

CONCERNS ON LABOUR POWER SELECTION AND TRAINING WITHIN „MICA” MINING COMPANY, DIRECTORATE OF BRAD MINES, DURING 1920-1948

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ABSTRACT: *„Mica” Company, through the mining complex it owned in Brad area in the Apuseni mountains, was to be the largest gold producer in Romania between the 20s and the 40s of the twentieth century. The operation of the mining complex in Brad area, including mining sites, processing units, a power plant, a railway system, as well as social and cultural facilities, needed work force. Our study focuses on the way in which the managers of „Mica” Company, especially the ones of „Mica” Brad, selected and trained this work force in order to cope with the complexity of production activities.*

KEY WORDS: *Romania, the period between 1920-1948; “MICA” Company; Directorate of Brad Mines („Mica” Brad), selection and training.*

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„Mica” company was set up in March 1920, and between the years 1920-1948 it became the largest producer of gold in Romania and at the same time, the most important mining company from Central and South-Eastern Europe involved in the extraction of precious metals.

The first step, that proved to be the most important in setting up Mica Company until the process of nationalization in June 11th 1948, was the purchase of the group of mines near Brad within Hunedoara County, also known as the gold mines of the mining association „Ruda 12 Apostoli” divided into cuxas.

The mining establishment from Brad belonging to Mica mining company or „Mica” Brad, produced precious metals from the ores located in this part of Apuseni Mountains. The Board of Directors is subordinate to the General Direction Committee of Mica Company from Bucharest, with the task to organize and coordinate the technical work and to ensure the manpower required for the operation of the mining complex.

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„Mica” company took over, near Brad, not only an asset consisting of exploration lease, arable and untillable areas, galleries, mechanical installations, buildings, machinery, etc., but also a labor force well prepared to support effectively this company. Undoubtedly, in the long run the original work force will be replaced gradually with representatives of other generations, out of objective and subjective reasons, without affecting the continuity and, above all, the success of the activity claimed to be carried out at „Mica” Brad.

There was a two-way phenomenon showing both stability and also fluctuation due to subjective and objective factors. Most of those who were employed at „Mica” Brad, mainly workers, were locals, living in communes and villages in the area in which „Mica” Company operated.

Most of those hired by „Mica” Brad, whether they were locals or they originated from elsewhere, mainly engineers and part of the officials, they came here carry out their professional activity; their decision was also influenced by the fact that Mica Company would become during this period the most important economic institution in the area and in fact in the whole perimeter of Apuseni Mountains; being an employee with „Mica” Brad, as well as with other associated mining companies represented a matter of safety regarding the workplace, and last but not least, a matter of material status and prestige.

It is a truism to assert that among the determinants of personnel policy of the company economic factors will have a decisive role. It was a truth that had to be taken into consideration by the directors of „Mica” Company, the increase or decrease in the number of employees being influenced to some extent by the economic situation.

In table 1 we note that in the early years of taking over Ruda 12 Apostli by „Mica” Company there is a decrease in the number of employees. The process is due to the reduction of the productive activity by closing or reducing work in a few mines, and by the concern of the management of „Mica” Company to rationalize the productive flow. After 1927 the number of employees increases, alongside with the growth in production, but also due to related activities carried out by the Company for the benefit of business profitability; interestingly, during the economic crisis in the years 1929-1933, as a reflex and the due to the fact that the exploitation of gold did not because of the slowdown in the global economic activity, the number of employees continued to increase, a trend which, with a small rebound in the years 1942-1944 - when many employees had been mobilized causing a shortage of man power¹ - would worsen in the years 1945-1947 (table 2).

Man power was be higher in 1947 than in the year 1938, because the conditions were different. In 1938 they exploited rich and thick ores, and thus the effective power was higher; there were fewer jobs and supervision was easier, it did not require many supervisory workers. In 1947 mostly remnants of thin gold ores were exploited and enterprises were expanded, which led to lengthening transport lines and galleries the maintenance of which was difficult; at the same time surface facilities developed, mainly those for processing ore etc.². Perhaps this explanation encompasses

¹ Hunedoara County Department of the National Archives (hereinafter called DJANH), *Fond Societatea „Mica”*, dos. 11/1941, f. 1-22).

² *Ibidem*, dos. 4/1947, f. 86.

the pressure imposed by authorities for economic but also social reasons, have introduced serious restrictions regarding the ability of employers to dismiss their employees, and in the years 1945-1947, this trend aggravated; the owners permanently had to face the protest movements of laborers.

Table 1. Evolution of employees at „Mica” Brad during 1921-1935³

Year	Mines + Mine Directorate				Out of which	
	Ruda 12 Apostoli	Tebea	Other mines	Total	Technical staff and labourers	Administrative personnel and cleaning women
1921	1.883	322	-	2.205	2.174	31
1922	2.160	355	-	2.515	2.485	30
1923	1.990	497	-	2.487	2.441	46
1924	1.792	466	-	2.258	2.201	57
1925	1.489	386	-	1.875	1.818	57
1926	1.454	326	-	1.780	1.726	54
1927	1.989	337	-	2.326	2.283	43
1928	2.012	309	-	2.321	2.280	41
1929	2.052	300	-	2.352	2.307	43
1930	2.012	288	-	2.300	2.244	56
1931	2.133	289	-	2.422	2.366	56
1932	2.185	200	-	2.385	2.289	96
1933	2.326	181	-	2.507	2.392	115
1934	2.395	191	45	2.631	2.527	104
1935	2.406	193	70	2.669	2.540	129

Table 2. Evolution of employees at „Mica” Brad during 1936 – 1947⁴

Year	Total	Out of which			Year	Total	Out of which		
		Officials	Day labourers	Workers			Officials	Day labourers	Workers
1936	2.645	176	79	2.390	1942	2.859	211	76	2.572
1937	2.781	173	100	2.508	1943	2.951			
1938	2.991	155	107	2.729	1944	2.860	286	2.574	
1939	3.012			1945	4.048	322	3.762		
1940	3.230	191	142	2.897	1946	4.310	335	3.975	
1941	3.197	215	88	2.894	1947	3.952	319	3.633	

There were also people who favoured seasonal work because they considered other activities, mainly in the agriculture, more important than working in a mine. It is well known that, especially at the beginning of the interwar period, when there was a setback in gold mining, some workers from Apuseni Mountains, not necessarily

³ *Ibidem*, dos. 24/1922, f. 4-47; dos. 25/1922, f. 4-49.

⁴ *Ibidem*, dos. 50/1936, f. 49; dos. 13/1937, f. 49; dos. 4/1947, f. 321; dos. 11/1940, f. 76; dos. 23/1941, f. 31; dos. 11/1942, f. 30; dos. 5/1944, f. 45; dos. 4/1945, f. 38; dos. 11/1945, f. 116; dos. 226/1946, f. 37; dos. 35/1947, f. 42.

employees of Mica Company, however many of them being miners, left their native places to work in other areas of mining, especially in the Jiu Valley⁵.

At the same time natural selection still worked and those who measured up the demands and needs of the Company remained while those who did not adapt themselves left. Most of those who had been fired had to leave because: they did not obey moral standards, for example those who had stolen gold and other items that belonged to the company; they broke the rules according to which they had to work, which mentioned the relations between superiors and employees, between employees in general; they were not professionally capable to carry out their tasks, etc.

The company could fire some of its employees because of economic reasons. Thus, the number of employees at Țebea coal mine was reduced, after CFR Administration, had decided, for reasons that were linked to its own purchase policy, that starting from January 1st, 1929 not to buy coal from Țebea, which until then had been used to ensure the traction load on Arad-Brad railroad⁶. For the sake of economic reasons, the company refused, at times, to hire people who had applied for a job at „Mica” Brad: at the request of Arad Labour Inspection on April 9th, 1936 to consider the applications for employment of 36 inhabitants of Căinelul de Sus, they explained that „we can no longer hire personnel, man power is already overloaded. There are some other people as well without a job and as soon as the situation allows us to take on new workers we shall hire them”. On the other hand authorities are reminded that „until they find a job, these people deserve to be helped by the unemployment fund, to which „Mica” Company contributes during the winter months (December-April) with 1% of employees’ income”⁷.

One of the characteristics of the staffing policy developed by „Mica” Company in Brad, is the natural renewal of man power, as the old ones retire and keeping the useful ones, regardless of their ethnic origin. It seems that the directors of “Mica” Company and, in particular, the managers of „Mica” Brad, did not favour an excessive nationalism and they considered that it is more important that the mechanism should function, therefore the value of the human being was placed above all other considerations. This explains why, in 1933 „Mica” Company had 2741 employees: 2.539 workers, 38 engineers, 164 technical workers and administrative officials. Among them, 214 were Romanian citizens of a different nationality, five foreigners and an individual with Nansen Passport; among the engineering there were five Romanian citizens of a different nationality and a person with Nansen passport⁸.

In the long run „Mica” Brad has undertaken a large number of employees. They were mainly people with specialized training, either technical and administrative staff with higher education or graduates of commercial schools, schools of arts and

⁵ Mircea Baron, *Cărbune și societate în Valea Jiului. Perioada interbelică*, Editura Universitas, Petroșani, 1998, p. 274-275.

⁶ Societatea Mica, *Darea de seamă a Consiliului de Administrație și Raportul cenzorilor către Adunarea generală ordinară a acționarilor din 17 mai 1930. Exercițiul 1929*, Institutul de Arte Grafice și Editură „Îndreptarea”, București, 1930, p. 11-12.

⁷ DJANH, *Fond Societatea „Mica”*, dos. 2/1932, f. 166-167.

⁸ Societatea „Mica”, *Darea de seamă a Consiliului de Administrație și Raportul cenzorilor către Adunarea generală ordinară a acționarilor din 24 mai 1934. Exercițiul 1933*, Institutul de Arte Grafice și Editură „Îndreptarea”, București, 1934, p. 19.

crafts, apprenticeship schools, professional schools. In the latter case in particular we refer to graduates of mining schools from Petroșani and of metallurgical schools from Baia Mare; in 1937 the metallurgical school became the School of technical miners and chemical-metallurgists⁹ and in the autumn of 1940 it was forced to relocate to Brad, on the premises of the „Mica” Gurabarza apprentice school¹⁰; it was open until 1945, when it returned to Baia Mare¹¹.

Fundamentally, mine foremen and foremen of other specialty, with at least 2-year experience were employed with a probationary period of six months, and those who have just graduated from schools were employed on probation for one year; even under these circumstances, the probation period could not be respected, especially by people with weak references from school or from companies where they had worked before¹². A mine foreman was hired at Valea Morii mine on November 7th, 1936, on a probation period of one year and „after this period and if you measure up to the requirements of Company mines, we shall submit your application to the General Assembly”; the employee would then receive a salary of 4,000 lei per month, plus a share of the bonus generated by the production of native gold¹³.

Most of those who were employed were young people without specialized training; some of them were trained by the Company in apprenticeship schools, attending professional courses, to become specialists in mining activities either underground or on the surface.

Until 1940 when „Mica” Company set up its own apprentice school, they had been trained at the Communal School of Industrial and Commercial Apprentices, under the aegis of the Ministry of Public Instruction and since 1931 under the aegis of the Labour Ministry. The Company selected young apprentices who signed apprenticeship contracts. The apprentices were carefully selected according to the immediate needs of the company and also to the ability of those who applied for such a job. Young people outside the company were accepted and also some of the boys who had already been employed at different services within „Mica” Brad¹⁴. Due to the fact that the number of applicants was high there was a waiting list as well as some categorical rejections without explanation¹⁵. At the same time, there were those who had a specific training or a precarious material situation; while a graduate of four classes from „Avram Iancu” high school from Brad, who was no longer able to continue his studies, would be accepted immediately as apprentice at the Electric Workshop in September 15th, 1935, another student was told that he would be accepted only after the completion of at least six primary classes¹⁶.

⁹ *Regulament pentru funcționarea școlilor miniere din țară*, Tipografia Ducret, Baia Mare, 1938, p. 5; DJANH, *Fond Inspectoratul General al Minelor de Cărbuni din Valea Jiului*, doc. 19/1923.

¹⁰ Ioan Marin, *Școala de conductori minieri și metalurghi din Brad*, *Miniera*, XVIII, 1943, nr. 8, p. 244-245; Ioan M. Lăzărescu, *Școala de conductori minieri și chimico - metalurghi de la Baia Mare, refugiată la Brad*, *Miniera*, XIX, 1944, nr. 1, p. 17-19.

¹¹ *Monitorul Oficial*, I, nr. 169/28 iulie 1945, p. 6478; *Miniera*, XX, 1945, nr. 12, p. 177.

¹² DJANH, *Fond Societatea „Mica”*, dos. 35/1935, f. 46.

¹³ *Ibidem*, dos. 20/1936, f. 60.

¹⁴ *Ibidem*, dos. 1/1932, f. 32-33.

¹⁵ *Ibidem*, f. 2-3.

¹⁶ *Ibidem*, f. 57-59.

According to this attitude, „Mica” Brad sought to attract young professionals, even 2nd or 4th grade high school students from „Avram Iancu” high school from Brad, who „would like to pursue a career as electrician and wish to register as apprentice at „Mica” Company¹⁷. Once admitted as apprentices they had to attend, for three years, theoretical courses of the Industrial and Commercial Apprentice School from Brad; practice was carried out where the apprentice was employed. He would be paid for the work carried out at „Mica” Brad, in accordance with the collective pay agreement and he had to comply with the rules of service; any deviation, both in the workplace and in the school of apprentices, was penalized either verbally or financially and when the delinquency was serious - gold-stealing, for example - or frequent, the apprentice was expelled. Apprentices had to take a final examination and those passed were employed by „Mica” Company according to the job openings; they were hired in a workshop for a trial period of four months; after this period, those who did not measure up to the needs and the interests of the Company were rejected while others were to be employed, with a four-year contract and receive some salary¹⁸. „Mica” Company encouraged the work of professional schools by granting certain quantities of wood and coal, by donating books¹⁹, rewarding students and teachers especially for the work carried out in practice²⁰.

Retraining courses were organized at „Mica” Brad as well. For example, in 1939 the courses were held for some of the workers in the mine: drivers and assistant miners. Courses, for which the workers had not been paid, since they were held after working hours, lasted six hours per week, grouped in two meetings. Those who attended these courses benefited from a reduction of the working category period and they were promoted sooner than others²¹.

„Mica” Brad would hire a large number of unskilled workers mainly because the specifics of activities not required special training, and on the other hand, some considered the work at the mine, as I have said, as second job; thus, they were not so interested to develop professionally; among the unskilled workers, some would develop professionally in the long run, gaining experience in order to be selected to carry out the tasks of specialists, without attending specific training courses. A document issued on November 11th, 1944 shows us that a miner hired for the underground work was regarded as a „cleaner”; higher classes, above the cleaner are: drivers, assistant miner, miner; for maintenance activities there are: assistant woodworker, woodworker, assistant builder, builder. Promotion is made from cleaner to driver considering three alternatives: assistant miner and then a miner; assistant woodworker and then woodworker; assistant builder and then builder. The courses for each category lasted on average two years, but the transition from one professional category to another was based on skills, the needs of mines, job opportunities, etc.²².

¹⁷ *Ibidem*, f. 34.

¹⁸ *Ibidem*, dos. 10/1926, f. 374.

¹⁹ *Ibidem*, dos. 1/1932, f. 46.

²⁰ *Ibidem*, f. 12-13, 15-17.

²¹ *Ibidem*, dos. 46/1944, f. 5.

²² *Ibidem*.

At the same time, „Mica” Brad would select the miners with good results in order to promote them to the position of first miner; for example, on April 28th, 1928 the Mine Management from Brad agreed with the proposal of Musariu mine that six first miner assistants, who worked in exploitation be promoted to first miners, considering that „they have trained more than six months as first miners and it is only fair to promote them as first miners, especially since we need supervisors for the exploitation works”²³. Though there was a time when, to some extent, the Company was entitled to decide upon the position of employees or promotions, a decision of the Ministry of Labour, Health and Social Protection from February 27th, 1937²⁴ pursuant to the provisions of art. 2 b within the Law on vocational training and exercise of trades from April 30th, 1936²⁵, would regulate the manner in which an employee within the mining industry - skilled and unskilled workers from the surface and the underground; stamp workers; miners and assistant miners, foremen and mine igniters - is allowed to carry out his activity.

After the implementation of this ministerial decision, mining enterprises could no longer employ workers without worker or craftsman certificates to carry out qualified activities and without evidence of unskilled workers for unqualified work. On the other hand, it is mentioned that these certificates are not in favor of their holders, it is the obligation of the company to employ workers for activities corresponding to their title and qualifications. The complexity of the work carried out at „Mica” Brad, its amplification in the long run, led to an increase in the number of technical and administrative staff with higher education; this is statistically demonstrated²⁶.

Table 3 presents the situation according to categories of employees for four years taken at random; there must be noted an important increase in the number of technical staff with higher education, as well as of administrative and technical officers, alongside with the amplification of the activity and thereby of the problems faced by „Mica” Brad. „Mica” Company and thus, „Mica” Brad were interested in attracting deserving graduates of Polytechnic Schools from the country and from abroad, of Universities, Trade Academies, etc. Therefore „Mica” Company leaders were open to receive students, especially from the Mining and Metallurgy departments – that became Universities in 1938 - of Polytechnic Schools from Bucharest and Timișoara, to complete their on-the-job training. For example, a 4th grade student of Timișoara Polytechnic School would be hired to complete his training at Musariu and Brădișor mines, from July 14th to September 1st, 1927. During this period he would be an apprentice at Musariu mine for one week, another week for getting acquainted with the veins of each mine and he would spend the rest of the training period at Gurabarza processing plant. During the training he would receive a monthly salary of 2,500 lei, dwelling in Barza colony, a free pair of boots and a set of miner clothes that needed to be returned at the end of practice²⁷.

²³ *Ibidem*, dos. 26/1926, f. 148-149.

²⁴ C. Hamangiu, *Codul general al României*, vol. XXV/I, 1937, Imprimeria Centrală, București, 1938, p. 613-614.

²⁵ *Ibidem*, vol. XXIV/I, 1936, Imprimeria Centrală, București, 1937, p. 663.

²⁶ DJANH, *Fond Societatea „Mica”*, dos. 24/1922, f. 22, 48; dos 25/1922, f. 20; dos. 90/1947, f. 19-20.

²⁷ *Ibidem*, dos. 31/1926, f. 182.

Table 3. "Mica" Brad staff according to categories of employees

Categories of employees	Year				Categories of employees	Year			
	1921	1930	1938	1947		1921	1930	1938	1947
<i>I. Officers</i>					<i>III. Surface workers and other categories</i>				
Engineers, chemists and geologists	14	19	37	34	Apprentices	13	49	-	153
Technical underground officers	63	91	75	76	Students	13	-	104	42
Technical surface officers			43	65	Day labourers	679	613	824	988
Administrative officers	19	31	107	163	Women	6	-	33	168
<i>Total I</i>	<i>96</i>	<i>141</i>	<i>262</i>	<i>338</i>	Craftsmen	81	167	237	458
<i>II. Underground workers</i>					Machine attendant	12	107	-	-
Prime miners/supervisors	-	79	117	173	Carpenters	62	-	-	-
Miners	735	557	317	577	Cableway workers and supervisors	-	124	-	-
Assistant miners	496	438	133	180	Administrative staff	6	21	-	-
Woodworkers			150	154	Trainers	6	-	-	-
Assistant woodworkers				48	Doctors	-	4	-	-
Builders			94	60	<i>Total II+III</i>	<i>2.109</i>	<i>2159</i>	<i>2.729</i>	<i>3.550</i>
Assistant builders				30	<i>General Total</i>	<i>2.205</i>	<i>2.300</i>	<i>2.991</i>	<i>3.888</i>
Drivers			565	402					
Cleaners			155	117					

„Mica” company would provide on-the-job training for students from other countries as well; it was the case of five students from the Delft Polytechnic School from the Netherlands who came to Brad for a month in the summer of 1938²⁸. At the same time it would create conditions for the training of foreman students, as well as of students from The school of technical mine drivers and chemical-metallurgists that was to be set up in Brad; they were legally required to attend a two month training during the holidays within the four years of study²⁹; during the summer holiday it would train high school students, students of commercial or industrial gymnasium³⁰.

Those who wanted to complete their work for diplomas or doctoral theses would also come to Brad. As an example, on October 17th, 1940 a graduate of Timișoara Polytechnic School and a future engineer with „Mica” Brad, was hired as an intern at Brădișor mine for two months, in order to complete his Bachelor's degree; during the training period he was paid with a salary of 2,500 lei per month³¹.

In June 1939, the mine engineer Mircea Socolescu, head of Prospecting Department within the Geological Institute of Romania received approval to conduct a

²⁸ *Ibidem*, dos. 60/1931, f. 87.

²⁹ *Ibidem*, dos. 17/1941, f. 253; dos. 60/1931, f. 12-13; dos. 10/1926, f. 368.

³⁰ *Ibidem*, dos. 54/1937 f. 4.

³¹ *Ibidem*, dos. 60/1931, f. 5.

geological and mining study of the gold fields from Brad in order to complete his doctoral thesis in geology that was to be submitted to the Polytechnic School in Bucharest. He could visit different places in the mine and he was shown plans and technical data; he was staying in Gurabarza colony and he would have an assistant for the duration of his staying in Brad³².

„Mica” Brad enrolled groups of students from the two Polytechnic Schools in Bucharest and Timișoara who came on study trips³³ and also Romanian or foreign students, pupils, who came to visit the Apuseni Mountains, the mining facilities, the Mineralogical Museum from Brad etc.³⁴; there was a fund of grants for deserving students which included 60 beneficiaries in 1937³⁵, etc.

This concern, of course not impersonal but real, allowed the directors of “Mica” company to assert in the year 1930 that „we are ... proud of the progresses of our company that have served as model and emulation for others”³⁶, and in the minutes of the Board of Directors of „Mica” company in the year 1933 it is shown that, „we continue to receive a number of young engineers, polytechnic graduates in order to train the necessary specialists for this industry. This year we have sent three engineers trained by us to our twin mines”³⁷.

The decision of hiring engineers at „Mica” Company and implicitly at „Mica” Brad lay with the Directing Committee³⁸, which set the type of employment, temporary or definitive, the location of work, the social aspects and the payment. Engineers who started working with „Mica” Brad followed a path that became classic among young graduates and even older engineers; such was the case of engineer Aurelian Băltenoiu, who had worked for many years in the mines of the Jiu Valley within „Petroșani” Company and who was highly appreciated due to his „extensive practice in coal mines. On May 20th, 1939 the General Management of „Mica” company informed the Management of Brad Mines that in accordance with the decision of the Directing Committee, engineer Aurelian Băltenoiu would be employed on June 1st, 1939 and he would receive a gross salary of 17.500 lei monthly, plus other gratification offered for employees in his category. „Mica” Brad was going to make a letter of employment, in accordance with the usual clauses, and considering the special provisions contained in a letter dated May 19th, 1939 „after having completed all the services, engineer Aurelian Băltenoiu should be granted the position decided by the General Manager”³⁹.

Young engineers were hired temporarily for a trial period; if they proved themselves skillful they would be employed permanently. All those who were taken on by „Mica” Company, including technical and administrative staff, had signed a contract which presented the rights of the employee in exchange for services, but also

³² *Ibidem*, dos. 1/1936, f. 165.

³³ *Ibidem*, f. 42, 86.

³⁴ *Ibidem*, dos. 31/1926, f. 164.

³⁵ *Ibidem*, dos. 83/1937, f. 1-2.

³⁶ Societatea „Mica”, *Darea de seamă a Consiliului de Administrație și Raportul cenzorilor către Adunarea generală a acționarilor din 2 mai 1931. Exercițiul 1930*, Institutul de Arte Grafice și Editura „Excelsior”, București, 1931, p. 7.

³⁷ *Ibidem*, 1933, p. 19.

³⁸ DJANH, *Fond Societatea „Mica”*, dos. 16/1926, f. 27-28.

³⁹ *Ibidem*, dos. 48/1938, f. 89-90.

his obligations towards the company⁴⁰. For example, the commitment signed on March 7th, 1944⁴¹ between „Mica” Company and Dr. eng. Ion Marinescu (1905-1946), who was head of the „Mica” Brad laboratory and professor since October 1st, 1942 at the Department of minerals and coals within Timișoara Polytechnic School⁴².

An increase in the number of personnel will be accompanied by an increase in the number of technical and administrative officers; this is statistically proved. At the same time, it must be said that, over the nearly thirty years since „Mica” Company has been operating in Brad area there has been an exchange of generations and that there are people who have completed the whole period of activity and they inevitably left traces of their presence here.

We must emphasize the fact that technical officers, mainly engineers, will have the role of coordinating the productive activity and because of their obligations or due to their interest showed they were involved in finding practical solutions to the multitude of technical problems that arose. At the same time they will be involved in the social and cultural life of the economic entity which was „Mica” Brad and, by extension, in the life of the community where they worked. It is well known that all superior officers who worked at „Mica” Brad were graduates of prestigious universities in the country and abroad and they will succeed to a large extent, to remain connected to the open and modern spirit claimed by the interwar period.

Furthermore, the involvement in the Company’s issues and encouraging the process of modernization was an obligation given to understand. For example, by a minute of Brad Mine Management from March 24th, 1943 the „engineers are asked to study, beside the problems presented by the Directorate and by the management of mines, various issues in connection with the activity they perform and to make written proposals regarding the improvement of working methods, mechanization, organization and other measures that would contribute to the efficiency of the enterprise. The management of mines will ask engineers to solve various issues that would contribute to the improvement of the activity... For the necessary study material - books, magazines – a written application should be submitted with the Board in order to purchase those materials that can not be found in the library of Brad Company or in the libraries of the mines. The most important issues are to be discussed and settled in conferences convened by the Board”⁴³.

Of course that the involvement, especially in finding solutions that provide modernization or defining changes, will not be compulsory for all, at least not equally compulsory. We have heard about the scientific activity of Dr. eng. Ion Marinescu, but just as important is eng. Victor Eugene Mastero, the former head of the Laboratory, who drew the project Flotației II which was built at „Mica” Brad in the years 1933-1934. in order to perform this type of activity, technical engineers needed to be aware of the specialized literature, and therefore a technical library was set up in Brad by purchasing books, catalogues, technical journals in general, referring to mining in

⁴⁰ *Ibidem*, dos. 12/1925, f. 244; dos. 6/1922, f. 35.

⁴¹ *Ibidem*, dos. 50/1943, f. 145.

⁴² I. Felea, *Prof. dr. ing. Ion M. Marinescu*, Revista Minelor, vol. 100, nr. 7/1999, p. 38-39; Analele Minelor din România (hereinafter called, A.M.R.), XXV, 1942, nr. 9, p. 189.

⁴³ DJANH, *Fond Societatea „Mica”*, dos. 43/1931, f. 49-50.

particular⁴⁴; engineers would travel across the country and abroad, in order to gather information on technical developments and to visit facilities that could be installed at „Mica” Brad as well⁴⁵.

Regarded as an information tool but also as a means for specialists from „Mica” Brad to submit in writing their technical and scientific achievements, under the auspices of the Geological Service of „Mica” Company, a publication of approximately 20 pages, A4 format called “Mica” Company Bulletin was issued periodically; the articles were typewritten, not always stating the date of issuance; it contained original studies, translations, compilations of foreign magazines, information from extractive industry, etc.⁴⁶.

The Association of Engineers and Technicians from the Romanian Mining Industry, created on March 4th, 1918 and the magazine of the Association called the *Analele Minelor din România* (Annals of Romanian Mines) held an important place and played an important role in the life of the technical community from „Mica” Brad⁴⁷. The Apuseni Mountains Department of the Association was set up in January 1932; during its sessions there were presented conferences dedicated to the professional and scientific matters⁴⁸.

It must be said as well that engineers from „Mica” Brad have published specialized articles in the magazine of the Association⁴⁹ and also in another significant mining magazine, „Miniera” („Mining”)⁵⁰; supported by the 17 communications they had an important contribution to the evolution of the Congress IV of the Association, held in Bucharest on 18-21 of May 1939⁵¹; they would publish books⁵².

From what I have presented, we note the fact that an economic entity of such dimension as „Mica” Brad, the selection and training of personnel was a necessity; the high standards of accomplishment of this task depended on the operation and the prosperity of Society „Mica” as a whole. And in order to fulfill this task, what we define as the reproduction of labor power, great human and material investments were made that led to a positive result.

⁴⁴ *Ibidem*, dos. 35/1935, f. 22; dos. 122/1935, f. 46.

⁴⁵ *Ibidem*, dos. 1/1936, f. 112.

⁴⁶ A.M.R., XX, 1937, nr. 5, p. 190.

⁴⁷ Mircea Baron, Ion Pârvulescu, *Analele Minelor din România (1918 - 1945) - Revista Asociației Inginerilor și Tehnicienilor din Industria Minieră*, in, *Lucrările științifice ale simpozionului internațional „UNIVERSITARIA ROPET 2000”*, Petroșani, 2000, p. 5-8; Mircea Baron, Oana Dobre - Baron, *Congreșele „Asociației Inginerilor și Tehnicienilor din Industria Minieră” din România, în perioada interbelică*, *Annales Universitatis Apulensis, Series Historica*, 6/I, 2002, p. 227-236.

⁴⁸ For instance, Octav Ulmanu, *Metodele de abataj din minele de minereuri americane*, A.M.R., XVI, 1933, nr. 1, p. 39-40.

⁴⁹ For instance, A. Sieber, *Problema aurului în România*, A.M.R., XVI, 1933, nr. 1, p. 13-15.

⁵⁰ For instance, Ion Marinescu, *Cercetări asupra posibilităților de cianurare a concentratelor obținute prin flotație, din rămășițe de stampare sau flotare directă*, *Miniera*, VIII, 1933, nr. 12, p. 2821-2825; IX, 1934, nr. 1, p. 16-28; nr. 2, p. 8-29.

⁵¹ Mircea Baron, Oana Dobre - Baron, *op. cit.*, p. 234-235

⁵² For instance, Octav Ulmanu, *Organizarea științifică a lucrului în mină*, „Concordia”, Arad, 1942.

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