribute to the formation of reasoning regarding the probability that a certain potentially catastrophic event takes place. In

⁹ P. L. Berger, T. Luckmann, *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*, Anchor Books, New York, 1966.

¹⁰ Gianluca Ligi, *Antropologia dei disastri*, p. 40.

the case of the gold mining project proposed in Roșia Montană, the controversy created around it tackles several aspects; that is why, in this particular case, I would talk about the *Roșia Montană problematic*. Let us observe, schematically, the aspects defining this problematic:

1. In the context of Romania turning from centralized economy during communism to the capitalist economy, a foreign company leased in 1995 the site of the former state mine in Roșia Montană, speeded up its closing (in 2006) and proposed an ambitious project for the extraction of precious metals (around 300 t gold and 1600 t silver) in four open quarries, suggesting a cyanide-based technology, over a period of 16 years.

2. Roșia Montană is a bi-millennial town, documentary attested since 131 B.C. as Alburnus Maior, by a waxed board discovered on a site in town. Within this space, there are vestiges of the occupational culture continuity, the gold mining. The vestiges discovered in Roșia Montană have an extremely high density compared to their space of origin. They present a huge documentary contribution to the history of Roman Dacia¹¹. The gold mining project mostly overlaps the archeological site, made up of unknown vestiges existent on archeologically un-researched yet surfaces, of Roman and Pre-Roman galleries, of monuments of historical and natural national patrimony, classified as such. The Romanian authorities issued an archaeological discharge certificate for a much bigger site than the effectively researched one, later on invalidated in court.

3. The project proposes a protected historical area situated among the four quarries and above the galleries dug in mountain millennia ago. The area would be extremely vulnerable during the massive stone dislocation from around. As an alternative to the Roman galleries destruction, certain models to replace them are suggested, proposal rejected by the specialists who consider it not to be viable.

4. The project takes into consideration an inhabited area both for the construction of the four quarries corresponding to the mountains around the town, and for the construction of the 185-meter draught dam at approx. 4 km upstream of Abrud town. In order to build the mine, it is necessary to relocate 974 residential properties,

¹¹ Volker Wollmann, *Monumente epigrafice și sculpturale din regiunea minieră Alburnus Maior – Apuleum*, in: „Sargetia”, XIV, 1979, p. 191.

two churches, two houses of pray, six cemeteries¹². Through a program of voluntary change of venue, the company bought the properties of certain local people who left Roşia Montană, and paid for their dead relatives' change of venue from the cemetery, all these before obtaining all the approvals for the project implementation in this form.

5. After state mine closing, the area faces a high rate of unemployment. The project stopped any initiative in town. The community has been seriously affected, both by the social tension climate created and by the fact that the town's doctor left, the drugstore closed, the public transportation does not work anymore.

6. The project means the loss of a considerable deposit of precious metals by Romania through an economically disadvantageous contract, as shown by reports of The Romanian Academy, The Academy of Economic Studies in Bucharest, Ad Astra Association. The project is also contested by specialists in geology who have demonstrated that this deposit contains other chemical elements whose exploitation is not taken into consideration.

7. The technology used can cause problems for the environment and human being due to the chemical compounds generated by the cyanides and to the heavy metals that can appear even after long periods of time. The cyanide concentration in the draught dam would be below the EU allowed level, but the project is still the greatest of this kind in the European Union.

8. The project does not include safety measures that would prevent the infiltration of the contaminated water from the draught dam in the groundwater. At the same time, the dam construction technique is unsafe from the point of view of its vulnerability in case of natural disasters (earthquakes, floods, landslides), its break causing a catastrophe.

9. The project generated the most ample and intensive debate the Romanian public had known after the communism fall. On one hand, it benefited from the genuine public support of several Romanian politicians, on the other hand, it resulted in an unprecedented opposition of the civil society.

¹² The data were taken from *Planul de acţiune pentru strămutare și relocare (Action Plan for Change of Venue and Relocation)*, 3rd version, elaborated in February 2006, read on-line, on September 14th, 2010, available on the internet: http://www.rmgc.ro/sites/default/files/RRAP_MAIN%20VOL_Rom%202009%20ok%2018022010_0.pdf.

10. At the beginning of 2012, the project was being evaluated by a Technical Board. The political changes determined a shift of interest from the project. The new Romanian govern promised an objective evaluation of the gold mining project.

But what are the risks involved in this mining project? Firstly, there are the technological risks associated to the cyanides use, as well as those associated to the draught dam construction. Then there is the risk of destroying the national patrimony of universal importance, worthy of being included in UNESCO World Heritage, as well as the one of losing a considerable deposit of precious metals by Romania, in exchange of long term ecological problems.

The alternatives suggested by those opposing the project are: cultural and ecological tourism, ecological/traditional agriculture in a tourism integrated system, introducing Roșia Montană in the UNESCO World Heritage, reactivating the traditional mining for touristic purpose, investments in timber industry, so that the finished product would leave the area and a part of the available labor force would be absorbed.

Further on, we will try to demonstrate the way the risk perception is articulated in the case of the gold mining project at Roșia Montană. The first observation is that although the specialists have often emphasized the risks, most of the area inhabitants do not perceive them, these risks do not exist for them. Those who, working within the company, are familiar with the project, consider it the safest project of the kind. On the other hand, when talking about the accident in Baia-Mare or about the situation of other places with mining industry, seriously affected at present (Zlatna, Copșa-Mică, Baia-Mare), they try to motivate, persuasively, that the respective situations are totally different. For those working within the company or those who hope to be employed, the project is perceived as a unique source of living. In this context, they are not afraid that their health could be endangered, as long as they hope for a job. The interpretation comes, on one hand, from the company's PR Department, but it is also the result of a positive bias of illusions. At the moment, nothing from the project's technological risk is visible. These people have jobs better paid than others in the area, drive the company's expensive cars, some of them have sold their properties for impressive sums of money, the area's real estate market being comparable to the one in Bucharest or Cluj of 2002-2005. All these lead to the positive distortion of their self-image. The psychologists have demonstrated that the

human being has the tendency to perceive the others a lot more exposed to risk than him. Thus Taylor and Brown¹³ (1988) observed the mechanism of illusions, finding that the positive illusions, as well as the positive distortion of self-image are not the result of some cognitive system deficiency, but they show its perfect functioning, having an adaptive function and contributing to mental health. At the same time, the illusive optimism regarding the future, called *unrealistic optimism* (Harris and Hahn¹⁴, 2011) belongs to the same line of perceiving positive bias. It refers to the individual's systematic overestimation regarding the probability of the future to reserve positive events for him, overestimation that functions in parallel with the underestimation of the probability that in the future he would experience negative events.

There are also unemployed inhabitants who are aware of the project's possible risks but who motivate they would rather die because of the cyanides than because of hunger. They are often used as media image of the inhabitants to demonstrate that people wish the project to start.

On the other hand, there are the inhabitants who do not want to abandon their properties. Most of them are familiar with the danger of cyanides use, perceiving the technological and change risks brought by the project. They have decided to remain where they were born, where they built a house, set a family. To defend this right, they founded the Alburnus Maior Association. In time, they sued the Romanian Government and succeeded to obtain the invalidation of certain documents issued by the local authorities or by the ones in Bucharest. Their position is not so present in the mass-media, but they still have an important role in the Romanian and even foreign public opinion awareness regarding this mining project implementation. At the same time, they succeeded an unprecedented mobilization for the Salvați Roșia Montană! (Save Roșia Montană!) Campaign.

Another population segment that is not aware of the technological risk but is opposed to the project is represented by the inhabitants of the neighboring towns or villages, mostly old people, nostalgic for the times when Romania had its own mining industry. These are against the project by valorizing it exclusively according to

¹³ S. E. Taylor, J. D. Brown, *Illusion and Well-Being: A Social Psychological Perspective on Mental Health*, „Psychological Bulletin“, Vol. 103, No. 2, March 1988, pp. 193-210. doi:10.1037/0278-7393.4.6.551

¹⁴ Adam J. L. Harris, Ulrike Hahn, *Unrealistic Optimism About Future Life Events: A Cautionary Note*, „Psychological Review“, Vol. 118, No. 1, 2011, pp. 135-154. doi: 10.1037/a0020997

Romania's loss of precious metals resources for the benefit of private companies and politicians.

The acknowledgement of technological risks is extremely high among youths and intellectuals all over the country. A special situation is the one of the intellectuals from Roșia Montană neighboring area. Doctors, teachers, directors of public institutions, mayors often state they are aware of the risk involved by the project, but emphasize that the employing institutions benefited by the company's support so they cannot express their disagreement for the project. In time, the company tried and succeeded to subserve all the institutions in the area. Through medical equipment donations to hospitals, support offered to schools and town halls, a type of subservient relationship was created, of which the company takes advantage when in need.

If the intellectuals are aware of the seriousness of the matter and sometimes of the vicious circle in which they are, the rest of the people who cannot get informed from alternative sources is „at the mercy of the way the information is presented. Subtle change in the way that risks are expressed can have a major impact on perceptions and decisions“¹⁵. I will present here an interesting episode¹⁶ I have witnessed, a discussion between two women from a neighboring village, Ciuruleasa. A 68-year old woman, Maria, was saying that her son didn't have a job and she hoped the exploitation of the mine in Roșia Montană would start soon so that he could get a job there. Her 56-year old friend, Elena, a fervent opponent to the project, well-informed regarding its consequences, was shocked by her friend's vain hope, explaining her the jobs might not be so many in Roșia Montană and asking her why her son didn't breed livestock on the family's land. Elena also told Maria her son could only work with the company for 16 years because the resource would be depleted afterwards and the mine would close anyway; her grandson would still have a job as a farmer after this period. The discussion went on and Elena told Maria about the draught dam at only 4 km from the hospital and high school in Abrud, dam where the contaminated water would be run-off. Maria seemed to know nothing about this dam. Then Elena told her in a colloquial language that the dam would be over 180 m high, it would be built against a mountain where the land often slid and at a certain moment it could broke causing a disaster: the water would flood the whole town of Abrud with the

¹⁵ Paul Slovic, *Informing and Educating the Public about Risk*, p. 185.

¹⁶ Field information. Observation card, Aprilie 17, 2011, Ciuruleasa village, Alba County.

pupils at classes and patients in the hospital. Maria started to cry and ask rhetorically if the dam would really exist. Elena went on telling her she should think about not having water in her well because it would drain or the water would be so poisoned that it would get people sick and destroy the plants. The information received immediately generated a strong emotional reaction from Maria. She went on asking if the mine would involve the construction of the dam and if dangerous chemical substances would be used. In the next months, during my visits to Maria, I brought up the subject of gold mining project. When we discussed about that she became sad, confessed she was convinced about the risks but unfortunately simple people were incapable to control such matters. We had to face an experienced human reality in which a discourse oriented towards risks presentation produced an intense emotion determining their acknowledgement. Most of the time people are misled by company's propaganda supporting the project. Thus, people living in the neighboring area of the project do not have the necessary information about the way the project would physically influence the area or the inhabitants' lives. They don't know that a part of the Aries river flow would be deviated towards the mine, or about the draught dam's dimensions. Sometimes they are even skeptical regarding the success of the mine, without having another term of comparison but the state mine where even if during the last years they worked in an open quarry, the work capacity was much lower than the one suggested by the present project.

As a consequence of this project, the community of Roșia Montană is divided. The inhabitants often talk about the fact that the Roșia Montană Gold Corporation coming in the area led to serious social split which resulted in disagreements among relatives, between parents and children, between neighbors and friends. It is a specific symptomatology for what the specialists call „corrosive community“¹⁷. Thus, in contrast to the „therapeutic community“¹⁸ which characterizes the communities hit by natural disasters, the communities passing through a crisis caused by technological disasters experience such social tensions during the process of guilt assigning.

Since our research has demonstrated that the local population is the least capable to identify the mining project risks, we are of the opinion that the most

¹⁷ E. A. Rosa, W. R. Freudenburg, *Risk, Sociology of*, in: N. J. Smelser, P. B. Baltes (eds.), *International Encyclopedia of the Social and Behavioral Sciences*, Oxford, Elsevier Science Limited, 2001, p. 13359.

¹⁸ Drabek 1986, Kreps 1984: Apud: E. A. Rosa, W. R. Freudenburg, *Risk, Sociology of*, p. 13357.

important problem in communicating the risk of the project implementation is the one regarding the inhabitants' lack of access to the alternative information. The situation is created by the fact that the local and national media is monopolized mostly by the company and the environment in which the information of this type circulates is online, inaccessible to most of the area population. Although the area inhabitants are the ones on whom the risk will have the strongest impact, they don't have real information regarding the project risks. The only available information source is the one provided by the company. The strategies are diverse: the local newspaper, garden parties, training courses offered by the company. In the local newspaper, besides articles that could make the inhabitants sensitive since they are the subject (which is great pride!), there are other articles speaking about the welfare of those who sold their properties, about some people's impatience regarding the starting of the mining project, about how safe the gold exploitation technology is or about how friendly cyanides are. The garden parties are another occasion for the company to positively present its activity. On Holly Mary and on Miner Day the inhabitants are invited to party with music on their liking, with bier and sausages. On these occasions, the undecided, passive or less informed ones find out how well it will be in the area if the project starts. At the English courses, organized by the company, many of the lessons are about subjects vulnerable for the community, suggesting that the mining project is safe, it can be run in parallel with tourism, it emphasizes the patrimony and brings happiness to everyone. The NGOs have failed to offer the people in the area the access to alternative information. They have succeeded in offering the necessary information to another category of people and in making the Rosia Montana problematic well-known in the country and abroad but they haven't succeeded in finding a strategy to inform the local population about the real risks of the project and about the viable alternatives suggested for the area.

Regarding the communication of the area development alternatives and their receiving by the inhabitants in exchange for the mining project, two things are to be emphasized: one regards Roşia Montana's inclusion in UNESCO World Heritage, the second regards the work in the domain of traditional/ecological agriculture in the area.

A group of magnanimous architects from Bucharest¹⁹ took the steps for the inclusion of Roșia Montana in UNESCO World Heritage but the Minister of Culture avoided in 2011 to send the proposal to the UNESCO Board. Interestingly enough, when it found out about this initiative, the mining company started to collect signatures in the area to show there is no public will in the Apuseni Mountains to include Roșia Montana in UNESCO World Heritage. The mayor of Roșia Montana, other mayors of the neighboring villages, employees of the company and other inhabitants signed the list. The list passed also to the schools, coming as an unpaid invoice for services the company provided to these institutions.

A proper communication is needed not only to avoid similar situations and enhance awareness of the area's natural and historical patrimony value (regardless if we speak only about Rosia Montana or the entire Apuseni Mountains) in the population, but also to better present the ways this patrimony can be exploited touristic and in the sense of durable development. The sessions of attractively presenting certain places already registered in the UNESCO World Heritage would be essential to understand the benefits of such an attempt. Last but not least, the inhabitants' understanding of the possibilities of valuing the traditional mining as part of tourism is an important component of the success of this attempt.

The second problem of the alternatives' communication regards the way in which this concept of traditional agriculture gets new meanings, emphasizing the whole bucolic imaginary it can stir. In Romania, during communism, a great part of the villages' population migrated to towns and, after the fall of the communism, abroad, while the land, as profit source, was abandoned. Even those who remained in the villages gradually abandoned the work of the land. In such situation, the land worker needs back his dignity lost in time. Romanians are the cleverest farmers in the West but they don't work their own lands in their country. After the fall of the communist regime but still on a communist basis, the traditional and ecological land work was systematically despised. In the Apuseni Mountains, this type of activity works very well and can be a branch that brings value to the ecological and cultural tourism, states the alternative suggested by the opponents of Rosia Montana destruction. But the

¹⁹ The ARA Professional Association drew up the necessary documents for the inclusion of Roșia Montană on Romania's proposal list for UNESCO. Virgil Apostol, Ștefan Bâlici, in: *Roșia Montană: documente de arhitectură*, I, București, Editura A.R.A. – Arhitectură, Restaurare, Arheologie (Architecture, Restoration, Archaeology), 2010.

inhabitants are not at least attracted towards this type of economic activity due to a cultural handicap: it is shameful to be peasant! After Romania's accession to the European Union, with all the support for the mountain area farmers, ecological and traditional agriculture could bring decent income, comparable to that of a worker, miner or from other domain. The available natural resources and labor force are not enough to bring to life this domain of activity which has not entirely disappeared, but it's seriously threatened. Without a conceptual revaluing of what once meant *peasant*, there is no possible solution to the problem. The term *farmer* has brought dignity to the land workers, but its semantics has been adopted by the industrialized/mechanized branch of agriculture. The small farms that practice the ecological/traditional agriculture are improperly called *subsistence farms*, a term which has only fostered resentment towards this activity. An adequate program implemented in the Apuseni Mountains that would give dignity back to the land workers, and would include the activity into a touristic plan would make this alternative more understandable and acceptable for the local inhabitants.

REFERENCES

- Apostol, Virgil. Bâlici, Ștefan (2010). *Roșia Montană: documente de arhitectură*, I, București, Editura A.R.A. – Arhitectură, Restaurare, Arheologie.
- Berger, P. L., Luckmann T. (1966). *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*, Anchor Books, New York.
- Beck, Ulrich (1986). *Risikogesellschaft. Auf dem Weg in eine andere Moderne*, Suhrkamp, Frankfurt am Main, 1986, ed. it. : *La società del rischio. Verso una seconda modernità*. Edizione italiana a cura di Walter Privitera. Traduzione dal tedesco: Walter Privitera, Carlo Sandrelli, Gian Carlo Brioschi e Melania Mascarino. Carocci, Roma, 2000.
- Beck, Ulrich (2002). *Das Schweigen der Wörter. Über Terror und Krieg*, Suhrkamp Verlag, Frankfurt am Main, ed. it.: *Un mondo a rischio*, Traduzione di Laura Castoldi, Einaudi, Torino, 2003.
- Beck, Ulrich (2009). *Critical Theory of World Risk Society: A Cosmopolitan Vision*, „Constellations. An International Journal of Critical and Democratic Theory“, Vol. 16, Issue 1, pp. 3-22, doi: 10.1111/j.1467-8675.2009.00534.x.
- Douglas, Mary (1986). *How Institutions Think*, Syracuse, N.Y., Syracuse University Press.
- Douglas, Mary (1992). *Risk and Blame*, London and New York, Routledge, 1992.
- Harris, Adam J. L., Hahn, Ulrike (2011). *Unrealistic Optimism About Future Life Events: A Cautionary Note*, „Psychological Review“, Vol. 118, No. 1, pp. 135-154. DOI: 10.1037/a0020997.

- Kasperson, R. E., Renn, O., Slovic, P., Brown, H. S., Emel, J., Goble, R., Kasperson, J. X., Ratick, S. (1988) *The Social Amplification of Risk A Conceptual Framework*, „Risk Analysis“, vol. 8, No. 2, pp. 177-187. doi: 10.1111/j.1539-6924.1988.tb01168.x.
- Ligi, Gianluca, (2009). *Antropologia dei disastri*, Roma, Editore Laterza.
- Lupton, Deborah, (1999). *Risk*, New York, Routledge.
- Rosa, E. A., Freudenburg, W. R. (2001). *Risk, Sociology of*, in: N. J. Smelser, P. B. Baltes (eds.), *International Encyclopedia of the Social and Behavioral Sciences*, Oxford, Elsevier Science Limited, pp. 13356-13360.
- Schwarz, Michiel, Thompson, Michael (1990). *Divided We Stand. Redefining Politics, Technology and Social Choice*, Philadelphia, University of Pennsylvania Press.
- Slovic, P. (2000). *Informing and Educating the Public about Risk*, in: Paul Slovic (ed.), *The Perception of Risk*, Earthscan, London and Sterling, pp. 182-197
- Slovic, P. (2000). *Perception of Risk*, in: Paul Slovic (ed.), *The Perception of Risk*, Earthscan, London and Sterling, pp. 220-231.
- Slovic, P. (2000). *Perception of risk from Radiation*, in: Paul Slovic (ed.), *The Perception of Risk*, Earthscan, London and Sterling, pp. 264-274.
- Slovic, P., Finucane, M. L., Peters, E., MacGregor, D.G. (2002). *Rational actors or rational fools: Implications of the affect heuristic for behavioral economics*. „Journal of Socio-Economics“, vol. 31, pp. 329-342.
- Slovic, P., Peters, E., Finucane, M.L., MacGregor, D.G., (2005). *Affect, Risk, and Decision Making*, „Health Psychology“, Vol. 24, no. 4 (Suppl.), pp. S35 – S40. doi: 10.1037/0278-6133.24.4.S35.
- Taylor, S. E., Brown, J. D. (1988). *Illusion and Well-Being: A Social Psychological Perspective on Mental Health*, „Psychological Bulletin“, Vol. 103, No. 2, pp. 193-210. doi:10.1037/0278-7393.4.6.551
- Tversky, Amos, Kahneman, Daniel (1974). *Judgment under Uncertainty: Heuristics and Biases*, „Science“, New Series, Vol. 185, No. 4157, , pp. 1124-1131, doi: 10.1126/science.185.4157.1124, republicat în: D. Kahneman, P. Slovic, A. Tversky (eds.) (1982). *Judgment under Uncertainty: Heuristics and Biases*, Cambridge, Cambridge University Press, pp. 3-20.
- Volker Wollmann, *Monumente epigrafice și sculpturale din regiunea minieră Alburnus Maior – Apuleum*, in: „Sargetia“, XIV, 1979, pp. 191-217.